2018 Consolidated Annual Report

March 1, 2018

Strategic Plan
Annual Work Plan Report

Minimum Flows and Minimum Water Levels Annual Priority List and Schedule

Annual Five -Year Capital Improvements Plan

Annual Five-Year Water Resource Development Work Program

Alternative Water Supplies Annual Report

Florida Forever Work Plan Annual Report

Mitigation Donation Annual Report

Water Quality and Water Quantity Grading Report

St. Johns River
Water Management District

EXECUTIVE SUMMARY

The St. Johns River Water Management District's (District) 2018 Consolidated Annual Report is a collection of several plans and reports as established by Section 373.036(7), Florida Statutes.

The Consolidated Annual Report is submitted to the Florida Department of Environmental Protection (FDEP), Florida's Governor, the President of the Florida Senate and the Speaker of the Florida House of Representatives by March 1st of each year. In addition, copies must be provided to the chairs of all legislative committees having substantive or fiscal jurisdiction over the districts and the governing board of each county in the district having jurisdiction or deriving any funds for operations of the district. The report is available to the public online at www.sjrwmd.com/documents/plans.

This report consists of these documents in the following order:

1. Strategic Plan Annual Work Plan Report (§ 373.036(7)(b), Fla. Stat.)
2. Minimum Flows and Minimum Water Levels Priority List and Schedule (§ 373.042(3), Fla. Stat.)
3. Annual Five-Year Capital Improvements Plan (§ 373.536(6)(a)3., Fla. Stat.)
4. Annual Five-Year Water Resource Development Work Program (§ 373.536(6)(a)4., Fla. Stat.)
5. Alternative Water Supplies Annual Report (§ 373.707(8)(n), Fla. Stat.)
6. Florida Forever Work Plan Annual Report (§ 373.199(7), Fla. Stat.)
7. Wetland Mitigation Cash Donation Report (§ 373.414(1)(b)2., Fla. Stat.)
8. Water Quality and Water Quantity Grading Report (§§ 373.036(7)(b)9. and 373.036(7)(c), Fla. Stat.)

Strategic Plan Annual Work Plan Report
Fiscal Year 2016–2017

1. Strategic Plan Annual Work Plan Report

Table of Contents

I. Executive Summary

The St. Johns River Water Management District (District) adopted the FY 2016-2017 Strategic Plan in March 2017. This Strategic Plan Annual Work Plan Report is a required element of the annual Consolidated Annual Report.

In accordance with Section 373.036(2)(e)4, F.S., the subsequent pages describe implementation of the Strategic Plan for the previous fiscal year, addressing success indicators, milestones and deliverables. The District continues to place emphasis on our core missions, as opposed to initiatives, in an effort to provide employees of the District with a more concise and efficient strategy for success. These priorities include the core mission areas, as well as a dedicated section for the District's successful cost-share partnership program.

The Strategic Plan identified multiple strategies and success indicators. Success indicators measure the overall success of the related strategic priority from a programmatic perspective. All indicators have an appropriate measure, though not all indicators have been met.

The goals, strategic priorities, strategies, success indicators, milestones and deliverables for FY 2016–2017 are identified on the following pages. The progress for each milestone and deliverable is also provided.

II. Water Supply

Regional Water Supply Plans: In 2015, the District established three water supply planning regions, as opposed to the previous approach that included five regions to address local concerns expressed by stakeholders, improve planning efficiency and reduce administrative costs. These planning areas consist of the Central Florida Water Initiative (CFWI), the North Florida Regional Water Supply Partnership (NFRWSP), and the Central Springs and East Coast Planning area (CSEC). Water supply plans (WSP) will be updated as needed and at a minimum of every five years. These plans identify future water supply needs for at least a 20-year planning horizon, as well as the programs and projects to ensure each region has sustainable supplies. All WSPs are developed in an open public process and are subject to approval by the governing board. The CSEC is currently under development and is scheduled to receive governing board approval in December 2018.

The District, together with the Suwannee River Water Management District (SRWMD), jointly approved the water supply plan for the NFRWSP area in January 2017, which included Nassau, Duval, Baker, Clay, St. Johns, Putnam, Alachua, and Flagler counties. Additionally, staff are finalizing the development of the 2040 water demand projections for the CFWI 2020 WSP and the Central Springs East Coast WSP areas. Stakeholder outreach is continuing in advance of development of the water supply plan for the CSEC water supply planning region. A resource assessment will be conducted in FY 2017/2018 to determine those geographic areas within the CSEC that may have water supply challenges due to environmental constraints or water quality issues. The CSEC WSP is scheduled for approval in December 2018. Finally, staff has collaboratively worked with the Southwest Florida Water Management District (SWFWMD) to update the Northern District groundwater flow model that will be used to conduct a water resource assessment in Marion and Lake counties.

Water Conservation: The District works with stakeholders and partners to find new and innovative ways conserve water. The District implemented multiple outreach efforts during FY 2016-2017. These efforts included sending District staff to discuss water conservation to 35 schools within the District, reaching 3,540 students, 36 civic organizations within the district, as well as 17 other public events, which reached 11,487 individuals. The Blue Schools Grant program which focuses on water conservation was launched. Middle and high schools were eligible to apply for the funds and eight schools were awarded up to $1,000 each.

In 2017, the District signed an agreement for the Florida Home Builders Association to take over administration of the District's statewide Florida Water Star (FWS) program. This program, developed by the District and launched in 2007, certifies builders and real estate properties in an effort to promote water conservation strategies. In 2017, the FWS program exceeded 3,000 homes statewide in the residential certification category and over 200 apartments and townhomes.

FWS offers stakeholders the opportunity for developers to receive a rebate funded by the cooperative funding program and this year rebates for FWS expanded to five new areas.

In 2017, FWS outreach efforts included 12 public events. The District also participated in five FWS training programs that included three for FWS Accredited Professional and two for new inspectors. These events had 105 participants in attendance. In May, the FWS program celebrated 10 years since its launch and hosted an awards ceremony in Seminole County. Program builders, inspectors and partners received awards for their contributions to the program.

Minimum Flows and Minimum Levels: In accordance with Section 373.042(2), *Florida Statutes* (F.S.), water managers are tasked with protecting water resources from significant harm due to water withdrawals. To combat withdrawals, Water Management Districts establish necessary and sufficient minimum flows and levels (MFLs), as well as re-evaluate existing MFLs as needed, and collaboratively develop technically, environmentally and economically feasible strategies to ensure at-risk waterbodies achieve their MFLs. If a proposed or re-evaluated MFL is not being met, or is expected to not be met within 20 years, a prevention or recovery strategy (PRS) is developed and approved concurrent with the MFLs. The PRS includes an implementation schedule and options to address withdrawal-related impacts to the water resource.

MFL rulemaking and adoption were completed for five Outstanding Florida Springs (OFS); Silver Springs/River in Marion county, Alexander Springs in Lake county, Silver Glen Springs in Marion/Lake counties and De Leon Springs and Gemini Springs in Volusia county. The MFL for De Leon Springs was approved by the Governing Board in December of 2016. The District's 2016 MFLs Priority List and Schedule included the other four OFS for completion in calendar year 2017. MFLs for Alexander Springs, Silver Glen Springs, De Leon Springs and Gemini Springs are currently being met and are expected to be met over the next 20 years. MFLs for Silver Springs/River are currently being met but are not expected to be met over the next 20 years. A prevention strategy was approved for Silver Springs in 2017. Work to obtain the required legislative ratification for the Silver Springs Prevention Strategy is ongoing. During FY 2016-2017, the District also adopted MFLs for Cowpen Lake in Putnam County.

The District's draft 2017 MFLs Priority List and Schedule shows the planned year for completion of 19 MFLs (new and reevaluations) for the years 2018 through 2021. The District submitted the draft list to Florida Department of Environmental Protection (FDEP) for review and approval on November 15, 2017. The 2017 Priority List is based on the importance of the waters to the state or region and the existence of potential for significant harm to the water resources or ecology of the state or region.

Water Supply Success Indicators

Success Indicator (Water Supply):

1. Progress toward meeting future water demands in each of the three water supply planning regions:

   Target: Implementation of Regional Water Supply Plans and MFL Prevention/Recovery Strategies.

   Measure: Draft Regional Water Supply Plans and Strategies completed.

   Target: Continued development and implementation of projects in partnership with water users.

   Measure: Number of projects and water made available (million gallons per day [mgd]).

1. Progress toward meeting future water demands in each of the three water supply planning regions:
   - The District and the SRWMD jointly approved the NFRWSP in January 2017. District staff are finalizing the development of the 2040 water supply demand projections for the CFWI 2020 WSP and the Central Springs East Coast WSP. In conjunction with development of the CSEC WSP, staff conducted 27 stakeholder outreach meetings to solicit local stakeholder resource perspectives and input to the WSP.
   - The District submits a yearly Water Resource Development Work Plan (WRDWP). This document lists all of the water resource projects that are ongoing and funded for the next five years. By September 30, 2017, seven projects listed in the 2017 Water Resource Development Work Plan were completed. The total estimated water made available through these projects is approximately 3.7 mgd.
   - The NFRWSP identified a series of water resource development (WRD) projects that included the Black Creek WRD. The District received $42 million in legislative funding for the construction of this regional recharge project that will capture up to 10 mgd of excess water from the south fork of Black Creek and convey the water to critical recharge areas located in the Keystone Heights area.

Success Indicator (Water Conservation):

1. Implement water conservation strategies to improve water use efficiencies:

   Target: Public water supply - Decrease in residential per capita water usage.

   Measure: Annual residential water usage per capita.

   Target: Agricultural water supply - crease in percentage of agricultural acres utilizing efficient irrigation methods.

   Measure: Percent change in acres due to change in irrigation method.

1. Implement water conservation strategies to improve water use efficiencies:
   - The District, in partnership with local stakeholders implemented various water conservation strategies, were able to maintain the residential per capita at 93 gallons per capita day (gpcd). This per capita rate is equal to the 2015 gpcd, although population within the District increased by 3%. This residential per capita still represents a reduction from the 2010 annual residential per capita water use of 103 gpcd.
   - The District continues to work with the agricultural community to increase the utilization of efficient irrigation methods. Over the past year, the District has funded projects to increase irrigation efficiency for approximately 1,683 agricultural acres. Additionally, these projects reduced overall groundwater consumption for these irrigated acres by 1.0 million gallons per day (mgd).

Success Indicator (MFLs):

1. MFLs setting and re-evaluation:

   Target: Protect water resources from significant harm due to water withdrawals by establishing necessary and sufficient MFLs and re-evaluating existing MFLs as needed.

   Measure: Percentage of annual Priority List and Schedule milestones met on schedule.

1. MFLs setting and re-evaluation:

    - The District completed four of the seven MFLs scheduled for 2017 (57%). Rulemaking and adoption were completed for four OFS including Silver Springs/River, Alexander Springs, Silver Glen Springs and Gemini Springs. The three remaining systems (Sylvan Lake in Seminole County and Lakes Brooklyn and Geneva in Clay County) were moved to future years.

III. Water Quality

Springs/Aquifer: The District is committed to protecting Florida's springs. In 2016, the Legislature committed $50 million in springs protection, which has led to new partnerships with regional stakeholders. The District and the University of Florida completed the Collaborative Research Initiative on Sustainability and Protection of Springs. The final draft report was delivered during FY 2016-2017 and the final report was released in January 2018. Findings and implications will be presented at UF's Biennial Water Institute Symposium in February 2018.

In an effort to find solutions while reducing the burden upon taxpayers, the District has utilized its Cost-share program to fund 25 projects in support of springs protection. The Legislature was instrumental in providing additional funding for 11 of these projects.

Additionally, the District's Bureau of Real Estate Services coordinated the purchase of approximately 5,500 acres, in partnership with FDEP and the Conservation Trust for Florida, to connect the District owned portions of Silver Springs with the rest of the Conservation Area property. This acquisition will preserve the area from development, and will result in surface-water quality and flow improvements by restoring and enhancing the hydrology of the Silver River.

Coastal Waters: Coastal waters, such as the Indian River Lagoon (IRL), have become increasingly more fragile due to sea level rise and fresh water discharges routed from the St Johns River watershed. In an effort to reduce freshwater discharges to the IRL the District has initiated two pilot projects. These projects will reduce nutrient loads from both urban and agricultural stormwater and have been approved to be on private property. The District anticipates reductions from the two projects to be approximately 21 mgd water and 7,937 lbs. of phosphorus. Permitting and construction is planned for FY 2016-2017 and FY 2017-2018. The District has also initiated two pilot programs within the IRL drainage area that evaluates and offers residents the opportunity to reconnect their private septic systems for newer treatment systems.

The District has completed the C-1 Phase 1B project which included regrading of the canal and the purchase of vegetation removal equipment. This project was completed in partnership with

the Melbourne -Tillman Water Control District. This project allows the District to redirect fresh water away from the IRL, and back to the St. Johns River.

The District also completed the IRL Stormwater Capture Feasibility Study which summarized and ranked projects along the IRL. The District has begun design of one of the top ranked projects, Cranes Creek.

The Eau Gallie dredging project commenced in FY2017 and construction of the Dredge Material Management Area has been completed. The District has completed approximately one-third of the dredging and the project is expected to be completed within the next two years.

St. Johns River: The District has made considerable progress enhancing the St. Johns River and its supporting waterbodies, such as the completion of the Upper St Johns River Basin project. Below is a breakdown of the activities and progress made in FY 2016-2017.

Fellsmere Water Management Area (WMA):

The Fellsmere WMA is 90% complete and is currently in operation storing and treating water. The remaining portion will be completed over the next several years.

Lake Apopka North Shore Management:

Since the purchase of the Lake Apopka North Shore (LANS) in the 1990s, the District converted former agricultural lands into wetlands that have reduced phosphorus loading to the Lake Apopka below the Total Maximum Daily Load (TMDL). The LANS was completely inundated in FY 2012-2013, and the District continues to monitor the progress and develop new strategies to reduce phosphorus loading while recreating diverse, healthy wetlands. Projects completed during FY 2016-2017 include the upgrade of the Duda Pump system and raising the east end of the McDonald Canal levee to improve water management. The Duda upgrades include new electric pumps, an upgraded alum dosing system, and a new weir on the treatment pond. Hurricane Irma had significant impacts on the lake levee and the LANS at the end of the FY. Those impacts will continue to be addressed during FY2017-2018. In the last decade for which we have loading estimates completed (2007-2016), the LANS discharges met the TMDL load allocation in 7 years (2007, and 2011-2016). We do not yet have load estimates for 2017.

In Water-Body Restoration:

Lake Apopka and Lake George Rough Fish Harvest: In the past year, the District has harvested approximately 1,037,601 lbs. of gizzard shad from Lake Apopka and 1,171,891 lbs. from Lake George, reducing phosphorous by 8,301 lbs. and 9,656 lbs., respectfully.

Wetland Filter projects: Through April 2017, mass removal for the Lake Apopka Marsh Flow-Way was 91,556 lbs. of total nitrogen, 2,125 lbs. of total phosphorus, and 5,431,681 lbs. of suspended solids.

Preparations for experimental sump dredging in Lake Apopka were undertaken in FY 2016-2017, including permitting, archeological surveys, sediment reuse preparation and staging equipment. Sump dredging will commence in FY 2017-2018.

Invasive exotic plant control: During FY 2016-2017, under an FWC contract, the District treated 84 acres of hydrilla and 81 acres of floating vegetation in Lake Apopka and 117 acres of hydrilla at Emeralda Marsh Conservation Area (EMCA)/ Lake Griffin. Additionally, 81 acres of hydrilla were treated within the LANS and 44 acres of hydrilla were treated within Harris Bayou.

Floodplain Enhancement / Management:

The Bureau of Land Resources conducted habitat management activities at all basin restoration areas, including prescribed burns, herbicide treatments of exotic and invasive vegetation species, and vegetation plantings.

Upon receiving funding by Florida Fish and Wildlife Conservation Commission, the District completed the phase two reconnection creating seven breaches connecting portions of Emeralda Marsh back to Lake Griffin. The District completed the removal of 150 acres of floating vegetation, which was mainly cattails that limited navigation within the area. Chopping of additional vegetation will be completed in FY 17/18. All work was completed without adversely impacting phosphorus concentrations in Emeralda Marsh or in Lake Griffin.

There were no active discharges from Sunnyhill and Ocklawaha Prairie during FY2016-2017. Before and after Hurricane Irma the inlet culvert connecting the Ocklawaha River with Sunnyhill was opened, allowing river water to flow into Sunnyhill, filling the available flood storage capacity in the southern fields. Flood discharges from Hurricane Irma caused a breach in the L-212 levee, allowing water from the Ocklawaha River to overtop levees surrounding Ocklawaha Prairie and flow into Ocklawaha Prairie and surrounding wetlands.

Water Quality Success Indicators

Success Indicator (Springs/Aquifer):

1. Restoration Project Identification and Prioritization:

   Target: Inform/support project prioritization.

   Measure: Number of strategically valuable projects.

2. Actively improve water quality and quantity in major springs via leveraging of District financial resources:

   Target: Continued, aggressive cost-share project implementation in partnership with local governments and utilities.

   Measure: Number of projects.
   Money invested (District and collectively).
   Nitrogen load reduction achieved.
   Groundwater offset/increase achieved.

3. Preservation/Conservation and Land Acquisition and Management:

   Target: Acquire full- or partial-fee interest in parcels strategic to springs restoration.
   Implement aquifer recharge projects on public lands.
   Measure: Acres of land preserved or restored. Aquifer recharge achieved.

4. Monitor:

   Target: Monitor status and trends, projects effectiveness, and integrate data into management decision-making.
   Measure: Fulfill network and project objectives, complete reports of status, trends and projects.

1. Restoration Project Identification and Prioritization:

   - In addition to the annual cost-share program projects, the district identified and funded, in collaboration with FDEP and local partners, four strategically important projects totaling over seven million dollars that will reduce nitrogen pollution by 84,500 pounds per year and offset 360,000 gallons of water withdrawals per day.

2. Actively improve water quality and quantity in major springs via leveraging of District financial resources:

   - Number of FY 2017-2018 Cost-share Projects Approved: 27

   - Funds invested:

➢ SJRWMD	$8,804,229.
➢ FDEP	$10,124,481.
➢ Local Partners	$15,084,320.
Total	$34,013,030.

- Total Nitrogen load reduction achieved: 121,182 pounds/year
- Groundwater offset/increase achieved: 17.6 mgd

3. Preservation/Conservation and Land Acquisition and Management:

   - One strategically located, 320-acre dairy operation within a mile of DeLeon Springs was identified for a conservation easement and FDEP and U.S. Department of Agriculture (USDA) funds have been set aside. Conversion from a dairy to less intensive agricultural activities will help protect water quality and quantity. Potential aquifer recharge projects continue to be evaluated.

4. Monitor:

   - Springs monitoring proceeded as planned. Enhanced monitoring was undertaken in 2014 as part of the University of Florida CRISPS project and is reported in that final report. Aquifer and springs monitoring is shared with FDEP for Basin Management Action Plan (BMAP) preparation and evaluation. Groundwater data are also reported in the District's status and trends report on the website.

Success Indicator (Coastal Waters):

1. Reduce loads from watersheds:

   Target: Initiate dispersed water projects.

   Measure: Reductions in freshwater, sediments, nitrogen and phosphorus loads to IRL.

2. Rehabilitate natural processes in water bodies:

   Target: Successful implementation of grants from the National Oceanic and Atmospheric Administration.

   Measure: Acres of tidal wetlands restored and percent of planned projects completed.

3. Enhance links to coastal wetlands:

   Target: Wetlands connected to coastal waters.

   Measure: Number and size of reconnected wetlands.

4. Cope with uncertainty and demonstrate accountability:

   Target: Valued contribution to annual updates on progress to implement BMAPs.

   Measure: Complete agreed sampling and submit update on schedule, support adaptation of projects in the plans, and demonstrate the value of completed projects.

1. Reduce nutrient loads from watersheds:

   - The District has initiated two dispersed water treatment projects in the IRL drainage area to evaluate the use of private property for water storage and water quality treatment.

2. Rehabilitate natural processes in water bodies:

   - The District has used the National Oceanic and Atmosphere Administration (NOAA) funds for three projects. Two of these projects have been completed to restore natural wetlands, which are the North Peninsula State Park in Volusia County and the IRL Preserve State Park in Brevard county; these projects have restored 10 and 6 acres of tidal wetlands, respectively. A third project, intended to restore wetlands susceptible to subsidence is currently underway and is expected to be completed in FY 2016-2017. Seventy-five percent of NOAA projects are completed.

3. Enhance links to coastal wetlands:

   - The District has provided funding to reconnect and enhance 106 acres of the Water Tower impoundment in Indian River County.

4. Cope with uncertainty and demonstrate accountability:

   - The District has contributed to updates of three Basin Management Action Plans within the Indian River Lagoon.

Success Indicator (St. Johns River):

1. Watershed Nutrient Load Reduction:

Target: Progress toward TMDL/PLRG targets.

Measure: Reduced nutrient loading to Surface Water Improvement and Management (SWIM) waterbodies.

2. In-Water Body Restoration:

Target: Improved water quality.

Measure: Improved nutrient concentration and water transparency, fewer algal blooms, increased submerged aquatic vegetation (SAV).

3. Floodplain Enhancement:

Target: Improve floodplain wetland functions related to water quality.

Measure: Number of acres of functional floodplain restored.

4. Monitoring:

Target: Monitor status and trends, projects effectiveness, and integrate data into management decision-making.

Measure: Fulfill network and project objectives, complete reports of status, trends and projects.

5. Diagnostic Assessments:

Target: Identify areas for cost-effective water quality improvement project

Measure: Number of projects developed.

1. Watershed Nutrient Load Reduction:

- Upper Ocklawaha Lakes:

Nutrient loading estimates are made on a calendar-year basis. For 2016, estimated total phosphorus loading was below the TMDL (total maximum daily load) target for the lakes affected by major District restoration projects, including Apopka, Beauclair, Dora, Eustis, and Griffin. The TMDL loading targets have been met for at least the last five years for these lakes. For 2016:

- Lake Apopka estimated total phosphorus loading was 11,050 kg, below the TMDL target of 15,900 kg.
- Lake Beauclair estimated total phosphorus loading was 1,257 kg, below the TMDL target of 3,200 kg.
- Lake Dora estimated total phosphorus loading was 2,330 kg, below the TMDL target of 6,000 kg.
- Lake Eustis estimated total phosphorus loading was 5,555 kg, below the TMDL target of 9,200 kg.
- Lake Griffin estimated total phosphorus loading was 6,686 kg, below the TMDL target of 12,200 kg.
- Lake Harris estimated total phosphorus loading was 8,644 kg, above the TMDL target of 8,300 kg.
- Lake Yale estimated total phosphorus loading was 1,341 kg, above the TMDL target of 1,290 kg.
- Lake Weir estimated total phosphorus loading was 1,440 kg, above the District's PLRG target of 1,230 kg.

2. In Water-Body Restoration:

- Upper Ocklawaha Lakes:

Water quality was good in 2016-2017 in several of the basin lakes compared to historical levels, in some cases meeting (Eustis, Harris) or close to (Griffin) the TMDL total phosphorus concentration targets. The 2016 average total phosphorus concentration in Lake Apopka was the lowest in the period of record, although concentrations have been higher in 2017. The total phosphorus concentration data below show the concentration target set by the District and approved by FDEP. The data also show the average phosphorous concentrations throughout calendar year 2016, as well as data from January 2017 through August 2017:

- Lake Apopka TMDL concentration target 55 ppb; 2016 average 64 ppb; 2017 average 100 ppb.
- Lake Beauclair TMDL concentration target 32 ppb; 2016 average 49 ppb; 2017 average 59 ppb.
- Lake Dora TMDL concentration target 31 ppb; 2016 average 38 ppb; 2017 average 38 ppb.
- Lake Eustis TMDL concentration target 25 ppb; 2016 average 25 ppb; 2017 average 29 ppb.
- Lake Griffin TMDL concentration target 32 ppb; 2016 average 33 ppb; 2017 average 37 ppb.

- Lake Harris TMDL concentration target 26 ppb; 2016 average 24 ppb; 2017 average 25 ppb.
- Lake Yale TMDL concentration target 20 ppb; 2016 average 29 ppb; 2017 average 31 ppb.
- Lake Weir PLRG concentration target 14 ppb; 2016 average 24 ppb; 2017 average 24 ppb.

Chlorophyll-*a* (a measure of the amount of algae) also was good in 2016-2017 in several basin lakes compared to historical levels. Chlorophyll-*a*, averages for calendar year 2016, as well as data from January 2017 through August 2017:

- Lake Apopka 2016 average 50 ppb; 2017 average 57 ppb.
- Lake Beauclair 2016 average 41 ppb; 2017 average 85 ppb.
- Lake Dora 2016 average 27 ppb; 2017 average 60 ppb.
- Lake Eustis 2016 average 14 ppb; 2017 average 21 ppb.
- Lake Griffin 2016 average 24 ppb; 2017 average 25 ppb.
- Lake Harris 2016 average 20 ppb; 2017 average 15 ppb.
- Lake Yale 2016 average 18 ppb; 2017 average 11 ppb.
- Lake Weir 2016 average 23 ppb; 2017 average 13 ppb.

For Lake Apopka, submerged aquatic vegetation (SAV) survey data for 2015-16 were processed and finalized during 2016-17. A total of 84 acres of SAV were projected on Lake Apopka from this survey. This represented a 74 % increase in SAV over the previous year's data. New SAV projections will be completed in January 2018.

3. Floodplain Enhancement:

- A total of 14, 614 acres, on the Lake Apopka North Shore (LANS) have been flooded as functional wetlands since 2013. Concurrence was received during 2016-17 from the U.S. Fish and Wildlife Service (USFWS) that will allow active management of additional 1,940 acres of LANS wetlands. There were no changes in total acreages of restored functional floodplains at EMCA, Harris Bayou, Sunnyhill, or Ocklawaha Prairie during FY 2016-17. Land management activities were conducted to enhance habitats at all restoration areas, including prescribed burns, herbicide treatments of exotic and invasive vegetation species, and vegetation plantings.

4. Monitoring:

- Monitoring was accomplished as planned during the majority of 2016. Hurricane Irma disrupted monitoring by damaging infrastructure and limiting site access in some places. The hurricane also damaged the District laboratory, reducing and delaying sample processing. Water quality monitoring results are published in the District's status and trends report, which can be found on the website.

5. Diagnostic Assessments:

    - District water quality improvement projects are proceeding as planned. The District is working with county partners to operate the Tri-County Agriculture Area (TCAA) stormwater treatment areas. The Lake George shad harvest collected 1,171,891 lbs. of fish from the lake, thereby removing 9,656 lbs. of total phosphorus and 24,609 lbs. of total nitrogen. Cost-share projects with local partners are proceeding as planned.

IV. Natural Systems

Overall, The District's Bureau of Land Resources had a very successful year treating invasive plants; exceeding goals with regards to aerial treatments of both Lygodium and Carolina Willow. FY 2016-17 was challenging for prescribed burn managers, as drought conditions extended across the District for much of the burn season. The drought was so severe that a statewide burn ban was in effect for three months. Staff was able to conduct twenty-seven prescribed burns on 21,659 acres. Because of the drought, staff expended 761 hours suppressing 26 wildfires on nearly 20,000 acres. In October of 2016 and September 2017, most of the available staff time was spent addressing issues resulting from Hurricanes Matthew and Irma respectively.

To establish a more efficient means of repelling invasive species, District staff have created an invasive geodatabase, though this program's data collection methodology is in beta-test mode. The first phase is complete and we are now working on the reporting systems that will help project workloads and triage treatments.

This District has begun multiple surveys to track the spread of Lygodium presence and density throughout the District. This invasive species, also known as the old world climbing fern, has threatened plant life and habitats within the District and the state. Management of Lygodium begins with an accurate inventory. To date 147,958 acres of District lands have been surveyed. The District also partners with other agencies within the Central Florida Lygodium Strategy to survey other public and private lands that are susceptible to this invader. That survey has located 210,181 acres of old climbing fern in the northern range of its distribution, of which 61,862 acres is in the Ocklawaha River Basin and 41,424 in the Upper St. Johns River Basin. The bureau will implement a plan in coordination with local governments and stakeholders to address these species. Since 2003, District personnel have treated 103,381 acres of Lygodium.

The District has observed an increase of commercial use of District boat ramps and properties in the Upper St Johns River Basin by airboat tours. The District contracted with the University of Florida to quantify use of these facilities, to evaluate impacts and to offer recommendations. That evaluation was completed in FY 2016-17. The information provided will be used to develop new procedures and relationships to reduce ongoing maintenance costs.

Area 3 of the EMCA was reconnected to Lake Griffin through a cooperative project between FWC and District. Completion of that project enables the area to be available to public waterfowl hunting and the wildlife drive in FY 2017-18. Other restoration projects in FY2016-17 include: 525 acres of longleaf pine planted on seven conservation areas; 210 aces of native groundcover planted on three conservation areas; and 1,873 acres of shrub control in marshes and in the urban interface.

The District completed the second phase of the Unconsolidated Floc Removal along the shorelines of Lake Apopka. The District cleared 100 acres of the unconsolidated floc to allow the natural submerged aquatic vegetation to repopulate.

Natural Systems Success Indicators

Success Indicators (Natural Systems):

1. Improve GIS-based technology capabilities for identifying, managing & planning restoration on District lands:

   Target: Identify, develop and implement use of spatially linked techniques for condition assessments, survey and monitoring efforts, data storage, evaluation and planning of restoration and invasive plant management projects.

   Measure: Percent complete of identified tasks.

2. Restoration and Invasive Plant Management Survey and Treatment:

   Target: Survey Upper St. Johns River Basin and Ocklawaha River Basin for presence and coverage of Carolina willow and old world climbing fern.

   Measure: Percent of annual survey and treatment acres complete.

3. Management Plans:

   Target: Develop plans that detail strategies for Carolina willow management and District invasive plant management activities to improve ecologic and hydrologic conditions.

   Measure: Annual completion of identified documents, drafts and plans.

4. Wetland Plant Community Mapping:

Target: Maintain healthy and diverse wetland plant composition.

Measure: Reduction in percent cover of invasive species.

5. Adaptive Management of Wetland Restoration Areas:

Target: Improved or restored wetland habitat.

Measure: Acres of wetlands restored/planted.

6. Land Management:

Target: Healthy managed ecosystems on District lands.

Measure: Percent of District property rated Level 1 or Level 2 (out of 4) on scale of Ecological Condition Class.

- Acres prescribe burns.
- Acres of invasive plants treated.

1. Improve GIS-based technology capabilities for identifying, managing & planning restoration on District lands:

    - Approximately 40% of these tasks have been completed.

2. Restoration and Invasive Plant Management Survey and Treatment:

    - Carolina Willow survey 100% complete. Carolina Willow treatment- 110% of intended acres.
    - Lygodium survey is complete. Lygodium treatment - 102% of intended acres.

3. Management Plans:

    - This plan was completed in 2016 and is being implemented.

4. Wetland Plant Community Mapping:

    - Wetland plant community mapping was completed for phase two of the Upper St. Johns River Basin (USJRB) project area, covering conservation areas between the Fellsmere Grade and US 192 (including Bull Creek Wildlife Management Area). The District documented net decreases in Carolina willow of 4,993 acres and restored 5,704 acres of beneficial herbaceous marsh. Wetland mapping was initiated at Lake Apopka and UORB in FY 2016-2017 and vegetation community maps for LANS, EMCA, Sunnyhill Restoration Area, and the Ocklawaha Prairie Restoration Area will be completed during FY 2017-2018.

5. Adaptive Management of Wetland Restoration Areas:

    - Two hundred ten acres of native marsh grass species were planted at Emeralda Marsh and Lake Apopka.
    - One thousand eight hundred seventy-three acres of shrub encroached ecosystems were roller chopped or shredded to enhance herbaceous marsh restoration at Seminole Ranch, Canaveral Marshes, Sunnyhill Restoration Area, Murphy Creek, Hal Scott, Longleaf Flatwoods and Newnans lake Conservation Areas.

6. Land Management:

    - Sixty percent of District properties are in condition class 1, and 20% of are in condition class 2.
    - District staff conducted 21,659 acres of prescribed burns, and treated 24,668 acres of invasive plants.

V. Flood Protection

The District is responsible for flood control structures across the state, as well as their scheduled maintenance. The District's flood control structures, in addition to the multiple agreements with the Federal government to operate U.S. Army Corps of Engineers (USACE) structures, provide Florida residents with a successful flood control system. Developments throughout FY 2016-2017 include:

- Rehabilitation of Moss Bluff Dam Structure.
- Repair/replacement of several minor water control structures and rehabilitation of several miles of federal levees.
- Maintenance of the projects were performed according to USACE guidelines.
- Non-federal structures operated by the District were operated and maintained according to internal guidance.

Flood Protection Success Indicators:

Success Indicator (Flood Protection):

1. Operate and Maintain the Federal Flood Control Project in Compliance with USACE Guidelines:

Target: Deliver System-wide Improvement Framework (SWIF) to USACE for approval by June 2016.

Measure: Final draft to be submitted in March to allow sufficient time for USACE approval.

Target: Resolve all deficiencies identified by USACE within five years of SWIF approval.

Measure: Budget, schedule and complete deficiency resolution at least 20% per year over the five-year period.

Target: Perform semi-annual inspections in the 1st and 3rd quarters.

Measure: Inspections complete on time, with reports finalized and submitted to USACE by the following quarter.

Measure: Deficiencies resolved prior to next inspection or programmed into work plan past the following quarter as approved by the Operations and Maintenance (O&M) Bureau Chief.

Target: Complete rehabilitation of major water control structures and levees on schedule.

Measure: Budget, schedule and complete water control structure according to the maintenance cycle analysis of concrete and steel.

Measure: Budget schedule and complete levee rehabilitation at an average of 20% per year on a five-year cycle.

2. Operate and Maintain Non-federal Flood Protection Projects in Compliance with Internal O&M Guidance:

   Target: Develop, document, and implement inspection and maintenance procedures.

   Measure: All existing procedure documents are housed in digital format on District computer servers.

   Measure: Develop work plan for revising existing documents and creating procedures for new projects as they come on-line.

   Measure: Procedures completed on schedule and in compliance with the documents mentioned above.

3. Maintain and Support Flood Control Water Level Data Sites:

   Target: Inspection and calibration and maintenance of flood control water level data sites in compliance.

   Measure: Priority sites are maintained and repaired within the time frames agreed upon by O&M and Bureau of Water Resource Information.

   Measure: Complete year one of calibration study.

1. Operate and Maintain the Federal Flood Control Project in Compliance with USACE Guidelines:

   - The SWIF was submitted on schedule to USACE. The District is awaiting final review and/or acceptance of the plan from the USACE.
   - Inspection report summaries indicate a net 76% deficiency resolution over the 2010 base year, and a six percent improvement over 2016.
   - First and 3rd quarter inspections were completed and reports delivered on schedule.
   - Unresolved deficiencies have been added to future work plans via the maintenance and asset management software.
   - Water control structure rehabilitation is on schedule.
   - Levee rehabilitation is on schedule.

2. Operate and Maintain Non-federal Flood Protection Projects in Compliance with Internal O&M Guidance:

    - All documents have been categorized on an electronic folder located on the District-wide computer network.
    - Procedures/inspections completed according to the O&M work plans and staff performance objectives.

3. Maintain and Support Flood Control Water Level Data Sites:

    - Maintenance and repairs were completed within acceptable time frames.
    - The first year of the calibration study was completed to verify that all flood control water level staff gauges are at the appropriate elevation.

VI. Supporting Activities (Cost-Share and Partnerships)

Cost-share: Since the beginning of the current cost-share program in 2013 the District has collaborated with local partners to implement construction-ready projects and water conservation programs that advance the district's core missions: water supply, water quality, flood protection, and natural systems protection. For FY 2016-2017, 52 contracts were executed for the District-wide cost-share program totaling $28,669,502.05. The total includes $6.6 million of springs funding that was provided by the FDEP for 11 projects. The District's cost-share program has benefited the environment and residents of the District, including:

- Approximate total nitrogen nutrient load reduction of 149,663 lbs/yr.
- Approximate total phosphorus nutrient load reduction of 22,245 lbs/yr.
- Approximate total water conserved 2.14 mgd.
- Approximate total alternative water supplies developed 8.90 mgd.

The District also implements a Rural Economic Development Initiative (REDI) and Innovative cost-share funding program, which funded 10 projects from eligible REDI communities during FY 2016-2017. Ten contracts were executed for the FY2016-2017 REDI/Innovative cost-share program totaling $5,000,000. Their Benefits include:

- Approximate total nitrogen nutrient load reduction of 694 lbs/yr.
- Approximate total phosphorus load reduction of 129 lbs/yr.
- Approximate total water conserved 0.06 mgd.
- Approximate total alternative water supplies developed 1.57 mgd.

Partnerships: The District also utilizes a third cost-share program, known as the District-wide agricultural cost-share program. This program funded 20 projects in FY 2015-2016. These projects are projected to conserve 3.72 mgd of water and reduce TN loading by 88,180 lbs/year and TP by 21,488 lbs/yr. Seventy-five percent of the projects had been completed within nine months of Governing Board approval.

The Agricultural Advisory Committee met in April 2016 to discuss a variety of topics related to agriculture and provided recommendations to the Governing Board on agricultural cost-share funds.

Agricultural Outreach continues to be an important forum to provide opportunities for collaboration between the District and agricultural stakeholders. District staff presented to agricultural commodity groups throughout the year on a variety of topics including dispersed water management, District grazing leases, water supply planning and agricultural cost-share funding opportunities.

Cost-share and Partnership Success Indicators:

Success Indicator (Cost-share and Partnerships):

1. Projects that Benefit the District's Core Missions are awarded Cost-share Funding and Successfully Implemented:

   Target: Quarterly reports to the Board.

   Measure: Projects are completed in a timely manner and the deliverables document the project's success.

2. Districtwide Agricultural Cost-Share:

   Target: Award funding to projects resulting in water conservation and nutrient load reduction.

   Measure: Percent allocated funds expended annually.

3. Outreach to the Agricultural Community:

   Target: Present to commodity groups as requested.

   Measure: Number of presentations completed.

1. Projects that Benefit the District's Core Missions are awarded Cost-share Funding and Successfully Implemented:

    - The Bureau of Project Management has presented the Board with quarterly reports. Sixteen of the 59 FY2016-2017 District Wide Cost-share projects approved by the Board have been completed. Seven of the 59 projects were withdrawn. One of the 10 FY2016-2017 REDI / Innovative cost-share projects has been completed. The remaining projects are scheduled to be completed in FY 2018.

2. Districtwide Agricultural Cost-Share:

    - Eighty-one percent of the allocated funds were expended during the fiscal year. Hurricane Irma negatively impacted some of the projects that were scheduled to be completed in September but all projects are expected to be complete early in FY 2017-2018.

3. Outreach to the Agricultural Community:

    - There have been 23 presentations to various agricultural groups including the North Florida Grower's Exchange, Florida Cattlemen, Florida Farm Bureau, the District's Agricultural Advisory Committee and the University of Florida's Institute of Food and Agricultural Sciences field days.

Minimum Flows and Minimum Water Levels Priority List and Schedule

2. MINIMUM FLOWS AND MINIMUM WATER LEVELS ANNUAL PRIORITY LIST AND SCHEDULE

Table of Contents

Figures

Tables

I. Introduction

In accordance with Section 373.042(2), *Florida Statutes* (F.S.), the St. Johns River Water Management District (District) proposed a 2017 Minimum Flows and Levels (MFLs) Priority List and Schedule for establishing MFLs during the planning period 2018–2021. A priority list and schedule for establishing MFLs is submitted annually to the Florida Department of Environmental Protection (FDEP). The District submitted the proposed list to the FDEP for review and approval on November 15, 2017.

Chapter 373, F.S., requires Florida's water management districts to establish MFLs for water courses, waterbodies, and aquifers that represent the limit at which further withdrawals would be significantly harmful to the water resources or ecology of an area. MFLs provide an effective tool to assist in making sound water management decisions that prevent significant adverse impacts due to water withdrawals to the water resources or ecology of the area. MFLs at SJRWMD are typically established as multiple hydrologic events to protect an ecosystem's natural hydrologic variability and the resources that depend on these seasonal and inter-annual fluctuations. MFLs typically define the minimum frequencies of high, intermediate and low water levels of flows necessary to protect relevant water resource values. Three MFLs are usually defined for each system—minimum frequent high (FH), minimum average (MA), and minimum frequent low (FL) flows and/or water levels. In some cases, minimum infrequent high (IH) and/or minimum infrequent low (IL) MFLs may also be set (Neubauer et al. 2008). For some springs, MFLs are set as long-term minimum average flows. No matter how many MFLs are adopted, the most constraining (i.e., most sensitive to water withdrawal) MFL is used for water supply planning and permitting.

Minimum flows and levels are established using the best information available (section 373.042(1), F.S.), with consideration also given to "changes and structural alterations to watersheds, surface waters, and aquifers and the effects such changes or alterations have had, and the constraints such changes or alterations have placed, on the hydrology of the affected watershed, surface water, or aquifer...," provided that none of those changes or alterations shall allow significant harm caused by withdrawals (section 373.0421(1)(a), F.S.).

The minimum flows and levels section of the State Water Resources Implementation Rule (rule 62-40.473, Florida Administrative Code [F.A.C.]) also requires that "consideration shall be given to natural seasonal fluctuations in water flows or levels, non-consumptive uses, and environmental values associated with coastal, estuarine, riverine, spring, aquatic, and wetlands ecology." The environmental values described by the rule include:

1. Recreation in and on the water
2. Fish and wildlife habitats and the passage of fish
3. Estuarine resources
4. Transfer of detrital material
5. Maintenance of freshwater storage and supply
6. Aesthetic and scenic attributes
7. Filtration and absorption of nutrients and other pollutants
8. Sediment loads

9. Water quality
10. Navigation

Rule 62-40.473, F.A.C., states that minimum flows and levels "should be expressed as multiple flows or levels defining a minimum hydrologic regime, to the extent practical and necessary, to establish the limit beyond which further withdrawals would be significantly harmful." Waterbodies experience variations in flows and levels that often contribute to significant functions of the system, such as the environmental values listed above.

Legislation passed in 2005 (Section 373.036(7)(b)2, F.S.) requires the final MFLs Priority List and Schedule to be presented as a chapter in the District's Consolidated Annual Report.

In addition, this chapter provides a short description of methodologies used in determining MFLs and the process of adopting MFLs by rule. Historical information on the number of MFLs that have been established and adopted by the District is also presented in this report.

II. 2017 MFLs Priority List and Schedule

During the planning period from 2018 through 2021, the District plans to evaluate or re-evaluate a total of 19 systems. The 2017 Priority List is based on the importance of the waters to the state or region and the existence of potential for significant harm to the water resources or ecology of the state or region. Figure 2–1 summarizes the evaluations by water body type during the planning period. There are no new springs on the 2017 Priority List; Wekiva Springs and Rock Springs are reevaluations, and therefore not listed under springs. The District's 2017 Priority List is presented in Tables 2–1 through 2–4. As noted in Tables 2-1 through 2-4, some systems will have adopted MFLs only if they are the most constraining within their group. For example, the Harris chain of lakes will result in one adopted MFL (the most constraining), not four.

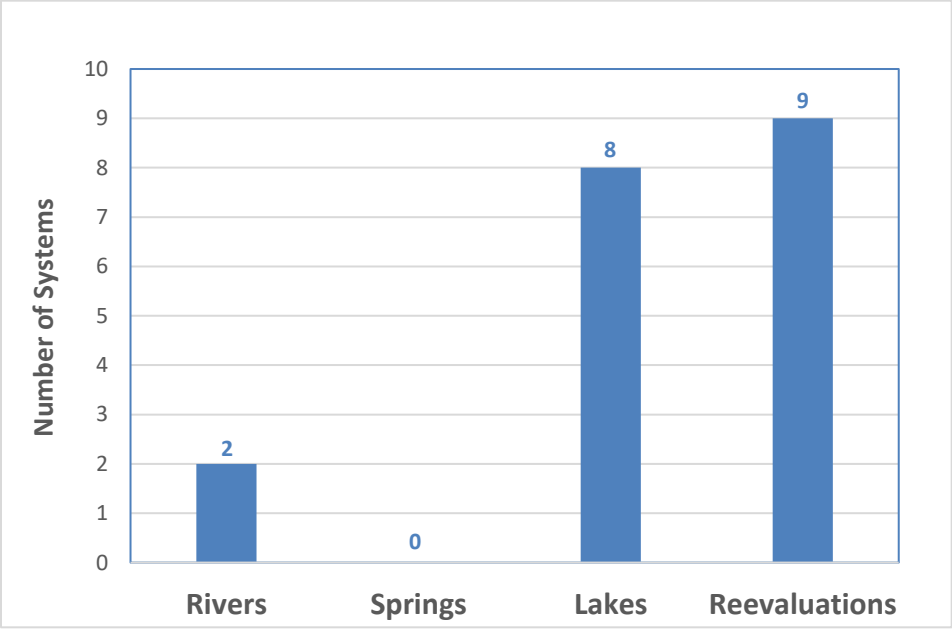


Figure 2-1. Number of systems to be evaluated

Currently, the District has established 128 MFLs (101 lakes, 14 springs, 6 rivers, and 7 wetlands). The status of MFLs water bodies identified in the 2016 List and updates to the 2017 Priority List are summarized below.

MFLs rulemaking and adoption were completed for four Outstanding Florida Springs (OFS) identified in the 2016 Priority List (Silver Springs/River in Marion county, Alexander Springs in Lake county, Silver Glen Springs in Marion/Lake counties and Gemini Springs in Volusia county). A fifth OFS (De Leon Springs, Volusia county) also became effective in 2017. In addition, a Prevention strategy was adopted for Silver Springs in 2017. The process of obtaining the required Legislative ratification for the Silver Springs Prevention Strategy is ongoing.

The 2017 Priority List includes the following recommended changes to the 2016 approved Priority List:

- Removal of Bugg Spring, in Lake County, which was previously set for adoption in 2020. Staff recommended removing Bugg Spring because of potential access issues that may impede the collection of data needed to set and monitor an MFL.
- Removal of Orange Lake to focus on completion of the MFL for Lochloosa Lake and to allow for additional evaluation of the surface water drainage alterations and potential regional groundwater replenishment projects. Upon completion of this work it will be determined if it is necessary to add Orange Lake back to the priority list.
- Rescheduling the Ocklawaha River at SR40 from 2020 to 2021 to allow time for completion of upstream MFLs that serve as model inputs and/or constraints to this downstream location.
- Rescheduling of Lakes Brooklyn/Geneva from 2017 to 2018 allow for completion of groundwater models for MFLs assessment.
- Addition of Lake Weir, in Marion County, for reevaluation because recent surface water model updates and preliminary status assessment indicates that environmental criteria, on which the MFL is based, may not be appropriate.
- Rescheduling of Johns Lake, Lake Avalon, East Crystal Lake, Lake Hodge, Lake Apshawa South, Lake Prevatt, and Sylvan Lake within the Central Florida Water Initiative (CFWI) area from 2019 to 2020, for the following reasons:
    - To allow resource balancing to complete the Apopka, Wekiva River at SR46, Wekiwa Springs, Rock Springs and Little Wekiva River and associated springs within the CFWI MFLs in 2019;
    - To allow for completion of the CFWI peer review process;
    - To allow for coordination with the development of any needed prevention/recovery strategies within the CFWI; and
    - To allow for consistent assessment of MFLs within the CFWI.

The adoption dates for CFWI systems may change due to CFWI rulemaking regarding "a single, consistent process, to set minimum flows and minimum water levels and water reservations" as required by section 373.0465(2)(d)4, Florida Statutes and completion of the CFWI collaborative peer review process that involves all interested stakeholders.

The 2017 Priority List shows the planned year for completion of reevaluations and new MFLs for the years 2018 through 2021. As work is completed and MFLs are ready for rulemaking, staff may initiate rulemaking earlier than shown on the 2017 Priority List.

The District is planning to conduct voluntary scientific peer review for all listed MFLs. The level of complexity and the degree of public concern regarding the MFLs dictate that voluntary peer review should be conducted. MFLs systems located in the Central Florida Water Initiative (CFWI) area will follow the standard peer review process for MFLs and water reservations within the CFWI area.

Table 2-1 Year 2018 priority water body list

New or Re-Evaluation	Waterbody Name	Waterbody Type	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts?	Latitude DD	Longitude DD	Notes
New	*Butler*	*Lake*	*Volusia*	*Yes*	*No*	*28.870555*	-81.188333	
New	*Lochloosa*	*Lake*	*Alachua / Marion*	*Yes*	*Yes*	*29.527222*	-82.140556	
Re-Evaluation	*Brooklyn*	*Lake*	*Clay*	*Yes*	*Yes*	*29.800796*	-82.028988	
Re-Evaluation	*Geneva*	*Lake*	*Clay*	*Yes*	*Yes*	*29.767463*	-82.02482	

Table 2-2 Year 2019 priority water body list

New or Re-Evaluation	Waterbody Name	Waterbody Type	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts?	Latitude DD	Longitude DD	Notes
New	*Apopka**	*Lake*	*Lake/Orange*	*Yes*	*Yes*	*28.651666*	*-81.658056*	
New	*Griffin*	*Lake*	*Lake*	*Yes*	*Yes*	*28.8425*	*-81.849167*	
New	*Beauclair (or other Harris Chain lake)*	*Lake*	*Lake*	*Yes*	*Yes*	*28.773333*	*-81.662222*	Only one MFL will be adopted for these four lakes (Beauclair, Dora, Eustis or Harris), and this will depend on which is the most constraining (most sensitive to withdrawal).
New	*Dora (or other Harris Chain lake)*	*Lake*	*Lake*	*Yes*	*Yes*	*28.788888*	*-81.693333*	
New	*Eustis (or other Harris Chain lake)*	*Lake*	*Lake*	*Yes*	*Yes*	*28.847222*	*-81.730833*	
New	*Harris (or other Harris Chain lake)*	*Lakes*	*Lake*	*Yes*	*Yes*	*28.775*	*-81.818056*	
New	*Little Wekiva and associated springs**	*River and springs - 3*	*Seminole/Orange*	*Yes*	*Yes*	*28.702106*	*-81.392197*	The name refers to small springs within the Little Wekiva River basin that may or may not be reevaluated, depending on findings and analyses; these small springs are 3rd magnitude
Re-Evaluation	*Wekiva at SR46**	*River*	*Seminole/Lake*	*Yes*	*Yes*	*28.815175*	*-81.419472*	
Re-Evaluation	*Wekiwa**	*Springs - 2*	*Seminole/Orange*	*Yes*	*Yes*	*28.711989*	*-81.460303*	
Re-Evaluation	*Rock**	*Springs - 2*	*Orange*	*Yes*	*Yes*	*28.755827*	*-81.499235*	

* Waterbodies within the Central Florida Water Initiative (CFWI) area; The adoption dates for CFWI systems may change due CFWI rulemaking regarding “a single, consistent process, to set minimum flows and minimum water levels and water reservations” as required by section 373.0465(2)(d)4, Florida Statutes and completion of the CFWI collaborative peer review process that involves all interested stakeholders.

Table 2-3 Year 2020 priority water body list

New or Re-Evaluation	Waterbody Name	Waterbody Type	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts?	Latitude	Longitude	Notes
New	*Johns (or Avalon) **	*Lakes*	*Orange*	*Yes*	*Yes*	*28.535277*	*-81.632848*	Only one MFL will be adopted for these two lakes (Johns and Avalon), and this will depend on which is the most constraining (most sensitive to withdrawal).
New	*Avalon (or Johns) **	*Lakes*	*Orange*	*Yes*	*Yes*	*28.512809*	*-81.641351*	
New	*East Crystal**	*Lake*	*Seminole*	*Yes*	*Yes*	*28.768325*	*-81.313674*	
New	*Hodge**	*Lake*	*Seminole*	*Yes*	*Yes*	*28.691666*	*-81.321667*	
Re-Evaluation	*Apshawa South**	*Lake*	*Lake*	*Yes*	*Yes*	*28.601166*	*-81.775405*	
Re-Evaluation	*Prevatt**	*Lake*	*Orange*	*Yes*	*Yes*	*28.712117*	*-81.489902*	
Re-Evaluation	*Sylvan**	*Lake*	*Seminole*	*Yes*	*Yes*	*28.804991*	*-81.380342*	
Re-Evaluation	*Weir**	*Lake*	*Marion*	*Yes*	*Yes*	*29.02359*	*-81.938138*	

* Waterbodies within the Central Florida Water Initiative (CFWI) area; The adoption dates for CFWI systems may change due CFWI rulemaking regarding "a single, consistent process, to set minimum flows and minimum water levels and water reservations" as required by section 373.0465(2)(d)4, Florida Statutes and completion of the CFWI collaborative peer review process that involves all interested stakeholders.

Table 2-4 Year 2021 priority water body list

New or Re-Evaluation	Waterbody Name	Waterbody Type	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts?	Latitude	Longitude	Notes
New	*Ocklawaha at SR40*	*River*	*Marion*	*Yes*	*Yes*	*29.216102*	*-81.984588*	

III. MFLs Determination and Adoption

Section 40C-8.011(3), *Florida Administrative Code* (F.A.C.), states that "…the Governing Board shall use the best information and methods available to establish limits which prevent significant harm to the water resources or ecology." MFLs are determined based on evaluations of topography, soil and vegetation data collected within plant communities and other pertinent information associated with the water resources.

In establishing MFLs pursuant to Sections 373.042 and 373.0421, F.S., consideration is given to natural seasonal fluctuations in water flows or levels, non-consumptive uses, and environmental values associated with coastal, estuarine, riverine, spring, aquatic, and wetlands ecology (Rule 62-40.473(1), F.A.C.).

Additionally, MFLs should be expressed as multiple flows or levels defining a minimum hydrologic regime, to the extent practical and necessary to establish the limit beyond which further withdrawals would be significantly harmful to the water resources or the ecology of the area (Rule 62-40.473(2), F.A.C.).

HYDROLOGICAL FACTORS IN MFLS DETERMINATION

The MFLs designate an environmentally protective hydrologic regime (i.e., hydrologic conditions that prevent significant ecological harm) and identify levels and/or flows above which water may be available for use. In addition, "…the Governing Board…may reserve from use by permit applicants, water in such locations and quantities, and for such seasons of the year, as in its judgment may be required for the protection of fish and wildlife or the public health and safety" (Section 373.223, F.S.).

MFLs define high, intermediate, and/or low water events necessary to protect relevant water resource values. Three MFLs are usually defined for each system — *minimum frequent high, minimum average* and *minimum frequent low*, flows and/or water levels. If deemed necessary, a *minimum infrequent high* and/or *minimum infrequent low* flows and/or water levels are also defined. MFLs represent hydrologic statistics comprised of three components: a magnitude (a water level and/or flow), duration (days), and a frequency or return interval (years).

MFLs are water levels and/or flows that primarily serve as hydrologic constraints for water supply development, but may also apply in environmental resource permitting (see Figure 2-2). MFLs take into account the ability of wetlands and aquatic communities to adjust to changes in the return intervals of high and low water events. Therefore, MFLs allow for an acceptable level of change to occur relative to the existing hydrologic conditions (gray shaded area, Figure 2-2). However, when water withdrawals shift the hydrologic conditions below that defined by the MFLs, significant ecological harm would be expected to occur (pink area, Figure 2-2). As it applies to wetland and aquatic communities, significant harm is a function of changes in the frequencies of water level and/or flow events of defined magnitude and duration, causing impairment or loss of ecological structures and functions.

MFLs apply to decisions affecting permit applications, declarations of water shortages and assessments of water supply sources. Surface and groundwater computer simulation models are

used to evaluate existing and/or proposed consumptive uses and the likelihood they might cause significant harm. Actual or projected instances where water levels fall below established MFLs require the Governing Board to adopt recovery or prevention strategies (Section 373.0421(2), F.S.). MFLs are to be reviewed periodically and revised as needed (Section 373.0421(3), F.S.).

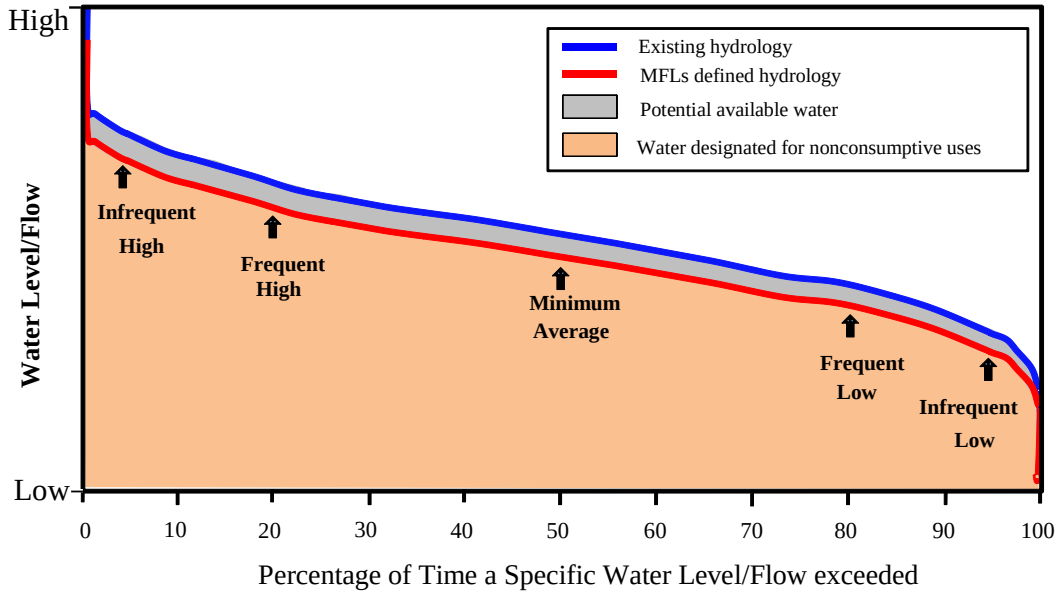


Figure 2-2. Exceedance curves for existing and MFLs defined hydrologic conditions

MFLs Adoption by Rule

MFLs are adopted as water management district rules (Chapter 40C-8, F.A.C.) by the governing boards of the water management districts. This is normally a 12 to 18-month process that involves a public workshop(s), review by FDEP, and publication in the *Florida Administrative Register*. Due to changes in climate and availability of additional information, MFLs are reviewed periodically and revised as necessary under Section 373.0421(3), F.S., through the rule adoption process.

IV. History of MFLs Established and Adopted by Rule

Since 1990 when the MFLs program was initiated, the District has established 160 MFLs (including 128 systems and 32 re-evaluations) by rule. The program's emphasis during its early years was on lakes. Recent emphasis has been on springs. Table 2-5 shows the number of MFLs that have been adopted by rule by water body type.

Table 2-5 Summary of MFLs adopted by rule and water body type

Year	Lakes	Rivers	Wetlands	Springs	Re-evaluation	Annual Total	Cumulative Total
1992		2		8		10	10
1993						0	10
1994	7					7	17
1995			1			1	18
1996	36					36	54
1997						0	54
1998	24					24	78
1999						0	78
2000	11	2	2			15	93
2001	4		1		2	7	100
2002	10				6	16	116
2003	4	1	1		1	7	123
2004	4		2			6	129
2005						0	129
2006				1	4	5	134
2007	1	1			2	4	138
2008						0	138
2009						0	138
2010					6	6	144
2011						0	144
2012						0	144
2013					1	1	145
2014					7	7	152
2015						0	152
2016					2	2	154
2017				5	1	6	160
Total	**101**	**6**	**7**	**14**	**32**	**160**	**160**

Annual Five-Year Capital Improvements Plan

3. ANNUAL FIVE-YEAR CAPITAL IMPROVEMENTS PLAN

Table of Contents

Figures

Table

I. Introduction

The Five-year Capital Improvements Plan (CIP) is prepared to meet the reporting requirements of Section 373.536(6)(a)3., *Florida Statutes* (F.S.). The format for the CIP was developed jointly by the Executive Office of the Governor (EOG), the Florida Department of Environmental Protection (DEP), and the five water management districts. The CIP presents current and projected revenues and expenditures for capital improvement projects for fiscal year (FY) 2017–2018 through FY 2021–2022.

The CIP contains only those projects that will be owned and capitalized as fixed assets by the St. Johns River Water Management District (District). All capitalized fixed assets include expenditures for basic construction costs (permits, inspections, site development, etc.) and other project costs (land, surveys, existing facility acquisition, professional services, etc.). As directed by Section 373.536(6)(a)3., F.S., the CIP has been prepared in a manner comparable to the fixed capital outlay format set forth in Section 216.043., F.S. The format for this plan is drawn from the standard budget reporting format prescribed by the EOG. The EOG format requires capital improvement projects be budgeted in the standard program categories. The 2018 CIP covers three standard programs and associated activities and subactivities shown below:

1.0 Water Resource Planning and Monitoring
- 1.2 Research, Data Collection, Analysis, and Monitoring

2**.0 Acquisition, Restoration, and Public Works**
- 2.1 Land Acquisition
- 2.2.1 Water Resource Development Projects
- 2.3 Surface Water Projects

3.0 Operation and Maintenance of Lands and Works
- 3.1 Land Management
- 3.2 Works
- 3.3 Facilities Management

II. Proposed Capital Projects and Expenditures During the Planning Period

The District proposes to spend $66.7 million on 43 projects/subprojects during the planning period from FY 2017–2018 through FY 2021–2022. Figure 3-1 shows the projected annual expenditures during the five-year planning period.

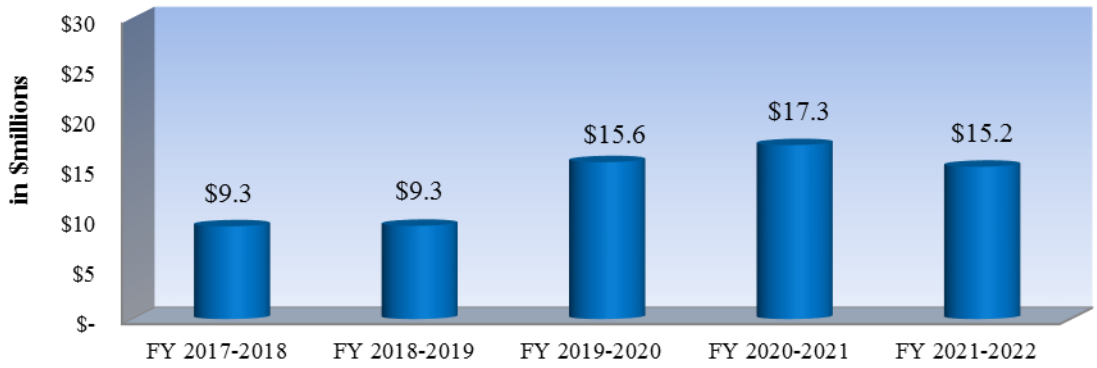


Figure 3-1. Five-year projected expenditures for capital improvement projects

Total planned capital expenditures in FY 2018–2019 are $9.3 million, which is at the same level as adopted budget for FY 2017–2018.

Significant changes in capital expenditures during the planning period are:

- The District is planning for 12 multimillion-dollar capital projects. These include Central Florida Water Initiative (CFWI) Well Construction ($1.2 million), Taylor Creek Reservoir Improvements ($14 million), Fellsmere Water Management Area ($3.1 million), St. Johns Marsh Conservation Area (SJMCA) Project Design ($1.5 million), Lake Apopka Marsh Flow-Way Improvements ($1.5 million), Lake Apopka Targeted Water Quality Enhancements ($1.48 million), C-10 Reservoir Project ($23.26 million), and five major and minor water control structure rehabilitation projects ($9.48 million).
- The District will not have any significant capital outlay for land acquisition, facilities construction, or miscellaneous public land improvement projects beyond FY 2018–2019.
- The District will primarily rely on District revenues (including fund balances and ad valorem revenues) to fund capital projects.
- Approximately 52.8% of the future capital project funding will be dependent on state funding, which is yet to be appropriated by the state Legislature.

Among the activities and subactivities that have capital expenditures, Surface Water Projects account for almost 54.1% of the total expenditures during the planning period (see Figure 3-2).

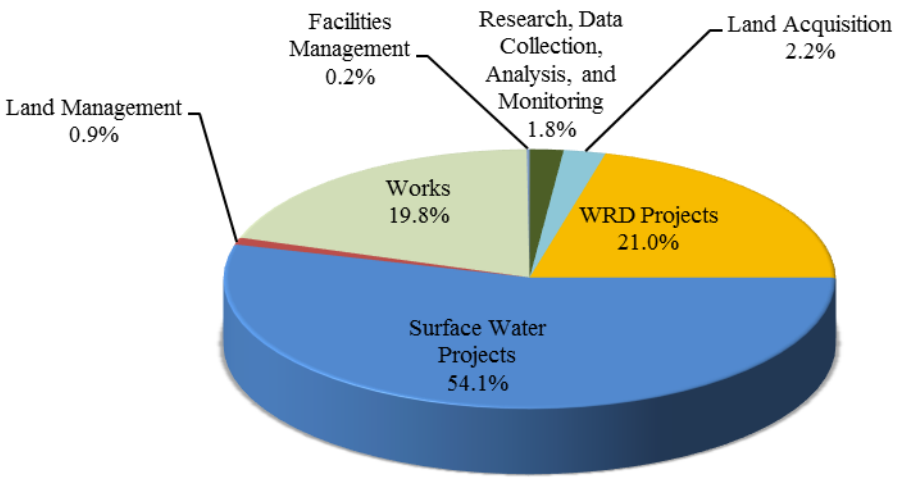


Figure 3-2. Five-year total capital improvement project expenditures by activity

The District's capital improvement projects are funded primarily by District sources. Figure 3-3 shows that approximately one third of the total revenues during the planning period will come from District sources. Historically, state funding sources such as DEP, Florida Forever and the Ecosystem Management Trust Fund have provided most of the funding for the District's capital projects. More than half of the future funding is currently expected to come from state sources; however, potential funding for these projects is yet to be appropriated by the state Legislature.

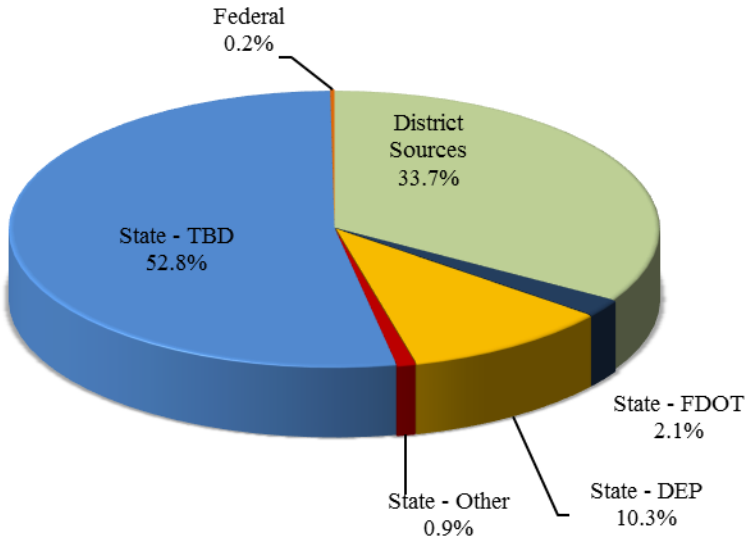


Figure 3-3. Five-year total capital improvement project expenditures by funding source

III. Five-Year CIP Supporting Documents

The purpose of the CIP is to project future needs and anticipate future funding requirements to meet those needs. This document provides a summation of all capital improvement projects in the FY 2017–2018 Adopted Budget, FY 2018–2019 Preliminary Budget, and projected capital improvement projects through FY 2021–2022. Many of the items in the five-year CIP are contained in other, more descriptive reports and plans. These include, but are not limited to, the following:

- 2017 and 2018 FDOT Annual Mitigation Plan
- 2015 Central Florida Water Initiative Data Management and Investigation (DMIT) Work Plan
- C-1 Rediversion Plan
- Five-Year Infrastructure Management, Operations and Maintenance Plan
- FY 2017–2018 Adopted Budget
- FY 2018–2019 Preliminary Budget
- Individual Land Management Area Plans

Digital copies of the above-referenced reports and plans may be obtained from the District's website at *sjrwmd.com*.

IV. Project Descriptions by Program and Activity

This section provides a list of 43 capital improvement projects by program/activity (see Table 3-1) followed by project descriptions for each capital improvement project contained in this plan.

Research, Data Collection, Analysis, and Monitoring: The District proposes one project for this activity for monitoring water well construction in the CFWI area.

Land Acquisition: Only two projects are proposed in the CIP for small parcel land acquisitions and related expenses during the planning period.

Water Resource Development Projects: The District proposes one project that will increase water supplies, the Taylor Creek Reservoir project.

Surface Water Projects: Eighteen surface water projects are included in this CIP. These projects are intended to provide improved natural systems, water quality improvements, and flood control. The project benefits include nutrient reductions, stormwater management, wetland restoration, wetland mitigation, flood protection and floodplain restoration, and construction of major water control structures and reservoirs. In addition, this activity will have two mitigation projects, one land enhancement project, and one preliminary design project during the planning period.

Land Management: Four projects have been planned under this activity with the intent to provide public access to District-owned lands and enhancements to District-owned lands.

Works: Sixteen projects are included under this activity for rehabilitations of major and minor water control structures.

Facilities Management: This activity has one project to install two pole barns on District-owned facilities.

Table 3-1. Five-year capital improvement projects by program/activity

FIVE-YEAR CAPITAL IMPROVEMENTS PLAN

FISCAL YEARS 2017-2018 THROUGH 2021-2022

ST. JOHNS RIVER WATER MANAGEMENT DISTRICT

1.0 WATER RESOURCE PLANIING AND MONITORING

1.2 Research, Data Collection, Analysis, and Monitoring

REVENUES	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	5-Year Total
District Sources	$ 300,000	$ -	$ 400,000	$ 500,000	$ -	$ 1,200,000
TOTAL	**$ 300,000**	**$ -**	**$ 400,000**	**$ 500,000**	**$ -**	**$ 1,200,000**

EXPENDITURES	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	5-Year Total
CFWI Well Construction	$ 300,000	$ -	$ 400,000	$ 500,000	$ -	1,200,000
TOTAL	**$ 300,000**	**$ -**	**$ 400,000**	**$ 500,000**	**$ -**	**$ 1,200,000**

2.0 LAND ACQUISITION, RESTORATION AND PUBLIC WORKS

2.1 Land Acquisitions

REVENUES	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	5-Year Total
District Sources	$ 594,500	$ 94,500	$ 94,500	$ 94,500	$ 94,500	$ 972,500
State - FDOT		525,000				$ 525,000
TOTAL	**$ 594,500**	**$ 619,500**	**$ 94,500**	**$ 94,500**	**$ 94,500**	**$ 1,497,500**

EXPENDITURES	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	5-Year Total
Regulatory Basin 8 Land Acqusition	$ -	$ 525,000	$ -	$ -	$ -	$ 525,000
Land Purchases and Support Service	594,500	94,500	94,500	94,500	94,500	972,500
TOTAL	**$ 594,500**	**$ 619,500**	**$ 94,500**	**$ 94,500**	**$ 94,500**	**$ 1,497,500**

2.2.1 Water Resource Development Projects

REVENUES	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	5-Year Total
District Sources	$ -	$ 500,000	$ -	$ -	$ -	$ 500,000
State Sources - FDEP	1,300,000					1,300,000
State Sources - TBD			1,894,500	5,150,800		7,045,300
TOTAL	**$ 1,300,000**	**$ 500,000**	**$ 1,894,500**	**$ 5,150,800**	**$ -**	**$ 8,845,300**

EXPENDITURES	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	5-Year Total
Taylor Creek Reservoir Improvements	$ 1,300,000	$ 500,000	$ 1,894,500	$ 5,150,800	$ 5,150,800	$ 13,996,100
TOTAL	**$ 1,300,000**	**$ 500,000**	**$ 1,894,500**	**$ 5,150,800**	**$ 5,150,800**	**$ 13,996,100**

Table 3-1. Five-year capital improvement projects by program/activity (cont.)

2.3 Surface Water Projects

REVENUES	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	5-Year Total
Upper St. Johns River Basin						-
District Sources	$ 2,070,500	$ 1,328,000	$ 864,000	$ 636,000	$ -	$ 4,898,500
State-Other						-
Federal	140,000					140,000
UORB/Lake Apopka Basin						
District Sources	200,000		245,000	226,000		671,000
State-FDEP	900,000	2,877,000	1,552,300	24,300	-	5,353,600
State-FDOT						-
State-Other	250,000					250,000
Indian River Lagoon						
District Sources	200,000					200,000
State-FDOT						-
State-TBD			7,017,300	8,035,000	8,004,000	23,056,300
Districtwide						
District Sources	525,000					525,000
State-FDEP	225,000					225,000
State-FDOT		436,980	50,000	30,000	10,000	526,980
State-Other	270,000					270,000
TOTAL	**$ 4,780,500**	**$ 4,641,980**	**$ 9,728,600**	**$ 8,951,300**	**$ 8,014,000**	**$ 36,116,380**

EXPENDITURES	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	5-Year Total
Upper St. Johns River Basin						
Fellsmere Water Management Area	$ 1,800,000	$ 1,300,000	$ -	$ -	$ -	$ 3,100,000
Fellsmere Water Management Area Biomonitoring	20,500	10,000				30,500
Mary A Flow Restoration Project	250,000	18,000				268,000
St. Johns Marsh Conservation Area Project Design			864,000	636,000		1,500,000
Turkey Creek Restoration Project	140,000					140,000
Upper Ocklawaha River Basin/Lake Apopka Basin						
Access Improvements to Lake Apopka North Shore			95,000	226,000		321,000
Apopka Flow-way 10 Pack Rehabilitation	750,000					750,000
Lake Apopka Habitat Transition and Development	250,000	527,000				777,000
Lake Apopka Marsh Flow Way Improvements	150,000	466,000	884,300			1,500,300
Lake Apopka North Shore Levee Improvements		1,100,000				1,100,000
Lake Apopka Targeted Water Quality Enhancements		784,000	668,000	24,300		1,476,300
Sunnyhill Berm Improvements	150,000		150,000			300,000
Sunnyhill Canal Plug Improvements	50,000					50,000
Indian River Lagoon Basin						
C-10 Reservoir Project	200,000		7,017,300	8,035,000	8,004,000	23,256,300
District-Other						-
Coastal Oaks Property		335,000				335,000
Halfmile Creek Tract		101,980	50,000	30,000	10,000	191,980
Preliminary Engineering - Various	250,000					250,000
Silver Springs Forest Conservation Area	770,000					770,000
TOTAL	**$ 4,780,500**	**$ 4,641,980**	**$ 9,728,600**	**$ 8,951,300**	**$ 8,014,000**	**$ 36,116,380**

Table 3-1. Five-year capital improvement projects by activity (cont.)

3.0 OPERATION AND MAINTENANCE OF LANDS AND WORKS

3.1 Land Management

REVENUES	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	5-Year Total
District Sources	$ 114,000	$ 70,000	$ -	$ -	$ -	$ 184,000
State-FDOT	67,500	100,000	50,000	50,000	35,000	302,500
State-Other	100,000					100,000
TOTAL	**$ 281,500**	**$ 170,000**	**$ 50,000**	**$ 50,000**	**$ 35,000**	**$ 586,500**

EXPENDITURES	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	5-Year Total
Field Activities -Land Management, Fencing	$ 114,000	$ 70,000	$ -	$ -	$ -	184,000
Field Activities -Public Use Structures	100,000					100,000
Lake Jesup Conservation Area	35,000	45,000	15,000	15,000	-	110,000
Micco Water Management Area	32,500	55,000	35,000	35,000	35,000	192,500
TOTAL	**$ 281,500**	**$ 170,000**	**$ 50,000**	**$ 50,000**	**$ 35,000**	**$ 586,500**

3.2 Works

REVENUES	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	5-Year Total
District Sources	$ 1,895,000	$ 3,370,000	$ 3,480,000	$ 2,600,000	$ 1,900,000	$ 13,245,000
TOTAL	**$ 1,895,000**	**$ 3,370,000**	**$ 3,480,000**	**$ 2,600,000**	**$ 1,900,000**	**$ 13,245,000**

EXPENDITURES	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	5-Year Total
A-frames for S96B and C	$ 85,000	$ -	$ -	$ -	$ -	$ 85,000
Ansin East Sediment Curtains and Flow Way Repairs		$ 195,000				195,000
Burrell Lock Rehabilitation					1,900,000	1,900,000
Emeralda Road Upgrades		125,000				125,000
Gopher Tortoise Relocation	160,000	100,000	100,000			360,000
Levee Repairs	425,000	250,000	700,000			1,375,000
Lime Rock and Coquina for Roadways	250,000					250,000
Minor Water Control Structure Rehabilitation	175,000	200,000	300,000	300,000		975,000
Pump Management/Remote Gate Operations		150,000				150,000
S-255 Culvert Rehabilitation	525,000					525,000
S-96B Structure Rehabilitation		1,950,000				1,950,000
S-96C Drum and Cable		200,000				200,000
S-96C Structure Rehabilitation			2,150,000			2,150,000
S-96D Structure Rehabilitation				2,100,000		2,100,000
Slip Line Piping at Fellsmere Grade	230,000	200,000	200,000	200,000		830,000
Vegetation Barriers	45,000		30,000			75,000
TOTAL	**$ 1,895,000**	**$ 3,370,000**	**$ 3,480,000**	**$ 2,600,000**	**$ 1,900,000**	**$ 13,245,000**

3.3 Facilities Management

REVENUES	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	5-Year Total
District Sources	$ 100,000	$ -	$ -	$ -	$ -	$ 100,000
TOTAL	**$ 100,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 100,000**

EXPENDITURES	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	5-Year Total
Pole Barn Installation	$ 100,000	$ -	$ -	$ -	$ -	$ 100,000
TOTAL	**$ 100,000**	**$ -**	**$ -**	**$ -**	**$ -**	**$ 100,000**

GRAND TOTAL EXPENDITURES	**$ 9,251,500**	**$ 9,301,480**	**$ 22,886,600**	**$ 18,475,090**	**$ 10,043,500**	**$ 69,958,170**

REVENUES	FY 2017-2018	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	5-Year Total
GRAND TOTAL REVENUES	**$ 9,251,500**	**$ 9,301,480**	**$ 22,886,600**	**$ 18,475,090**	**$ 10,043,500**	**$ 69,958,170**

Program: District Water Management Planning

Activity: Research, Data Collection, Analysis, and Monitoring

Project Title: Central Florida Water Initiative (CFWI) Well Construction

Type: Data Collection

Project Manager: Robert Brooks and David Hornsby

Physical Location: This project is located in the Central Florida Water Initiative counties of Lake, Orange, Seminole, and Osceola.

Square Footage/Physical Description: District constructing monitoring wells on properties with various forms of access (fee simple, permissive use agreement, easement, etc.).

Expected Completion Date: September 2021

Historical Background/Need for Project: The project implements the five-year Central Florida Water Initiative Data Management Investigation Team monitoring plan.

Plan Linkages: 2017–2018 Adopted Budget, FY 2018–2019 Preliminary Budget, and CFWI DMIT work plan

Area(s) of Responsibility: Water Supply

Alternative(s): None

Basic Construction Costs: (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District has budgeted $300,000 for the project for FY 2017–2018 and plans to budget an additional $400,000 in FY 2019/2020 and $500,000 in FY 2020–2021.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other.): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Acquisition, Restoration, and Public Works

Activity: Land Acquisition

Project Title: Land Purchases and Support Service

Type: Land Acquisitions

Project Manager: Ramesh Buch

Physical Location: Throughout the District's 18 counties

Square Footage/Physical Description: Not available

Expected Completion Date: Ongoing

Historical Background/Need for Project: In 1981, the Florida Legislature created the Save Our Rivers (SOR) program as a non-lapsing fund for the acquisition of the fee or other interests in lands for water management, water supply, and the conservation and protection of water resources. The Preservation 2000 (P2000) program, which expanded the scope of the SOR program, was passed by the Florida Legislature in 1990. Since 2000, the Florida Forever (FF) program has replaced the P2000 program and become the primary source of funding for District land acquisitions. In 2008, the Florida Legislature authorized the continuation of the FF program for a second 10-year period. The state appropriated $1.125 million in FF funds to the District for land acquisitions in FY 2010–2011. No appropriations have been received since FY 2011–2012.

Plan Linkages: FY 2017–2018 Adopted Budget and FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Water supply, water quality, flood protection, and natural systems

Alternative(s): Purchase protective conservation easements or place additional regulations and restrictions on lands to accomplish the same goals attained from the purchase of lands.

Basic Construction Costs (includes permits, inspections, communication requirements, utilities outside building, site development, other): A total of $594,500 was budgeted in FY 2017–2018 for both land acquisition and support services. The District plans to budget an additional $94,500 per year from FY 2018–2019 through FY 2021–2022 for support services only.

Other Project Costs (includes land survey, existing facility acquisitions, professional service, other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Water Resource Planning and Monitoring

Activity: Water Resource Development Projects

Project Title: Taylor Creek Reservoir Improvements

Type: Water Resource Development

Project Manager: Amy Wright

Physical Location: Lies on the border of Osceola and Orange County

Square Footage/Physical Description: Improvements are proposed for nearly all the 8.65 miles of L-73 Levee

Expected Completion Date: May 2023

Historical Background/Need for Project: Biannual U.S. Army Corps of Engineers (USACE) levee inspections revealed damage to the levees from erosion and settlement, which the District is required to repair. Additionally, raising of the levee and construction of the emergency spillways will be necessary should the regulation schedule be increased within the reservoir to provide additional regional water supply in the future.

Plan Linkages: FY 2017–2018 Adopted Budget and FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Water Supply

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District has budgeted $1.3 million in FY 2017–2018 and plans to budget an additional $500,000 in FY 2018–2019, $1.9 million in FY 2019–2020, and $5.2 million in FY 2020–2021 and FY 2021–2022 for the construction of this project. Funding sources for this project beyond FY 2018–2019 have yet to be determined and will likely come from the state.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Acquisition, Restoration, and Public Works

Activity: Surface Water Projects

Project Title: Fellsmere Water Management Area

Type: Reservoir Construction

Program Manager: Hector Herrera

Physical Location: This project is located immediately east of the St. Johns Water Management Area (SJWMA) and south of the Fellsmere Grade within the Fellsmere Water Control District in Indian River County.

Square Footage/Physical Description: The proposed reservoir will be approximately 10,000 acres.

Expected Completion Date: September 2019

Historical Background/Need for Project: To improve water quality downstream in the St. Johns River, the District originally proposed to construct a 10,000-acre reservoir to treat agricultural discharges prior to entering the SJWMA and to provide water supply potential. It is expected that with the completion of this 10,000-acre reservoir, the discharges from SJWMA into Three Forks Marsh Conservation Area will meet projected nutrient targets. The project will provide water quality treatment of agricultural discharges along with habitat improvement and water supply benefits as well as virtually eliminate freshwater discharges to the Indian River Lagoon from the Upper St. Johns River Basin Project.

Plan Linkages: FY 2017–2018 Adopted Budget and FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Water Quality, Flood Control, Natural Systems, and Water Supply

Alternative(s): None

Basic Construction Costs: (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District has budgeted $1.8 million for this project in FY 2017–2018, and plans to budget an additional $1.3 million in FY 2018–2019 to complete the project.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other.): Land acquisition cost of approximately $9.80 million was expended for the purchase of 4,000 acres during FY 2001–2002 and an additional $35 million for the purchase of 6,000 acres in FY 2006–2007.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: Operating expenses will be incurred for the operation and maintenance of Pump Stations 4 and 5, which will serve as the outlets for Fellsmere Water Management Area (FWMA). These costs have not been quantified.

Program: Acquisition, Restoration, and Public Works

Activity: Surface Water Projects

Project Title: Fellsmere Water Management Area Biomonitoring

Type: Reservoir Construction

Program Manager: Dianne Hall

Physical Location: This project is located immediately east of the St. Johns Water Management Area (SJWMA) and south of the Fellsmere Grade within the Fellsmere Water Control District in Indian River County.

Square Footage/Physical Description: The proposed reservoir will be approximately 10,000 acres.

Expected Completion Date: September 2019

Historical Background/Need for Project: The District requires accurate and timely information to assess restoration progress, satisfy reporting requirements, and meet permit conditions. Fish and snail tissue samples are collected by District staff and submitted to a commercial laboratory for analysis of pesticides and heavy metals. Sampling fish for contaminants was an original permit condition for FWMA and is the District's responsibility.

Plan Linkages: FY 2017–2018 Adopted Budget and FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Water Quality, Flood Control, Natural Systems, and Water Supply

Alternative(s): None

Basic Construction Costs: (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $20,500 in FY 2017–2018 and plans to budget an additional $10,000 in FY 2018–2019.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other.): Land acquisition cost of approximately $9.80 million was expended for the purchase of 4,000 acres during FY 2001–2002 and an additional $35 million for the purchase of 6,000 acres in FY 2006–2007.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: Operating expenses will be incurred for the operation and maintenance of Pump Stations 4 and 5, which will serve as the outlets for FWMA. These costs have not been quantified.

Program: Acquisition, Restoration, and Public Works

Activity: Surface Water Projects

Project Title: Mary A. Flow Restoration Project

Type: Water Quality

Program Manager: Hector Herrera

Physical Location: This project is located in the Mary A. Flow-Way (aka: S-255 Flow-Way) immediately north of the T.M. Goodwin Waterfowl Management Area (aka: C-54 Retention Area) in Brevard County.

Square Footage/Physical Description: The objective of this project is to contract with a consultant to complete a feasibility study to determine the most appropriate methodology for the restoration of the Mary A. Flow-Way and develop a preliminary design and opinion of probable cost based on the selected methodology.

Expected Completion Date: October 2018

Historical Background/Need for Project: The Mary A. Flow-Way is a key component of two of the six projects identified in the *Indian River Lagoon Stormwater Capture and Treatment Feasibility Analysis* for the North Central and South Central Indian River Lagoon, namely C-54 and Fellsmere Canal Flow Restoration, and Sottile Canal Flow Restoration. In addition to the two proposed flow restoration projects, the flow-way also receives discharge from existing agricultural, a residential subdivision, and two District-owned areas, currently leased to the Florida Fish and Wildlife Conservation Commission (FWC). The flow-way provides the connection between these areas and the St. Johns River. A critical issue with the use of the flow-way for flow restoration is the potential for high nutrient loading to the St. Johns River due to the phosphorus and nitrogen contained in the sediments from decades of discharges from agricultural and dairy operations. To safeguard the Upper St. Johns River from the use of the Mary A. Flow-Way for future flow restoration projects, the nutrients in the sediments must be addressed.

Plan Linkages: FY 2017–2018 Adopted Budget and FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Water Quality, Natural Systems, and Water Supply

Alternative(s): None

Basic Construction Costs: (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $250,000 for this project in FY 2017–2018 and plans to budget the balance of $18,000 in FY2018–2019 for feasibility and design.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other.): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: This project will incur long-term operating costs to maintain and operate an electric pump station. These costs have not been quantified.

Program: Acquisition, Restoration, and Public Works

Activity: Surface Water Projects

Project Title: St. Johns Marsh Conservation Area (SJMCA) Project

Type: Water Quality Improvements

Project Manager: Hector Herrera

Physical Location: The SJMCA is located on the westside of the upper basis project area

Square Footage/Physical Description: This project includes the improvement of four existing plugs in the C-40 canal along the eastern side of the SJMCA and construction of two new canal plugs in the Outside Mormon Canal along the western side of the SJMCA.

Expected Completion Date: September 2021

Historical Background/Need for Project: The SJMCA has been over drained due to the excavation of borrow canals along the east and west sides of the marsh. This over drainage has caused significant oxidation of the organic soils resulting in soil subsidence and releases of nutrients to downstream waterbodies as well as a shift in vegetation from herbaceous marsh to woody vegetation. The proposed improvements to the canal plugs will result in a more natural hydroperiod in SJMCA thereby reducing soil oxidation and nutrient release and encouraging the return to herbaceous marsh vegetation.

Plan Linkages: Project Planning Group – District Projects Evaluation

Area(s) of Responsibility: Natural Systems, Water Quality

Alternative(s): TBD

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District plans to budget $864,000 in FY 2019–2020 and $636,000 in FY 2020-2021.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Acquisition, Restoration, and Public Works

Activity: Surface Water Projects

Project Title: Turkey Creek Restoration

Type: Wetland Restoration

Program Manager: Hector Herrera

Physical Location: This project is located in the southeast corner of Seminole County immediately adjacent and west of the St. Johns River.

Square Footage/Physical Description: The proposed is comprised of 2,892 acres of historic St. Johns River floodplain, managed upland pasture, and mixed wetland hardwood forest.

Expected Completion Date: September 2018

Historical Background/Need for Project: The objective of this project is to restore the hydrology and ecology of the Turkey Creek. Improvements will include wetland restoration, hydrologic enhancement, floodwater attenuation, water quality improvements, and enhancement of wildlife habitat.

Plan Linkages: FY 2017–2018 Adopted Budget

Area(s) of Responsibility: Natural Systems

Alternative(s): None

Basic Construction Costs: (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District has budgeted $140,000 for completion of this project in FY 2017–2018. This project will be funded by the Natural Resources Conservation Service of the US Department of Agriculture.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other.): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Acquisition, Restoration, and Public Works

Activity: Surface Water Projects

Project Title: Access Improvements to Lake Apopka North Shore

Type: Natural Systems/Public Use

Project Manager: Robert Naleway

Physical Location: CR 448A over McDonald Canal — Lake Apopka North Shore

Square Footage/Physical Description: This is one acre of land immediately around the bridge over the McDonald Canal

Expected Completion Date: September 2020

Historical Background/Need for Project: Currently there is a one-lane bridge that provides the only access to the Lake Apopka North Shore for the central part of the project. This is the access for the improved McDonald Canal park/boat ramp facility, the trail head for dozens of miles of biking and hiking trails and the maintenance access for approximately 2,500 acres of land maintained by the District. The proposed project will be the replacement of a one-lane bridge with two-lane access. The replacement will either be a bridge or culverts and road crossing.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan

Area(s) of Responsibility: Natural Systems

Alternative(s): Continue to use the one-lane bridge, which is anticipated to see increased use as more of the North Shore becomes available for public use. This multi-use by bikers, hikers, boat trailers and District maintenance vehicles may pose safety issues.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District is planning to budget $95,000 in FY 2019–2020 and $226,000 in FY 2020–2021 to complete this project.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): Minor survey and geotechnical updates to work previously done.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Acquisition, Restoration, and Public Works

Activity: Surface Water Projects

Project Title: Apopka Flow-Way-10-Pack Rehabilitation

Type: Rehabilitation of Water Control Structures

Project Manager: Lindsey Porter

Physical Location: Southwest on the corner of the Lake Apopka North Shore

Square Footage/Physical Description: 20,000 acres (North Shore), 760 acres March Flow-Way

Expected Completion Date: July 2018

Historical Background/Need for Project. The 10-pack is a water control structure that regulates flows into the Lake Apopka Marsh Flow-Way from Lake Apopka. The 10-pack has ten 54-inch culverts with 10 slide gates in a riser on the upstream side of the culvert. The riser portion of the structure has begun to fail, with many holes rusted all the way through the riser. The inability to close the 10-pack makes other maintenance activities difficult or impossible. The culverts will be slip-lined and gates on another set of culverts installed.

Plan Linkages: FY 2017–2018 Adopted Budget

Area(s) of Responsibility: Water Quality, Natural Systems

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District has budgeted $750,000 in FY 2017–2018 for this project.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): Depending on the overall condition of the 54-inch culverts and the long-term need of the Apopka Marsh Flow-Way, it is likely that these culverts will need to be replaced sometime in the next five years. The estimate for replacement has not yet been calculated.

Anticipated Additional Operating Costs/Continuing: None.

Program: Acquisition, Restoration, and Public Works

Activity: Surface Water Projects

Project Title: Lake Apopka Habitat Transition and Development

Type: Natural Systems and Water Quality

Project Manager: Steve Miller

Physical Location: Lake Apopka

Square Footage/Physical Description: 20,000 acres (North Shore)

Expected Completion Date: September 2019

Historical Background/Need for Project: The existing vegetation on Lake Apopka's North Shore is dominated by species that have been useful in restricting wildlife access to areas with pesticide residues. As areas are deemed safe, vegetation management actions are initiated to create the mixed marsh habitats that will both provide safe wetland habitat and reduce phosphorus loading to Lake Apopka. The project will use hydrology management, plantings, herbicides, and ultimately fire to develop desirable vegetation communities.

Plan Linkages: FY 2017–2018 Adopted Budget and FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Water Quality, Natural Systems

Alternative(s): None

Basic Construction Costs (includes contracts, permits, inspections, communications requirements, utilities, site development, other): The District has budgeted $250,000 in FY 2017–2018 and plans to budget an additional $527,000 in FY 2018–2019 for this project.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): It is likely that the District will contract with experienced consultants to guide this work and the costs have not been determined.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Acquisition, Restoration, and Public Works

Activity: Surface Water Projects

Project Title: Lake Apopka Marsh Flow-Way Improvements

Type: Water Quality and Natural Systems Improvements

Project Manager: Robert Naleway

Physical Location: Lake Apopka and the Lake Apopka North Shore Restoration

Square Footage/Physical Description: 760 acres of March Flow-Way

Expected Completion Date: March 2020

Historical Background/Need for Project: After more than fifteen years of operation, the Marsh Flow-Way cells have developed hydrologic shortcuts which reduce the efficiency of the water quality treatment. These shortcuts can be difficult and quite costly to repair. In FY 2016–2017, the District hired a consultant to investigate the system and to develop long-term structural and operational solutions to this problem. Base on this evaluation, construction projects are planned to commence in FY 2017–2018 to improve the efficiency of the Marsh Flow-Way.

Plan Linkages: FY 2017–2018 Adopted Budget and FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Water Quality, Natural Systems

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities, site development, other): The District has budgeted $150,000 in FY 2017–2018 and plans to budget an additional $466,000 in FY 2018–2019 and $884,000 in FY 2019-2020.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Acquisition, Restoration, and Public Works

Activity: Surface Water Projects

Project Title: Lake Apopka North Shore Levee Improvements

Type: Rehabilitation of Water Control Structures

Project Manager: Woody Boynton

Physical Location: Lake Apopka North Shore

Square Footage/Physical Description: 20,000 acres (North Shore), 30,800 acres Lake Apopka

Expected Completion Date: September 2019

Historical Background/Need for Project: Infrastructure improvements are needed on the Lake Apopka North Shore to isolate areas within the North Shore from Lake Apopka and to be able to manage water within the North Shore to encourage desirable wetland vegetation. Further maintenance and improvements to the levees are needed to limit the phosphorus-rich discharges of water to Lake Apopka.

Plan Linkages: FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Natural Systems, Water Quality, Flood Protection, Water Supply

Alternative(s): Allow levees to degrade to the point that the lake and North Shore become interconnected. This would result in the shift of thousands of acres of emergent marsh wetland to open water and allow free exchange of fish between the North Shore and Lake Apopka. This free exchange of fish would result in stricter or non-consumption limits being placed on Lake Apopka's fish due to reside pesticides on the North Shore. It would also eliminate the ability to manage phosphorus loading to the lake from the North Shore.

Basic Construction Costs (includes permits, inspections, communications requirements, site development, other): The District has preliminarily budgeted $1,100,000 in FY 2018–2019 budget.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): Surveys of the lake levee.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Acquisition, Restoration, and Public Works

Activity: Surface Water Projects

Project Title: Lake Apopka Targeted Water Quality Enhancements

Type: Natural Systems and Water Quality

Project Manager: Robert Naleway

Physical Location: Lake Apopka North Shore

Square Footage/Physical Description: 51,000 acres (Lake and North Shore)

Expected Completion Date: September 2022

Historical Background/Need for Project: One of the critical restoration goals for Lake Apopka is the establishment of native submerged aquatic vegetation (SAV). SAV provides critical habitat for many biota, including important sport fish species. In addition, the presence of the plants reduces the potential for sediment resuspension due to wind or bioturbation. The goal of the District's efforts to reduce phosphorus inputs and availability has been to reduce phytoplankton abundance and thus allow for sufficient light availability to the sediments to support SAV. Initially, this project will investigate the limitation(s) on SAV growth, such as grazing, lack of seeds or propagules, or sediment conditions. Based on the results of that investigation, new projects such as existing culvert upgrades, installation of new pumps, and improvements to levees will likely be needed to overcome the limitation(s).

Plan Linkages: FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Water Quality, Natural Systems

Alternative(s): None

Basic Construction Costs (includes contracts, permits, inspections, communications requirements, utilities outside building, site development, other): The District plans to budget $784,000 in FY 2018–2019, $668,000 in FY 2019–2020, and $24,300 in FY 2020-2021. Additional activities may extend through 2024 dependent on availabilities of external funding.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): It is likely that the District will contract with experienced consultants to guide this work and the costs are preliminary and may require adjustments once projects are selected and vetted.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Acquisition, Restoration, and Public Works

Activity: Surface Water Projects

Project Title: Sunnyhill Berm Improvements

Type: Water Quality and Natural Systems Improvements

Project Manager: Amy Wright

Physical Location: Sunnyhill Restoration Area

Square Footage/Physical Description: 100 acres of project area

Expected Completion Date: September 2020

Historical Background/Need for Project: The Sunnyhill Restoration Area was originally designed to route water from the channelized Upper Ocklawaha River to the historic river channel. Sedimentation and vegetation in the historic river channel have limited the amount of water that can be routed in this manner. The least costly way to deal with these issues has been determined to be building up some of the internal berms within Sunnyhill, which would allow water to be routed into Sunnyhill. There is potential for an aquifer recharge project that could utilize additional water availability.

Plan Linkages: FY 2017–2018 Adopted Budget

Area(s) of Responsibility: Natural Systems, Water Quality

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $150,000 in FY 2017–2018 and plans to budget $150,000 in FY 2019–2020 for this project.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Acquisition, Restoration, and Public Works

Activity: Surface Water Projects

Project Title: Sunnyhill Canal Plug Improvements

Type: Water Quality, Natural Systems Improvements

Project Manager: Amy Wright

Physical Location: Sunnyhill Restoration Area

Square Footage/Physical Description: 5 acres of project area

Expected Completion Date: September 2019

Historical Background/Need for Project: The Sunnyhill Restoration Area has some existing ditches that have resulted in the over draining of adjacent hardwood swamps. These ditches are proposed to be plugged or filled in to prevent the over draining and to improve habitats in the Sunnyhill Restoration Area.

Plan Linkages: FY 2017–2018 Preliminary Budget

Area(s) of Responsibility: Natural Systems, Water Quality

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities, site development, other): The District has budgeted $50,000 in FY 2017–2018 for this project.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Acquisition, Restoration, and Public Works

Activity: Surface Water Projects

Project Title: C-10 Reservoir Project

Type: Water Control Structure

Program Manager: Hector Herrera

Physical Location: The C-10 Reservoir project is located within the Melbourne-Tillman Water Control District (MTWCD) in Brevard County.

Square Footage/Physical Description: The C-1 Rediversion project covers approximately 90 square miles of the MTWCD. Phase 1 of the project involved the modification of an existing water control structure, construction of pump stations, outfall structures, treatment wetlands, and improvements in the C-1 Retention Area. Phase 2 – C-10 Reservoir Project consists of construction of a 1,300-acre reservoir with pump station and outfall structure.

Expected Completion Date: February 2023

Historical Background/Need for Project: The C-1 canal is a major source of freshwater, nutrients, and sediment to the Indian River Lagoon, which adversely affects salinity and water quality. The C-1 Rediversion Project consists of two phases. Phase 1 is already complete and pumps water from MTWCD canals C-1 and C2R into the Sawgrass Lake Water Management Area (SLWMA) for water quality improvement and subsequent discharge to the St. Johns River. Phase 2 will provide additional rediversion through construction of the C-10 reservoir, including a pump station from MTWCD canal C-9R and an outfall structure to the St. Johns River via the Three Forks Marsh Conservation Area.

Plan Linkages: C-1 Rediversion Plan and FY 2017–2018 Adopted Budget

Area(s) of Responsibility: Water Quality, Flood Control, Water Supply and Natural Systems

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): $200,000 is currently budgeted in FY 2017–2018 for survey and geotech to support the in-house design of the project. Construction is anticipated to begin in FY 2019–2020 and will take three years to complete. The District plans to budget $7.02 million in FY 2019–2020, $8.04 million in FY 2020–2021, and $8 million in FY 2021–2022 to complete the construction phase.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Acquisition, Restoration and Public Works

Activity: Surface Water Projects

Project Title: Coastal Oaks Property

Type: Wetland and Hydrologic Restoration

Project Manager: Ryan Spohn

Physical Location: The project is planned to occur in Indian River County on multiple parcels adjacent to the Coastal Oaks Preserve, which fronts the Indian River Lagoon in Regulatory Basin 22. This property is north of Vero Beach along U.S.1.

Square Footage/Physical Description: The wetland creation, enhancement, and restoration will be completed on approximately 40 acres

Expected Completion Date: September 2023

Historical Background/Need for Project: This project will implement wetland creation, restoration, and enhancement projects on parcels that will be owned by the Indian River Land Trust (IRLT). The enhancement will improve hydrologic and ecologic conditions of the project areas. This project is necessary to offset FDOT's mitigation needs pursuant to Ch. 373.4137, F.S. The District plans to utilize funding from the FDOT Mitigation fund for these project areas.

Plan Linkages: 2015 FDOT Annual Mitigation Plan, and FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Water Quality, Natural Systems

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District plans to budget $335,000 in FY 2018–2019.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Land Acquisition, Restoration, and Public Works

Activity: Surface Water Projects

Project Title: Halfmile Creek Property

Type: Wetland Restoration, Upland Buffer Restoration, Invasive Plant Management, and Hydrologic Restoration

Project Manager: Ryan Spohn

Physical Location: The project is planned to occur in Marion County at Halfmile Creek Conservation Area (HCMA). This property is located east of County Road (CR) 326 and north of State Road (SR) 40.

Square Footage/Physical Description: The enhancement/restoration at HMCA is expected to improve natural communities on approximately 487 acres.

Expected Completion Date: September 2022

Historical Background/Need for Project: This project will implement restoration and enhancement projects on District-owned lands that will improve hydrologic and ecologic conditions of the project areas. This project is necessary to offset FDOT's mitigation needs pursuant to Ch. 373.4137 F.S. The District plans to utilize funding from the FDOT Mitigation Program for this project.

Plan Linkages: 2017 and 2018 FDOT Annual Mitigation Plan, FY 2017–2018 Adopted Budget, and FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Water Quality, Natural Systems

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District plans to budget $101,980 in FY 2018–19, $50,000 in FY 2019–20, $30,000 in FY 2020–21, and $10,000 in FY 2021–22 to implement this project.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Acquisition, Restoration, and Public Works

Activity: Surface Water Projects

Project Title: Preliminary Engineering — Various

Type: Water Quality, Water Supply, Natural Systems, Flood Protection

Project Manager: Robert Zammataro

Physical Location: TBD

Square Footage/Physical Description: TBD

Expected Completion Date: Ongoing

Historical Background/Need for Project: To better plan, design, and complete projects, all future prospective project ideas will be developed and ranked first by the District's Project Planning Group. Top ranked projects will then be approved by the Executive Leadership Team (ELT) and may require preliminary designs to determine feasibility. The District intends to fund selected projects that are top ranked and approved by ELT for 10% conceptual designs and cost estimates. It is unknown what those projects may be at this time.

Plan Linkages: FY 2017–2018 Adopted Budget

Area(s) of Responsibility: Water Quality, Water Supply, Natural Systems, Flood Protection

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District has budgeted $250,000 in FY 2017–2018 and no additional expenditures are expected beyond FY 2017–2018.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Acquisition, Restoration and Public Works

Activity: Surface Water Projects

Project Title: Silver Springs Forest Conservation Area

Type: Stormwater Management

Program Manager: Steven R. Miller

Physical Location: Silver Springs Forest Conservation Area

Square Footage/Physical Description: Modification of existing drainage features to reduce siltation from 12 miles of roads and increase water retention. Proposed work includes improving existing and constructing additional stormwater treatment areas.

Expected Completion Date: September 2018

Historical Background/Need for Project: The Silver River has experienced reduced water quality in recent years. The Silver Springs Forest Tract was acquired in November 2015. Improvement is needed to address water quality issues and to capitalize on water storage opportunities.

Plan Linkages: FY 2017–2018 Adopted Budget

Area(s) of Responsibility: Natural Systems, Water Quality

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $770,000 in FY 2017–2018 using a combination of District revenues and the state's Land Acquisition Trust Fund and DEP funding for construction of improvements necessary to reduce siltation from roads and increase water retention.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): Approximately $50,000 in design and engineering

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): Approximately $10,000 a year.

Anticipated Additional Operating Costs/Continuing: An annual average of $5,000.

Program: Operation and Maintenance of Lands and Works

Activity: Land Management

Project Title: Field Activities - Land Management, Fencing

Type: Land Management

Program Manager: Steven R. Miller

Physical Location: Various Conservation Areas

Square Footage/Physical Description: Fencing to secure boundaries and contain cattle

Expected Completion Date: September 2019

Historical Background/Need for Project: As a part of securing boundaries or establishing fences in new cattle leases, District staff will identify areas requiring fence construction or replacement.

Plan Linkages: Individual Conservation Area Management Plans, FY 2017–2018 Adopted Budget, and FY 2018–2019 Preliminary Budget.

Area(s) of Responsibility: Natural Systems

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District has budgeted $114,000 in FY 2017–2018 and plans to budget $70,000 for FY 2018-2019 for various fencing projects.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): Approximately $5,000 a year

Anticipated Additional Operating Costs/Continuing: An annual average of $5,000.

Program: Operation and Maintenance of Lands and Works

Activity: Land Management

Project Title: Field Activities - Public Use Structures

Type: Recreational Facilities

Program Manager: Steven R. Miller

Physical Location: To be determined

Square Footage/Physical Description: Replacement of picnic pavilions, inclement weather shelters, boardwalks, and kiosks along existing public trails.

Expected Completion Date: September 2018

Historical Background/Need for Project: Many District lands are popular with the public and the need for picnic pavilions, inclement weather shelters, and kiosks arise based upon use. The District has constructed many facilities in the past, but some of the existing structures are aging and need to be replaced. The need to replace them arises on an infrequent basis. These facilities will replace existing facilities that have deteriorated over time.

Plan Linkages: Individual Land Management Plans, FY 2017–2018 Adopted Budget

Area(s) of Responsibility: Natural Systems

Alternative(s): None

Basic Construction Costs (includes permits, site preparation and other): The District has budgeted $100,000 in FY 2017–2018 for this project.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, and other): None.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, and expenses): None.

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Land Management

Project Title: Lake Jesup Conservation Area

Type: Wetland Restoration, Upland Buffer Restoration, Invasive Plant Management, Hydrologic Restoration

Project Manager: Ryan Spohn

Physical Location: The project is planned to occur in Seminole County (at Lake Jesup Conservation Area (LJCA)). This property is east of Lake Jesup in the Black Hammock area.

Square Footage/Physical Description: The enhancement/restoration at LJCA is expected to improve hydrology on approximately 25 acres.

Expected Completion Date: September 2021

Historical Background/Need for Project: This project will implement restoration and enhancement projects on District or jointly owned lands that will improve hydrologic and ecologic conditions of the project areas. This project is necessary to offset FDOT's mitigation needs pursuant to Ch. 373.4137 FS. The District plans to utilize funding from the Florida Department of Transportation Mitigation Program for this project.

Plan Linkages: 2016 and 2017 FDOT Annual Mitigation Plan, FY 2017–2018 Adopted Budget, and FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Water Quality, Natural Systems

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $35,000 in FY 2017–2018 as part of the implementation of the project and plans to budget an additional $45,000 in FY 2018–2019, $15,000 in FY 2019–20, and $15,000 in FY 2020–21 to complete the project.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Land Management

Project Title: Micco Water Management Area

Type: Wetland Restoration, Upland Buffer Restoration, and Invasive Plant Management

Project Manager: Ryan Spohn

Physical Location: The project is in Brevard County at Micco Water Management Area (MWMA). This property is south of Micco Road where the Sottile Canal discharges into the South Prong of the St. Sebastian River.

Square Footage/Physical Description: The enhancement and restoration project at MWMA is expected to plant trees within creation areas and control invasive exotic species on approximately 19.7 acres.

Expected Completion Date: September 2022

Historical Background/Need for Project: This project will implement restoration and enhancement projects on District-owned lands that will improve hydrologic and ecologic conditions of the project areas. This project is necessary to offset FDOT's mitigation needs pursuant to Ch. 373.4137 FS. The District plans to utilize funding from the FDOT Mitigation Program for this project.

Plan Linkages: 2016 and 2017 FDOT Annual Mitigation Plan FY 2017–2018 Adopted Budget and FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Water Quality, Natural Systems

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $32,500 in FY 2017–2018 as part of the implementation of the project and plans to budget an additional $55,000 in FY 2018–2019, $35,000 in FY 2019–20, $35,000 in FY 2020–21, and $35,000 in FY 2021–22 to control invasive species in plant creation areas.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: A-Frames for S96B and C

Type: Natural Systems, Flood Protection

Program Manager: Woody Boynton

Physical Location: Off the Fellsmere Grade, about eight miles west of Babcock Road near Fellsmere

Square Footage/Physical Description: Steel frames for anchoring needle beams, size varies per gate size.

Expected Completion Date: September 2018

Historical Background/Need for Project: A-Frames are independent to each structure and are required to hold the needle beams in place. A second set of needle beams are required for dewatering structures. Existing A-frames and needle beams at S96B and C currently do not meet the safety criteria established for this work and need to be replaced.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, and FY 2017–2018 Adopted Budget

Area(s) of Responsibility: Flood Protection, Natural Systems

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District has budgeted $85,000 for FY 2017–2018.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, and other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, and expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: Blue Cypress Water Management Area East (BCWMA-E) Sediment Curtains and Flow Way Repairs

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: Upper St. Johns River Basin **(**USJRB) in Indian River County

Square Footage/Physical Description: Northern area of the Blue Cypress Water Management Area East. This levee is approximately 2 miles long with a top width between 18-20 feet. Side slopes vary due to slope erosion.

Expected Completion Date: September 2019

Historical Background/Need for Project: The Blue Cypress Water Management Area East (BCWMA-E) is home to the endangered snail kite and is covered by a 1997 biological opinion issued by the U.S. Fish and Wildlife Service. The Blue Cypress Water Management Area East (BCWMA-E) Flow-Way isolates agricultural discharges from adjacent farmlands and directs the discharge to the S-251 and into Blue Cypress Water Management Area West. Keeping as much agricultural discharge out of BCWMA-E as possible is critical to meeting the environmental criteria in the biological opinion.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Flood Protection, Natural Systems, Water Quality

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District plans to budget $195,000 in FY 2018–2019 for this project.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, and other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, and expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: Burrell Lock Rehabilitation

Type: Infrastructure Renovation

Program Manager: Robert Zammataro

Physical Location: Burrell Lock is located on Haines Creek between Lake Griffin, to the north, and Lake Eustis, to the south, just south of SR 44 in Lake County.

Square Footage/Physical Description: The Burrell Lock & dam structure has two miter gates and two slide gates on the upstream side of the lock and two miter gates and slide gates on the downstream side of the lock. The lock holds up to 80,000 gallons of water and has an elevation change of four feet between the upstream and downstream water levels.

Expected Completion Date: September 2022

Historical Background/Need for Project: Burrell Lock was completed in 1956 and is the main outlet for discharges from Lake Dora, Lake Eustis and Lake Harris. Burrell Lock & dam is a primary control structure within the Upper Ocklawaha River Basin.

The Burrell Lock rehabilitation includes locks, concrete, and all ancillary items associated with the structure.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan

Area(s) of Responsibility: Flood Protection

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District is proposing $1.9 million in FY 2021–2022 for this project.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, and other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, and expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: Emeralda Road Upgrades

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: Upper Ocklawaha River Basin in Lake and Marion counties

Square Footage/Physical Description: In the Emeralda Marsh Conservation Area there are approximately 8-10 miles of internal roadways that need to be improved for public access.

Expected Completion Date: September 2019

Historical Background/Need for Project: The District and the FWC recently breached several levees within the Emeralda Marsh Conservation Area to reconnect former floodplain wetlands to Lake Griffin. These actions will force different traffic patterns. The road and trail systems need to be reconstructed to accommodate this new traffic pattern.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Flood Protection, Natural Systems, Water Quality

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District is planning to budget $125,000 in FY 2018–2019.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, and other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, and expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: Levee Repairs

Type: Infrastructure Renovation

Program Manager: Dave Watt

Physical Location: Upper St. Johns River Basin (USJRB) in Indian River, Brevard and Osceola counties, Upper Ocklawaha River Basin (UORB) in Lake and Marion counties.

Square Footage/Physical Description: There are more than 100 miles of federal flood protection levees located within the USJRB and UORB. Periodic and routine inspections of these systems performed by USACE and District staff have indicated that some of these levees do not meet current USACE guidelines and require improvements and rehabilitation. The District plans to rehabilitate approximately 20 miles or more of levees per year over the next five years.

Expected Completion Date: September 2020

Historical Background/Need for Project: The District is the local sponsor of the federal levees and is responsible for maintaining the levees and appurtenant structures per USACE guidelines. This rehabilitation work is to address deficiencies associated with levee height, slope geometry, vegetation cover, encroachments, animal control, culverts, and other appurtenant works. Following the rehabilitation work, it is assumed that the levees will be maintained under improved routine and prescriptive maintenance in accordance with USACE guidelines. A minimum of 20 miles of levee rehabilitation per year over the next five years may be needed, including capping, side slopes, vegetation, encroachment removal, animal control, and culvert repairs as dictated by underwater inspection.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2017–2018 Adopted Budget, and FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Flood Protection, Natural Systems, Water Quality, Water Supply

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District has budgeted $425,000 for FY 2017–2018 and plans to budget an additional $250,000 in FY 2018–2019 and $700,00 in FY 2019–2020.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, and other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, and expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: Gopher Tortoise Relocation

Type: Natural Systems, Flood Protection, Water Quality, Water Supply

Program Manager: Woody Boynton

Physical Location: Upper St. Johns River Basin (USJRB) in Indian River, Brevard, and Osceola counties, Upper Ocklawaha River Basin (UORB) in Lake and Marion counties.

Square Footage/Physical Description: There are more than 100 miles of federal flood protection levees located within the USJRB and UORB. Periodic and routine inspections of these systems performed by the USACE and District staff have indicated that some of these levees and structures do not meet current USACE guidelines and require improvements and rehabilitation. Trapping and relocating gopher tortoises is focused on levees in Osceola County.

Expected Completion Date: September 2020

Historical Background/Need for Project: District staff developed a plan through the Flood Protection/Levee Structure Rehabilitation Initiative to address the presence of gopher tortoises, a state threatened species, on the USACE and other District levee systems. Subject levees span approximately 103 miles and occur in Indian River, Osceola, Orange, Brevard, and Marion counties. In January 2016, the District entered into a Memorandum of Agreement (MOA) with the FWC to facilitate the relocation of gopher tortoises from the subject federal levees and other District levees. The MOA is a 10-year agreement and provides the District two 5-year permits. Within each 5-year permit, the District must provide donor site population estimates and corresponding reserved capacity at an FWC-permitted gopher tortoise recipient site. The capacity reservation must accommodate the total number of gopher tortoises requested in the 5-year permit and span the life of the 5-year permit. Current levee evaluations for burrows will require relocation through FY 2019–2020. Each year following, within the permit time frame, the District will evaluate levee structures to identify active gopher tortoise burrows. As needed, staff will trap and relocate the gopher tortoises, and fill borrows with non-shrinking grout to repair the levees.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2017–2018 Adopted Budget, and FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Flood Protection, Natural Systems, Water Quality, Water Supply

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District has budgeted $160,000 for FY 2017–2018, and plans to budget an additional $100,000 in FY 2018–2019 and $100,000 in FY 2019–2020.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, and other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, and expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: Lime rock and Coquina for Roadways

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: Various

Square Footage/Physical Description: The cost of lime rock/coquina varies depending on location, the District has paid between $8.50 per ton (at the pit) to $18.00 per ton (delivered).

Expected Completion Date: September 2018

Historical Background/Need for Project: The District purchases lime rock and coquina to improve access roads to properties. Improving access minimizes routine maintenance and provides stable road surfaces for access by District staff and the public.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2017–2018 Adopted Budget

Area(s) of Responsibility: Flood Protection

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District has budgeted $250,000 in FY 2017–2018.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, and other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, and expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: Minor Water Control Structure Rehabilitation

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: Upper St. Johns River Basin (USJRB) in Indian River, Brevard and Osceola counties, Upper Ocklawaha River Basin (UORB) in Lake and Marion counties.

Square Footage/Physical Description: There are 12 major water control structures and 55 minor water control structures located within the USJRB and UORB. Of these, there are eight large vertical lift gates that are part of the USJRB federal flood control project, three spillways with navigational locks as part of the UORB system, and one overshot gate and weir that are part of the Harris Bayou project. At a minimum, the District will complete repair work at S-259 and internal banding or other repair work at nine other structures identified with a condition rating of C-3.

Expected Completion Date: September 2021

Historical Background/Need for Project: Beginning in October 2014, Infrastructure Engineers Inc. performed underwater inspections of all minor water control structures for the District. During these inspections, commercial divers utilizing surface-supplied diving equipment performed complete and thorough inspections of the interior and exterior portions of the water control structures as well as the surrounding channel and instrumentation. Pipe culverts less than 24 inches in diameter were also completely and thoroughly inspected. The interior portions of water control structure less than 24 inches utilized a telescopic camera system for the inspection and the exterior portions of the water control structure utilized surface-supplied diving equipment. The defects and conditions of the structures inspected were recorded and conveyed through written condition reports and video taken during the inspections.

The District will be correcting the major defects noted during these inspections. The work associated with rehabilitation and repair of the minor water control structures includes, but is not limited to, replacement, slip-lining, or minor structural repairs.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2017–2018 Adopted Budget, and FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Flood Protection

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District has budgeted $175,000 in FY 2017–2018 and plans to budget $200,000 in FY 2018–2019 with an additional $300,000 in FY 2019-2020 and FY 2020–2021.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, and other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, and expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: Pump Management/Remote Gate Operations

Type: Infrastructure Renovation

Program Manager: John Richmond

Physical Location: Upper St. Johns River Basin (USJRB) in Indian River, Brevard and Osceola counties, Upper Ocklawaha River Basin (UORB) in Lake and Marion counties.

Square Footage/Physical Description: Approximately 15 water control systems will be upgraded

Expected Completion Date: September 2019

Historical Background/Need for Project: This work will allow the District to upgrade or maintain several pump stations and gated flood protection systems prior to them becoming inoperable. The initial priority is to upgrade remote operation software and hardware. Many of the systems are outdated and parts are no longer available for repair. Thereafter, the District will schedule various pump systems for routine upgrades. Having a reliable system is of the utmost priority during high water or discharge events.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Flood Protection, Natural Systems, Water Quality, Water Supply

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District plans to budget $150,000 in FY 2018–2019.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, and other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, and expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: S-255 Culvert Rehabilitation

Type: Infrastructure Renovation

Program Manager: Hector Herrera

Physical Location: Upper St. Johns River Basin (USJRB) in Indian River, Brevard, and Osceola counties.

Square Footage/Physical Description: This structure was built in 1992 and is located under L-74-N to control the S-255 flow-way. Access is by way of L-74-N. The structure consists of four 72-inch metal culverts set at an invert elevation of 13.0 feet with flap gates on their western ends. Maximum total flow is estimated at 350 cubic feet per second (cfs).

Expected Completion Date: September 2018

Historical Background/Need for Project: During the FY 2014–2015 inspections, these culverts and associated appurtenances were identified to be replaced due to possible failure and/or operational concerns.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2017–2018 Adopted Budget

Area(s) of Responsibility: Flood Protection and Natural Systems

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $525,000 in FY 2017–2018.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, and other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, and expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: S-96B Structure Rehabilitation

Type: Infrastructure Renovation

Program Manager: Robert Zammataro

Physical Location: S 96-B is located at the western end of L-74-E, just north of S-96-C.

Square Footage/Physical Description: The structure is a single vertical gate, (20.0 feet wide x 10.9 feet high, 9,000 lbs.) hydraulically controlled spillway with a maximum flow capacity of l,000 cfs.

Expected Completion Date: September 2019

Historical Background/Need for Project: S-96B was completed in 1990 and is the main outlet from the St. Johns Water Management Area (SJWMA) into the historic St. Johns River floodplain.

The S-96B gate rehabilitation includes gates, concrete and all ancillary items associated with the structure.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, and FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Flood Protection, Natural Systems, Water Quality, Water Systems

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District plans to budget $1,950,000 for FY 2018–2019.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, and other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, and expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: S-96C Drum and Cable

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: Upper St. Johns River Basin (USJRB) in Indian River, Brevard and Osceola counties.

Square Footage/Physical Description: S-96C at Blue Cypress Water Management Area, just south of S-96B.

Expected Completion Date: September 2019

Historical Background/Need for Project: The District is interested in converting certain major water control structures in the USJRB from a hydraulic lift system, or a gate, to a drum and cable winch system. This gate is in frequent use as all water from the Blue Cypress Lake system flows through this water control structure. Because of the drifting of the gate hydraulics, constant monitoring is required and frequent adjustments are necessary to maintain flood control flows. The District has evaluated replacing the hydraulic cylinders on the existing hoist mechanism, but has determined that a drum and cable system will be more reliable and appropriate for the structure.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, and FY 2018–2019 Preliminary Budget

Area(s) of Responsibility: Flood Protection, Natural Systems, Water Quality, Water Supply

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District plans to budget $200,000 in FY 2018-2019.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, and other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, and expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: S-96C Structure Rehabilitation

Type: Infrastructure Renovation

Program Manager: Robert Zammataro

Physical Location: S 96-C is located at the eastern end of L-74-W at the tie back levee that connects to the south side of S-96-B.

Square Footage/Physical Description: The structure is a single vertical gate, (25.75 feet wide x 13.75 feet high, 24,000 lbs.) hydraulically controlled spillway with a maximum flow capacity of l,500 cfs.

Expected Completion Date: September 2020

Historical Background/Need for Project: S-96C was completed in 1992 and is located at the eastern end of L-74W at the tie back levee that connects to the south side of S-96B. The structure consists of one hydraulically operated vertical gate with a flow capacity of 1,500 cfs. S-96C serves as the main outlet for the Blue Cypress Marsh Conservation Area.

The S-96C gate rehabilitation includes gates, concrete and all ancillary items associated with the structure.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan

Area(s) of Responsibility: Flood Protection, Natural Systems, Water Quality, Water Supply

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District proposes to budget $2.15 million for FY 2019–2020.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, and other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, and expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: S-96D Structure Rehabilitation

Type: Infrastructure Renovation

Program Manager: Robert Zammataro

Physical Location: S 96-B is located on L-75, five miles south of Structure 96 between L-75 and L-76, and is normally accessed by way of L-75, in Indian River County.

Square Footage/Physical Description: The structure is a single vertical gate, (15.75 feet wide x 12.25 feet high, and weighs 11,160 pounds) hydraulically controlled spillway with a maximum flow capacity of l,000 cfs.

Expected Completion Date: September 2021

Historical Background/Need for Project: S-96D was constructed in 1993 and is located just west of S-3. S-96D is designed to release water from the Blue Cypress Water Management Area to the St. Johns Water Management Area through C-65, a canal formed between L-75 and L-76. Maximum flow is 1,000 cfs.

The S-96D gate rehabilitation includes gates, concrete, and all ancillary items associated with the structure.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan

Area(s) of Responsibility: Flood Protection, Water Quality, Water Supply, Natural Systems

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District proposes to budget $2.1 million for FY 2020–2021.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, and other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, and expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: Slip Line Piping at Fellsmere Grade

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: Upper St. Johns River Basin (USJRB) in Indian River, Brevard and Osceola counties.

Square Footage/Physical Description: Several locations on the Fellsmere Grade, west of Babcock Road in Indian River County.

Expected Completion Date: September 2021

Historical Background/Need for Project: These pipes (four sets) are showing signs of deterioration and need to be replaced. Fellsmere Grade is the main access to several properties in the USJRB.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2017–2018 Adopted Budget, and FY 2018–2019 Preliminary Budget.

Area(s) of Responsibility: Flood Protection, Natural Systems

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District has budgeted $230,000 for FY 2017–2018, and plans to budget an additional $200,000 in FY 2018–2019, FY2019-2020, and FY 2020–2021 respectively.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, and other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, and expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: Vegetation Barriers

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: Upper St. Johns River Basin (USJRB in Indian River and Brevard counties.

Square Footage/Physical Description: S-96D in the USJRB.

Expected Completion Date: September 2020

Historical Background/Need for Project: Existing waterway barriers do not have appropriate vegetation screens. The new barriers will prevent vegetation from floating onto District structures and creating vegetation dams that prevent the release of water.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2017–2018 Adopted Budget

Area(s) of Responsibility: Flood Protection, Natural Systems, Water Quality

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $45,000 in FY2017-2018 and plans to budget an additional $30,000 inn FY 2019–2020.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, and other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, and expenses): None

Anticipated Additional Operating Costs/Continuing: None

Program: Operation and Maintenance of Lands and Works

Activity: Facilities Management

Project Title: Pole Barn Installation

Type: Infrastructure Renovation

Program Manager: Samuel Morris

Physical Location: District Headquarters in Palatka and Sunnyhill Field Station

Square Footage/Physical Description: 2,500 square feet in Palatka and 2,000 square feet at the Sunnyhill Field Station.

Expected Completion Date: September 2018

Historical Background/Need for Project: The pole barns are needed to protect equipment from the elements and to extend the lifecycle of equipment.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2017–2018 Adopted Budget

Area(s) of Responsibility: None

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District has budgeted $100,000 for FY 2017–2018 to complete the project.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, and other): None

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, and expenses): None

Anticipated Additional Operating Costs/Continuing: None

V. Appendix A

STANDARD FORMAT PROGRAM DEFINITIONS FOR PROGRAMS AND ACTIVITIES

1.0 Water Resources Planning and Monitoring
This program includes all water management planning, including water supply planning, development of minimum flows and levels, and other water resources planning; research, data collection, analysis, and monitoring; and technical assistance (including local and regional plan and program review).

1.2 Research, Data Collection, Analysis and Monitoring
Activities that support District water management planning, restoration, and preservation efforts, including water quality monitoring, data collection and evaluation, and research.

2.0 Acquisition, Restoration and Public Works
This program includes the development and construction of all capital projects (except for those contained in Program 3.0, including water resource development projects/water supply development assistance, water control projects, support and administrative facilities construction, cooperative projects, land acquisition (including SOR and FF), and restoration of lands and waterbodies.

2.1 Land Acquisition
The acquisition of land and facilities for the protection and management of water resources. This activity category does not include land acquisition components of "water resource development projects," "surface water projects," or "other cooperative projects."

2.2.1 Water Resource Development Projects
Regional projects designed to create, from traditional or alternative sources, an identifiable, quantifiable supply of water for existing and/or future reasonable-beneficial uses. These projects do not include the construction of facilities for water supply development, as defined in section 373.019(21), *Florida Statutes*. Such projects may include the construction, operation, and maintenance of major public works facilities that provide for the augmentation of available surface and groundwater supply or that create alternative sources of supply. Water resource development projects are to be identified in water management district regional water supply plans or district water management plans, as applicable.

2.3 Surface Water Projects
These projects restore or protect surface water quality, flood protection, or surface-water related resources through the acquisition and improvement of land, construction of public works, and other activities.

3.0 Operation and Maintenance of Lands and Works
This activity includes all operation and maintenance of facilities, flood control and water supply structures, lands, and other works authorized by Chapter 373, F.S.

3.1 Land Management

Maintenance, custodial, public use improvements, and restoration efforts for lands acquired through Save Our Rivers, P2000, Florida Forever or other land acquisition programs are included in this activity.

3.2 Works

The maintenance of flood control and water supply system infrastructure, such as canals, levees, pump stations, and water control structures. This includes electronic telemetry/communication and control activities.

3.3 Facilities Management

The operation and maintenance of District support and administrative facilities.

Annual Five-Year Water Resource Development Work Program

4. ANNUAL FIVE-YEAR WATER RESOURCE DEVELOPMENT WORK PROGRAM

Table of Contents

Tables

I. Introduction

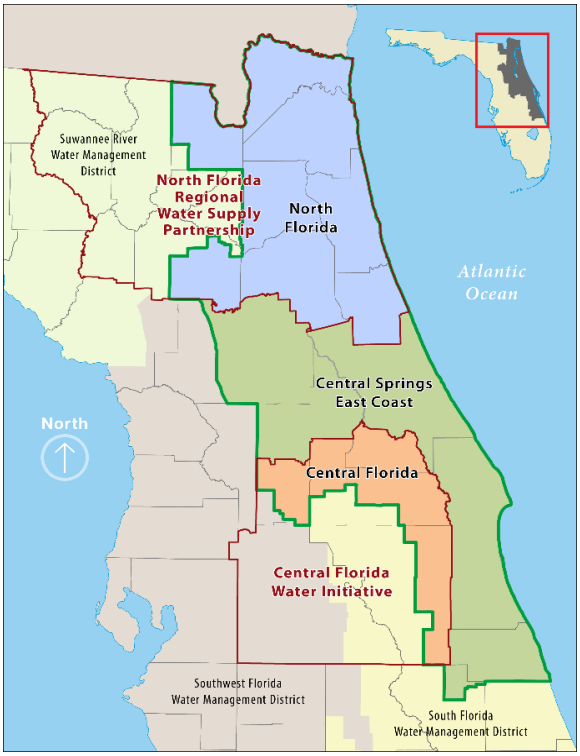
Section 373.536(6)(a)4, *Florida Statutes* (F.S.), requires each water management district to prepare an annual Five-Year Water Resource Development Work Program (WRDWP). Accordingly, this report presents the St. Johns River Water Management District's (District) Work Program for fiscal years 2018–2022 (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 by late-summer 2018.



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 (MFL) prevention and recovery strategies

The District believes that this work program is adequate to achieve the MFLs identified as either in recovery or prevention, and ensure water is available to timely meet the water supply needs of existing and future reasonable-beneficial uses for a 1-in-10-year drought event and avoid the adverse effects of competition for water supplies based on the District's established MFLs.

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 $214 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;
- Develop prevention / recovery strategies when the flow or level of a MFL water body does not currently meet or is projected not to meet the adopted MFL for that water body; 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 and Tri-County Agricultural programs

Update since 2017 WRDWP

Since completion of the 2017 WRDWP the District has approved the NFRWSP at a joint Governing Board meeting between the SRWMD and the SJRWMD. The new CSEC planning region was established to meet the requirements of F.S. Chapters 163 and 373 for the counties not included in the north Florida or central Florida regions. Stakeholder outreach has been conducted in northern Lake County, Marion and Volusia Counties. Discussions with local governments and utilities included identification of potential projects that would aid in achieving those MFLs whose status is prevention or recovery. Additionally, efforts are underway to

complete the CFWI 2020 water supply plan by FY2020. Completion of the groundwater flow model to support the resource assessment for the CFWI WSP plan is slated for mid 2018 which will provide the regional tool necessary to assess the benefits of those projects identified in the WSP to achieve the MFLs. Water resource development projects are regional in nature and are primarily the District's responsibility. 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 continues to encourage the submittal of water conservation project applications for cost share funding.

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 RWSPs and WRDWP). The District operates and maintains nearly 1,200 hydrologic surface and groundwater monitoring stations, and processes data from over 350 additional sites collected by other agencies. More than 7.5 million measurements are collected, verified, processed, and stored each year. The District also acquires and manages an intensive radar rainfall database, composed of hourly data for over 21,000 gridded locations every year.

The District's water quality monitoring network is comprised of over 350 surface water 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 identifies and resolves gaps in groundwater knowledge, through well drilling and hydrogeologic investigations. The 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.

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 for this program has been reduced for FY18 as a result.

Potable Reuse Projects

The District is investigating the feasibility of implementing direct or indirect potable reuse projects as a method to increase available AWS in the District. Using the District's cost-share program, the Governing Board funded three direct reuse pilot projects aimed at determining the feasibility of implementing direct potable reuse. These projects include the Altamonte Springs Potable Reuse Pilot Project, the Daytona Beach Potable Reuse Demonstration Testing Facility, and the JEA Water Purification Treatment Evaluation and Pilot Testing Project. The Altamonte Springs Project was completed in FY17. Altamonte Springs' pure Alta project was awarded the WateReuse Foundation's Innovative Project of the year for 2017. This is the first time a project in Florida was given this prestigious award.

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

					Strategies				
Project Name	**District Water Supply Planning Region Supported by Project**	**Project Type**	**MFL Supported**	**Water Identified or Made Available (mgd)**	**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	Rock, Wekiwa Springs	5.00			*		
Baldwin - Brandy Branch Reuse	NF	AWS-Reclaimed Water		0.25			*		
Bunnell Reclaimed Water Main Extension	NF	AWS-Reclaimed Water		1.14		*	*		
Black Creek Water Resource Development Project*	NF	WRD - Surface Water	Brooklyn, Geneva, Lower Santa Fe Ichetucknee (LSFI)	7.00		*		*	
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	Brooklyn, Geneva	0.05			*		
Clay County Utility Authority Old Jennings Reclaimed Water Plant Ground Storage Tank	NF	AWS-Reclaimed Water		0.75			*	*	
Crane Creek M-1 Canal Flow Restoration*	CSEC	WRD - Surface Water		8.80			*		
Daytona Beach Bennett Swamp Rehydration and Conservation	CSEC	WRD - Surface Water	Indian Lake	6.00			*		
Daytona Beach Potable Reuse Demo Testing Facility	CSEC	AWS - Potable Reuse	Indian Lake	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	Blue Springs	0.12			*		
Deland Reclaimed Water Retrofit Project Phase 2B	CSEC	AWS-Reclaimed Water	Blue Springs	0.17			*		
Deland RCW Main Extension Phase 3 & 3A	CSEC	AWS-Reclaimed Water	Blue Springs	0.14			*		
Deland St Johns River Intake and Surface Water Filtration System Upgrades	CSEC	AWS- Surface Water		1.50			*		
Deltona - West Volusia Water Suppliers Project 4A Deltona Storage and Treatment System Improvements	CSEC	AWS-Reclaimed Water	Blue Springs	4.00			*		
Dispersed Water Storage Project - Fellsmere*	CSEC	AWS- Surface Water		18.00			*		
Dispersed Water Storage Project - Graves Brothers*	CSEC	AWS- Surface Water		5.00			*		
Eustis Eastern WWTP Upgrade	CSEC	AWS-Reclaimed Water		1.00		*	*		
Fellsmere Water Management Area*	CSEC	WRD-Restoration		N/A	*	*		*	
Gainesville Suburban Heights Beville Creek Restoration	NF	WRD - Surface Water	LSFI, Brooklyn, Geneva	0.002		*	*		
Green Cove Springs North Grid RCW System Phase 2 & 3	NF	AWS-Reclaimed Water	Brooklyn, Geneva	0.14			*		
JEA Gate Pkwy - Shiloh Mill Blvd to Town Ctr Pkwy - RCW	NF	AWS-Reclaimed Water	Brooklyn, Geneva	0.03		*	*		

**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

					Strategies				
Project Name	District Water Supply Planning Region Supported by Project	Project Type	MFL Supported	Water Identified or Made Available (mgd)	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
JEA Hidden Hills - RCW	NF	AWS-Reclaimed Water	Brooklyn, Geneva	0.36		*	*		
JEA Mandarin Wastewater Treatment Plant Upgrades	NF	AWS-Reclaimed Water		3.05		*			
JEA RG Skinner Parkway RW Trans	NF	AWS-Reclaimed Water	Brooklyn, Geneva	0.47			*		
JEA RiverTown Phase 3 - Parcel 23 - RCW	NF	AWS-Reclaimed Water	Brooklyn, Geneva	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		*	*		
Marion County US 441 Water Main Interconnect	CSEC	AWS-Reclaimed Water	Silver Springs	0.12			*		
Minneola Septic to Sewer	CF	AWS-Reclaimed Water		0.40			*		
Mount Dora RCW Interconnect with Apopka	CF, CSEC	AWS-Reclaimed Water	Apshawa North	3.00			*		
Orange County Malcolm Rd Minimized Impact Project -Lower Floridan Wells	CF	WRD-Groundwater	Wekiwa, Rock	4.00		*	*		
Ocala Septic Tank and Well Elimination Program	CSEC	WRD-Groundwater	Silver Springs	2.30		*			
Ocala Wetland Recharge	CSEC	WRD-Surface Water	Silver Springs	5.000		*	*		
Ormond Beach South Peninsula Reclaimed Water Expansion	CSEC	AWS-Reclaimed Water	Indian Lake	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 Bannon Lakes RCW Pump Station	NF	AWS-Reclaimed Water		0.09		*	*		
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	Blue Springs	0.10			*		
Winter Garden Reuse Distribution Retrofit	CF	AWS-Reclaimed Water		0.06		*	*		

**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

					Strategies				
Water Conservation	**District Water Supply Planning Region Supported by Project**	**Project Type**	**MFL Supported**	**Water Conserved (mgd)**	**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**
Alachua County Landscape Irrigation Retrofit Rebate Program	NF	WC		0.045		*			*
Alachua County Water Star Rebate Program	NF	WC	LSFI	0.020		*			*
Cocoa Toilet Rebate Program	CSEC	WC		0.001		*			
GRU Conservation Visualization Tool	CSEC	WC		0.140		*			
Gainesville Regional Utilities Indoor Plumbing Retrofit Program	NF	WC	LSFI	0.032		*			*
Hastings Water Main Replacements	NF	WC		0.002		*		*	
Hawthorne Downtown Water Main Replacements	NF	WC		0.013		*		*	
Macclenny System-wide Water Valve Replacements	NF	WC		0.006		*		*	
Marion County Enhanced Irrigation Evaluation Program	CSEC	WC	Silver Springs	0.019		*			*
Orange County Utilities - Toilet Replacement Program	CF	WC		0.005		*			*
Orange County Utilities - Waterwise Neighbor Program	CF	WC		0.004		*			*
Orange County Utilities - Waterwise Neighbor Program (new & retrofit) Ph 2	CF	WC		0.153		*			
OUC Irrigation Conservation Phase 2	CF	WC		0.060		*			
Santa Fe College NW Campus Plumbing Fixture Retrofit	NF	WC		0.002		*			*
Winter Garden Water Conservation Program Expansion (Ph II)	CF	WC		0.055		*			
Hydrologic and Water Quality Data Collection, Monitoring and Analysis **	**N/A**	**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	$ 5,000,000	$ 10,000,000	$ 10,000,000	$ 10,000,000	$ 40,000,000
C-10 Reservoir Project*	2.2.1 / WRD Projects	$ 200,000	9900000	$ 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
Crane Creek M-1 Canal Flow Restoration*	2.3.0 / SW Projects	$ 700,000	$ 2,900,000	$ 3,700,000			$ 7,300,000
Daytona Beach Bennett Swamp Rehydration and Conservation	2.3.0 / SW Projects	$ 1,761,060					$ 1,761,060
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
Deltona - West Volusia Water Suppliers Project 4A Deltona Storage and Treatment System Improvements	2.2.1 / WRD Projects	$ 3,595,550					$ 3,595,550
Dispersed Water Storage Project - Fellsmere*	2.2.1 / WRD Projects	$ 4,100,000	$ 730,500	$ 730,500	$ 730,500	$ 730,500	$ 7,022,000
Dispersed Water Storage Project - Graves Brothers*	2.2.1 / WRD Projects	$ 203,000	$ 203,000	$ 203,000	$ 203,000	$ 203,000	$ 1,015,000
Eustis Eastern WWTP Upgrade	2.3.0 / SW Projects	$ 1,568,066					$ 1,568,066
Fellsmere Water Management Area*	2.2.1 / WRD Projects	$ 1,800,000	$ 2,200,000				$ 4,000,000
Gainesville Suburban Heights Beville Creek Restoration	2.3.0 / SW Projects	$ 14,988					$ 14,988
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 Septic Tank and Well Elimination Program	2.3.0 / SW Projects	$ 2,377,332					$ 2,377,332

** 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 FY 17-18	FY 18-19	FY 19-20	FY 20-21	FY 21-22	Subtotal
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
St. Johns County Bannon Lakes RCW Pump Station	2.3.0 / SW Projects	$ 561,075					$ 561,075
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	$ 6,600,000	$ 500,000	$ 2,400,000		$ 10,800,000
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
Winter Garden Reuse Distribution Retrofit	2.2.1 / WRD Projects	$ 473,485	$ 151,515				$ 625,000
Cost Share Placeholder for AWS, WRD and WC projects - (Ad Valorem)	2.2.1 / WRD Projects	$ -	$ 9,400,000	$ 9,400,000	$ 9,400,000	$ 9,400,000	$ 37,600,000
Cost Share Placeholder for AWS, WRD and WC projects- Springs (State Funds)	2.2.1 / WRD Projects	$ -	$ 6,000,000	$ 6,000,000	$ 6,000,000	$ 6,000,000	$ 24,000,000
AWS and WRD Projects - Total		***$ 37,908,943***	***$ 48,781,900***	***$ 38,533,500***	***$ 36,833,500***	***$ 26,333,500***	
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
Hastings Water Main Replacements	2.2.1 / WRD Projects	$ 322,245					$ 322,245
Hawthorne Downtown Water Main Replacements	2.2.1 / WRD Projects	$ 153,800					$ 153,800
Macclenny System-wide Water Valve Replacements	2.2.1 / WRD Projects	$ 483,000					$ 483,000
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		***$ 1,740,246***	***$ 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		**$ 44,435,468**	**$ 53,875,125**	**$ 43,319,780**	**$ 41,619,780**	**$ 31,119,780**	**$ 214,369,933**

** 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 January 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.

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 WRD 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 began 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. The project is not listed in Appendix C because it was listed in prior year budget reports.

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. The project is not listed in Appendix C because it was listed in prior year budget reports.

Crane Creek M-1 Canal Flow Restoration
Status: Anticipated project completion is September 2020
WSPR: Central Springs East Coast
The proposed project will pump water from the C-54 through the Mary A mitigation bank and discharge into the S-255 flow-way and into the St. Johns River reducing freshwater inflows to the Sebastian River from the Upper St. Johns River Basin. Construction is scheduled to begin in March 2019.

Daytona Beach Bennett Swamp Rehydration and Conservation
Status: Anticipated project completion is March 2018
WSPR: Central Spring East Coast
The project will include installation of 19,000 linear feet of pipes, dispersal units, and over 50 flow regulating valves and meters to disperse treated reclaimed water from the City's Westside regional wastewater treatment plant into 1,100 acres of the Bennett Swamp (a forested wetland) at an average annual rate of 6 MGD. Construction began in October 2017.

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.

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.

Deltona - 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.

Dispersed Water Storage Project – Fellsmere
Status: Anticipated completion is September 2018
WSPR: Central Springs East Coast
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 using two pilot projects. The FJV project will create a ~2000-acre reservoir that should store about 18MGD on an annual basis. Nutrient reductions should be approximately 24 MT nitrogen and 3 MT phosphorus annually. This project is located in Indian River County in the Upper St Johns River Basin. Construction is scheduled to begin in March 2018.

Dispersed Water Storage Project – Graves Brothers.
Status: Anticipated completion is September 2018
WSPR: Central Springs East Coast
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 using two pilot projects. The Graves Brothers project will create a ~200-acre reservoir that should store about 5MGD on an annual basis. Nutrient reductions should be approximately 3 MT nitrogen and 1 MT phosphorus annually. This project is located in Indian River County in the Sebastian Water Control District. Construction is scheduled to begin in March 2018.

Eustis Eastern WWTP Upgrade
Status: Anticipated completion is June 2018
WSPR: Central Springs East Coast
The project consists of a major expansion to the capacity of the City of Eustis WWTP to serve Sorrento area, a high growth area of Lake County (City of Eustis service area). This capacity increase will provide wastewater treatment for planned construction and will therefore prevent the need to install septic tanks within the Wekiva Springshed. At design capacity, this project will also provide 1 mgd of public access reuse water for irrigation. Construction began in December 2016.

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.

Gainesville Suburban Heights Beville Creek Restoration
Status: Anticipated project completion is November 2017
WSPR: North Florida
A 1000’ long creek restoration project that utilizes Regenerative Stormwater Conveyances (RSC) principals in conjunction with Biosorption Activated Media (BAM) to reduce erosive conditions, improve water quality, promote groundwater recharge, and enhance the ecological and biodiversity within Beville Creek. Construction began in February 2017.

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. The project is not listed in Appendix C because it was listed in prior year budget reports.

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. The project is not listed in Appendix C because it was listed in prior year budget reports.

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 December 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 December 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 began 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 began 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.

Ocala Septic Tank and Well Elimination Program
Status: Anticipated project completion is September 2018
WSPR: Central Springs East Coast
The project consists of the removal of approximately 850 septic tanks and 150 domestic self-supply wells in the Silver Springs springshed. Construction began in April 2015.

Ocala Wetland Recharge
Status: Anticipated project completion is June 2019
WSPR: 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.

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 an eighteen-month extension is required to complete the project. The project is not listed in Appendix C because it was listed in prior year budget reports.

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. The project is not listed in Appendix C because it was listed in prior year budget reports.

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 Bannon Lakes RCW Pump Station
Status: Anticipated project completion is July 2018
WSPR: North Florida
This project will construct a 2.5 MG reclaimed water storage tank and install a 2,500 GPM booster pump, control valve, electrical building, and associated work. Construction began in May 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. The project is not listed in Appendix C because it was listed in prior year budget reports.

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 (ACOE) is completing the 408 review and providing comments to District staff that will require additional modeling and may impact the schedule. The agreement with ACOE for the 408 review took approximately a year which was not included in 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. The increase in construction budget and the requirement to get flowage easements from Deseret for potential downstream impacts has delayed the completion of the project.

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. The project is not listed in Appendix C because it was listed in prior year budget reports.

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.

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 devises, 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. The project is not listed in Appendix C because it was listed in prior year budget reports. Project schedule was updated once the executed contract was in place. Project began in March 2017.

Alachua County Water Star^{SM} Rebate Program
Status: Anticipated completion is February 2019
WSPR: North Florida
This project contains a financial incentive for builders to apply for Florida Water Star^{SM} 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. The project is not listed in Appendix C because it was listed in prior year budget reports. 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 began in 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. The project is not listed in Appendix C because it was listed in prior year budget reports. Project began in March 2017.

Hastings Water Main Replacements
Status: Anticipated completion is September 2018
WSPR: North Florida
The project is for the replacement of 6,215 LF of Asbestos Cement pipe with 6" PVC water mains. Construction began in October 2017

Hawthorne Downtown Water Main Replacements
Status: Anticipated completion is January 2018
WSPR: North Florida
The project will replace approximately 4,800 LF of existing water mains with new PVC water mains and new HDPE service lines to each customer. Construction began in July 2017

Macclenny System-wide Water Valve Replacements
Status: Anticipated completion is January 2018
WSPR: North Florida
Project will install insertion valves at key points within the system to create ten zones that can be isolated individually without having to put large sectors out of service. Construction began in October 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. The project is not listed in Appendix C because it was listed in prior year budget reports. 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. The project is not listed in Appendix C because it was listed in prior year budget reports. 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 fixtures and advanced irrigation equipment. The program will rebate 50 percent of the costs of replacing low-efficiency fixtures for approximately 300 new construction and 300 existing homes in Orange County. In Appendix C of the budget, this project was listed as two separate projects, one for new homes and one for existing homes. 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 began 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. The project is not listed in Appendix C because it was listed in prior year budget reports. 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.

V. Appendix A: Approved BMAP Related Projects

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 Bannon 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 Benefit Crescent Lake TMDL but no BMAP yet.	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 Malacompra 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

Alternative Water Supplies Annual Report

5. ALTERNATIVE WATER SUPPLIES ANNUAL REPORT

Table of Contents

Tables

I. INTRODUCTION

This report has been prepared in accordance with Section 373.707(8)(n), *Florida Statutes* and contains information about alternative water supply (AWS) projects funded by the St. Johns River Water Management District (District) through the Water Protection and Sustainability Program Trust Fund (WPSPTF) and other sources of funding since fiscal year (FY) 2005–2006.

Since FY 2005–2006, the District has awarded more than $138 million in cost-share funding for 156 AWS projects that will or have resulted in the production of 270 million gallons per day (mgd) of alternative water supplies.

Section 2 contains Table 2-1 and narratives that describe the AWS projects funded through the WPSPTF. The WPSPTF provides funding assistance for the construction of alternative water supplies and conservation projects that result in quantifiable water savings. The Water Protection and Sustainability Program was created in FY 2005–2006 by the Florida Legislature. The water management districts match the amount of funding allocated from the WPSPTF.

Section 3 contains Table 3-1 and narratives that describe the AWS projects funded by the District through the Alternative Water Supply Construction Cost-sharing Program, Central Florida Aquifer Recharge Enhancement Program, the Minimum Flows and Levels Alternative Water Supply Program, and the Cooperative Cost-Share Program. Further information on these funding sources is below.

- Alternative Water Supply Construction Cost-sharing Program (AWSCCP) — Beginning in 1996, the Florida Legislature directed the water management districts to provide funding for construction of AWS projects. The District established the AWSCCP and provided cost-share funding for construction of AWS projects from this program through FY 2007–2008. Only those projects funded since FY 2005–2006 are captured in this report.

- Central Florida Aquifer Recharge Enhancement (CFARE) Program — Cost-share funding was provided by the District in FY 2005–2006 for construction of reuse and recharge projects in Orange and Seminole counties.

- Minimum Flows and Levels Alternative Water Supply (MFLs AWS) Program — The District created the MFLs AWS Program in FY 2011–2012 to provide cost-share funding for projects that will result in a demonstrated benefit for prevention or recovery of MFL waterbodies that are currently not being met or are projected not to be met within 20 years.

- Cooperative Cost-Share Program (CCSP) — The District created the Cooperative Cost-Share program in FY 2013–2014 to provide cost-share funding for water conservation and construction projects that will contribute to water conservation, alternative water supply development, or water quality/nutrient-loading reduction. Only the alternative water supply development projects are captured in this report.

Section 4 contains a summary of AWS funding from the District for FY 2005–2006 through FY 2017–2018. Table 4-1 captures all AWS funding by fiscal year, funding source, and water source (brackish groundwater, reclaimed water, surface water, rainwater or stormwater).

II. AWS PROJECTS FUNDED THROUGH THE WATER PROTECTION AND SUSTAINABILITY PROGRAM TRUST FUND

Table 2-1: AWS projects funded through the Water Protection and Sustainability Program Trust Fund (WPSPTF)
FY 2005–2006 to FY 2017–2018 (in alphabetical order)

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	WPSP Fiscal Year	WPSP Amount	SJRWMD Amount	Local Sponsor Amount	Total Cost
Alafaya Utilities Reclaimed Water Line Installation	Reclaimed Water	Alafaya Utilities (Seminole County)	Complete	0.00	2005–2006	$ 52,638	$ 52,638	$ 594,724	$ 700,000
Alafaya Utilities Reclaimed Water Storage and High Service Pump	Reclaimed Water	Alafaya Utilities (Seminole County)	Complete	0.41	2005–2006	$ 140,000	$ 140,000	$ 1,120,000	$ 1,400,000
Belleview and Spruce Creek Golf Course Reclaimed Water System	Reclaimed Water	City of Belleview	Complete	1.00	2005–2006	$ 125,176	$ 125,176	$ 1,209,649	$ 1,460,001
CCUA CR209 RW Transmission Main	Reclaimed Water	Clay County Utility Authority	In Progress	0.05	2016-2017	$ 94,873	$ 94,873	$ 385,244	$ 574,990
CCUA Old Jennings RWSP GST	Reclaimed Water	Clay County Utility Authority	In Progress	0.75	2016-2017	$ 69,230	$ 69,230	$ 281,119	$ 419,579
Clermont East Side WRF Improvements	Reclaimed Water	City of Clermont	Complete	4.00	2006–2007	$ 300,000	$ 300,000	$ 2,400,000	$ 3,000,000
Clermont Reclaimed and Stormwater System Expansion	Reclaimed Water	City of Clermont	Complete	0.80	2006–2007	$ 203,619	$ 203,619	$ 2,992,762	$ 3,400,000
Clermont - South Lake Water Initiative Clermont Sunburst Wells 1 & 2	Brackish Groundwater	City of Clermont	In Progress	4.40	2015-2016	$ 990,000	$ 990,000	$ 3,960,000	$ 5,940,000
Cocoa and Rockledge Reclaimed Water Line Connection	Reclaimed Water	City of Cocoa	Complete	0.25	2007–2008	$ 87,839	$ 87,839	$ 1,354,322	$ 1,530,000
Coquina Coast Seawater Desalination	Seawater	City of Palm Coast	Canceled		2007–2008				$ -
Daytona Beach Reclaimed Water System	Reclaimed Water	City of Daytona Beach	Complete	0.20	2005–2006	$ 24,454	$ 24,454	$ 9,851,092	$ 9,900,000
Daytona Beach 2.5 MG Reuse Tank	Reclaimed Water	City of Daytona Beach	In Progress	2.50	2016-2017	$ 734,250	$ 734,250	$ 2,981,500	$ 4,450,000
Deland Reclaimed Water Storage and Recovery	Reclaimed Water	City of Deland	Complete	0.16	2014-2015	$ 169,125	$ 169,125	$ 686,750	$ 1,025,000
Dunes Community Development District Brackish Groundwater Project	Brackish Groundwater	Dunes CDD (Flagler County)	Complete	0.65	2005–2006	$ 1,342,853	$ 1,342,853	$ 4,314,294	$ 7,000,000
East Putnam Regional Water System	Brackish Groundwater	Putnam County	Complete	0.63	2005–2006	$ 3,140,000	$ 3,140,000	$ 9,420,000	$ 15,700,000
Eastern Orange and Seminole Counties Regional Reuse Project	Reclaimed Water	City of Orlando	Complete	20.00	2005–2006	$ 3,290,000	$ 3,290,000	$ 26,410,000	$ 32,990,000
Eustis Reclaimed Water System Expansion and Augmentation	Reclaimed Water	City of Eustis	Complete	1.10	2005–2006	$ 40,000	$ 40,000	$ 320,000	$ 400,000
Green Cove Springs North Grid RCW System Phase 2 & 3	Reclaimed Water	City of Green Cove Springs	In Progress	0.14	2016-2017	$ 330,000	$ 330,000	$ 1,340,000	$ 2,000,000
Greenwood Lakes Reclaimed Water System Improvements	Reclaimed Water	Seminole County	Complete	1.00	2005–2006	$ 116,000	$ 116,000	$ 1,398,000	$ 1,630,000
Groveland Eagle Ridge Water Distribution Facility Phase 3	Reclaimed Water	City of Groveland	In Progress	0.75	2015-2016	$ 587,235	$ 587,235	$ 2,384,530	$ 3,559,000
Groveland Silver Eagle RCW Storage Tank	Reclaimed Water	City of Groveland	Complete	1.50	2015-2016	$ 140,000	$ 140,000	$ 420,000	$ 700,000

Table 2-1: AWS projects funded through the Water Protection and Sustainability Program Trust Fund (WPSPTF)
FY 2005–2006 to FY 2017–2018 (in alphabetical order)

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	WPSP Fiscal Year	WPSP Amount	SJRWMD Amount	Local Sponsor Amount	Total Cost
Holly Hill and Ormond Beach Reclaimed Water System Expansion	Reclaimed Water	City of Holly Hill	Complete	0.60	2006–2007	$ 21,249	$ 21,249	$ 357,502	$ 400,000
International Corporate Park Reuse Transmission System	Reclaimed Water	Orange County	Complete	4.00	2005–2006	$ 227,631	$ 227,631	$ 3,744,738	$ 4,200,000
JEA Bartram Park Reclaimed Water Storage Tank Expansion	Reclaimed Water	JEA	Complete	0.53	2016-2017	$ 313,500	$ 313,500	$ 1,273,000	$ 1,900,000
JEA Mandarin WWTP Upgrades	Reclaimed Water	JEA	In Progress	3.05	2016-2017	$ 593,881	$ 722,119	$ 2,678,000	$ 3,994,000
JEA Nocatee North RW Storage Tank	Reclaimed Water	JEA	In Progress	1.80	2015-2016	$ 330,000	$ 330,000	$ 1,340,000	$ 2,000,000
JEA Nocatee Pkwy RW Transmission	Reclaimed Water	JEA	In Progress	1.65	2015-2016	$ 56,100	$ 56,100	$ 227,800	$ 340,000
JEA RG Skinner Parkway RW Trans	Reclaimed Water	JEA	Not Started	0.47	2016-2017	$ 330,000	$ 330,000	$ 1,340,000	$ 2,000,000
JEA William Burgess Road	Reclaimed Water	JEA	Not Started	0.46	2016-2017	$ 330,000	$ 330,000	$ 1,340,000	$ 2,000,000
Lady Lake Reclaimed Water System, Phase 2	Reclaimed Water	Town of Lady Lake	Complete	0.50	2005–2006	$ 200,000	$ 200,000	$ 1,600,000	$ 2,000,000
Lake Apopka North Shore Reuse Augmentation Facility	Reclaimed Water	City of Apopka	Complete	5.00	2006–2007	$ 2,450,000	$ 2,450,000	$ 11,440,000	$ 16,340,000
Lake Groves Wastewater Treatment Facility Reclaimed Water System Expansion	Reclaimed Water	Utilities Inc. of Florida (Lake County)	Complete	1.00	2005–2006	$ 490,000	$ 490,000	$ 3,920,000	$ 4,900,000
Leesburg Reclaimed Water Project	Reclaimed Water	City of Leesburg	Complete	7.05	2005–2006	$ 1,331,421	$ 1,331,421	$ 23,937,159	$ 26,600,001
Melbourne Reclaimed Water System Expansion	Reclaimed Water	City of Melbourne	Complete	1.50	2005–2006	$ 530,651	$ 530,651	$ 5,538,698	$ 6,600,000
Minneola Reclaimed Water Project	Reclaimed Water	City of Minneola	Complete	1.00	2005–2006	$ 780,000	$ 780,000	$ 6,220,000	$ 7,780,000
North Peninsula Reclaimed Water Storage Project	Reclaimed Water	City of Ormond Beach	Complete	0.49	2005–2006	$ 290,000	$ 290,000	$ 2,370,000	$ 2,950,000
North Seminole Regional Reclaimed Water and Surface Water Optimization System Expansion Project	Reclaimed Water	City of Sanford	Complete	4.00	2005–2006	$ 655,000	$ 655,000	$ 2,890,000	$ 4,200,000
Ocoee Reuse System Expansion	Reclaimed Water	City of Ocoee	Complete	0.60	2005–2006	$ 163,061	$ 163,061	$ 2,223,879	$ 2,550,001
Orange County Eastern WRF Reuse Pumping and Storage	Reclaimed Water	Orange County	Complete	2.50	2005–2006	$ 340,000	$ 340,000	$ 2,720,000	$ 3,400,000
Orange County Utilities Malcom Rd Minimized Impact Project LFW	Brackish Groundwater	Orange County Utilties	In Progress	4	2014-2015	$ 247,500	$ 247,500	$ 1,005,000	$ 1,500,000
Orange County Utilities Malcom Rd Minimized Impact Project LFW Ph 2	Brackish Groundwater	Orange County Utilties	In Progress	3	2015-2016	$ 198,000	$ 198,000	$ 804,000	$ 1,200,000

Table 2-1: AWS projects funded through the Water Protection and Sustainability Program Trust Fund (WPSPTF)
FY 2005–2006 to FY 2017–2018 (in alphabetical order)

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	WPSP Fiscal Year	WPSP Amount	SJRWMD Amount	Local Sponsor Amount	Total Cost
Ormond Beach South Peninsula Reclaimed Water Expansion	Reclaimed Water	City of Ormond Beach	In Progress	0.56	2016-2017	$ 727,589	$ 727,589	$ 2,954,452	$ 4,409,630
Ormond Beach Water Treatment Plant Expansion	Brackish Groundwater	City of Ormond Beach	Complete	4.00	2005–2006	$ 2,923,600	$ 2,923,600	$ 8,770,800	$ 14,618,000
City of Palm Coast Grand Landing Reclaimed Water Transmission Main	Reclaimed Water	City of Palm Coast	Complete	0.56	2015-2016	$ 100,197	$ 100,197	$ 406,857	$ 607,250
Palm Coast RW Irrigation Along US-1 & Palm Coast Park	Reclaimed Water	City of Palm Coast	Complete	1.00	2016-2017	$ 231,000	$ 231,000	$ 938,000	$ 1,400,000
Palm Coast Reclaimed Water System Expansion	Reclaimed Water	City of Palm Coast	Complete	6.09	2005–2006	$ 511,000	$ 511,000	$ 4,088,000	$ 5,110,000
Palm Coast WTP#2 Wellfield Expansion	Brackish Groundwater	City of Palm Coast	Complete	2.52	2015-2016	$ 466,125	$ 466,125	$ 1,892,750	$ 2,825,000
Port Orange Reclaimed Water Reservoir and Recharge Basin Project	Reclaimed Water	City of Port Orange	Complete	2.70	2005–2006	$ 117,000	$ 117,000	$ 1,116,000	$ 1,350,000
Rockledge Reclaimed Water Storage	Reclaimed Water	City of Rockledge	Complete	0.16	2005–2006	$ 161,323	$ 161,323	$ 1,777,355	$ 2,100,001
Rockledge Reclaimed Water System Expansion — Aquifer Storage and Recovery (ASR)	Reclaimed Water	City of Rockledge	Complete	0.55	2006–2007	$ 224,886	$ 224,886	$ 2,910,228	$ 3,360,000
Seminole County Yankee Lake Reclaimed Water System Augmentation	Surface Water	Seminole County	Complete	10.00	2006–2007	$ 3,765,000	$ 3,765,000	$ 17,570,000	$ 25,100,000
St. Augustine Water Supply Project	Brackish Groundwater	City of St. Augustine	Complete	4.00	2005–2006	$ 2,325,927	$ 2,325,927	$ 7,148,146	$ 11,800,000
St. Johns County RW ST at SR16 WWTF	Reclaimed Water	St. Johns County	Complete	1.00	2015-2016	$ 206,250	$ 206,250	$ 837,500	$ 1,250,000
St. Johns County St Augustine Beach Reclaimed Water Transmission Main	Reclaimed Water	St. Johns County	In Progress	0.04	2016-2017	$ 68,429	$ 68,429	$ 277,862	$ 414,720
St. Johns County Water Supply Project	Brackish Groundwater	St. Johns County	Complete	8.00	2005–2006	$ 3,270,000	$ 3,270,000	$ 9,810,000	$ 16,350,000
Tavares Reclaimed Water System Expansion	Reclaimed Water	City of Tavares	Complete	3.50	2006–2007	$ 570,000	$ 570,000	$ 4,560,000	$ 5,700,000
Taylor Creek Water Supply Project	Surface Water	City of Cocoa	Withdrawn		2006–2007				
Volusia County Southwest Reclaimed Water System	Reclaimed Water	Volusia County	Complete	0.25	2006–2007	$ 200,000	$ 200,000	$ 1,600,000	$ 2,000,000
West Melbourne Aboveground Reclaimed Water Storage Tank	Reclaimed Water	City of West Melbourne	Complete	2.48	2006–2007	$ 300,000	$ 300,000	$ 2,409,000	$ 3,009,000
Winter Garden Reclaimed Water Pumping and Transmission	Reclaimed Water	City of Winter Garden	Complete	4.00	2006–2007	$ 497,813	$ 497,813	$ 5,704,374	$ 6,700,000
Winter Springs Lake Jesup Reclaimed Water Augmentation	Reclaimed Water	City of Winter Springs	Complete	2.23	2008–2009	$ 640,000	$ 640,000	$ 5,030,000	$ 6,310,000
Woodlawn Memorial Park Irrigation System Upgrade	Reclaimed Water	Woodlawn Memorial Park	Complete	0.215	2016-2017	$ 55,526	$ 55,526	$ 225,470	$ 336,522
Total:				**137.35**		**$ 39,216,951**	**$ 39,345,189**	**$230,820,556**	**$ 309,382,695**

Project Narratives

Alafaya Utilities Reclaimed Water Line Installation
Installation of a 20-inch diameter reclaimed water transmission main that extends from the Alafaya Water Treatment Facility (WTF) to Lockwood Boulevard in Orlando.

Alafaya Utilities Reclaimed Water Storage and High-Service Pump
Construction of additional storage volume of 1.0 million gallons (mg) and a high-service pumping station that allowed the utility to provide reclaimed water to 891 residential units and 21 commercial units in conjunction with the aforementioned Orlando reclaimed water transmission main.

Belleview and Spruce Creek Golf Course Reclaimed Water System
Construction of a 22,000 linear feet (LF) reclaimed water main to transmit public access reclaimed water from the city of Belleview's Wastewater Treatment Facility (WWTF) to the Spruce Creek Golf Course for irrigation, offsetting the use of groundwater for non-potable purposes.

Clay County Utility Authority (CCUA) County Road (CR) 209 Reclaimed Water Transmission Main
This project will construct a 3,800-linear foot 20-inch diameter reclaimed water main extension to serve the future development area near the intersection of CR 220 and CR 209/Henley Road.

CCUA Old Jennings Reclaimed Water Plant Ground Storage Tank
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.

Clermont East Side Water Reclamation Facility (WRF) Improvements
Transfer of wastewater from the city's Westside Water Treatment Plant (WTP) to the East Side WRF through construction of a master lift station and 5.5 miles of force mains.

Clermont Reclaimed and Stormwater System Expansion
Construction of a 2.0-million-gallon ground storage tank and a high-service pump station that allows the city to receive supplements from other reclaimed systems or pursue stormwater and surface water supplements.

Clermont — South Lake Water Initiative Clermont Sunburst Wells 1 and 2
The project consists of construction of two 2.2 million gallons per day (mgd) Lower Floridan aquifer wells.

Cocoa and Rockledge Reclaimed Water Line Connection
Construction of a 12-inch diameter reclaimed water interconnection between the cities of Cocoa and Rockledge that allows Cocoa to serve the U.S. Highway 1 corridor south of Cocoa city limits.

Coquina Coast Seawater Desalination **(*Project was cancelled)***
A memorandum of understanding was executed by cooperators in 2008 to begin analysis, investigations and design of a seawater desalination facility in Flagler County. The number of cooperators and total water demand decreased as the project moved forward. Preliminary engineering investigations were completed in October 2011. The project has been cancelled.

Daytona Beach 2.5 mg Reuse Tank
This project includes construction of a 2.5 mg reclaimed water storage tank.

Daytona Beach Reclaimed Water System
Construction of a reuse line extension from Tournament Drive to Champion Drive.

Deland Reclaimed Water Storage and Recovery
This project will provide additional storage of reclaimed water during wet weather and allow recovery of water applied to a retention pond / rapid infiltration basin (RIB) for reuse. This project will also reduce wet weather discharge to the St. Johns River.

Dunes Community Development District (DCDD) Brackish Groundwater Project
Construction of new wells to withdraw brackish water from the Floridan aquifer and construction of a reverse osmosis plant and associated infrastructure to treat the brackish water. Through this project, the DCDD now has a consistent and reliable potable water supply rather than relying on water purchased from the city of Palm Coast.

East Putnam Regional Water System
Construction of a reverse osmosis WTF to treat brackish water from the Floridan aquifer to provide potable water to customers in East Palatka, San Mateo, and surrounding areas.

Eastern Orange and Seminole Counties Regional Reuse Project
Construction of a reclaimed water transmission system and wastewater plant improvements to provide reclaimed water from the Iron Bridge WRF that is operated by the city of Orlando. Reclaimed water is provided to a 230-square-mile area to replace potable water use for landscape irrigation, golf course irrigation, and certain industrial processes.

Eustis Reclaimed Water System Expansion and Augmentation
Construction of upgrades at the Eastern WWTP to increase reuse capacity and construction of transmission lines for reclaimed water to be used for residential irrigation.

Green Cove Springs North Grid Reclaimed Water (RCW) System Phases 2 and 3
This project is multi-phased. Phases 2 and 3, which 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.

Greenwood Lakes Reclaimed Water System Improvements
Construction by Seminole County of a 1.75 mg reclaimed water ground storage tank, associated piping and fittings and SCADA system-controlling access to the Yankee Lake distribution system.

Groveland Eagle Ridge Water Distribution Facility Phase 3
This project consists of construction of a 7.3-mile reclaimed water main to interconnect the Sunshine Wastewater Treatment Plant (WWTP) to the Sampey Road. WWTP. Sunshine is doubling its reclaimed availability and the additional water will offset withdrawals in the south service area.

Groveland Silver Eagle Reclaimed Storage Tank
This project consists of construction of a 1.5 mg storage tank for reclaimed water at the Silver Eagle facility.

Holly Hill and Ormond Beach Reclaimed Water System Expansion
Construction of a reclaimed interconnection between the cities of Holly Hill and Ormond Beach for Holly Hill to divert up to 750,000 gallons per day into the Ormond Beach system to provide reclaimed water to the Tomoka Oaks Golf Course, Volusia Memorial Park, and Nova Road medians.

International Corporate Park Reuse Transmission System
Construction by Orange County of reclaimed water mains, booster pump stations, conversion of rapid infiltration basins (RIBs) to storage basins, ground storage tanks, and a high-service pump station to provide reclaimed water to the southeastern Orange County service area.

JEA Bartram Park Reclaimed Water Storage Tank Expansion
This project adds one 2.5 mg storage tank to support peak demands. The Bartram facility repumps reclaimed water supplied by two major wastewater facilities (Arlington East and Mandarin) to support St. Johns County demands (currently 7,000 customers). This storage tank will provide an additional five hours of peak supply at the current pumping rate of 11 mgd.

JEA Mandarin Wastewater Treatment Plant Upgrades
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.

JEA Nocatee North Reclaimed Water Storage Tank
This project will construct of a 2 mg storage tank to provide additional capacity.

JEA Nocatee Parkway Reclaimed Water Transmission
This project will construct a 16-inch transmission line.

JEA R.G. Skinner Parkway Reclaimed Water Transmission
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.

JEA William Burgess Road
This project will provide reclaimed water via 13,000 feet of pipe to a major development called the East Nassau Community Planning Area in Nassau County.

Lady Lake Reclaimed Water System Phase 2
Expansion of construction of upgrades to the existing WWTF to provide reclaimed water to the eastern and southwestern regions of the town's service area.

Lake Apopka North Shore Reuse Augmentation Facility
Construction of an augmentation facility at Lake Apopka and transmission lines to supplement the city of Apopka's reclaimed water system with water withdrawn from Lake Apopka during peak irrigation periods.

Lake Groves WWTF Reclaimed Water System Expansion
Construction by Utilities Inc. of Florida to upgrade the existing Lake Groves WWTF to treat wastewater to public access reuse standards to provide reclaimed water to four residential subdivisions.

Leesburg Reclaimed Water Project
Construction of upgrades by the city of Leesburg to the existing Canal Street WTF, expansion of the existing Turnpike WTF and construction of a reclaimed water transmission system to maximize the city's beneficial use of all available reclaimed water.

Melbourne Reclaimed Water System Expansion
Construction of improvements to the existing Grant Street WWTP to increase reclaimed water capacity from 4.5 mgd to 6.0 mgd.

Minneola Reclaimed Water Project
Construction of a wastewater reclamation facility, a collection system and pump stations to upgrade effluent to public access reuse water to distribute to rapid infiltration basins and irrigation service areas.

North Peninsula Reclaimed Water Storage Project
Construction by the city of Ormond Beach of a 4.0 mg reclaimed water storage basin to provide reclaimed water to the Oceanside Golf Course and surrounding residential areas for landscape irrigation. The project reduced discharges of treated wastewater effluent to the Halifax River.

North Seminole Regional Reclaimed Water and Surface Water Optimization System Expansion Project
A joint project involving the cities of Sanford and Lake Mary, and Seminole County that resulted in a surface water augmentation system, reclaimed water system improvements, additional storage, reclaimed water main transmission lines, and interconnections with the cities of Altamonte Springs and Winter Springs.

Ocoee Reuse System Expansion
Construction of reclaimed water mains and associated components for the city of Ocoee to provide reclaimed water to the Reflections, Reserve, and Silver Glen residential subdivisions.

Orange County Eastern WRF Reuse Pumping and Storage
Expansion of the Eastern WRF to increase pumping and storage capacity of reclaimed water.

Orange County Utilities Malcom Road Minimized Impact Project Lower Floridan Aquifer (LFA)
This project will construct an LFA well at the planned Malcolm Road Water Supply Facility (MRWSF).

Orange County Utilities Malcom Road Minimized Impact Project LFW Phase 2
This project will construct two Lower Floridan wells at the MRWSF to provide potable water to the Horizon West development area.

Ormond Beach WTP Expansion
Construction of a low-pressure reverse osmosis facility at the city's current WTP to expand the use of brackish groundwater wells.

Ormond Beach South Peninsula Reclaimed Water Expansion
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.

Palm Coast Reclaimed Water System Expansion
Northerly and southerly extension of the city's reclaimed water system located on Old Kings Road. The northerly extension included the construction of 35,000 linear feet (LF) of reclaimed water main to provide service to two golf courses, residential sites, and a school. The southerly extension included construction of new reclaimed transmission mains, ground storage, and a high-service pump station to provide reclaimed water to developments south of the airport, near Colbert Lane and the Town Center.

Palm Coast WTP#2 Wellfield Expansion
This project consists of development of additional wells over a larger area without increasing allocation allows existing wells to rest, be rotated, and reduce production rate reducing potential for saline water intrusion.

Port Orange Reclaimed Water Reservoir and Recharge Basin Project
Construction of a 3-million-gallon storage tank, two reservoir/recharge basins, 8,500 LF of horizontal recovery wells, recovery pumps/controls and high-service distribution pumps. The project also included the harvest of stormwater for storage in the basins as a source of reclaimed water supply augmentation and recharge.

Palm Coast Reclaimed Water Irrigation along U.S. 1 and Palm Coast Park
A reclaimed water line will be constructed along U.S. 1 in Palm Coast.

Rockledge Reclaimed Water Storage
Construction of a 6-million-gallon storage tank and a high-service pump station to allow the city to store effluent that was disposed via a deep injection well.

Rockledge Reclaimed Water System Expansion — Aquifer Storage and Recovery (ASR)
Construction of an aquifer storage and recovery system, including two storage wells, to expand the city's reclaimed water system to provide service during peak periods.

Seminole County Yankee Lake Reclaimed Water System Augmentation
Construction of a surface water treatment plant at the county's Yankee Lake Water Reclamation Facility near Lake Monroe. Design capacity is 10 mgd with surface water intake and infrastructure expandable to 20 mgd. The county is currently permitted to withdraw up to 5.5 mgd from the St. Johns River.

St. Augustine Water Supply Project
Construction of a low-pressure reverse osmosis treatment plant through two new Floridan aquifer wells and a demineralization concentrate transmission main that connects with the city's wastewater collection system. The project limits impacts to wetland vegetation that would be expected to result if projected water use increases were met from the city's existing surficial aquifer wellfield.

St. Johns County – Reclaimed Water Storage Tank at State Road (SR) 16 WWTF
This project will construct a 1 mg ground storage tank.

St. Johns County Water Supply Project
Construction of a low-pressure reverse osmosis treatment plant at the Tillman Ridge Wellfield through four new Floridan aquifer wells and a demineralization concentrate collection main that connects to the county's wastewater collection system. The project limits wetland impacts near the Tillman Ridge Wellfield.

Tavares Reclaimed Water System Expansion
This project included the construction of 38,000 LF of reclaimed water transmission line, a 5-million-gallon storage tank, and upgrades to the city's operation building and wastewater treatment. Approximately 3.5 mgd of alternative water supply was made available.

Taylor Creek Reservoir/St. Johns River Water Supply Project ***(withdrawn from WPSPTF)***
The city of Cocoa is spearheading the effort, together with the city of Titusville, Orange County Utilities, Orlando Utilities Commission, Tohopekaliga (Toho) Water Authority, and East Central Florida Services Inc. to increase potable water supplies from the Taylor Creek Reservoir for these partners. Discussions on participation, quantity, and timing began in 2010. Expected quantity will likely be in the 11 to 24 mgd range. While timing is still undecided, customer demands, economic conditions, permit and agreement conditions, and the Central Florida Water Initiative will all play a part in determining the project scope and schedule. Project will proceed without WPSPTF once these issues are resolved.

Volusia County Southwest Reclaimed Water System
Utilized dry lines installed by developers to provide reclaimed water to approximately 620 homes for landscape irrigation. This project reduced the amount of groundwater withdrawn from wells at the DeBary Water Treatment Plants, thereby reducing impacts to Blue Spring and area lakes.

West Melbourne Aboveground Reclaimed Water Storage Tank
Construction of a 3mg storage tank, a transfer pump station, and expansion of a reclaimed high-service pump station.

Winter Garden Reclaimed Water Pumping and Transmission
Construction of reclaimed water storage tanks at three different sites and extension of reclaimed water transmission mains to provide reclaimed water to subdivisions in both the city of Winter Garden and the city of Ocoee.

Winter Springs Lake Jesup Reclaimed Water Augmentation
Construction of a 3-million-gallon storage tank and pumping facilities at an existing WRF and new construction of a 0.25-million-gallon storage tank, filtration treatment, pumping facilities, and high-level disinfection at new augmentation facilities at Lake Jesup.

Woodlawn Memorial Park Irrigation System Upgrade
The project will cap three irrigation wells and connect to reclaimed water supplied by Orlando Utilities Commission (OUC). In addition, flow sensors will be installed to detect leaks.

III. AWS PROJECTS FUNDED THROUGH PROGRAMS OTHER THAN WPSPTF

Table 3-1: AWS projects funded through programs other than the Water Protection and Sustainability Program Trust Fund FY 2005–2006 to FY 2017–2018 (in alphabetical order)

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	Funding Fiscal Year	Program*	SJRWMD Amount	Local Sponsor Amount	Total Cost
Altamonte Springs FDOT I-4 Stormwater Capture & Reclaimed Water Project Ph I & 2	Storm Water	City of Altamonte Springs	Complete	4.50	2013-2014	CCSP	$ 3,500,000	$ 8,000,000	$ 11,500,000
Anguilla Fish Farm Alternative Water Supply Well	Brackish Groundwater	Anguilla Fish Farm (St. Johns County)	Complete	0.33	2005–2006	AWSCCP	$ 34,770	$ 34,770	$ 69,540
Apopka Cost Share Golden Gem Rd RCW Ext	Reclaimed Water	City of Apopka	Not Started	5.00	2017-2018	CCSP	$ 308,626	$ 308,624	$ 617,250
Baldwin - Brandy Branch Reuse	Reclaimed Water	City of Baldwin	Not Started	0.25	2017-2018	CCSP	$ 889,350	$ 1,805,650	$ 2,695,000
Big Oaks and Twin River Reclaimed Water Expansion, Phase 1	Reclaimed Water	City of Oviedo	Complete	0.09	2011–2012	MFLs AWS	$ 371,054	$ 921,318	$ 1,292,372
Blend Reverse Osmosis Concentrate with Brackish Groundwater	Brackish Groundwater	Indian River County	Complete	2.25	2006–2007	AWSCCP	$ 50,000	$ 2,687,575	$ 2,737,575
Blend Reverse Osmosis Concentrate with Storm Water	Storm Water	Indian River County	Complete	1.50	2006–2007	AWSCCP	$ 125,000	$ 4,224,070	$ 4,349,070
Bunnell Reclaimed Water Main Extension	Reclaimed Water	City of Bunnell	Not Started	1.14	2017-2018	CCSP	$ 495,000	$ -	$ 495,000
Bunnell State Street Median RCW Irrigation System	Reclaimed Water	City of Bunnell	Complete	0.10	2015-2016	CCSP	$ 45,000	$ 5,000	$ 50,000
Caldwell - Gorgeous Groves RW project	Reclaimed Water	Caldwell Citrus Groves Mgmt, LLC	Complete	0.13	2014-2015	CCSP	$ 14,736	$ 29,917	$ 44,653
Canaveral Port Authority Reclaimed Water Aquifer Storage and Recovery	Reclaimed Water	Canaveral Port Authority	Complete	2.50	2005–2006	AWSCCP	$ 100,000	$ 530,000	$ 630,000
Cape Canaveral Reuse Lines Expansion	Reclaimed Water	City of Cape Canaveral	Complete	0.12	2005–2006	AWSCCP	$ 75,000	$ 295,920	$ 370,920
CCUA Mid-Clay Water Storage Project	Reclaimed Water	Clay County Utility Authority	Complete	1.09	2013-2014	CCSP	$ 1,129,000	$ 1,304,000	$ 2,433,000
Chuluota RCW Storage Tank	Reclaimed Water	City of Chuluota	Not Started	0.15	2017-2018	CCSP	$ 390,136	$ 792,095	$ 1,182,231
CIty of Apopka Keene Road 48" Reclaimed Water Transmission Main	Reclaimed Water	City of Apopka	Complete	10.40	2013-2014	CCSP	$ 1,401,408	$ 2,102,112	$ 3,503,520
City of Apopka Kelly Park Rd and Ponkan Rd RW Main	Reclaimed Water	City of Apopka	Complete	5.50	2014-2015	CCSP	$ 713,925	$ 713,925	$ 1,427,850
City of Apopka Reclaimed Water Main Extensions	Reclaimed Water	City of Apopka	In Progress	12.15	2015-2016	CCSP	$ 835,500	$ 835,500	$ 1,671,000
City of Atlantic Beach - Selva Marina Reclaimed Water Facilities	Reclaimed Water	City of Atlantic Beach	Complete	0.88	2013-2014	CCSP	$ 442,000	$ 663,000	$ 1,105,000
City of Cape Canaveral Reclaimed Water Tank Project	Reclaimed Water	City of Cape Canaveral	Complete	0.07	2014-2015	CCSP	$ 741,428	$ 1,833,106	$ 2,574,534
City of DeLand Reclaimed Water Retrofit, Part B & Wiley Nash WRF Upgrades	Reclaimed Water	City of Deland	Complete	2.00	2013-2014	CCSP	$ 1,516,050	$ 2,274,075	$ 3,790,125

Table 3-1: AWS projects funded through programs other than the Water Protection and Sustainability Program Trust Fund FY 2005–2006 to FY 2017–2018 (in alphabetical order)

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	Funding Fiscal Year	Program*	SJRWMD Amount	Local Sponsor Amount	Total Cost
City of DeLand RW Retrofit - Ph 1	Reclaimed Water	City of Deland	In Progress	0.12	2016-2017	CCSP	$ 606,000	$ 606,000	$ 1,212,000
City of DeLand RW Retrofit - Ph 2B	Reclaimed Water	City of Deland	In Progress	0.17	2016-2017	CCSP	$ 759,375	$ 759,375	$ 1,518,750
City of Deltona - Golf Course Reclaimed Pumping and Storage Expansion Project	Reclaimed Water	City of Deltona	Complete	0.75	2013-2014	CCSP	$ 720,000	$ 1,080,000	$ 1,800,000
City of Deltona - Howland Blvd Phase 3 Reclaimed Water Prj	Reclaimed Water	City of Deltona	Complete	2.00	2013-2014	CCSP	$ 196,000	$ 294,000	$ 490,000
City of Groveland Eagle Ridge Water Distribution Facility Phase 2	Reclaimed Water	City of Groveland	Complete	0.21	2013-2014	CCSP	$ 280,000	$ 420,000	$ 700,000
City of Jacksonville Naval Air Station Reclaimed Water Project	Reclaimed Water	City of Jacksonville	Complete	0.10	2011-2012	AWSCCP	$ 1,474,824	$ 2,558,000	$ 4,032,824
City of Ocala Reuse Main	Reclaimed Water	City of Ocala	Complete	0.50	2013-2014	CCSP	$ 392,000	$ 589,000	$ 981,000
City of Oviedo Reclaimed Water Infill Initiative	Reclaimed Water	City of Oviedo	Complete	0.25	2013-2014	CCSP	$ 39,444	$ 59,166	$ 98,610
City of Palm Coast Matanzas Woods Reclaimed Pipeline	Reclaimed Water	City of Palm Coast	Complete	2.27	2014-2015	CCSP	$ 759,000	$ 1,557,472	$ 2,316,472
City of Palm Coast Royal Palms Parkway Reclaimed Water Line	Reclaimed Water	City of Palm Coast	Complete	0.05	2014-2015	CCSP	$ 99,000	$ 201,000	$ 300,000
City of Palm Coast Utilization of Concentrate as Raw Water Supply	Reclaimed Water	City of Palm Coast	Complete	0.75	2013-2014	CCSP	$ 494,800	$ 742,320	$ 1,237,120
City of Sanford Enhancement to Aquifer Storage & Recovery System	Reclaimed Water	City of Sanford	In Progress	0.66	2014-2015	CCSP	$ 234,062	$ 475,217	$ 709,279
City of Sanford & Volusia County Reclaimed Interconnect	Reclaimed Water	City of Sanford and Volusia County	Complete	1.50	2013-2014	CCSP	$ 1,376,000	$ 2,064,000	$ 3,440,000
City of Sanford Reclaimed Water Orl-San Airport Expansion Phase 1	Reclaimed Water	City of Sanford	Complete	0.28	2014-2015	CCSP	$ 225,406	$ 457,642	$ 683,048
City of Winter Garden SW RCW	Reclaimed Water	City of Winter Garden	Complete	0.15	2013-2014	CCSP	$ 479,040	$ 718,560	$ 1,197,600
Cocoa Beach Reclaimed Water Control Valves	Reclaimed Water	City of Cocoa Beach	Complete	0.30	2005–2006	AWSCCP	$ 34,040	$ 135,960	$ 170,000
D.B. Lee WWTP Reclaimed Water System Expansion	Reclaimed Water	City of Melbourne	Complete	1.79	2005–2006	AWSCCP	$ 75,000	$ 697,000	$ 772,000
Deland RCW Main Extension Phase 3 & 3A	Reclaimed Water	City of Deland	Not Started	0.14	2017-2018	CCSP	$ 429,000	$ 871,000	$ 1,300,000
Deland St Johns River Intake and Surface Water Filtration System Upgrades	Surface Water	City of Deland	Not Started	1.50	2017-2018	CCSP	$ 600,000	$ 600,000	$ 1,200,000

Table 3-1: AWS projects funded through programs other than the Water Protection and Sustainability Program Trust Fund FY 2005–2006 to FY 2017–2018 (in alphabetical order)

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	Funding Fiscal Year	Program*	SJRWMD Amount	Local Sponsor Amount	Total Cost
Deltona - West Volusia Water Suppliers Project 4A Deltona Storage and Treatment	Reclaimed Water	City of Deltona	In Progress	4.00	2016-2017	CCSP	$ 3,750,000	$ 3,750,000	$ 7,500,000
Drain Well Maintenance Project	Reclaimed Water	Orange County	Complete	0.72	2005–2006	CFARE	$ 210,000	$ 548,286	$ 758,286
Drain Well Maintenance Project	Reclaimed Water	City of Orlando	Complete	0.45	2005–2006	CFARE	$ 70,000	$ 398,559	$ 468,559
Dunes Community Development District Brackish GW Development	Brackish Groundwater	Dunes Community Development District	Complete	0.72	2013-2014	CCSP	$ 902,000	$ 1,353,000	$ 2,255,000
Eustis Eastern WWTP Upgrade	Reclaimed Water	City of Eustis	In Progress	1.00	2016-2017	CCSP	$ 2,475,000	$ 5,025,000	$ 7,500,000
Gainesville Regional Utilities - Reclaimed Water Extension to Innovation District	Reclaimed Water	GRU	Complete	0.11	2013-2014	CCSP	$ 157,000	$ 235,000	$ 392,000
Greenwood Lakes Reclaimed Water System Improvement	Reclaimed Water	Seminole County	Complete	0.01	2005–2006	CFARE	$ 232,000	$ 1,398,000	$ 1,630,000
Holloway Tree Farm Rainwater Harvesting and Recycling System	Rainwater	Holloway Technology (Lake County)	Complete	0.14	2005–2006	AWSCCP	$ 100,000	$ 320,000	$ 420,000
JEA 9B Reclaimed Water Main	Reclaimed Water	JEA	Complete	13.00	2013-2014	CCSP	$ 181,200	$ 271,800	$ 453,000
JEA Arlington East Water Reclamation Facility Expansion	Reclaimed Water	JEA	Complete	2.00	2014-2015	CCSP	$ 371,580	$ 754,420	$ 1,126,000
JEA Gate Pkwy - Shiloh Mill Blvd to Town Ctr Pkwy - RCW	Reclaimed Water	JEA	Not Started	0.03	2017-2018	CCSP	$ 121,224	$ 246,120	$ 367,344
JEA Hidden Hills - RCW	Reclaimed Water	JEA	Not Started	0.36	2017-2018	CCSP	$ 261,179	$ 530,272	$ 791,450
JEA Nocatee Coastal Oaks Phase 4	Reclaimed Water	JEA	Complete	2.00	2014-2015	CCSP	$ 264,000	$ 536,000	$ 800,000
JEA Nocatee Riverwood RW Transmission	Reclaimed Water	JEA	Complete	0.85	2015-2016	CCSP	$ 30,500	$ 62,000	$ 92,500
JEA Queens Harbor Reclaimed Water Main Extension	Reclaimed Water	JEA	Complete	0.30	2013-2014	CCSP	$ 84,658	$ 126,988	$ 211,646
JEA RiverTown Phase 3 - Parcel 23 - RCW	Reclaimed Water	JEA	Not Started	0.18	2017-2018	CCSP	$ 38,528	$ 78,223	$ 116,750
Little Creek Reclaimed Water Expansion	Reclaimed Water	City of Oviedo	Complete	0.18	2011–2012	MFLs AWS	$ 25,110	$ 37,666	$ 62,776
Longwood Septic Tank Abatement Program Transmission Main	Reclaimed Water	City of Longwood	Not Started	0.70	2017-2018	CCSP	$ 2,328,706	$ 2,328,703	$ 4,657,409
Lucas Fairways Hidden Hills Golf Course RCW Connection	Reclaimed Water	Lucas Fairways, LLC	Not Started	0.36	2017-2018	CCSP	$ 32,175	$ 65,325	$ 97,500

Table 3-1: AWS projects funded through programs other than the Water Protection and Sustainability Program Trust Fund FY 2005–2006 to FY 2017–2018 (in alphabetical order)

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	Funding Fiscal Year	Program*	SJRWMD Amount	Local Sponsor Amount	Total Cost
Marion County Silver Springs Shores Reuse to Spruce Creek G & CC	Reclaimed Water	Marion County	Complete	1.20	2013-2014	CCSP	$ 3,192,000	$ 6,627,738	$ 9,819,738
Marion County US 441 Water Main Interconnect	Reclaimed Water	Marion County	Not Started	0.12	2017-2018	CCSP	$ 706,496	$ 706,496	$ 1,412,992
Mill Creek Reclaimed Water Storage Pond	Reclaimed Water	City of Sanford	Complete	0.28	2005–2006	CFARE	$ 480,000	$ 1,251,038	$ 1,731,038
Minneola Septic to Sewer	Reclaimed Water	City of Minneola	Not Started	0.40	2017-2018	CCSP	$ 778,800	$ 1,581,200	$ 2,360,000
Mount Dora RCW Interconnect with Apopka	Reclaimed Water	City of Mount Dora	Not Started	3.00	2017-2018	CCSP	$ 363,000	$ 737,000	$ 1,100,000
NW Recreation Center Reclaimed Water Storage/Recharge Phase I	Reclaimed Water	City of Apopka	Complete	0.09	2005–2006	CFARE	$ 705,000	$ 2,200,250	$ 2,905,250
NW Water Reclamation Facility Rapid Infiltration Basin Expansion Project	Reclaimed Water	Orange County	Complete	0.40	2005–2006	CFARE	$ 265,000	$ 692,000	$ 957,000
Ocala Wetland Recharge	Storm Water	City of Ocala	Not Started	5.00	2017-2018	CCSP	$ 4,000,000	$ 4,362,766	$ 8,362,766
Old Winter Garden Road Rapid Infiltration Basin Project	Reclaimed Water	Orange County	Complete	0.52	2005–2006	CFARE	$ 305,000	$ 795,000	$ 1,100,000
Old Winter Garden Road Reclaimed Water Transmission Line	Reclaimed Water	Orange County	Complete	0.50	2005–2006	AWSCCP	$ 100,000	$ 150,020	$ 250,020
Orange City Reclaimed Water Main and Water Meters	Reclaimed Water	Orange City	Complete	0.25	2014-2015	CCSP	$ 161,700	$ 328,300	$ 490,000
Orange County Wekiwa Springshed Alternative Water Supply Expansion Phase 1	Reclaimed Water	Orange County	In Progress	3.00	2014-2015	CCSP	$ 700,000	$ 950,000	$ 1,650,000
Orange County Utilities Wekiva Springshed AWS Expansion Phase 2	Reclaimed Water	Orange County	In Progress	3.00	2015-2016	CCSP	$ 198,000	$ 402,000	$ 600,000
Orange County Reuse System Expansion	Reclaimed Water	Orange County	Complete	3.06	2005–2006	AWSCCP	$ 100,000	$ 265,000	$ 365,000
Palatka RCW Extension - REDI	Reclaimed Water	City of Palatka	Not Started	1.09	2017-2018	CCSP	$ 1,109,220	$ -	$ 1,109,220
Queens Harbor Residential & Golf Course Reclaimed Water Sytem Expansion	Reclaimed Water	Queens Harbor	Complete	0.30	2013-2014	CCSP	$ 80,026	$ 120,040	$ 200,066
Reclaimed Water Augmentation Vertical Well	Reclaimed Water	City of Cocoa	Complete	0.30	2006–2007	AWSCCP	$ 73,462	$ 125,238	$ 198,700
Rockledge Reuse Supplementation	Reclaimed Water	City of Rockledge	Complete	0.14	2006–2007	AWSCCP	$ 22,500	$ 22,500	$ 45,000
Sanford RCW Orl-Sanford Airport Phase 2	Reclaimed Water	City of Sanford	Not Started	0.10	2017-2018	CCSP	$ 133,827	$ 271,710	$ 405,537
Saxon Woods Reclaimed Waterline Extension	Reclaimed Water	Volusia County	Complete	0.20	2005–2006	AWSCCP	$ 125,000	$ 372,000	$ 497,000

Table 3-1: AWS projects funded through programs other than the Water Protection and Sustainability Program Trust Fund FY 2005–2006 to FY 2017–2018 (in alphabetical order)

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	Funding Fiscal Year	Program*	SJRWMD Amount	Local Sponsor Amount	Total Cost
Southwest Reclaimed Water Service Area	Reclaimed Water	City of Winter Garden	Complete	2.00	2011–2012	MFLs AWS	$ 954,384	$ 1,431,575	$ 2,385,959
Spring Glen Reclaimed Water Expansion	Reclaimed Water	Volusia County	Complete	0.10	2007–2008	AWSCCP	$ 50,000	$ 250,000	$ 300,000
St. Johns County RW ST at Anastasia Island WWTF	Reclaimed Water	St. Johns County	Complete	2.00	2015-2016	CCSP	$ 552,750	$ 1,122,250	$ 1,675,000
St. Johns County Bannon Lakes RCW Pump Station	Reclaimed Water	St. Johns County	In Progress	0.09	2016-2017	CCSP	$ 574,200	$ 1,165,800	$ 1,740,000
Tater Farms Palatka Ranch RCW	Reclaimed Water	Tater Farms	Not Started	0.07	2017-2018	CCSP	$ 74,250	$ 150,750	$ 225,000
Timucuan Golf Course Reclaimed Water Storage Pond	Reclaimed Water	City of Lake Mary	Complete	2.30	2005–2006	AWSCCP	$ 100,000	$ 153,987	$ 253,987
Titusville Reclaimed Water Control System	Reclaimed Water	City of Titusville	Complete	0.23	2005–2006	AWSCCP	$ 50,000	$ 54,000	$ 104,000
Tomoka Oaks Golf Course Reclaimed Water System	Reclaimed Water	Tomoka Oaks Golf Course (Volusia County)	Complete	0.50	2006–2007	AWSCCP	$ 200,000	$ 257,000	$ 457,000
Vero Beach Reverse Osmosis WWTF Expansion	Reclaimed Water	City of Vero Beach	In Progress	2.60	2015-2016	CCSP	$ 900,000	$ 1,479,000	$ 2,379,000
Volusia County Utilities: RCW Main Extension for I-4/SR 472 Activity Center	Reclaimed Water	Volusia County Utilities	Not Started	0.10	2016-2017	CCSP	$ 202,785	$ 411,715	$ 614,500
Wekiva-Apopka Reuse Transmission Main	Reclaimed Water	Sanlando Utilities (Orange County)	Complete	1.00	2011–2012	MFLs AWS	$ 1,468,000	$ 2,202,000	$ 3,670,000
West Volusia Water Suppliers Doyle Road Reclaimed Water Interconnect	Reclaimed Water	City of Deltona	Complete	2.00	2013-2014	CCSP	$ 2,400,000	$ 3,600,000	$ 6,000,000
West Volusia Water Suppliers Reclaimed Water Interconnect Project #2-A	Reclaimed Water	City of Deland/WVWS	Complete	2.50	2013-2014	CCSP	$ 2,230,632	$ 3,345,948	$ 5,576,580
Western Reclaimed Water Distribution	Reclaimed Water	City of Ormond Beach	Complete	2.00	2011–2012	MFLs AWS	$ 1,313,578	$ 1,967,367	$ 3,280,945
Winter Garden Reuse Distribution Retrofit	Reclaimed Water	City of Winter Garden	Not Started	0.06	2017-2018	CCSP	$ 625,000	$ 625,000	$ 1,250,000
Yothers Road Reclaimed Water Main	Reclaimed Water	City of Apopka	Complete	1.32	2005–2006	AWSCCP	$ 75,000	$ 188,200	$ 263,200
Total:				**132.55**			**$ 59,455,443**	**$102,676,618**	**$ 162,132,061**

* AWSCCP = Alternative Water Supply Construction Cost-sharing Program

MFLs AWS = Minimum Flows and Levels Alternative Water Supply Program

CFARE = Central Florida Aquifer Recharge Enhancement Program

CCSP = Cooperative Cost Share Program

Project Narratives

Altamonte Springs/Florida Department of Transportation (FDOT) Integrated Stormwater Capture and Reclaimed Water Project
Construction of a comprehensive regional water resource project that will increase reclaimed water supplies by using stormwater runoff from the FDOT expansion of I-4 in central Florida. 1.5 mgd of stormwater will be captured and treated in the newly constructed stormwater facility at the city's Water Plant No. 4. The 1.5 mgd of storm water will be combined with 3.0 mgd of reclaimed water from the city's regional water reclamation facility to augment the city's reclaimed water system when needed, and otherwise pumped through a transmission pipeline to the city of Apopka to supplement its reclaimed water system and provide aquifer recharge under wet weather conditions.

Anguilla Fish Farm AWS Well
Construction of a Lower Floridan aquifer well to provide brackish groundwater as an alternative water supply for a commercial fish farm operation.

Apopka Cost-Share Golden Gem Road RCW Extension.
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.

Baldwin – Brandy Branch Reuse
The project consists of the construction of an effluent wetwell, 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 ~0.25 mgd of groundwater withdrawal. This project also eliminates discharge into a ditch that discharges into Deep Creek.

Big Oaks and Twin River Reclaimed Water Expansion, Phase 1
Expansion of the city of Oviedo's reuse system into the Big Oaks and Twin Rivers residential developments, including service connections to approximately 183 residences.

Blend Reverse Osmosis (RO) Concentrate with Brackish Groundwater
Project by Indian River County to blend 2.25 mgd of reverse osmosis concentrate with brackish water from the Indian River Lagoon to create water for restoring a 62-acre mangrove habitat. (local project name: Grand Harbor Mosquito Impoundment/Mangrove Restoration)

Blend Reverse Osmosis (RO) Concentrate with Stormwater
Project by Indian River County to reroute concentrate from the reverse osmosis facility to the Bent Pine Golf Course rapid infiltration basin where it is mixed with stormwater and then reused for golf course irrigation.

Bunnell Reclaimed Water Main Extension
The project consists of extending a reclaimed water main by 1.5 miles along Grand Reserve Blvd. to SR 100 and Commerce Parkway and enables the city to connect to current potable water irrigation systems. The project also includes upgrading the pumps at the WWTP to provide reclaim at a higher pressure to end users for direct irrigation use.

Bunnell — State Street Median Reclaimed Water Irrigation System
The project will install reclaimed water irrigation to the park and two medians along U.S. 1 and SR 100 crossroads with a goal of zero discharge from the WWTP and lower demand for potable from well #5.

Caldwell — Gorgeous Groves Reclaimed Water project
The project will enable the Caldwell Citrus Grove Management, LLC, to meter and distribute reclaimed water from the city of Tavares from an existing distribution line to irrigate large plots of citrus groves. The quantity of reclaimed water expected to be used for this project is 40 million gallons per year (mgy) to serve 85 acres of citrus. The extension consists of 1,200 feet of 10-inch and 1,200 feet of 8-inch pipe, dual meter installations, and isolation of two Floridan aquifer production wells. This project will reduce like amounts of groundwater withdrawals and increase the demand on the city of Tavares water reclamation system.

Canaveral Port Authority Reclaimed Water Aquifer Storage Recovery (ASR)
Construction of ASR wells for storage of reclaimed water during the wet season, resulting in more reclaimed water utilization and less surface water discharge.

Cape Canaveral Reuse Lines Expansion
Installation of pumps, piping, and associated systems to use reclaimed water for residential irrigation to replace 116,000 gallons per day (gpd) of Floridan aquifer water. The project reduces surface water discharges into the Banana River and reduces saltwater intrusion in the surficial aquifer.

CCUA Mid-Clay Reclaimed Water Storage Project
Project to provide storage of excess reclaimed water into a series of surficial aquifer rapid infiltration basins (SARIBs).

Chuluota RCW Storage Tank
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.

City of Apopka Keene Road Reclaimed Water Transmission Main
Construction of approximately 12,165 linear feet (LF) of a 48-inch diameter reclaimed water transmission main from the city of Apopka's reclaimed water treatment facility to the Keene Road/Marden Road intersection just north of the Orange County Utilities (OCU) northwest reclaimed water treatment facility.

City of Apopka Kelly Park Road and Ponkan Road Reclaimed Water Main Extension
The project consists of construction of a reclaimed water main extension into the future high-density Kelley Park Crossings development. The project begins at the intersection of Jason Dwelley Parkway with the construction of 1,313 feet of 24-inch reclaimed water main (RWM), and then continues west along Kelly Park Road with the construction of 4,041 feet of 20-inch RWM. The use of reclaimed water is expected to reduce the use of irrigation wells assisting in the protection of the springs' flow in the Wekiva Basin.

City of Apopka Reclaimed Water Main Extensions
The project consists of constructing three reclaimed water main segments within the city of Apopka. The pipe segments include: (1) Ocoee-Apopka Road from Keene Road to Alston Bay Boulevard; (2) Keene Road from Marden Road to Ocoee-Apopka Road and Ocoee-Apopka Road from Keene Road to Parkstone; and (3) Schopke Road from Plymouth Sorrento Road to Schopke-Lester Road. These reclaimed water distribution segments add to the planned or existing network within the city.

City of Atlantic Beach Selva Marina Reclaimed Water Facilities
Construction of a 0.5 mgd reclaimed water facility to serve the Selva Marina Country Club and a new 180-home subdivision.

City of Cape Canaveral Reclaimed Water Tank
Construction of a 2.5 mg reclaimed water tank will eliminate 23.9 mg of treated wastewater from entering the Indian River Lagoon on an annual basis. This project will provide additional reclaimed water for citywide irrigation.

City of DeLand Reclaimed Water Retrofit, Part B and Wiley Nash Water Reclamation Facility (WRF) Upgrades
Construction of additional filtration facilities to treat storm water and surface water to augment reclaimed water supplies. The project will result in 2.0 mgd treatment capacity.

City of Deland Reclaimed Water Retrofit Project Phase 1
The project consists of retrofitting three areas currently served with potable water for irrigation to reclaimed irrigation supply. The three areas are Blue Lake Woods Subdivision, University Avenue Region and South Ridge Pointe Subdivision.

City of Deland Reclaimed Water Retrofit Project Phase 2B
The project consists of retrofitting two areas currently served with potable water for irrigation to reclaimed irrigation supply. The two areas are the Waterford and Heather Glen subdivisions.

City of Deltona Golf Course Reclaimed Water Expansion
Construction of a new reclaimed water pumping station and 1.0-million-gallon ground storage tank for the Deltona Golf and Country Club to provide additional reclaimed water supply.

City of Deltona Howland Boulevard Phase 3 Reclaimed Water Expansion
Extension of a reclaimed water main from the intersection of SR 415 and Howland Boulevard to the intersection of Howland Boulevard and Elkam Boulevard.

City of Groveland Eagle Ridge Water Distribution Facility Phase 2
Construction of approximately 7,000 LF of reclaimed water pipeline along SR 50 to connect to Groveland's Eagle Ridge Reclaimed Water Distribution Facility.

City of Jacksonville Naval Air Station (NAS Jax.) Reclaimed Water Project
Construction of a pump station, an expanded holding pond, a reuse line from the wastewater treatment plant (WWTP) to the pond, and construction of pump stations at the pond with distribution lines from the pond to the NAS Jax. golf course, ball fields and weapons storage area. These works will virtually eliminate the annual average wastewater discharge to the St. Johns River and will eliminate consumption of 0.10 mgd of groundwater currently used to irrigate the golf course and ball fields.

City of Ocala Reuse Main
Construction of a reuse water main to two city parks to reduce the use of potable water for irrigation.

City of Oviedo Reclaimed Water Infill Initiative
Project to provide meters for reclaimed water service to residential units.

City of Palm Coast Grand Landings RW Transmission Main
This project consists of an extension of the city's reclaimed water system to the southeast section of the city.

City of Palm Coast Matanzas Woods Pkwy Reclaimed Water Transmission Pipeline
This project consists of constructing a reclaimed water transmission main extension along Matanzas Woods Parkway between Old Kings Road and U.S. 1.

City of Palm Coast Royal Palms Parkway Reclaimed Water Transmission Pipeline
This project consists of constructing a reclaimed water transmission main extension along Royal Palms Parkway between Town Center Boulevard and Belle Terre Parkway.

City of Palm Coast Utilization of Concentrate as Raw Water Supply
Installation of cartridge filters and an ozone treatment system to treat concentrate at Water Treatment Plant (WTP) #3. The treated water is sent to WTP #1 as an alternative water source for recovery and treatment as drinking water instead of blending it with reclaimed water for irrigation or discharging it to the Intracoastal Waterway.

City of Sanford: Enhancements to Aquifer Storage Recovery (ASR) System
This project will construct enhancements to the existing ASR System that will allow the city to use two additional water sources individually or blended; the city's Main WTP and raw groundwater from the Hidden Lakes wellfield. Injecting raw groundwater should reduce the pretreatment operating expense.

City of Sanford RW Orlando-Sanford International Airport Area Expansion Phase
This project will construct a reclaimed water main extension along Lake Mary Boulevard from the Sanford Water Resource Center to the Brisson West Development and Silvestry Development.

City of Sanford and Volusia County Reclaimed Interconnect
Construction of an interconnection of the reclaimed water distribution systems of Sanford and Volusia County for Sanford to provide 1.5 mgd of reclaimed water to Volusia County. Volusia County will expand the availability of reclaimed water to residents in the DeBary area.

City of Winter Garden – SW Reclaimed Water Service Area Expansion
Expansion of the existing reclaimed water system to three residential subdivisions.

Cocoa Beach Reclaimed Water Control Valves
Installation of 13 control valves and radio telemetry systems that enable the city to regulate the amount of reclaimed water used by reuse customers thereby increasing the amount available during peak hours.

D.B. Lee WWTP Reclaimed Water System Expansion
Construction of interconnection between the Grant Street and D.B. Lee reclaimed water systems that allows the transfer of reclaimed water between the systems. This interconnection makes available 1.79 mgd more reclaimed water to the Harbour City and Melbourne golf courses.

DeLand RCW Main Extension Phase 3 and 3A
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).

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

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

Drain Well Maintenance Project — Orange County
Replacement or restoration of six wells to increase aquifer recharge from the drain wells and to reduce potential flooding of built-up suburban areas.

Drain Well Maintenance Project — Orlando
Restoration of three wells — one well to improve flood conditions and two wells that provide lake elevation control. Each well is a significant source of recharge in the region.

Dunes Community Development District Brackish Groundwater Development Expansion Project
Expansion of a treatment facility to increase treatment of brackish groundwater by 0.72 mgd for a total treatment capacity of 1.44 mgd.

Eustis Eastern WWTP Upgrade
The project consists of a major expansion to the capacity of the city of Eustis WWTP to serve the Sorrento area, a high growth area of Lake County (city of Eustis service area). This capacity increase will provide wastewater treatment for planned construction and will therefore prevent the need to install septic tanks within the Wekiva Springshed. At design capacity, this project will also provide 1 mgd of public access reuse water for irrigation.

Gainesville Regional Utilities Reclaimed Water Extension to Innovation District
Extension of a reclaimed water pipeline to provide service to new redevelopment projects in the 76-acre Innovation District in Gainesville.

Greenwood Lakes Reclaimed Water System Improvement
Construction of a 1.75-million-gallon storage tank and associated site piping, adjacent to existing Rapid Infiltration Basins (RIB), for Seminole County to expand its reclaimed water system to provide residential reclaimed water. The tank is interconnected to receive excess reclaimed water from the cities of Sanford and Lake Mary, which optimizes the use of the RIBs for aquifer recharge.

Holloway Tree Farm Rainwater Harvesting and Recycling System
Installation of a rainwater capturing and recycling system to achieve at least 0.14 mgd of potable groundwater savings.

JEA SR 9B Reclaimed Water Main
Installation of an 1,868 LF 300-inch reclaimed water main to provide reclaimed water to commercial and residential customers to offset potable water used for irrigation and reduce effluent discharge to the St. Johns River.

JEA Arlington East WRF – RW Filter Expansion
This project will construct a reclaimed water filter expansion. The quantity of water expected from this project is 2 mgd. The project consists of a filtering system and appurtenances at the Arlington East Water Reclamation Facility.

JEA Gate Parkway – Shiloh Mill Boulevard to Town Center Parkway – RCW
This project is composed of 2,400 feet of 8-inch reclaimed water pipe to serve planned developments.

JEA Hidden Hills — RCW
This project is composed of 1,600 feet of 12-inch, 2,300 feet of 8-inch and 130 feet of 6-inch reclaimed water pipe to serve Hidden Hills Golf and County Club.

JEA Nocatee – Coastal Oaks Phase 4
This project will construct a reclaimed water transmission main extension in the Nocatee Coastal Oaks Phase 4 area.

JEA Nocatee – Riverwood RW Transmission
This project will construct a 12-inch transmission line providing 0.85 mgd to 3,000 existing and 11,500 future homes

JEA Queens Harbor Reclaimed Water Main Extension
Installation of 1,150 LF of 6-inch force main to provide reclaimed water to the Queens Harbor residential development. The reclaimed water will reduce the amount of water withdrawn from the Floridan aquifer and will reduce the amount of effluent discharged to the St. Johns River from the Arlington East WWTF.

JEA RiverTown Phase 3 — Parcel 23 - RCW
This project is composed of 2,500 feet of 10-inch reclaimed water pipe to serve Parcel 23 of the RiverTown development.

Little Creek Reclaimed Water Expansion
Expansion of the city of Oviedo's reuse system into the Little Creek residential development, including reclaimed water service to approximately 340 residences.

Longwood Septic Tank Abatement Program Transmission Main
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.

Lucas Fairways Hidden Hills Golf Course RCW Connection
The project would enable the 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.

Marion County Silver Springs Shores Reuse to Spruce Creek Golf and Country Club
Upgrade to the existing WWTP located in Silver Springs Shores to reclaimed quality effluent standards.

Marion County U.S. 441 Water Main Interconnect
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 linear feet 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.

Mill Creek Reclaimed Water Storage Pond
Conversion by Seminole County of an existing isolated 26-acre borrow pit into reclaimed water storage for re-pumping to augment the supply and increase the operating pressures at Seminole County College and Mayfair Golf Course to improve system reliability.

Minneola Septic to Sewer
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.

Mount Dora RCW Interconnect with Apopka
This project includes the construction of a reclaimed water interconnect between the city of Mount Dora and city of Apopka systems.

Northwest Recreation Center Reclaimed Water Storage/Recharge Phase 1
Construction of a 110-million-gallon storage/recharge pond at the city of Apopka's Northwest Recreation Facility.

Northwest Water Reclamation Facility (NWWRF) Rapid Infiltration Basin (RIB) Expansion
Excess reclaimed water from Orange County's NWWRF is placed in an 8-acre system of five RIBs located on a 110-acre parcel adjacent to Lake Cora Lee.

Ocala Wetland Recharge
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 storm water from the Old City Yard Drainage Retention Area.

Old Winter Garden Road RIB
Construction by Orange County of two RIBs, appurtenant facilities and pipe connecting to the county's south service area distribution system.

Old Winter Garden Road Reclaimed Water Transmission Line
Construction by Orange County of approximately 2,500 LF of 16-inch reclaimed water main and associated piping and valves to transport reclaimed water to the Old Winter Garden Road recharge site.

Orange City Reclaimed Water Main and Meters
This project will provide reclaimed water to the Oakhurst residential development by installing new individual water meters for reclaimed water as well as backflow prevention devices for the potable water system on existing "dry" reclaimed waterlines.

Orange County Reuse System Expansion
Extension of Orange County's reclaimed water system along McCormick Road.

Orange County: Wekiwa Springshed AWS Expansion – Phase 1
This project will construct 3,500 feet of 24-inch reclaimed water main and related pumping improvements in order to provide 3mgd of reclaimed water produced at the NWRF to the city of Apopka for distribution in its reclaimed water system.

Orange County: Wekiwa Springshed AWS Expansion – Phase 2
This project includes major improvements to the electrical control building and the installation of three additional pumps to the original project for a total of five pumps.

Palatka RCW Extension — REDI
This project consists of: 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 feet to Tater Farms Turfgrass location; the addition of a reclaimed water service of 30 feet to the 250-acre spray field location adjacent to the WWTP and the extension of the reclaimed water infrastructure by 6,500 linear feet 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.

Queens Harbor Residential and Golf Course Reclaimed Water System Expansion
Installation of approximately 5,115 LF of 6-inch force main from the JEA terminus to the irrigation storage ponds on the golf course to receive reclaimed water from JEA.

Reclaimed Water Augmentation Vertical Well
Construction by the city of Cocoa of a vertical well system for reclaimed water augmentation.

Rockledge Reuse Supplementation
Installation of six surficial aquifer wells to augment the city's reclaimed water system.

Sanford RCW Orlando-Sanford Airport Phase 2
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 feet to the west.

Saxon Woods Reclaimed Waterline Extension
Construction by Volusia County of approximately 5,000 LF of 12-inch reclaimed water line for the Saxon Woods subdivision.

Spring Glen Reclaimed Water Expansion
Installation by Volusia County of approximately 1,000 LF of 12-inch and 3,200 LF of 8-inch reclaimed water lines through the established residential golf community of Glen Abbey.

Southwest Reclaimed Water Service Area
Expansion of reclaimed water by the city of Winter Garden for residential and minor commercial irrigation demands within the city's southwest service area.

St. Johns County Bannon Lakes RCW Pump Station
This project will construct a 2.5 mg reclaimed water storage tank and install a 2,500 gallon per minute booster pump, control valve, electrical building and associated work.

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

Tater Farms Palatka Ranch RCW
This project consists of construction of the infrastructure necessary to receive treated waste water from the city of Palatka to use for irrigating sod.

Timucuan Golf Course Reclaimed Water Storage Pond
Construction by the city of Lake Mary of a 2.3 mg reclaimed water storage pond and associated piping and control structures at the Timucuan Golf Course for recharge as well as reclaimed water storage.

Titusville Reclaimed Water Control System
Installation of improvements to the city's reclaimed water system that includes 500 radio-read meters for new and existing reuse customers. These meters enable the city to more accurately determine reclaimed customers' use patterns. Future reclaimed water demands are extrapolated from this data and used by the city to plan future system improvements.

Tomoka Oaks Golf Course Reclaimed Water System
Construction by Tomoka Oaks of a storage pond, pipeline, pumping system and associated improvements to connect to the city of Ormond Beach's reclaimed water facilities to utilize reclaimed water for irrigation and reduce surface water discharges to the Halifax River.

Vero Beach Reverse Osmosis WTF Expansion
This project will expand the RO capacity from 2 to 4.5 mgd, improve finished water quality and decrease operation of the lime softening plant. Also, two new high-pressure pumps and two skids will be installed and there will be modifications to the sulfuric acid and scale inhibitor feed system.

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

Wekiva-Apopka Reuse Transmission Main
Construction by Sanlando Utilities of a 6-mile-long reuse transmission main to provide reuse water to the city of Apopka's wastewater treatment facility to offset an equal volume of groundwater used to supplement the city's reuse system.

West Volusia Water Suppliers Doyle Road Reclaimed Water Interconnect
Construction of an interconnection from Deltona's existing Deltona Lakes WRF and the proposed "eastern" facility.

West Volusia Water Suppliers Reclaimed Water Interconnect Phase 2-A
Construction of interconnect transmission lines to the reuse distribution systems of the cities of DeLand and Deltona and Volusia County.

Western Reclaimed Water Distribution
Construction by the city of Ormond Beach of a reclaimed water transmission main to expand reclaimed water service to the western areas of the city to reduce groundwater consumption in the Hunters Ridge and Breakaway Trails developments.

Winter Garden Reuse Distribution Retrofit
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 elements are inclusive of backflow prevention devices and project construction including all labor, materials, equipment, and incidentals via both open trench and directional drilling. The city currently discharges some unused reclaimed water via RIBS, where after this project there is not expected to be such a surplus.

Yothers Road Reclaimed Water Main
Construction by the city of Apopka of approximately 4,700 LF of reclaimed water main along Yothers Road from Plymouth Sorrento Road to Wilkens Farm Subdivision to provide reclaimed water for irrigation.

IV. SUMMARY

Since fiscal year 2005–2006, the District has awarded more than $138 million in cost-share funding on 156 AWS projects that will or have resulted in the production of 270 million gallons per day (mgd) of alternative water supplies.

Table 4-1 provides a summary of funding by fiscal year, funding source, and water source for AWS projects. Below is a summary of the AWS sources produced.

AWS Source	Water to be Produced or Recycled (mgd)
Reclaimed water	212.76
Surface water	11.50
Brackish groundwater	34.50
Storm water	11.00
Rainwater	0.14
Total	269.90

Table 4-1: Funding by AWS Source
FY 2005/2006 to FY 2017/2018

AWS Source	FY 2005–2006					
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	CCSP
Brackish Groundwater	$ 13,002,380	$ 13,002,380	$ 34,770			
Reclaimed Water	$ 9,585,355	$ 9,585,355	$ 834,040	$ 2,267,000		
Surface Water						
Seawater						
Rainwater			$ 100,000			
Storm Water						
Total:	$ 22,587,735	$ 22,587,735	$ 968,810	$ 2,267,000	$ -	

AWS Source	FY 2006–2007					
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	CCSP
Brackish Groundwater			$ 50,000			
Reclaimed Water	$ 4,767,567	$ 4,767,567	$ 295,962			
Surface Water	$ 3,765,000	$ 3,765,000				
Seawater						
Rainwater						
Storm Water			$ 125,000			
Total:	$ 8,532,567	$ 8,532,567	$ 470,962	$ -	$ -	

AWS Source	FY 2007–2008					
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	CCSP
Brackish Groundwater						
Reclaimed Water	$ 87,839	$ 87,839	$ 50,000			
Surface Water						
Seawater						
Rainwater						
Storm Water						
Total:	$ 87,839	$ 87,839	$ 50,000			

AWS Source	FY 2008–2009					
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	CCSP
Brackish Groundwater						
Reclaimed Water	$ 640,000	$ 640,000				
Surface Water						
Seawater						
Rainwater						
Storm Water						
Total:	$ 640,000	$ 640,000	$ -	$ -	$ -	

AWS Source	FY 2009–2010					
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	CCSP
Brackish Groundwater						
Reclaimed Water						
Surface Water						
Seawater						
Rainwater						
Storm Water						
Total:						

AWS Source	FY 2010–2011					
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	CCSP
Brackish Groundwater						
Reclaimed Water						
Surface Water						
Seawater						
Rainwater						
Storm Water						
Total:	$ -	$ -	$ -	$ -	$ -	$ -

AWS Source	FY 2011–2012					
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	CCSP
Brackish Groundwater						
Reclaimed Water			$ 1,474,824		$ 4,132,126	
Surface Water						
Seawater						
Rainwater						
Storm Water						
Total:	$ -	$ -	$ 1,474,824	$ -	$ 4,132,126	

AWS Source	FY 2012–2013					
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	CCSP
Brackish Groundwater						
Reclaimed Water						
Surface Water						
Seawater						
Rainwater						
Storm Water						
Total:	$ -	$ -	$ -	$ -	$ -	$ -

Table 4-1: Funding by AWS Source
FY 2005/2006 to FY 2017/2018

AWS Source	FY 2013-2014					
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	CCSP
Brackish Groundwater						$ 902,000
Reclaimed Water						$ 16,791,258
Surface Water						
Seawater						
Rainwater						
Storm Water						$ 3,500,000
Total:	$ -	$ -	$ -	$ -	$ -	$ 21,193,258

AWS Source	FY 2014-2015					
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	CCSP
Brackish Groundwater	$ 247,500	$ 247,500				
Reclaimed Water	$ 169,125	$ 169,125				$ 4,284,837
Surface Water						
Seawater						
Rainwater						
Storm Water						
Total:	$ 416,625	$ 416,625	$ -	$ -	$ -	$ 4,284,837

AWS Source	FY 2015-2016					
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	CCSP
Brackish Groundwater	$ 1,654,125	$ 1,654,125				
Reclaimed Water	$ 1,419,782	$ 1,419,782				$ 2,561,749
Surface Water						
Seawater						
Rainwater						
Storm Water						
Total:	$ 3,073,907	$ 3,073,907	$ -	$ -	$ -	$ 2,561,749

AWS Source	FY 2016-2017					
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	CCSP
Brackish Groundwater						
Reclaimed Water	$ 3,878,278	$ 4,006,516				$ 8,367,360
Surface Water						
Seawater						
Rainwater						
Storm Water						
Total:	$ 3,878,278	$ 4,006,516	$ -	$ -	$ -	$ 8,367,360

AWS Source	FY 2017-2018					
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	CCSP
Brackish Groundwater						
Reclaimed Water						$ 9,084,516
Surface Water						$ 600,000
Seawater						
Rainwater						
Storm Water						$ 4,000,000
Total:	$ -	$ -	$ -	$ -	$ -	$ 13,684,516

AWS Source	ALL YEARS					
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	CCSP
Brackish Groundwater	$ 14,904,005	$ 14,904,005	$ 84,770	$ -	$ -	$ 902,000
Reclaimed Water	$ 20,547,946	$ 20,676,184	$ 2,654,826	$ 2,267,000	$ 4,132,126	$ 41,089,720
Surface Water	$ 3,765,000	$ 3,765,000	$ -	$ -	$ -	$ 600,000
Seawater	$ -	$ -	$ -	$ -	$ -	$ -
Rainwater	$ -	$ -	$ 100,000	$ -	$ -	$ -
Storm Water	$ -	$ -	$ 125,000	$ -	$ -	$ 7,500,000
Subtotal:	$ 39,216,951	$ 39,345,189	$ 2,964,596	$ 2,267,000	$ 4,132,126	$ 50,091,720
Grant Total:	$					138,017,582

Florida Forever Work Plan
Annual Report

6. FLORIDA FOREVER WORK PLAN ANNUAL REPORT

Table of Contents

Figures

Tables

I. Introduction

As required by Section 373.199(7), *Florida Statutes* (F.S.), the St. Johns River Water Management District (District) has completed the 17th annual update of the 2001 Florida Forever Work Plan. Its purpose is to present projects eligible for funding under the Florida Forever Act (Section 259.105, F.S.), and to report on progress and changes made since the initial July 2001 submission. Prior to 2006, the District was required to submit the annual report to the Governor, the President of the Senate, and the Speaker of the House of Representatives. New legislation passed in 2005 (Section 373.036(7), F.S.) now requires the annual update to be presented as a separate chapter in the Consolidated Annual Report.

In addition to a summary of the proposed Florida Forever (FF) funding and projects during the planning period, the report presents project status, modifications and additions to the 2001 plan and consists of water resource development, restoration, and land acquisition subsections. Other required information for this report includes land acquisitions that were completed and District lands that were surplused during fiscal year (FY) 2015–2016. Finally, land management activities conducted by the District and budget and expenditure information for the FF fund and the Water Management Lands Trust Fund (WMLTF) can also be found in this report.

The Florida Forever Trust Fund was established in 1999 to replace the Preservation 2000 Trust Fund. The funds can be used for land acquisition, water resource development, storm water management, waterbody restoration, recreational facility construction, public access improvements, invasive plant control, and related projects. The Florida Forever Act (s. 259.1051) established a not-to-exceed amount of $5.3 billion that would be deposited into the Florida Forever Trust Fund through 2020. This calculates to $300 million annually for all participating agencies and the five water management districts are allocated 30% of this total annually ($90 million) as shown in Table 6-1.

Table 6-1. Florida Forever annual water management district funding distribution

WMD	% Allocation	Amount
South Florida	35.0%	$ 31,500,000
St. Johns River	25.0%	22,500,000
Southwest Florida	25.0%	22,500,000
Suwannee River	7.5%	6,750,000
Northwest Florida	7.5%	6,750,000
Total	100.0%	$ 90,000,000

Based on the allocation formula, the District was designated to receive up to $22.5 million a year. However, no FF funds were appropriated to the District for FY 2009–2010, $1.125 million was appropriated for FY 2010–2011, and no new FF funding has been appropriated since.

This annual update has been prepared with the assumption that there will be no new FF fund allocations through the planning period.

II. Proposed Florida Forever Funding During the Planning Period

Because the state has not appropriated new FF funding since 2011–2012, this annual update has been prepared with the assumption that there will be no new FF fund allocations through the planning period.

Table 6-2 shows the past expenditures (FY 2000–2001 through FY 2012–2013). The District fully utilized its total allocation of $233.63 million of FF funding during FY 2012–2013. Figure 6-2 shows the shares of lifetime expenditures are 15.8% for water resource development (WRD) projects, 12% for restoration projects, and 72.2% for land acquisitions.

Table 6-2. Past expenditures through FY 2012–2013 (in millions)

Expenditure Category	FY	WRD	Restoration	Land	Combined Total	Cumulative Expenditure
Past 13-years Actual Adopted Budget	2000–2001	$ 0.00	$ 0.63	$ 0.00	$ 0.63	$ 0.63
	2001–2002	0.00	2.02	18.76	20.78	21.41
	2002–2003	0.31	2.36	8.50	11.17	32.58
	2003–2004	1.80	1.28	4.19	7.28	39.86
	2004–2005	6.50	0.39	13.84	20.73	60.59
	2005–2006	4.32	0.68	1.26	6.26	66.85
	2006–2007	9.66	4.43	49.11	63.19	130.03
	2007–2008	4.35	9.33	48.23	61.91	191.94
	2008–2009	7.55	4.08	17.55	29.18	221.12
	2009–2010	2.09	2.47	2.73	7.30	228.42
	2010–2011	0.42	0.23	4.42	5.06	233.48
	2011–2012	0.00	0.00	0.03	0.03	233.51
	2012–2013	0.00	0.11	0.00	0.11	233.63
Adopted Budget + Projection		**0.00**	**0.00**	**0.00**	**0.00**	
FF Lifetime Expenditure		**$ 36.99**	**$ 28.03**	**$ 168.60**	**$ 233.63**	

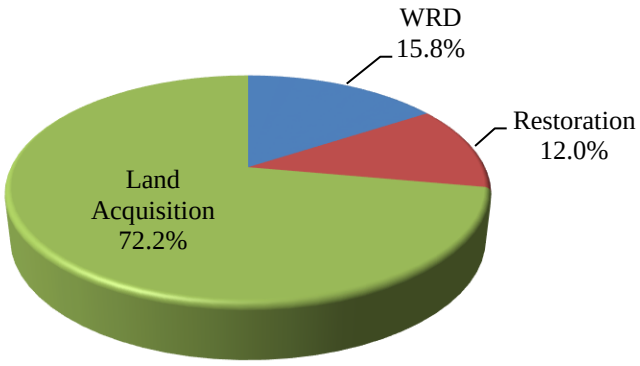


Figure 6-1. Florida Forever program lifetime expenditures by District program

III. Project Modification and Additions to the 2001 Florida Forever Work Plan

Water Resource Development Projects

The Water Resource Development (WRD) Program was mandated in 1997 by Section 373.0361, F.S., which requires water management districts to complete specific water supply planning activities and initiate water resource development and water supply projects. The legislation defines water resource development to differentiate it from water supply development and states the water management districts' primary responsibilities are water supply planning and water resource development. All water resource development projects are identified in the District's annual Water Resource Development Work Program (WRDWP) as required by Section 373.536(6)(a)4., F.S. The WRDWP is updated annually in October, reviewed by the Florida Department of Environmental Protection (DEP), and finalized for inclusion in the Consolidated Annual Report.

The District plans to use no new FF funds for WRD projects during this planning period. The program's expenditures in the past totaled $36.99 million, accounting for 15.8% of the total estimated FF expenditures by the District.

Restoration Projects

The District plans to use no new FF funds for restoration projects during this planning period. The program's expenditures in the past totaled $28.03 million, accounting for 12% of the total estimated FF expenditures by the District.

Land Acquisitions

The District plans to use no new FF funding for land acquisition-related expenses during the planning period from FY 2017–2018 to FY 2021–2022. The program's expenditures in the past totaled $168.6 million, accounting for 72.2% of the total estimated FF expenditures by the District.

Land acquisition has been a key tool utilized by the District to accomplish its goals. Lands were acquired to build water resource development and restoration projects and to conserve natural resources, including floodplains, springsheds, and recharge areas. For conservation acquisitions, the District emphasized partnerships with other public agencies, including DEP and local and federal governments.

2018 Map Revisions to Potential Acquisition Areas

The District proposes no changes to the potential acquisition areas for the FY 2016–2017 Land Acquisition Map. The areas identified as potential acquisitions in the FY 2016–2017 Land Acquisition Map total 117,393 acres, or a reduction of 965 acres from the FY 2016–2017 Land

Acquisition Map. The reduction in potential acquisition acres from last year is attributed to acres that were both purchased by the District or another public agency during FY 2016–2017 and were within the "potential acquisition" layer.

2018 Land Acquisition Strategies

It is expected that land acquisitions will be limited during this year. If funding sources become available for new acquisitions, acquisitions will be focused on:

- Properties where the District can leverage District funds with federal, state or local partnerships;
- Properties that are needed to construct water resource projects or to meet wetlands mitigation requirements;
- Properties that meet the District's core missions to safeguard water supply, water quality, flood protection, and natural systems; and
- Properties that protect springsheds.

Private/public partnerships such as less-than-fee acquisitions will also be considered.

Florida Forever Land Acquisition Projects

The District coordinates with the state's FF program for numerous cost-effective projects. The FF Priority List of projects is developed by the Acquisition and Restoration Council (ARC) and approved by the Governor and Cabinet. Currently there are 118 projects that were ranked and approved by ARC in December 2016 for the 2017 Florida Forever Priority List. There are six project categories, and within each category, projects are ranked in numerical order and given a high, medium or low priority for DEP's annual FF Work Plan. Table 6–3 shows the 38 projects that are within the District's boundaries, sorted by category, county, and rank.

Table 6-3. December 2016 ARC Recommendations for the FF acquisition priority list for projects within the District

Projects listed by Category	County	Rank within Category-Work Plan Group
Critical Natural Lands (CNL)		**9 of 33 Total Projects**
Lake Wales Ridge Ecosystem	Lake, Osceola	CNL-3-High
Wekiva-Ocala Greenway	Lake, Orange, Seminole, Volusia	CNL-4-High
Longleaf Pine Ecosystem	Marion, Volusia	CNL-9-Med
Etoniah Creek/Cross Florida Greenway	Clay, Marion, Putnam	CNL-10-High/Med
Pine Island Slough Ecosystem	Indian River, Osceola	CNL-12-Med
Osceola Pine Savannas	Osceola	CNL-14-Med
Camp Blanding to Raiford Greenway	Baker, Bradford, Clay, Union	CNL-20-Low
Pinhook Swamp	Baker	CNL-21-Low
Southeastern Bat Maternity Caves	Alachua, Marion	CNL-30-Low
Substantially Complete (SC)		**2 of 7 Total Projects**
Lochloosa Wildlife	Alachua	SC-5-Low
Spruce Creek	Volusia	SC-6-Low

Projects listed by Category	County	Rank within Category-Work Plan Group
Critical Historical Resources ("CHR")		**1 of 5 Total Projects**
Three Chimneys	Volusia	CHR-3-Low
Climate Change Lands (CC)		**4 of 13 Total Projects**
Northeast Florida Blueway	Duval, Flagler, St. Johns	CC-3-Med
Archie Carr Sea Turtle Refuge	Brevard, Indian River	CC-8-Low
St. Johns River Blueway	St. Johns	CC-9-Low
Tiger/Little Tiger Island	Nassau	CC-13-Low
Less-Than-Fee (LTF)		**8 of 30 Total Projects**
Big Bend Swamp/Holopaw Ranch	Osceola	LTF-9-Med
Kissimmee-St. Johns River Connector	Indian River, Okeechobee	LTF-10-Med
Matanzas to Ocala Conservation Corridor	Flagler, St. Johns, Putnam	LTF-12-Med/Low
Raiford to Osceola Greenway	Baker, Union	LTF-13-Low
Ranch Reserve	Brevard, Indian River, Osceola	LTF-15-Low
Maytown Flatwoods	Brevard	LTF-17-Low
Mill Creek	Marion	LTF-20-Low
Clay Ranch	Putnam	LTF-23-Low
Partnerships and Regional Incentives (PR)		**14 of 30 Total Projects**
Florida's First Magnitude Springs	Marion	PR-1-High
NE FL Timberlands and Watershed Reserve	Clay, Duval, Nassau	PR-2-High
Indian River Lagoon Blueway	Brevard, Indian River, Volusia	PR-4-High
Brevard Coastal Scrub Ecosystem	Brevard	PR-5-High
Heather Island/Ocklawaha River	Marion	PR-9-Med
Volusia Conservation Corridor	Flagler, Volusia	PR-10-Med
Green Swamp (formerly four projects now combined into one project)	Lake, Polk	PR-11-Med/Low
Flagler County Blueway	Flagler	PR-12-Low
Lochloosa Forest – new project in 2016	Alachua	PR-14-Low
Lake Santa Fe	Alachua, Bradford	PR-15-Low
Pumpkin Hill Creek	Duval	PR-24-Low
Baldwin Bay/St. Marys River	Duval, Nassau	PR-26-Low
Carr Farm/Price's Scrub	Alachua, Marion	PR-29-Low
Pringle Creek Forest	Flagler	PR-30-Low

IV. Land Acquisitions Completed During FY 2016–2017

This section is a summary of land transactions between October 2016 and September 2017. During this reporting period, the District completed 21 transactions totaling a net 824.7 acres of land. The types of transactions included fee simple acquisitions and exchanges; conservation easement acquisitions and a partial release; easements for monitoring wells, utilities and access; and assistance to other governmental programs. The total net purchase price was $4,042,729.

Table 6–4 provides a list of all land transactions that closed between October 2016 and September 2017, and Table 6–5 presents the lands that were under contract as of September 2017. A summary of all District land transactions since 1979 may be obtained by contacting the District's Division of Water and Land Resources at 386-329-4500.

Table 6-4. FY 2016–2017 land transactions

Transaction Date	Parcel Name	LA Number	Transaction Type	County	Total Net Fee or CE Acres	SJRWMD Portion of Purchase Price or Funds Received	Total Net Purchase Price or Funds Received	Funding Source	Surface Water Basin
10/5/2016	Hart, Kenneth - Marion County	1999-019-P1	Fee	Marion	185.4	$751,180	$751,180	Ad Valorem	Ocklawaha River
12/22/2016	CFWI - LCWA - Scrub Point Monitoring Well Easement	2016-002-PD	Less Than Fee - Other	Lake	0	$0	$0	Donation	Ocklawaha River
2/2/2017	Julington-Durbin Creek	1990-011-P1	Joint Fee	St. Johns	-1.5	($1,250)	($5,000)	Exchange	Lower St. Johns River
2/2/2017	Julington-Durbin Addition	1990-011-P2	Joint Fee	Duval	5	$0	$0	Exchange	Lower St. Johns River
2/2/2017	Julington Durbin Creek - Access Easements	1990-011-P3	Less Than Fee - Other	St. Johns	0	$0	$0	Exchange	Lower St. Johns River
3/28/2017	Monitoring Well Site - Sykes Property	2016-002-PB	Less Than Fee - Other	St. Johns	0	$0	$0	Donation	Lower St. Johns River
4/11/2017	Woodruff - Gemini Springs Addition	1991-054-P1	Fee	Volusia	-162.0	$0	$0	Donation to Local Gov't	Middle St. Johns River

Transaction Date	Parcel Name	LA Number	Transaction Type	County	Total Net Fee or CE Acres	SJRWMD Portion of Purchase Price or Funds Received	Total Net Purchase Price or Funds Received	Funding Source	Surface Water Basin
4/11/2017	Empire Cattle Co.- Gemini Springs Addition	1998-071-P1	Fee	Volusia	-784.8	$0	$0	Donation to Local Gov't	Middle St. Johns River
4/11/2017	Gemini Springs Addition Conservation Easement - Volusia - Empire and Woodruff	2016-013-P1	Less Than Fee - Conservation Easement	Volusia	947.0	$0	$0	Donation from Local Gov't	Middle St. Johns River
4/11/2017	CFWI Monitoring Well - West of Lake Jesup - Seminole County	2017-009-P1	Less Than Fee - Other	Seminole	0.0	$0	$0	Donation	Middle St. Johns River
5/11/2017	FPL Easements - Watershed - FDACS - Deep Creek CA	1994-105-P2	Less Than Fee - Other	St. Johns	0.0	$0	$0	n/a	Lower St. Johns River
5/22/2017	Consolidated Tomoka - Bennett Swamp - Daytona - Pipeline and Flowage Easement	1996-040-P2	Less Than Fee - Other	Volusia	0.0	$0	$0	Donation to Local Gov't	Northern Coastal
6/19/2017	CFWI Monitoring Site - City of Orlando Wadeview	2017-001-P1	Less Than Fee - Other	Orange	0.0	$0	$0	Donation	Middle St. Johns River
6/19/2017	CFWI Monitoring Site - City of Orlando Ivanhoe	2017-002-P1	Less Than Fee - Other	Orange	0.0	$0	$0	Donation	Middle St. Johns River
7/6/2017	Carter-Seminole St. Forest Conservation Easement	1988-012-P2	Partial Release of CE for FDOT Project on SR46	Lake	-2.85	($17,879)	($17,879)	Surplus for FDOT project	Middle St. Johns River
7/13/2017	CFWI Monitoring Site - Dixie Lake - Lake Louisa State Park	2017-006-P1	Less Than Fee - Other	Lake	0.0	$0	$0	Donation	Ocklawaha River

Transaction Date	Parcel Name	LA Number	Transaction Type	County	Total Net Fee or CE Acres	SJRWMD Portion of Purchase Price or Funds Received	Total Net Purchase Price or Funds Received	Funding Source	Surface Water Basin
7/13/2017	Indian Lakes State Forest Monitoring Easement	2017-008-P1	Less Than Fee - Other	Marion	0.0	$0	$0	Donation	Ocklawaha River
7/24/2017	Sigler Property-settle title issue	2016-010-P1	Fee	Marion	7.0	$21,000	$21,000	Ad Valorem	Ocklawaha River
9/7/2017	Coastal Oaks Preserve - Indian River Land Trust - Conservation Easement	2016-015-P1	Less Than Fee - Conservation Easement	Indian River	35.1	$800,000	$800,000	FDOT Mitigation	Indian River Lagoon
9/15/2017	Sun Land Citrus	2003-027-P1	Fee	Lake	596.4	$1,298,428	$1,298,428	FDOT Mitigation	Middle St. Johns River
9/29/2017	Little Rain Lake - Kenneth Barr - North Florida Land Trust	2017-017-P1	Assistance to Other Governmental Programs	Clay	0.0	$0	$1,195,000	DEP's Federal Dept. of Defense for Military Buffer Zones	Lower St. Johns River
Total					**824.7**	**$2,851,479**	**$4,042,729**		

Table 6-5. Parcels under contract as of September 30, 2017

Parcel Name	LA Number	County	Acres	Transaction Type	SJRWMD'S Portion of Purchase Price	Estimated Purchase Price	Funding Source	Surface Water Basin
Roper, L.F. Trust	2017-005-P1	Orange	4.4	Fee	$0	$0	Exchange	Ocklawaha
Melbourne Tillman Water Control District Property - C-10 Reservoir	2015-003-P1	Brevard	96.0	Fee	$0	$0	Exchange	Upper St. Johns River
MTWCD Perpetual Easement	1996-034-PC	Brevard	9.0	Less Than Fee - Other	$0	$0	Exchange	Upper St. Johns River
Volusia County - Spruce Creek Conservation Easement	2014-012-P1	Volusia	129.0	Less Than Fee - Conservation Easement	$0	$0	Surplus	Northern Coastal
Fellsmere Joint Venture	2001-058-PD	Indian River	10.0	Fee	$0	$0	Exchange	Upper St. Johns River
Fellsmere Joint Venture Flowage Easement	2001-058-PE	Indian River	414.0	Less Than Fee - Flowage easement/hold harmless	$0	$0	Exchange	Upper St. Johns River

V. Surplus Lands During FY 2016–2017

Occasionally, the District may dispose of lands that are usually small, isolated, not suitable for land management or restoration, or lands designated for a local government water quality improvement project. The money received from the sale of surplus lands is designated for future land acquisitions. In addition, over the course of the last few years, the District surplused lands designated in the District Lands Assessment Implementation Plan approved by the Governing Board in December 2012.

During FY 2016–2017, the District disposed of 951.2 acres of land in four transactions and received land, conservation easements, and $22,879 in compensation. Table 6–6 below shows more details about the transactions. Since 1997, the District has disposed of 15,074 acres of land and received approximately $11.4 million in compensation.

Table 6-6. Surplus parcels during FY 2016–2017

Transaction Date	Parcel Name	LA Number	Transaction Type	County	Surface Water Basins	Total Net Fee or CE Acres	Compensation
2/2/2017	Julington-Durbin Creek	1990-011-P1	Joint Fee with BTIITF – exchange with private party	St. Johns	Lower St. Johns River	-1.5	5 acres plus $5,000 and access easements ($1,250 to SJRWMD and $3,750 to BTIITF)
4/11/2017	Woodruff - Gemini Springs Addition	1991-054-P1	Fee – donation to Volusia County	Volusia	Middle St. Johns River	-162.0	conservation easement over same acres
4/11/2017	Empire Cattle Co.-Gemini Springs Addition	1998-071-P1	Fee – donation to Volusia County	Volusia	Middle St. Johns River	-784.8	conservation easement over same acres
7/6/2017	Carter-Seminole St. Forest Conservation Easement	1988-012-P2	Partial Release of CE for FDOT Project on SR 46	Lake	Middle St. Johns River	-2.9	$17,879
Total						**-951.2**	**$22,879**

VI. District Land Management Activities

District Land Management Program

Since 1979, the District has acquired nearly 760,000 acres of land (including less-than-fee acquisitions) for the purposes of water management, water supply, and conservation and protection of water resources. These lands largely consist of wetlands or historically wet areas. Of less acreage, but not of less importance, are upland areas, which are necessary to preserve the wetlands, waters, and wildlife. They also provide critical buffers between encroaching development and important wetland areas.

District lands and related resources are subject to demands from public and private interests for a wide range of uses, including recreational activities such as hunting, camping, and boating; sites for radio towers, utility easements, and District monitoring equipment; and agricultural purposes. These uses are evaluated based on their (1) compatibility with the natural resource function and character of the land and (2) the extent to which they are of benefit to the public. A multiple-use approach is favored, one with an emphasis on ecosystem viability, yet which also provides for public recreation when possible.

Of the 760,000 acres, the District is the lead manager for more than 400,000 acres. As demands for use of lands have increased and District responsibilities have expanded, the need for a consistent, systematic approach to managing District lands and meeting these demands and responsibilities has arisen. The land management plan approved by the Governing Board for each property establishes the philosophy and direction for management and use of District lands.

The land management plan provides a framework for water resource protection, a diversity of habitats, compatible recreational uses, wildlife habitat restoration and enhancement, and the continuation, when possible, of traditional land and water resource uses. Legislative directives guide the land management planning process from acquisition evaluations to the development of land. These plans identify resource needs and compatibility uses. This land management planning process is briefly described below.

Management Planning Process
The management planning process has three phases of evaluation by District staff: (1) the management classification system (pre-acquisition phase), (2) the property assessment phase (post-acquisition), and (3) the management implementation phase (annual and 10-year work plans), with Governing Board direction at each phase. This process provides the mechanism and the opportunity for District staff, other agencies, and the public to participate in the process.

Management Classification System: Lands are grouped according to a management classification system in one of three categories based on primary acquisition purpose and proposed water management use. Categories include Water Management Areas, Restoration Areas and Conservation Areas. Each of these categories has different management objectives. These objectives determine what land uses may be appropriate at each area.

Property Assessment Phase: Property assessments begin during the pre-acquisition phase, when a resource assessment is completed for the parcel of land. After a property is acquired, continued evaluation of ecosystems, planned water management uses, and special protection areas are considered during preparation of the land management plan for the property. This type of evaluation, combined with identification of existing roadways, provides the basis for determining appropriate land use activities. This process has been adapted from guidelines used by the U.S. Forest Service, Southwest Florida Water Management District, and DEP's Division of Recreation and Parks. Land management plans, which are developed using this process, contain descriptions of property-specific information and lead to the management implementation phase.

Management Implementation Phase: This phase provides an opportunity to review the District's (or other managing agency's) annual funding commitments. Annual work plans that are tied to funding commitments and seek to implement the land management plan are developed for each property during this phase.

These three phases of evaluation provide the District with a comprehensive management planning process that is systematic and consistent with legislative priorities. The land management plan establishes the most appropriate use of the District's significant land holdings. The District's Division of Water and Land Resources is required to complete a land management plan for acquired properties within one year of purchase. Land management plans are revised approximately every 10 years. The status of all land management plans is reported in Table 6-7 below.

Table 6-7. Land management status of District lands

Management Area	Mgmt. Plan Status	Cooperative Management Agreement	Public Access	Recreational Opportunities					
				Fish	Hunt	Horse	Boat	Camp	Hike
Austin Cary Forest	In dev.	SJRWMD/Univ. of Florida	□						□
Bayard Conservation Area	comp.	SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
Belmore State Forest	comp.	FFS/SJRWMD	✓	No	✓	✓	No	No	✓
Black Creek Ravines Conservation Area	comp.	SJRWMD/Clay Co.	✓	✓	No	✓	✓	✓	✓
Blue Cypress Conservation Area	comp.	SJRWMD/FWC	✓	✓	✓	No	✓	✓	✓
Buck Lake Conservation Area	comp.	SJRWMD/FWC /Brevard Co.	✓	✓	✓	✓	✓	✓	✓
Canaveral Marshes Conservation Area	comp.	SJRWMD/DEP/Great Outdoors	✓	✓	No	✓	✓	No	✓
Caravelle Ranch Wildlife Management Area	comp.	FWC/SJRWMD	✓	✓	✓	✓	Canoe/ kayak	✓	✓
Cary State Forest	comp.	FFS/SJRWMD	✓	No	✓	✓	No	✓	✓
Charles H. Bronson State Forest	comp.	FFS/SJRWMD/Orange Co.	✓	✓	✓	✓	Canoe/ kayak	✓	✓
Clark Bay Conservation Area	comp.	Volusia Co./SJRWMD	✓	✓	✓	✓	No	No	✓

Management Area	Mgmt. Plan Status	Cooperative Management Agreement	Public Access	Recreational Opportunities					
				Fish	Hunt	Horse	Boat	Camp	Hike
Crescent Lake Conservation Area	comp.	SJRWMD	✓	No	No	✓	No	✓	✓
Deep Creek Conservation Area	comp.	SJRWMD/DEP	✓	✓	No	✓	✓	No	✓
Deep Creek Preserve	comp.	SJRWMD/Volusia Co.	✓	□		✓	□		✓
Dunns Creek Conservation Area	comp.	SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
Econlockhatchee Sandhills Conservation Area	comp.	SJRWMD	✓	✓	No	✓	No	No	✓
Emeralda Marsh Conservation Area	comp.	SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
Faver-Dykes State Park	comp.	DEP/SJRWMD	✓	✓	No	✓	✓	✓	✓
Fellsmere Water Management Area	In dev.	SJRWMD	✓	✓	✓	No	✓	No	✓
Fort Drum Marsh Conservation Area	comp.	SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
Four Creeks State Forest	comp.	FFS/SJRWMD	✓	✓	✓	✓	✓	No	✓
Gemini Springs Addition	comp.	SJRWMD	✓	No	No	✓	No	No	✓
Gemini Springs County Park	comp.	Volusia County/SJRWMD	✓	✓	No	No	No	No	✓
Gourd Island Conservation Area	comp.	SJRWMD	✓	No	No	✓	No	No	✓
Hal Scott Regional Preserve and Park	comp.	SJRWMD/Orange Co.	✓	✓	No	✓	Canoe/ Kayak	✓	✓
Haw Creek Preserve	comp.	Flagler Co./SJRWMD/FFS	✓	✓	No	✓	✓	✓	✓
Heart Island Conservation Area	comp.	SJRWMD/FWC	✓	✓	✓	✓	No	✓	✓
Herky Huffman/Bull Creek Wildlife Management Area	comp.	FWC/SJRWMD	✓	✓	✓	✓	Canoe/ kayak	✓	✓
Hull Swamp Conservation Area	In dev.	SJRWMD	□	□	□	□		□	□
Newnans Lake Conservation Area	comp.	FFS/SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
John Bethea State Forest	comp.	FFS/SJRWMD	✓	✓	✓	✓	No	✓	✓
Julington-Durbin Preserve	comp.	SJRWMD/DEP/COJ	✓	✓	No	✓	✓	No	✓
Lake Apopka North Shore	comp.	SJRWMD/NRCS	✓	✓	No	✓	✓	No	✓
Lake George Conservation Area	comp.	SJRWMD/ FWC/Volusia Co.	✓	✓	✓	✓	✓	✓	✓
Lake George Forest	comp.	Volusia County/FWC/SJRWMD	✓	✓	✓	✓	✓	✓	✓

Management Area	Mgmt. Plan Status	Cooperative Management Agreement	Public Access	Recreational Opportunities					
				Fish	Hunt	Horse	Boat	Camp	Hike
Lake Jesup Conservation Area	comp.	SJRWMD	✓	✓	No	✓	✓	✓	✓
Lake Monroe Conservation Area	comp.	SJRWMD/Seminole Co./FWC	✓	✓	✓	✓	✓	✓	✓
Lake Norris Conservation Area	comp.	SJRWMD/LCWA	✓	✓	No	✓	Canoe/ kayak	✓	✓
Lake Woodruff National Wildlife Refuge	comp.	USFWS/SJRWMD	✓	✓	✓	No	✓	No	✓
Little-Big Econ State Forest	comp.	FFS/SJRWMD	✓	✓	✓	✓	✓	✓	✓
Lochloosa Wildlife Conservation Area	comp.	SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
Longleaf Flatwoods Reserve	comp.	SJRWMD/Alachua Co.	✓	No	No	✓	No	✓	✓
Longleaf Pine Preserve	comp.	Volusia County/SJRWMD	✓	✓	No	✓	No	✓	✓
Matanzas State Forest	comp.	FFS/SJRWMD	✓	✓	✓	✓	No	✓	✓
Micco Water Management Area	comp.	SJRWMD	✓	No	No	✓	No	No	✓
Moses Creek Conservation Area	comp.	SJRWMD	✓	✓	No	✓	✓	✓	✓
Murphy Creek Conservation Area	comp.	SJRWMD	✓	✓	No	✓	✓	✓	✓
Neighborhood Lakes	comp.	Lake Co./SJRWMD	✓	No	No	✓	No	No	✓
Newnans Lake Conservation Area	comp.	SJRWMD/Alachua Co.	✓	✓	✓	✓	Canoe/ kayak	✓	✓
Ocklawaha Prairie Restoration Area	comp.	SJRWMD/NRCS	✓	✓	✓	✓	✓	✓	✓
Orange Creek Restoration Area	comp.	SJRWMD/NRCS	✓	✓	✓	✓	✓	✓	✓
Oslo Riverfront Conservation Area	comp.	Indian River County/SJRWMD	✓	✓	No	No	✓	No	✓
Palm Bluff Conservation Area	comp.	SJRWMD	✓	✓	No	✓	No	✓	✓
Paynes Prairie Preserve State Park	comp.	DEP/SJRWMD	✓	✓	No	✓	✓	✓	✓
Pellicer Creek Conservation Area	comp.	SJRWMD/FWC/Flagler Co.	✓	✓	No	✓	✓	No	✓
Pine Island Conservation Area	comp.	Brevard Co/SJRWMD	✓	✓	No	✓	✓	No	✓
Princess Place Preserve	comp.	Flagler Co./SJRWMD	✓	✓	No	✓	✓	✓	✓
Pumpkin Hill Creek Preserve State Park	comp.	DEP/SJRWMD	✓	✓	No	✓	✓	No	✓
Ralph E. Simmons Memorial State Forest	comp.	FFS/SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓

Management Area	Mgmt. Plan Status	Cooperative Management Agreement	Public Access	Recreational Opportunities					
				Fish	Hunt	Horse	Boat	Camp	Hike
River Lakes Conservation Area	comp.	SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
Rock Springs Run State Reserve	comp.	DEP/SJRWMD/Orange Co.	✓	✓	✓	✓	Canoe/ kayak	✓	✓
Salt Lake Wildlife Management Area	In dev.	FWC/SJRWMD	✓	✓	✓	✓	No	No	✓
Sand Lakes Conservation Area	comp.	SJRWMD	✓	No	No	✓	No	No	✓
Sebastian Stormwater Park	comp.	SJRWMD/City of Sebastian	✓	No	No	No	No	No	✓
Seminole Ranch Conservation Area	comp.	SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
Seminole State Forest	comp.	DOF/SJRWMD	✓	✓	✓	✓	✓	✓	✓
Silver Springs Forest Conservation Area	In dev.	SJRWMD	✓	✓	No	✓	No	No	✓
Spruce Creek Preserve	comp.	Volusia County/SJRWMD	✓	✓	No	No	✓	No	✓
St. Sebastian River Preserve State Park	comp.	DEP/SJRWMD/Indian River Co.	✓	✓	No	✓	✓	✓	✓
Stokes Landing Conservation Area	comp.	SJRWMD	✓	✓	No	✓	✓	✓	✓
Sunnyhill Restoration Area	comp.	SJRWMD/NRCS	✓	✓	No	✓	✓	✓	✓
T.M Goodwin Waterfowl Management Area	comp.	FWC/SJRWMD	✓	✓	✓	No	✓	No	✓
Thomas Creek Conservation Area	comp.	SJRWMD/COJ/FWC	✓	✓	✓	✓	✓	No	✓
Three Forks Conservation Area	comp.	SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
Tiger Bay State Forest	comp.	FFS/SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
Triple N Ranch Wildlife Management Area	comp.	FWC/SJRWMD	✓	✓	✓	✓	No	✓	✓
Turnbull Hammock Conservation Area	comp.	SJRWMD	✓	✓	No	No	No	No	✓
Twelve Mile Swamp Conservation Area	comp.	SJRWMD/DEP	✓	No	✓	✓	No	No	✓
Wekiva River Buffer Conservation Area	comp.	SJRWMD	✓	✓	No	No	✓	No	✓
Wiregrass Prairie Preserve	comp.	Volusia County/SJRWMD	✓	✓	No	✓	✓	✓	✓

Tours by District staff are available for environmental education on all District-owned lands, by request.

FY 2016–2017 Land Management Activities

This section provides a summary of various land management activities that were conducted by the District from October 2016 through September 2017.

Land Management Planning

- There were no management plans approved by the Governing Board.

Recreational Public Meetings

- Four recreational public meetings were conducted. Two were in the District's Southern Region, one in the Central Region, and one in the Northern Region.

Management Review Teams

- Five Management Review Team (MRT) tours were conducted at Buck Lake Conservation Area, Orange Creek Restoration Area, Ralph E. Simmons State Forest, Seminole Ranch Conservation Area and Thomas Creek Conservation Area.
- Findings from the MRT tours indicate that these conservation areas are being managed for the purposes for which they were acquired and are compliant with the approved management plans.

Intergovernmental Management Agreements

- No new agreements were executed this year.
- District staff have continued to work with partner agencies on the development of agreements for the management of District lands.
- Intergovernmental agreements have been finalized and executed with the following management partners: U.S. Fish and Wildlife Service; U.S. Forest Service; U.S. Department of Agriculture — Natural Resources Conservation Service; DEP/Florida Park Service; Florida Forest Service; Florida Fish and Wildlife Conservation Commission; Florida Department of Transportation; Alachua, Brevard, Clay, Flagler, Indian River, Lake, Orange, Osceola, Seminole, and Volusia counties; cities of Apopka, Jacksonville, and Sebastian, and the Orlando-Orange County Expressway Authority.

Less-than-fee Acquisitions

- The monitoring of conservation easements for compliance is an ongoing activity of the Bureau of Real Estate Services. District staff is currently monitoring activities on 68 easements, four of which will ultimately become full fee ownership properties for the District.
- Two of the 68 conservation easements are in favor of the Trustees but are monitored by District staff at the request of the Trustees.

Recreation/Public Use Improvements

- The McDonald Canal Boat Ramp Park at Lake Apopka North Shore was opened and is managed, through agreement, by the Lake County Parks. This includes an ADA-accessible, improved boat ramp and kayak launch, picnic shelter, restrooms and paved parking.

Forest Management/Restoration

- Completed tree planting projects on 525 acres within seven conservation areas (Lake George, Pellicer Creek, Emeralda Marsh, Sunnyhill, Lochloosa, Deep Creek and Micco Water Management Area).
- Conducted site preparation on 375 acres for tree planting.
- Conducted 12 timber sales on 2,761 acres. Total revenue received from these sales in FY 2016–2017 was $1,235,725.
- Marked 762 acres for thinning to facilitate harvesting.
- Cruised 1,232 forest inventory plots.

Fire Management

- Conducted 25 prescribed burns on 21,308 acres across 22 conservation areas.
- Fought 26 wildfires that burned more than 19,970 acres. Staff expended 1,106 hours during and after the fires.
- Staff managed a firefighter contract utilizing both internal funds and funds from the Florida Forest Service Prescribed Fire Enhancement Program. The five contracted firefighters assisted on 15 prescribed burns totaling 7,589 acres. They also conducted 220 miles of fireline maintenance and 162 acres of chemical fuels management.

Restoration Activities

- District staff completed 946 acres of roller-chopping encroaching shrubs at Murphy Creek, Pellicer Creek, West Augustine, Lane Norris, Seminole Ranch and Canaveral Marshes.
- District staff completed mulch mowing of 927 acres of shrubs and palmetto for habitat improvement and wildland urban interface fuels management at Lake Apopka North Shore, Lochloosa, Longleaf Flatwoods, Newnans Lake and Hal Scott.
- Staff planted native ground cover on 210 acres at Lake Apopka North Shore and Emeralda Marsh.
- Staff completed 429 acres of offsite tree removal (oaks and sand pines) to improve longleaf pine habitats at Lochloosa, Heart Island, Lake George and Moses Creek.
- A fallow 13-acre orange grove was leveled at Micco Water Management Area for future planting of pine seedlings and move toward enhancement of the site.
- Three-and-a-half miles of wildfire suppression lines (plow lines) were rehabilitated on multiple District conservation areas.

Special Projects

- District staff worked with 33 volunteers in the 10th annual Jaywatch survey. This equated to 229 volunteer hours to survey for scrub jays concurrently at Lake Monroe Conservation Area and Buck Lake Conservation Area on three consecutive days.
- District staff removed and relocated 380 gopher tortoises from 4.5 miles of L-73, a U.S. Army Corps of Engineers Levee related to the Jane Green Swamp.

Security

- District staff oversaw the replacement/construction of 5.8 miles of fencing on multiple properties.

Invasive Plant Management:

- District staff treated 24,668 acres of lands with invasive species in FY 2016–2017, which includes:
  - 7,618 acres of climbing fern;
  - 7,228 acres of aquatic invasive species, which included 3,264 acres of hydrilla;
  - 5,485 of willow treatment; and
  - 742 acres of sovereign waters under contract with FWC.

Leases of District Land

- Over the past year, 88 leases have been developed and/or renewed for use of 469,341 acres of District properties, primarily for agricultural and land management purposes. (See Table 6-8 for more details).

Table 6-8. Inventory of leases

Lessee	Use	Acres	Management Area	Counties
Lake Jem Farms	Agriculture	300	Lake Apopka North Shore	Orange
Sun Gro	Agriculture	1,320	Emeralda Marsh Conservation Area	Lake
Brinson Honey	Apiary	4	Emeralda Marsh Conservation Area, Lochloosa Wildlife Conservation Area, Sunnyhill Restoration Area	Alachua, Lake, Marion
Charles Edward Smith	Apiary	1	C-54, Fellsmere Grade, Ft. Drum Marsh Conservation Area	Brevard, Indian River
JDE Lake	Apiary	2	Heart Island Conservation Area, Lake Apopka North Shore, Lake George Conservation Area	Putnam, Orange, Volusia
John Watson	Apiary	1	Longleaf Flatwoods Reserve	Alachua
Lake Indianhead Honey Farms	Apiary	1	Lake Norris Conservation Area	Lake
Lewis Rickman Sutton	Apiary	1	Bayard Conservation Area	Clay
Mario and Shelly Jacob, D & J Apiary	Apiary	1	Rice Creek Conservation Area	Putnam
Michael and Kristy Tyrrell	Apiary	1	Heart Island Conservation Area	Volusia
Patrima Jester	Apiary	1	Lake Jesup Conservation Area	Seminole
Smith, Charles	Apiary	1	Thomas Creek Conservation Area	Duval
Sutton	Apiary	1	Bayard Conservation Area	Clay
Webb	Apiary	2	Buck Lake Conservation Area, Hal Scott Regional Preserve and Park, Seminole Ranch Conservation Area	Brevard, Orange
Xiuliang Bao, Lankobee Farm Apiary	Apiary	1	Thomas Creek Conservation Area	Duval
Clear Channel Wordwide	Billboard	1	Buck Lake Conservation Area	Brevard
Clear Channel Wordwide	Billboard	1	Gourd Island Conservation Area	St. Johns
Clear Channel Worldwide	Billboard	1	Canaveral Marshes Conservation Area	Brevard
Outfront Media - No. 1170	Billboard	1	Gourd Island Conservation Area	St. Johns

Lessee	Use	Acres	Management Area	Counties
Outfront Media - No. 1172	Billboard	1	Gourd Island Conservation Area	St. Johns
Outfront Media - SR 407	Billboard	1	Canaveral Marshes Conservation Area	Brevard
C&E Farms	Cattle Grazing	277	Lochloosa Wildlife Conservation Area	Alachua
Deseret Ranch	Cattle Grazing	1,866	Three Forks Conservation Area	Brevard
Dr. Freel, Country Oaks Angus Ranch	Cattle Grazing	3,108	Sunnyhill Restoration Area	Marion
Duda & Sons	Cattle Grazing	7,695	River Lakes Conservation Area	Brevard
Elerice Smith	Cattle Grazing	82	Bayard Conservation Area	Clay
Evans Farms	Cattle Grazing	690	Heart Island Conservation Area	Flagler
FIT	Cattle Grazing	377	Bayard Conservation Area	Clay
Ilean Speer	Cattle Grazing	114	Buck Lake Conservation Area	Brevard
Ivan Townsend	Cattle Grazing	4,966	Canaveral Marshes Conservation Area	Brevard
James Dean	Cattle Grazing	32	Turnbull Hammock Conservation Area	Volusia
Jeff and Debra Russell	Cattle Grazing	3,160	Palm Bluff Conservation Area	Volusia
John Tanner	Cattle Grazing	630	Canaveral Marshes Conservation Area	Brevard
Ken Elliott	Cattle Grazing	400	Murphy Creek Conservation Area	Putnam
Lawrence Fleckinger /BCSWCD	Cattle Grazing	4,000	Canaveral Marshes Conservation Area	Brevard
Lee, David — DEP/District owned west parcel	Cattle Grazing	1,623	Charles H. Bronson State Forest	Seminole
Lee, David/C.S. Cattle Company	Cattle Grazing	2,890	Charles H. Bronson State Forest	Seminole
LeFils, James (Seminole Soil and Water Conservation)	Cattle Grazing	2,031	Lake Jesup Conservation Area	Seminole
LeFils, James C.	Cattle Grazing	1,210	Lake Monroe Conservation Area	Volusia
Mack	Cattle Grazing	3,000	Lake Monroe Conservation Area	Seminole, Volusia
Mo Williams	Cattle Grazing	418	Lake Norris Conservation Area	Lake
Payton Tilton	Cattle Grazing	1,545	Palm Bluff Conservation Area	Volusia
Schuller / Crescent TS Cattle Company	Cattle Grazing	2,200	Fort Drum Marsh Conservation Area	Indian River
Schuller / Crescent TS Cattle Company	Cattle Grazing	1,313	Sand Lakes Conservation Area	Indian River
Schuller / Crescent TS Cattle Company - Marl Bed Flats	Cattle Grazing	788	Lake Jesup Conservation Area	Seminole

Lessee	Use	Acres	Management Area	Counties
Shirley Ward	Cattle Grazing	1,600	Little-Big Econ State Forest	Seminole
Strawn	Cattle Grazing	73	Heart Island Conservation Area	Volusia
Tanner, John - Seminole Ranch	Cattle Grazing	1,980	Seminole Ranch Conservation Area	Orange
Tucker, Far Reach Ranch	Cattle Grazing	559	Three Forks Conservation Area	Brevard
Willard Palmer — South of Malabar Road	Cattle Grazing	1,409	Three Forks Conservation Area	Brevard
Willard Palmer — North of Malabar Road	Cattle Grazing	320	Three Forks Conservation Area	Brevard
Yarborough	Cattle Grazing	6,320	Little-Big Econ State Forest	Seminole
City of Apopka Reclaimed Water Lease	Facility	40	Lake Apopka North Shore	Orange
Florida Dept. of Agriculture and Consumer Services — HWCTT	Facility	60	Deep Creek Conservation Area	St. Johns
Florida Institute of Technology — Rowing Facility	Facility	5	C-54	Brevard
FWC - Office Space	Facility	1	Palm Bay Service Center	Brevard
Lake County Water Authority — CC Ranch Stormwater Treatment Lease	Facility	244	Lake Apopka North Shore	Lake
Marion County Fire Department Lease	Facility	3	Sunnyhill Restoration Area	Marion
Refuge at Ocklawaha	Facility	103	Ocklawaha Prairie Restoration Area	Marion
Sebastian River High School — Rowing Facility	Facility	1	C-54	Brevard
Belmore State Forest — Bull Creek North (Satsuma Tract)	Management Lease	3,496	Belmore State Forest — Satsuma Tract	Clay
Charles H. Bronson State Forest Lease — Joshua Creek	Management Lease	2,699	Charles H. Bronson State Forest	Orange
Charles H. Bronson State Forest Lease — Turkey Creek West	Management Lease	1,624	Charles H. Bronson State Forest	Seminole
Faver-Dykes State Park Lease	Management Lease	697	Faver-Dykes State Park	St. Johns
Four Creeks State Forest — Geiger Lease	Management Lease	395	Four Creeks State Forest	Nassau
Herky Huffman/Bull Creek WMA Lease	Management Lease	23,646	Herky Huffman/Bull Creek WMA	Osceola
Little Big Econ State Forest Lease	Management Lease	7,156	Little-Big Econ State Forest	Seminole
Rock Springs Run State Reserve — Neighborhood Lakes — Orange County	Management Lease	316	Rock Springs Run State Reserve	Orange

Lessee	Use	Acres	Management Area	Counties
T.M. Goodwin Waterfowl Management Area Lease	Management Lease	3,870	T.M. Goodwin Waterfowl Management Area	Brevard
Trustees Lease #4009 — Lake George WMA	Management Lease	11,303	Lake George Conservation Area	Putnam, Volusia
Trustees Lease #4116 — Triple N Ranch WMA	Management Lease	7,599	Triple N Ranch WMA	Osceola
Trustees Lease #4326 — Tiger Bay State Forest	Management Lease	11,156	Tiger Bay State Forest	Volusia
Trustees Lease #4336 — Indian River Lagoon Preserve State Park	Management Lease	256	Indian River Lagoon Preserve State Park	Brevard
Trustees Lease #4359 — John Bethea State Forest	Management Lease	21,874	John Bethea State Forest	Baker
Trustees Lease #4397 — St. Sebastian River Preserve State Park	Management Lease	16,386	St. Sebastian River Preserve State Park	Brevard, Indian River
Trustees Lease #4441 — Matanzas State Forest	Management Lease	4,668	Matanzas State Forest	St. Johns
Trustees Lease #4445 — Faver-Dykes State Park	Management Lease	4,166	Faver-Dykes State Park	St. Johns
Trustees Lease #4507 — Four Creeks State Forest	Management Lease	10,222	Four Creeks State Forest	Nassau
Trustees Lease #4609 — Cary State Forest	Management Lease	2,235	Cary State Forest	Duval, Nassau
Higginbotham - palm fronds	Palm Frond Harvest	15,310	Buck Lake Conservation Area, Lake Jesup Conservation Area, Lake Monroe Conservation Area, Seminole Ranch Conservation Area	Brevard, Seminole, Volusia
Puckett Ferneries	Palm Frond Harvest	11,042	Heart Island Conservation Area	Volusia
Puckett Ferneries	Palm Frond Harvest	11,045	Lake George Conservation Area	Putnam, Volusia
Smith, C P. & Wesley, Inc. — Yarborough	Row Crop	40	Deep Creek Conservation Area	St. Johns
Rayonier	Timber	12,427	Twelve Mile Swamp Conservation Area	St. Johns
American Tower - Clark Bay Road	Tower	1	Tiger Bay State Forest	Volusia
American Tower - Tiger Bay	Tower	1	Tiger Bay State Forest	Volusia
Caravelle Ranch WMA Lease	WMA Lease	6,573	Caravelle Ranch WMA	Putnam
FWC WMA/PSGHA Lease	WMA Lease	220,361	19 Managed Areas	Multiple
TOTAL = 88 LEASES		**469,341**		

Special Use Authorizations

- A total of 127 Special Use Authorizations were in effect during the FY 2016–2017 for activities ranging from scientific research, to feral hog trapping, to miscellaneous recreational activities. (See Table 6-9 for more details.)

Table 6-9. Inventory of special use authorizations

Agreement Name	Management Area	Purpose
Al Roberts Operation Outdoor Freedom Wounded Warrior Alligator Hunt	Ocklawaha Prairie Restoration Area	Recreational Event
Anne Zimmer Horse Drawn Buggy	Hal Scott Regional Preserve and Park	Special Use
Antonio Cruz	Lake George Conservation Area	Special Use
Audubon Florida	Julington-Durbin Preserve	Research
Avian Research and Conservation Institute, Inc.	Canaveral Marshes Conservation Area	Research
Barrett	Deep Creek Conservation Area	Hog Trapping/Removal
Benjamin S. Williams	Rice Creek Conservation Area	Hog Trapping/Removal
Bill Baylor	Crescent Lake Conservation Area	Hog Trapping/Removal
Brevard County Airboat Association, Inc.	Three Forks Conservation Area	Special Use
Brevard County Airboat Association, Inc., trim willows	Three Forks Conservation Area	Special Use
Brevard Zoo (Scrub Jays)	Buck Lake Conservation Area	Survey
BSTR Inc. Off-Road Event	Lochloosa Wildlife Conservation Area	Recreational Event
Cabin Maintenance - Cliff Rogge	Three Forks Conservation Area	Management Designation
Cabin Maintenance - Reynolds	Three Forks Conservation Area	Management Designation
Carr-Miless Access	Newnans Lake Conservation Area	Other
Chad Brunner	Twelve Mile Swamp Conservation Area	Hog Trapping/Removal
Chelsea Whitaker	Econlockhatchee Sandhills Conservation Area	Hog Trapping/Removal
Christine Wiese University of Florida	Lake Jesup Conservation Area	Research
City of Apopka	Lake Apopka North Shore	Research
Clary & Associates, Inc. Greg Clary	Bayard Conservation Area	Special Use
Clay County Development Authority	Bayard Conservation Area, Black Creek Ravines Conservation Area	Special Use
Cribb Philbeck Weaver Group Inc.	Econlockhatchee Sandhills Conservation Area	Research
D. Steve Dennis	Moses Creek Conservation Area	Research
Danny Bales RCW Monitoring/Photography	Hal Scott Regional Preserve and Park	Other
Darwin Rutz	Sunnyhill Restoration Area	Special Use
David Baldwin	Thomas Creek Conservation Area	Hog Trapping/Removal
David Hunt, Florida Forest Service	Orange Creek Restoration Area	Research
David Kaplan, University of Florida Upland Restoration Study	Longleaf Flatwoods Reserve	Research
David Simpson Breeding Birds Survey USJRB	Blue Cypress, Fort Drum Marsh, River Lakes, Three Forks	Survey
DB Aster LLC Joe Steinheiser	Thomas Creek Conservation Area	Special Use
Dean A. Black	Thomas Creek Conservation Area	Hog Trapping/Removal
East Flagler Mosquito Control	Pellicer Creek Conservation Area	Research
Eco Treks By Rod	Three Forks Conservation Area	Recreational Event

Agreement Name	Management Area	Purpose
Epic Sports Marketing LLC Felix Hernandez	Lake Apopka North Shore	Recreational Event
Eric Meade	Pellicer Creek Conservation Area	Hog Trapping/Removal
Flagler County Hog Trapper at Princess Place	Pellicer Creek Conservation Area	Hog Trapping/Removal
Florida Forest Service	Newnans Lake Conservation Area, Rice Creek Conservation Area	Recreational Event
Florida Native Plant Society Plant Surveys	Lake Apopka North Shore	Research
FWC	Longleaf Flatwoods Reserve, Newnans Lake Conservation Area	Recreational Event
FWC	Sand Lakes Conservation Area	Recreational Event
FWC	Sunnyhill Restoration Area	Special Use
FWC Songbird Survey	Moses Creek Conservation Area	Survey
FWC Turkey Research	Lochloosa, Longleaf Flatwoods, Newnans Lake	Research
FWC, Boat Storage	Palm Bay Service Center	Other
FWC, Habitat Enhancement	Orange Creek Restoration Area	Other
Gregg Klowden, University of Central Florida	Econlockhatchee Sandhills Conservation Area	Research
Handex Consulting & Remediation Northeast LLC	Lake Apopka North Shore	Research
Hayward Construction Group LLC	Thomas Creek Conservation Area	Special Use
Horse Drawn Buggy	Longleaf Flatwoods Reserve, Newnans Lake Conservation Area	Special Use
Island Grove, LLC, Permissive Use Agreement	Orange Creek Restoration Area	Other
James Garrison	Bayard Conservation Area	Research
James Watson	Buck Lake Conservation Area	Hog Trapping/Removal
Janet Ho, University of Central Florida	Fellsmere Water Management Area, River Lakes Conservation Area	Research
Jason Ferrell, University of Florida	Heart Island, Longleaf Flatwoods, Rice Creek	Research
Jason Lynn, DEP	Moses Creek Conservation Area	Research
Jason Maurer, Marion County Parks and Recreation	Emeralda Marsh, Ocklawaha Prairie, Orange Creek, Silver Springs Forest, Sunnyhill	Special Use
Jay Hinchman Care of Mo Brangus	Lake Norris Conservation Area	Hog Trapping/Removal
Jebbie, FL, LLC Ed Lassiter C-54 Discharge Withdraw Water	C-54	Special Use
Jeff Adams	Murphy Creek Conservation Area	Hog Trapping/Removal
Jeff Barton	Seminole Ranch Conservation Area	Hog Trapping/Removal
Jeff Caswell	Hal Scott Regional Preserve and Park	Hog Trapping/Removal
Jesse Borden, University of Florida		
Jesse C. Black	Gemini Springs Addition, Lake Jesup Conservation Area	Hog Trapping/Removal
Joey Froehlich	Crescent Lake Conservation Area	Other
John Chris Anderson	Deep Creek Conservation Area	Hog Trapping/Removal
John Lang-Vegetation Mgmt.	Canaveral Marshes Conservation Area	Other

Agreement Name	Management Area	Purpose
Jon Mays, FWC	Newnans Lake Conservation Area, Rice Creek Conservation Area	Research
Joshua Williams	Dunns Creek Conservation Area	Hog Trapping/Removal
K-9 Search Dog Training	Heart Island, Lake Apopka, Lake Monroe, Lake Norris, Seminole Ranch, Wekiva	Special Use
Ken Willis	Bull Creek Wildlife Management Area, Three Forks Conservation Area	Hog Trapping/Removal
Kevin Oxenrider, FWC Bat Survey	Newnans Lake Conservation Area	Research
Lawrence and Fran Fleckinger	Canaveral Marshes Conservation Area	Hog Trapping/Removal
Lester Frank Smith	Thomas Creek Conservation Area	Other
Linda Hunter	Sunnyhill Restoration Area	Special Use
Lorna Imler, Sparkman Cemetery Access	Newnans Lake Conservation Area	Other
Margaret M. and Martin Smith, access route	Newnans Lake Conservation Area	Other
Maris Ramsey, Horse/Buggy	Sunnyhill Restoration Area	Recreational Event
Mike Monroe	Fellsmere Water Management Area	Hog Trapping/Removal
Myrna Brown Horse Drawn Cart	Ocklawaha Prairie Restoration Area, Sunnyhill Restoration Area	Special Use
National Wild Turkey Federation, Inc. Gator Gobbler Chapter	Longleaf Flatwoods Reserve	Recreational Event
Norman Huggins (disabled) Econlockhatchee Bridge Fishing	Hal Scott Regional Preserve and Park	Recreational Event
Norman Huggins Fishing at Hal Scott Disabled	Hal Scott Regional Preserve and Park	Recreational Event
North Carolina Outward Bound School Inc	Buck Lake, Crescent Lake, Hal Scott, Lake Monroe, Palm Bluff, Seminole Ranch	Camping
North Carolina Outward Bound School Inc Ropes	Seminole Ranch Conservation Area	Camping
North Florida Boy Scouts of America	Palm Bluff Conservation Area	Special Use
Orange Audubon Society, Inc.	Lake Apopka North Shore	Research
Paul Faircloth PFG Corp. DBA Mosquito Creek Outdoors	Lake Apopka North Shore	Recreational Event
Paul Washko, Access	Pellicer Creek Conservation Area	Special Use
Peace River Electric Cooperative, Inc.	Fort Drum Marsh Conservation Area	Special Use
Pelican Island Audubon Society	Fellsmere, Fort Drum, Three Forks	Research
Peter Johnson, University of Florida Herbarium Collection	Julington-Durbin Preserve	Special Use
Philip Schadegg, University of Central Florida	Econlockhatchee Sandhills Conservation Area	Research
PIMCORP LLC Half Marathon	Lake Apopka North Shore	Recreational Event
Power of 2 Inc.	Newnans Lake Conservation Area	Recreational Event
Randy Bowlin	Blue Cypress Conservation Area, Fort Drum Marsh Conservation Area	Hog Trapping/Removal
Relay Hunting Club	Hull Swamp Conservation Area	Special Use
Robert Cook - Astronomy	Bayard Conservation Area	Other
Robert Holmquist	Gourd Island Conservation Area	Hog Trapping/Removal
Ron Quails (Joe Wayne Quails property)	Lake Norris Conservation Area	Other

Agreement Name	Management Area	Purpose
Ronnie M. Smith, Access	Newnans Lake Conservation Area	Other
Royce R. Sparkman, Access	Newnans Lake Conservation Area	Other
Runner's High Timing and Race Management LLC	Palm Bluff Conservation Area	Recreational Event
Sandy Juba Foot Bridge Repair	Canaveral Marshes Conservation Area	Special Use
Sarah Duncan, University of Florida	Hal Scott, Lake Apopka, Lake George Conservation Areas	Research
Scott Sumpter	Sunnyhill Restoration Area	Hog Trapping/Removal
SEARCH, Inc.	Sunnyhill Restoration Area	Special Use
St. Johns County, Tree Trimming	Twelve Mile Swamp Conservation Area	Special Use
Stetson University	Heart Island Conservation Area	Research
Stetson University Plant Collection	Clark Bay, Heart Island, Lake George Conservation Areas	Research
Stetson University Pygmy Rattlesnake Research	Heart Island, Lake George, Lake Monroe, Lake Norris Conservation Areas	Research
Susan Killeen Christmas Bird Count	Pellicer Creek Conservation Area	Recreational Event
Ted McLemore, St Augustine Trail Riders (SORBA-Flagler Chapter)	Moses Creek Conservation Area	Other
Terracon Consultants, Inc.	Bayard Conservation Area	Special Use
The Refuge A Healing Place LLC	Ocklawaha Prairie Restoration Area	Recreational Event
Tim Telfer, Flagler County	Pellicer Creek Conservation Area	Special Use
Tom Galladay	Hal Scott Regional Preserve and Park	Special Use
United States Air Force — 301 Rescue Squadron	Bull Creek Wildlife Management Area, River Lakes, Three Forks Conservation Area	Special Use
University of Central Florida Jonathon Martin	Buck Lake, Canaveral Marshes, Econlockhatchee Sandhills, Hal Scott, Lake Apopka	Research
University of Florida IFAS	Longleaf Flatwoods Reserve	Research
USGS, Water Sampling Stations	Julington-Durbin Preserve	Research
VClear Environmental Tim Amidon Cofferdam	Lake Apopka North Shore	Special Use
Vivian Jean Luscuskie (pony pulled cart)	Econlockhatchee Sandhills Conservation Area	Recreational Event
Vivian Soriero	Buck Lake Conservation Area	Research
Watershed Technologies LLC	Deep Creek Conservation Area	Special Use
Wayne Thomas Firewood Harvesting	Orange Creek Restoration Area	Special Use
Williamson	Lochloosa Wildlife Conservation Area	Hog Trapping/Removal
Young, Richard and Patricia (access route)	Gemini Springs Addition	Other

VII. Progress of Funding, Staffing, and Resource Management of Projects

This section provides information on FY 2015–2016 budget and expenditure for programs and projects that received funding from FF and WMLTF.

As of September 30, 2013, the District has expended all remaining FF funds. There was no use of FF funds since FY 2014–2015.

In FY 2014–2015, $13.03 million was appropriated by the state to pay off the District's debt service obligation. The District expended all the appropriated funds for the debt payment. There was no use of WMLTF funds since FY 2014–2015.

VIII. Appendix A — Applicable Legislations

The preparation and subsequent public hearings of the annual report are governed by sections 373.199 and 373.139, F.S. Section 373.199, F.S., specifies the level of detail required for the initial work plan and subsequent annual updates. Section 373.139, F.S., has the provision for a public hearing when a proposed work plan project is modified or a new project is added. Both sections are provided below for reference and the text of specific provisions for the annual update requirements and public hearing are **bolded**.

Section 373.199 — Florida Forever Water Management District Work Plan

(1) Over the years, the Legislature has created numerous programs and funded several initiatives intended to restore, conserve, protect and manage Florida's water resources and the lands and ecosystems associated with them. Although these programs and initiatives have yielded individual successes, the overall quality of Florida's water resources continues to degrade; natural systems associated with surface waters continue to be altered or have not been restored to a fully functioning level; and sufficient quantities of water for current and future reasonable beneficial uses and for natural systems remain in doubt.

(2) Therefore, in order to further the goals of the Florida Forever Act, each water management district shall develop a five-year work plan that identifies projects that meet the criteria in subsections (3), (4), and (5).

(3) In developing the list, each water management district shall:

(a) Integrate its existing surface water improvement and management plans, Save Our Rivers land acquisition lists, stormwater management projects, proposed water resource development projects, proposed water body restoration projects, proposed capital improvement projects necessary to promote reclamation, storage, or recovery of water, and other properties or activities that would assist in meeting the goals of Florida Forever.

(b) Work cooperatively with the applicable ecosystem management area teams and other citizen advisory groups, the Department of Environmental Protection and its district offices, the Department of Agriculture and Consumer Services, the Florida Fish and Wildlife Conservation Commission, the Department of Community Affairs, the Department of Transportation, other state agencies, and federal agencies, where applicable.

(4) The list submitted by the districts shall include, where applicable, the following information for each project:

(a) A description of the water body system, its historical and current uses, and its hydrology; a history of the conditions which have led to the need for restoration or protection; and a synopsis of restoration efforts that have occurred to date, if applicable.

(b) An identification of all governmental units that have jurisdiction over the water body and its drainage basin within the approved surface water improvement and management plan area, including local, regional, state, and federal units.

(c) A description of land uses within the project area's drainage basin, and of important tributaries, point and nonpoint sources of pollution, and permitted discharge activities associated with that basin.

(d) A description of strategies and potential strategies, including improved stormwater management, for restoring or protecting the water body to Class III or better surface water quality status.

(e) A listing and synopsis of studies that are being or have been prepared for the water body, stormwater management project, or water resource development project.

(f) A description of the measures needed to manage and maintain the water body once it has been restored and to prevent future degradation, to manage and maintain the stormwater management system, or to manage and maintain the water resource development project.

(g) A schedule for restoration and protection of the water body, implementation of the stormwater management project, or development of the water resource development project.

(h) An estimate of the funding needed to carry out the restoration, protection, or improvement project, or the development of new water resources, where applicable, and the projected sources of the funding.

(i) Numeric performance measures for each project. Each performance measure shall include a baseline measurement, which is the current situation; a performance standard, which water management district staff anticipates the project will achieve; and the performance measurement itself, which should reflect the incremental improvements the project accomplishes towards achieving the performance standard. These measures shall reflect the relevant goals detailed in s. 259.105(4).

(j) A discussion of permitting and other regulatory issues related to the project.

(k) An identification of the proposed public access for projects with land acquisition components.

(l) An identification of those lands which require a full fee simple interest to achieve water management goals and those lands which can be acquired using alternatives to fee simple acquisition techniques and still achieve such goals. In their evaluation of which lands would be appropriate for acquisition through alternatives to fee simple, district staff shall consider criteria including, but not limited to, acquisition costs, the net present value of future land management costs, the net present value of ad valorem revenue loss to the local government, and potential for revenue generated from activities compatible with acquisition objectives.

(m) An identification of lands needed to protect or recharge groundwater and a plan for their acquisition as necessary to protect potable water supplies. Lands which serve to protect or recharge groundwater identified pursuant to this paragraph shall also serve to protect other valuable natural resources or provide space for natural resource based recreation.

(5) The list of projects shall indicate the relative significance of each project within the particular water management district's boundaries, and the schedule of activities and sums of money earmarked should reflect those rankings as much as possible over a five-year planning horizon.

(6) Each district shall remove the property of an unwilling seller from its five-year work plan at the next scheduled update of the plan, if in receipt of a request to do so by the property owner.

(7) By June 1, 2001, each district shall file with the President of the Senate, the Speaker of the House of Representatives, and the Secretary of Environmental Protection the initial five-year work plan as required under subsection (2). By March 1 of each year thereafter, as part of the consolidated annual report required by s. 373.036(7), each district shall report on acquisitions completed during the year together with modifications or additions to its five-year work plan. Included in the report shall be:

(a) A description of land management activity for each property or project area owned by the water management district.

(b) A list of any lands surplused and the amount of compensation received.

(c) The progress of funding, staffing, and resource management of every project funded pursuant to s. 259.101, s. 259.105, or s. 373.59 for which the district is responsible.

The secretary shall submit the report referenced in this subsection to the Board of Trustees of the Internal Improvement Trust Fund together with the Acquisition and Restoration Council's project list as required under s. 259.105.

History.--s. 36, ch. 99-247; s. 16, ch. 2000-170.

Section 373.139 — Acquisition of Real Property

(1) The Legislature declares it to be necessary for the public health and welfare that water and water-related resources be conserved and protected. The acquisition of real property for this objective shall constitute a public purpose for which public funds may be expended.

(2) The Governing Board of the district is empowered and authorized to acquire in fee or less-than-fee title to real property, easements and other interests or rights therein, by purchase, gift, devise, lease, eminent domain, or otherwise for flood control, water storage, water management, conservation and protection of water resources, aquifer recharge, water resource and water supply development, and preservation of wetlands, streams, and lakes. Eminent domain powers may be used only for acquiring real property for flood control and water storage or for curing title defects or encumbrances to real property owned by the district or to be acquired by the district from a willing seller.

(3) The initial five-year work plan and any subsequent modifications or additions thereto shall be adopted by each water management district after a public hearing. Each water management district shall provide at least 14 days' advanced notice of the hearing date and shall separately notify each county commission within which a proposed work plan project or project modification or addition is located of the hearing date.

(a) Appraisal reports, offers, and counteroffers are confidential and exempt from the provisions of s. 119.07(1) until an option contract is executed or, if no option contract is executed, until 30 days before a contract or agreement for purchase is considered for approval by the governing board. However, each district may, at its discretion, disclose appraisal reports to private landowners during negotiations for acquisitions using alternatives to fee simple techniques, if the district determines that disclosure of such reports will bring the proposed acquisition to closure. In the event that negotiation is terminated by the district, the title information, appraisal report, offers, and counteroffers shall become available pursuant to s. 119.07(1). Notwithstanding the provisions of this section and s. 259.041, a district and the Division of State Lands may share and disclose title information, appraisal reports, appraisal information, offers, and counteroffers when joint acquisition of property is contemplated. A district and the Division of State Lands shall maintain the confidentiality of such title information, appraisal reports, appraisal information, offers, and counteroffers in conformance with this section and s. 259.041, except in those cases in which a district and the division have exercised discretion to disclose such information. A district may disclose appraisal information, offers, and counteroffers to a third party who has entered into a contractual agreement with the district to work with or on the behalf of or to assist the district in connection with land acquisitions. The third party shall maintain the confidentiality of such information in conformance with this section. In addition, a district may use, as its own, appraisals obtained by a third party provided the appraiser is selected from the district's list of approved appraisers and the appraisal is reviewed and approved by the district.

(b) The Secretary of Environmental Protection shall release moneys from the appropriate account or trust fund to a district for preacquisition costs within 30 days after receipt of a resolution adopted by the district's governing board which identifies and justifies any such preacquisition costs necessary for the purchase of any lands listed in the district's five-year work plan. The district shall return to the department any funds not used for the purposes stated in the resolution, and the department shall deposit the unused funds into the appropriate account or trust fund.

(c) The Secretary of Environmental Protection shall release acquisition moneys from the appropriate account or trust fund to a district following receipt of a resolution adopted by the governing board identifying the lands being acquired and certifying that such acquisition is consistent with the five-year work plan of acquisition and other provisions of this section. The governing board also shall provide to the Secretary of Environmental Protection a copy of all certified appraisals used to determine the value of the land to be purchased. Each parcel to be acquired must have at least one appraisal. Two appraisals are required when the estimated value of the parcel exceeds 500,000. However, when both appraisals exceed 500,000 and differ significantly, a third appraisal may be obtained. If the purchase price is greater than the appraisal price, the governing board shall submit written justification for the increased price. The Secretary of Environmental Protection may withhold moneys for any purchase that is not consistent with the 5-year plan or the intent of this section or that is in excess of appraised value. The governing board may appeal any denial to the Land and Water Adjudicatory Commission pursuant to s. 373.114.

(4) The governing board of the district may purchase tax certificates or tax deeds issued in accordance with chapter 197 relating to property eligible for purchase under this section.

(5) This section shall not limit the exercise of similar powers delegated by statute to any state or local governmental agency or other person.

(6) A district may dispose of land acquired under this section pursuant to s. 373.056 or s. 373.089. However, no such disposition of land shall be made if it would have the effect of causing all or any portion of the interest on any revenue bonds issued pursuant to s. 259.101 or s. 259.105 to fund the acquisition programs detailed in this section to lose the exclusion from gross income for purposes of federal income taxation. Revenue derived from such disposition may not be used for any purpose except the purchase of other lands meeting the criteria specified in this section or payment of debt service on revenue bonds or notes issued under s. 373.584.

(7) The districts have the authority to promulgate rules that include the specific process by which land is acquired, the selection and retention of outside appraisers, surveyors, and acquisition agents, and public notification. Rules adopted pursuant to this subsection shall be submitted to the President of the Senate and the Speaker of the House of Representatives, for review by the Legislature, no later than 30 days prior to the 2001 Regular Session and shall become effective only after legislative review. In its review, the Legislature may reject, modify, or take no action relative to such rules. The districts shall conform such rules to changes made by the Legislature, or, if no action was taken by the Legislature, such rules shall become effective.

History.--s. 26, part I, ch. 72-299; s. 1, ch. 72-318; s. 3, ch. 85-347; s. 7, ch. 86-294; s. 4, ch. 89-117; s. 5, ch. 91-288; s. 6, ch. 94-240; s. 16, ch. 96-389; s. 173, ch. 96-406; s. 12, ch. 97-160; s. 13, ch. 97-164; s. 33, ch. 99-247; s. 13, ch. 2000-170; s. 13, ch. 2001-256.

IX. Appendix B — History of Florida Forever Expenditures

Table 6-10. History of Florida Forever expenditures by project

	Through FY 2008-2009	FY 2009-2010	FY 2010-2011	FY 2011-2012	FY 2012-2013	Cumulative Total
Water Resource Development						
Aquifer Storage and Recovery	$ 19,027,353	$ 2,034,422	$ 420,105			$ 21,481,881
Central Florida Aquifer Recharge Enhancement						
- CFARE Projects - Phase I	132,758					132,758
- CFARE Projects - Phase III	2,336,782	13,218				2,350,000
Regional Aquifer Management Project (RAMP)	5,587,997					5,587,997
Lower Lake Louise Water Control Structure	42,471					42,471
WRD Components of WSP Projects	-					
- St. Johns River/Taylor Creek Reservoir WSP						-
- Water Supply Development Assistance	1,158,818					1,158,818
- Fellsmere Farms Restoration Area	5,000,000					5,000,000
Water Storage Projects						
Well Plugging and Capping Services	1,194,880	45,369				1,240,249
Water Resource Development Total	**34,481,060**	**2,093,010**	**420,105**	**-**		**36,994,174**
Restoration						
Lower St. Johns River Basin						
Water Quality Best Management Practices	108,694					108,694
Mill Cove Improvements	122,649					122,649
Upper St. Johns River Basin						
BCWMA Water Quality Berm	21,190					21,190
Ocklawaha River Basin						
Lake Apopka						
NSRA Restoration	3,692,688	458,349				4,151,037
- Soil Amendment Application and Wetland Restoration	515,473					515,473
- Stormwater Management	75,337					75,337
Fish Landing Access	199,680					199,680
Upper Ocklawaha River Basin						
Emeralda Marsh Restoration	250,000					250,000
- Chemical Treatments to Bind Phosphorus	19,988					19,988
- Restoration at Emeralda Areas 1,2,3,4 5, 6	1,030,339					1,030,339
Harris Bayou	6,641,837					6,641,837
Sunnyhill Restoration	1,043,736					1,043,736
Indian River Lagoon						
Stormwater Management						
- Town of Fellsmere	449,973					449,973
- Indian River Farm WCD	1,101,248					1,101,248
- Sebastain Stormwater Park	1,203,001					1,203,001
Wetland Restoration	-					
- Wetland Restoration Dike Removal/Ditch Line Work	1,134,123					1,134,123
Sebastian River Dredging	787,278					787,278
C-1 Retention Area Internal Improvements	1,376,246	1,815,010	211,669			3,402,926
Sawgrass Water Management Area	2,112,087					2,112,087
Turkey Creek Dredging/BV 52 Site Clean Up	1,228,921					1,228,921
Fellsmere Water Management Area	2,075,365	195,981	14,350		110,564	2,396,260
Restoration Total	25,189,851	2,469,340	226,019	-	110,564	27,995,774
Land Acquisition Total (minus fund balance)	**161,449,350**	**2,733,153**	**4,418,029**	**34,519**		**168,635,052**
Grand Total	**$ 221,120,260.92**	**$ 7,295,502**	**$ 5,064,154**	**$ 34,519**	**$ 110,564**	**$ 233,625,000**
District's Annual Allocation	**232,500,000**	**-**	**1,125,000**			**233,625,000**
Allocation Available from Prior Year		**11,379,739**	**4,084,237**	**145,083**		
Remaining Balance Available for Next Year		**4,084,237**	**145,083**	**110,564**		

Table 6-11. History of land acquisitions funded by Florida Forever

Original Close Date	LA Number	Parcel Name	Florida Forever Amount	Acquisition Type	Acres
12/21/2001	2001-032-P1	Edgefield - Fee Simple	$ 116,240.00	Fee	203.48
12/21/2001	2001-032-P2	Edgefield Life Estate	329,000.00	Life Estate	26.16
3/7/2002	2001-066-P1	Cassel Creek - City of Maitland Fee Reverter	361,600.00	Fee Reverter	0.00
3/21/2002	2001-061-P1	Plum Creek - Rice Creek	1,700,000.00	Fee	4,191.65
6/14/2002	2001-048-P1	Menard	756,357.34	Joint Fee	1,347.03
6/14/2002	2001-048-P1	Menard	(756,357.34)	Joint Fee	
7/1/2002	2001-058-PA	Fellsmere - Sun Ag - former NRCS_WRP parcel	434,561.40	Fee	3,890.71
7/1/2002	2001-058-PA	Fellsmere - Sun Ag - former NRCS_WRP parcel	(8,000,000.00)	Fee	
7/1/2002	2001-058-PA	Fellsmere - Sun Ag - former NRCS_WRP parcel	8,669,700.00	Fee	
7/1/2002	2001-058-PB	Fellsmere Water Control District - Sun Ag	690,300.00	Fee	
7/1/2002	2001-058-PB	Fellsmere Water Control District - Sun Ag	65,964.60	Fee	323.19
7/30/2002	1994-046-P7	Plum Creek Volusia (Parcel 5) Cell Tower Site	215.45	Fee	0.20
7/30/2002	1994-046-P6	Plum Creek Volusia (Parcels 5&6) and Zemel	(2,126,806.52)	Joint Fee	
7/30/2002	1994-046-P6	Plum Creek Volusia (Parcels 5&6) and Zemel	8,281,200.00	Joint Fee	
7/30/2002	1994-046-P6	Plum Creek Volusia (Parcels 5&6) and Zemel	(27,146.53)	Joint Fee	
7/30/2002	1994-046-P6	Plum Creek Volusia (Parcels 5&6) and Zemel	(4,000,619.70)	Joint Fee	3,750.99
7/30/2002	1994-046-P6	Plum Creek Volusia (Parcels 5&6) and Zemel	(2,126,806.52)	Joint Fee	
7/30/2002	1994-046-P4	Volusia-Pineland Conservation Easement-Plum Creek	7,663.50	Joint Less Than Fee	
7/30/2002	1994-046-P4	Volusia-Pineland Conservation Easement-Plum Creek	(1,042,063.50)	Joint Less Than Fee	
7/30/2002	1994-046-P4	Volusia-Pineland Conservation Easement-Plum Creek	2,068,800.00	Joint Less Than Fee	
7/30/2002	1994-046-P4	Volusia-Pineland Conservation Easement-Plum Creek	(1,034,400.00)	Joint Less Than Fee	6,947.09
7/30/2002	2001-014-P1	Volusia-Hutton Conservation Easement-Plum Creek	2,347,069.56	Joint Less Than Fee	4,780.44
7/30/2002	2001-014-P1	Volusia-Hutton Conservation Easement-Plum Creek	(1,160,532.28)	Joint Less Than Fee	
12/19/2002	1993-006-PB	Keen Ranch - B	171,311.61	Fee	49.69
2/17/2003	2001-040-PB	Bud Henry	900,000.00	Fee	584.54
2/28/2003	2001-051-P1	Fore - Marvin Kelley - Conservation Easement	1,202,064.11	Joint Less Than Fee	
2/28/2003	2001-051-P1	Fore - Marvin Kelley - Conservation Easement	(17,947.02)	Joint Less Than Fee	741.92

Original Close Date	LA Number	Parcel Name	Florida Forever Amount	Acquisition Type	Acres
2/28/2003	2001-049-P1	Fore-Donald Ray (now Double T Ranch fka Hartford Ranch) Conservation Easement	779,439.37	Joint Less Than Fee	461.89
2/28/2003	2001-050-P1	WT Ranch - Conservation Easement	497,843.70	Joint Less Than Fee	0.00
4/22/2003	2002-012-P1	Redshirt Farms - Thomas Creek C.A.	984,878.80	Fee	1,205.93
5/16/2003	1997-032-P1	O'Neal	300,000.00	Fee	373.45
7/2/2003	2003-001-P1	Timberlands Consolidated	587,058.75	Joint Fee	1,043.66
7/16/2003	2003-004-P1	Smith, Phillip	26,400.00	Joint Fee	60.00
7/31/2003	2001-024-P1	Wolf Creek Ranch Conservation Easement	2,287,428.60	Less Than Fee - Conservation Easement	3,812.38
10/31/2003	2003-007-PA	Fore - Norman - Conservation Easement	388,970.44	Joint Less Than Fee	691.50
10/31/2003	2003-007-PB	Fore-Norman Children Conservation Easement	70,068.94	Joint Less Than Fee	124.57
12/8/2003	2003-021-P1	Lindsey - Banjo Groves - Silver Springs	1,000,000.00	Fee	298.00
12/8/2003	2003-021-P1	Lindsey - Banjo Groves - Silver Springs	(443,235.00)	Fee	
12/9/2003	1996-110-P1	Tashkede	22,000.00	Fee	24.47
4/15/2004	1986-004-PB	Far Reach Ranch-Tucker - Conservation Easement	206,971.40	Less Than Fee - Conservation Easement	311.92
4/15/2004	1986-004-PA	Far Reach Ranch-Tucker-Conserv. Easement-NRCS parcel	1,246,818.20	Less Than Fee - Conservation Easement	3,758.08
5/20/2004	2003-005-PA	LeFils Corporation - Conservation Easement A	534,707.58	Joint Less Than Fee	1,267.44
5/20/2004	2003-005-PC	LeFils Corporation - Conservation Easement C (SAZ)	305,319.38	Joint Less Than Fee	361.70
5/20/2004	2003-005-PB	Lefils, Donald and Mary - Conservation Easement B	34,446.51	Joint Less Than Fee	81.65
6/18/2004	2003-016-P1	Tennyson - Red Bug Road Project - Fee Reverter	600,000.00	Fee Reverter	0.00
7/28/2004	2004-001-P1	Rogers - Fee Reverter	2,000,000.00	Fee Reverter	0.00
1/12/2005	2004-004-P1	Minter - Solary Canal Project - Fee Reverter	1,820,000.00	Fee Reverter	0.00
1/25/2005	2003-030-P1	Relay Tract-South Conservation Easement	4,033,206.77	Less Than Fee - Conservation Easement	9,673.24
4/12/2005	2000-024-P1	Fly'n R Ranch Conservation Easement - 3,108.36 acres of the total 3,582.26 acres purchased converted to Fee Simple upon demise of Grantor - 9/8/2014, LA2000-024-P2	5,183,028.70	Less Than Fee - Conservation Easement	474.00
4/27/2005	2001-065-P1	Four Creeks Forest	2,667,079.84	Joint Fee	10,221.10
4/28/2005	1994-048-P1	Skinner, Bryant Conservation Easement	1,602,386.51	Less Than Fee - Conservation Easement	1,569.49

Original Close Date	LA Number	Parcel Name	Florida Forever Amount	Acquisition Type	Acres
6/1/2005	2004-002-P1	Newnans Lake Addition - Rayonier/Alachua	1,619,563.30	Joint Fee	1,708.20
7/20/2005	2003-026-P1	Rayonier - Thomas Creek - Parcel A - West	728,277.92	Joint Fee	
7/20/2005	2003-026-P1	Rayonier - Thomas Creek - Parcel A - West	1,572,131.99	Joint Fee	2,078.16
7/20/2005	2003-026-P2	Rayonier - Thomas Creek - Parcel B - East	0	Joint Fee	130.18
1/24/2006	2003-022-P1	Jacksonville Stormwater - Lenox Ave - Fee Reverter	209,274.08	Fee Reverter	0.00
3/10/2006	2005-009-P1	Jacksonville Stormwater - Wesconnett - Fee Reverter	82,275.00	Fee Reverter	0.00
3/10/2006	2005-008-P1	Jacksonville Stormwater - Grace Lane - Fee Reverter	170,500.00	Fee Reverter	0.00
3/10/2006	2004-019-P1	Snag Harbor - The Conservation Fund	32,000.00	Fee	14.63
6/28/2006	2005-010-P1	West Augustine Fee Reverter	260,403.00	Fee Reverter	0.00
6/28/2006	2005-010-P1	West Augustine Fee Reverter	714,597.00	Fee Reverter	0.00
7/26/2006	2006-012-P1	Holy Cross Evangelical Lutheran Church - Fee Reverter	86,250.00	Fee Reverter	0.00
8/28/2006	2006-010-P1	City of Ocala - Ghannam - Fee Reverter	750,000.00	Fee Reverter	0.00
3/2/2007	2001-058-PC	Fellsmere - Sun Ag	31,592,194.95	Fee	6,020.00
3/2/2007	2007-011-P1	Neighborhood Lakes - Orange County parcel	3,606,099.80	Joint Fee	315.54
3/2/2007	2001-058-PC	Fellsmere - Sun Ag	3,657,805.05	Fee	
3/2/2007	2007-011-P2	Neighborhood Lakes - Lake County parcel	5,000,000.00	Joint Fee	210.58
3/2/2007	2007-011-P2	Neighborhood Lakes - Lake County parcel	(5,000,000.00)	Joint Fee	
3/2/2007	2007-011-P1	Neighborhood Lakes - Orange County parcel	125,000.00	Joint Fee	
4/5/2007	2006-026-P1	Joshua Creek Conservation Area	(12,491,700.66)	Joint Fee	2,699.02
4/5/2007	2006-026-P1	Joshua Creek Conservation Area	24,983,401.32	Joint Fee	
8/15/2007	2007-008-P1	Hollondel Road Property - Fee Reverter	935,000.00	Fee Reverter	0.00
8/24/2007	2007-006-P1	Evergreen Village/Engle/Melbourne - Fee Reverter	1,882,920.00	Fee Reverter	0.00
8/30/2007	2005-007-P1	Bull Creek - North (West)	3,291,452.47	Fee	
8/30/2007	2005-007-P1	Bull Creek - North (West)	29,835.00	Fee	3,525.28
8/30/2007	2005-007-P1	Bull Creek - North (West)	468,854.90	Fee	
9/14/2007	2005-030-P1	Longbranch Crossing, LLC - Conservation Easement	7,072.31	Less-Than-Fee - Conservation Easement	2,684.65
9/14/2007	2005-030-P1	Longbranch Crossing, LLC - Conservation Easement	2,919,140.69	Less-Than-Fee - Conservation Easement	

Original Close Date	LA Number	Parcel Name	Florida Forever Amount	Acquisition Type	Acres
9/14/2007	2005-030-P1	Longbranch Crossing, LLC - Conservation Easement	4,787,037.31	Less-Than-Fee - Conservation Easement	
12/7/2007	2007-017-P1	Geiger	3,163,200.00	Fee	395.40
12/14/2007	2007-034-P1	Blue Villa - City of So. Daytona - Fee Reverter	1,051,100.00	Fee Reverter	0.00
12/14/2007	2006-013-P1	Robert Berner - City of So. Daytona Fee Reverter	50,000.00	Fee Reverter	0.00
2/4/2008	1991-020-PB	Turkey Creek/Lee Ranch - East/NRCS C.E. Parcel	(18,586,864.42)	Fee	
2/4/2008	1991-020-PB	Turkey Creek/Lee Ranch - East/NRCS C.E. Parcel	28,650,699.89	Fee	2,892.45
2/4/2008	1991-020-PA	Turkey Creek/Lee Ranch - West Parcel	(2,079.00)	Joint Fee	1,620.58
2/4/2008	1991-020-PA	Turkey Creek/Lee Ranch - West Parcel	1,593,241.96	Joint Fee	
2/13/2008	2007-027-P1	Rayonier - River Styx	1,276,703.00	Joint Fee	1,428.09
2/15/2008	1991-064-P1	Yarborough Ranch - North - Parcels 1 and 2	5,834,375.00	Fee	3,927.14
2/15/2008	1991-064-P1	Yarborough Ranch - North - Parcels 1 and 2	11,224,335.93	Fee	
2/15/2008	1991-064-P4	Yarborough Ranch - South - Parcel 4 - Lamont Pasture	10,107,162.03	Fee	
3/12/2008	2007-001-P1	Masters, Lawrence	(2,162,810.00)	Fee	112.88
3/12/2008	2007-001-P1	Masters, Lawrence	85,288.27	Fee	
3/12/2008	2007-001-P1	Masters, Lawrence	3,340,432.25	Fee	
3/12/2008	2007-001-P1	Masters, Lawrence	30,775.80	Fee	
3/12/2008	2007-001-P1	Masters, Lawrence	214,856.89	Fee	
3/14/2008	2006-019-P1	Chain of Lakes Expansion - Fee Reverter	876,033.79	Fee Reverter	0.00
8/15/2008	1994-098-P1	Kaufman - Lumbert	556,666.67	Joint Fee	30.46
8/15/2008	2007-022-P1	Young	100,000.00	Joint Fee	11.42
9/4/2008	2006-046-P1	ITERA - Putnam Timberland	448,057.70	Fee	189.18
9/26/2008	2006-007-P1	City of Ocala - Thompson Bowl - Fee Reverter	152,750.00	Fee Reverter	0.00
9/26/2008	2006-008-P1	City of Ocala - Tuscawilla - Fee Reverter	173,740.00	Fee Reverter	0.00
9/29/2008	2007-036-P1	Bloom/Frank	152,418.50	Joint Fee	123.11
10/17/2008	2008-003-P1	Medlock	381,491.42	Fee	162.14
10/17/2008	2008-004-P1	Motes	739,744.92	Fee	215.02
12/10/2008	2008-012-P1	Econ Project Addition-Rybolt	(381.19)	Joint Fee	

Original Close Date	LA Number	Parcel Name	Florida Forever Amount	Acquisition Type	Acres
12/10/2008	2008-012-P1	Econ Project Addition-Rybolt	8,118,211.41	Joint Fee	
12/10/2008	2008-012-P1	Econ Project Addition-Rybolt	3,129,658.59	Joint Fee	706.79
12/10/2008	2008-012-P1	Econ Project Addition-Rybolt	(1,000,000.00)	Joint Fee	
12/19/2008	2005-033-P1	Arahatchee Conservation Easement	2,360,000.00	Less-Than-Fee - Conservation Easement	900.01
12/19/2008	2006-006-P1	David Strawn Lands, Inc.	1,247,785.21	Joint Fee	1,203.43
12/19/2008	2006-006-P1	David Strawn Lands, Inc.	(1,247,785.21)	Joint Fee	
12/22/2008	2008-028-P1	Titus	77,520.00	Fee	8.16
1/21/2009	2008-025-P1	Plum Creek - Rice Creek Conservation Area Addition	411,703.50	Fee	152.13
5/27/2009	2009-011-P1	Golden Gem Road (City of Apopka) - Fee Reverter	4,490,175.00	Fee Reverter	0.00
7/9/2009	1998-006-P3	Gladstone Addition (Jonathan)	150,000.00	Joint Fee	36.00
7/31/2009	2008-015-P1	Edwards	493,653.14	Joint Fee	0.00
10/15/2009	2001-040-PA	Evans Conservation Easement	1,023,074.96	Joint Less Than Fee	680.20
10/15/2009	2001-040-PA	Evans Conservation Easement	182,155.88	Joint Less Than Fee	
12/29/2009	2009-021-P1	Maytown Tract	1,557,692.61	Fee	
12/29/2009	2009-021-P1	Maytown Tract	3,510.58	Fee	3,321.60
12/8/2010	2010-006-P1	BJ Bar Ranch Conservation Easement - total acres purchased reduced by 500 acres for sale to Morrison (LA2010-006-P2) on 5/24/2012	2,500,000.00	Less-Than-Fee - Conservation Easement	4,388.00
5/27/2011	2000-006-P1	Kemcho - formerly American Timberlands	1,600,405.20	Fee	3,200.00
5/27/2011	2000-006-P1	Kemcho - formerly American Timberlands	4,399,594.80	Fee	
5/24/2012	2010-006-P2	Morrison Conservation Easement - 500-acre subdivision of BJ Bar Ranch (LA2010-006-P1)	0	Less-Than-Fee - Conservation Easement	500.00
9/18/2014	2000-024-P2	Fly'n R Ranch - 3,108.26 acres of the total 3,582.26-acre purchase that closed on 4/12/2005 converted to Fee Simple upon demise of Grantor	0	Fee	3,108.26
Total			**$ 185,511,867.16**		

1) The cost to the District in Table 6-11 is different from the total expenditures for land acquisition in Table 6-10. While land acquisition expenditures in Table 6-10 are the total expenditures minus fund balance, the total expenditures for FF funded land acquisitions in Table 6-11 reflect all land acquisitions that have expended FF funds that includes fund balances.

2) Fee Reverter refers to land purchased all or in part by the District and transferred to a local government to be used for a specific project (usually for water quality improvement). If the

project is not constructed within an agreed upon period of time, at the District's option, either the fee simple title to the land "reverts" back to the District or the local government must reimburse the District the purchase price and costs of the land, plus interest.

X. Appendix C — 2018 Land Acquisition Map

The 2018 Land Acquisition Plan Map indicates the general location and type of District-owned lands, and identifies areas of "Potential Acquisition." District-owned lands are separated into different subcategories, including:

(1) "Full Fee" describes natural resource conservation land owned in full by the District.

(2) "Joint Fee" indicates land in public ownership in which the District holds a less than 100% undivided interest in the property. State, federal, or local governments usually hold the remaining joint interest.

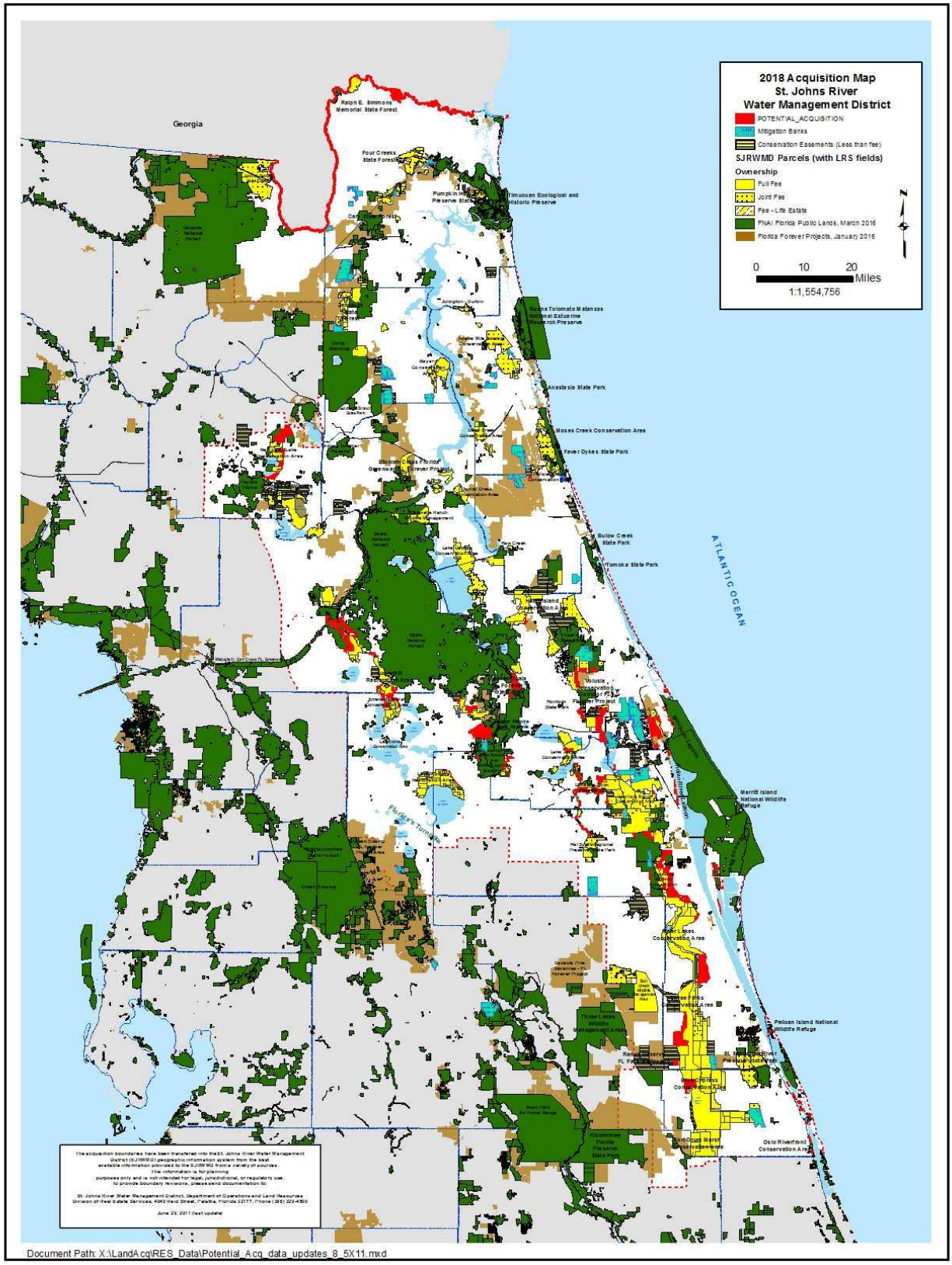
(3) "Conservation Easements" indicates private lands on which the District has acquired a conservation easement interest in the property via a voluntary, negotiated transaction. The private owner retains title and pays taxes. Public access may or may not be allowed.

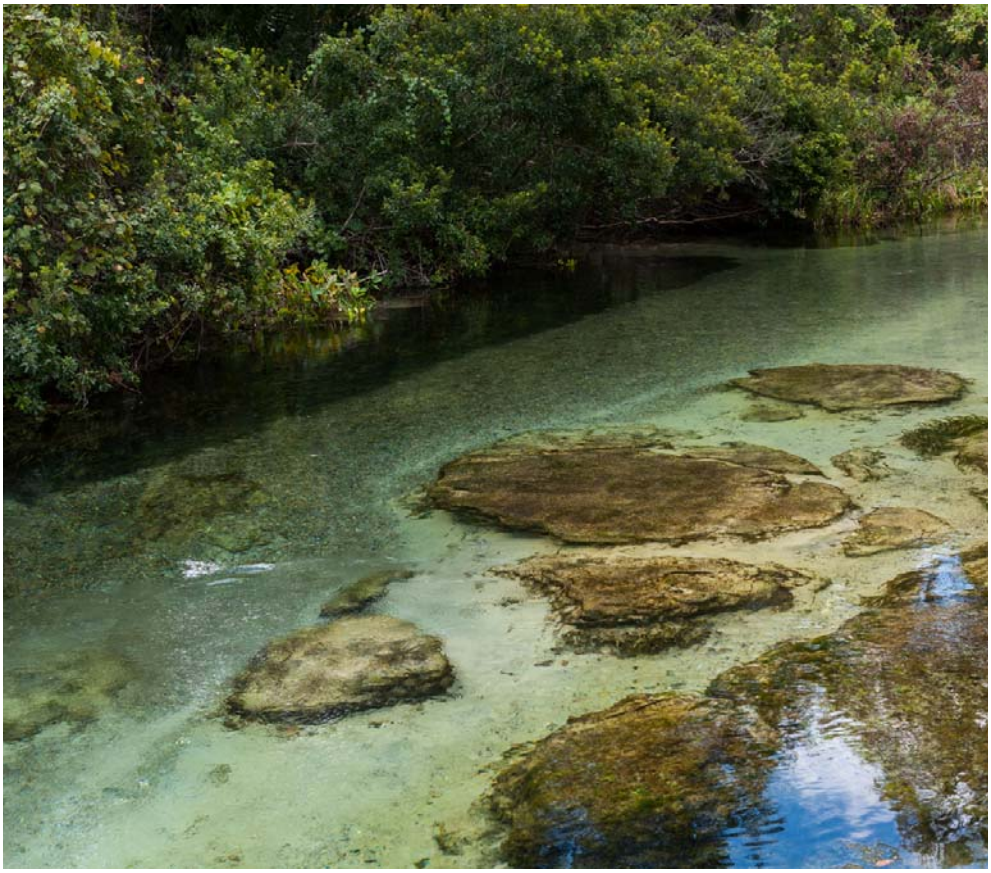
(4) The "Mitigation Banks" category indicates permitted mitigation banks on private property for which one or more conservation easements have been recorded in favor of the District through the regulatory or permitting process. Mitigation Banks are not included in any of the acreage totals for District-owned land in this plan.

(5) The "Potential Acquisition" category indicates areas of conservation interest or lands with potential water resource value that the District may consider acquiring at some time in the future. Identification as "Potential Acquisition" in the FF Work Plan is a necessary step prior to the expenditures from the WMLTF, Preservation 2000 or FF funds. For the majority of District acquisitions, the District may seek to acquire land in any of the four subcategories to achieve water resource protection goals. Pursuant to Section 373.199(6), F.S., property owners who are not willing sellers may have their property removed from the District's Land Acquisition Map by submitting a "Request for Mapping Change" form to the District. Potential Acquisition lands are shown in red on the map and also include lands within FF project boundaries and lands within the 100-year floodplain of the St. Johns River and its tributaries.

(6) The "FNAI Florida Public Lands" category indicates federal, state, county or city-owned property that has some value for conservation planning purposes, as reported by the Florida Natural Areas Inventory (FNAI) organization. Some "FNAI Florida Public Lands" contain urban infrastructure and may be further developed for non-conservation uses in the future, such as government property designated for military purposes.

There were no additions to the "Potential Acquisition" layer of the map for 2018. The reduction in Potential Acquisition acres from 2017 is attributed only to acres that were both purchased during FY 2016–2017 and were within the "Potential Acquisition" layer. The number of acres in the 2018 "Potential Acquisition" layer is 117,393 acres.


2018 Acquisition Map
St. Johns River
Water Management District
POTENTIAL_ACQUISITION
Mitigation Banks
Conservation Easements (Less than fee)
SJRWMD Parcels (with LRS fields)
Ownership
Full Fee
Joint Fee
Fee - Life Estate
FNAI Florida Public Lands, March 2016
Florida Forever Projects, January 2016
0 10 20
Miles
1:1,554,756
Georgia
Ralph E. Simmons Memorial State Forest
Four Creeks State Forest
Pumpkin Hill Preserve State Park
Timucuan Ecological and Historic Preserve
Guana Tolomato Matanzas National Estuarine Research Preserve
Anastasia State Park
Moses Creek Conservation Area
Fever Dykes State Park
Bulow Creek State Park
Tomoka State Park
ATLANTIC OCEAN
Merritt Island National Wildlife Refuge
Pelican Island National Wildlife Refuge
Oslo Riverfront Conservation Area
Document Path: X:\LandAcq\RES_Data\Potential_Acq_data_updates_8_5X11.mxd



Mitigation Donation Annual Report

7. MITIGATION DONATION ANNUAL REPORT

Table of Contents

Figures

I. INTRODUCTION

Subsection 373.414(1)(b)2, *Florida Statutes* (F.S.) requires that "…each water management district shall report by March 1 of each year, as part of the consolidated annual report required by s. 373.036(7), all cash donations accepted under subparagraph 1 during the preceding water management district fiscal year for wetland mitigation purposes." The statute also requires the report to include a description of the endorsed mitigation projects and, except for projects governed by s.373.4135(6), address success criteria, project implementation status and time frame, monitoring, long-term management, provisions for preservation, and full cost accounting.

For the purposes of wetland mitigation, the donation of cash to the St. Johns River Water Management District (District) is acceptable when the cash payments are specified for use in a District- or Florida Department of Environmental Protection-endorsed environmental preservation, enhancement or restoration project and the payments initiate a project or supplement an ongoing project. The project or portion of the project funded by the donation of money must offset the impacts of the proposed system to be permitted.

The cash donation method is one of many mitigation alternatives available to permit applicants. Typically, a permit applicant would take the cash donation option when there is a suitable District restoration site within the surface water basin and other mitigation alternatives may incur higher costs or are not readily available to the applicant. A close coordination between the District's Division of Regulatory Services, which handles the permitting, and the Division of Water and Land Resources, which handles mitigation sites, is essential to finding suitable mitigation sites, determining mitigation acreage, and assessing the full cost of mitigation for permit applicants under the cash donation option.

II. CASH DONATIONS RECEIVED DURING FY 2016-2017

During FY 2016–2017, the District did not receive any cash donation for wetland mitigation purposes. Figure 6-1 provides information on cash donations received over the last 10 years.

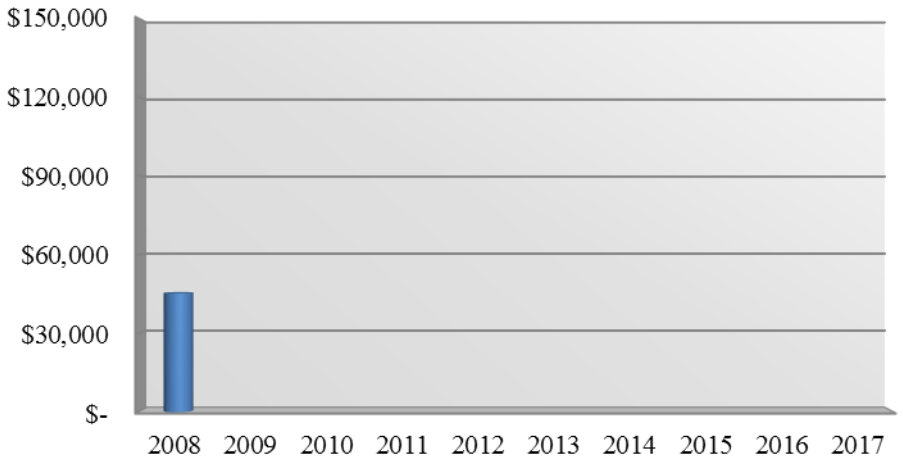


Figure 7-1. Cash donations for wetland mitigation purposes by fiscal year

Water Quality and Water Quantity Grading Report

8. Water Quality and Water Quantity Grading Report

Table of Contents

I. Introduction

Section 373.036(7)(b)9., F.S., provides that the Consolidated Annual Report shall contain a "grade for each watershed, waterbody, or water segment in which a project listed under subparagraph 8 is located representing the level of impairment and violations of adopted minimum flow or minimum water levels. The grading system must reflect the severity of the impairment of the watershed, waterbody, or water segment."

Table 1 lists the projects contained within the 2018 Five-year Water Resource Development Work Plan, the watershed, waterbody, or water segment the project impacts, and a grade for two items: 1) the water quality level of impairment and 2) the level of violation of a minimum flow or minimum water level (MFL).

Level of Impairment Grade:

The water quality level of impairment grade is represented as follows:

> **Impaired-High:** This grade is assigned if the waterbody is impaired for one or more parameters other than mercury and based on a consideration of other factors, including the number of impairments, the presence of Outstanding Florida Waters, the proximity to ongoing or planned restoration activities, the ecological priority of the water for endangered and threatened species, environmental justice concerns, the amount of anthropogenic land use, and local aquifer vulnerability.
>
> **Impaired:** This grade is assigned if the waterbody is impaired for one or more parameters other than mercury.
>
> **Not impaired:** This grade is assigned if the waterbody is not impaired for any parameters other than mercury.

The Florida Department of Environmental Protection (FDEP) provided the impairment grades based upon Total Maximum Daily Loads (TMDLs) based Waterbody IDs (WBIDs). Projects that impact a specific WBID were identified in Table 1 for that WBID. As an example, a project that replaced disposal of treated wastewater in a spray field or Rapid Infiltration Basin (RIB) with beneficial use of reclaimed water utilized the impairment grade associated with the WBID where the spray field or RIB were originally located. It is important to note that projects contained within a Water Resource Development Work Program are focused on water use/conservation with the exception of the projects contained in appendix A – District Projects for Implementing Basin Management Action Plans.

The level of violation of adopted MFL is represented as follows:

The waterbody was evaluated based on the relative magnitude of the MFL violation and rated as close, moderately close, or not close to meeting the MFL. In evaluating this element, the District considered the magnitude of the variance from the MFL, the magnitude of the ecological impact, the time frame for recovery, and the time frame for completion of the projects.

The waterbody was also evaluated based on the regional significance of the waterbody and rated as Tier 1, Tier 2 or Tier 3 with Tier 1 being the highest rating for regional significance and Tier 3 being the lowest rating. In evaluating this element, the District considered the waterbody's size and geographical extent, ecological importance, recreational uses, navigation, threatened/endangered species, wildlife utilization, aesthetics, and historical and archeological significance.

> **Level 0**: This grade is assigned if the waterbody is meeting the MFL, but is projected to not meet the MFL within 20 years (that is, the waterbody is in prevention).
>
> **Level I**: This grade is assigned if the waterbody is close to meeting the MFL and the waterbody is rated as a Tier 3 or Tier 2 for regional significance; or the waterbody is moderately close to meeting the MFL and the waterbody is rated a Tier 3 for regional significance
>
> **Level II**: This grade is assigned if the waterbody is close to meeting the MFL and the waterbody is rated a Tier 1 for regional significance; or the waterbody is moderately close to meeting the MFL and the waterbody is rated a Tier 2 for regional significance; or the waterbody is not close to meeting the MFL and the waterbody is rated a Tier 3 for regional significance.
>
> **Level III**: This grade is assigned if the waterbody is moderately close to meeting the MFL and the waterbody is rated a Tier 1 for regional significance; or the waterbody is not close to meeting the MFL and the waterbody is rated a Tier 2 or Tier 1 for regional significance.

Many of the projects in the Water Resource Development Work Program will directly assist MFL waterbodies within a Water Use Caution Area (WUCA) or Prevention and Recovery (PR) strategy. Those projects are anticipated to impact all waterbodies that are included within the WUCA or PR area. As an example, the Central Florida Water Initiative (CFWI) Water Use Caution Area with the St. Johns River Water Management District covers all or parts of Orange, Seminole and Lake counties. Within the CFWI, there are 14 waterbodies (five springs, one river segment and eight lakes) that are not achieving or projected to not achieve their established minimum flow or level in this region. Because the basis for not meeting these MFLs is due to groundwater withdrawals within the confined Upper Florida aquifer, a project within this area is anticipated to impact the entire area. Therefore, all the impacted waterbodies within a WUCA have been included for each project.

Contract Numbe	Table 2 Water Resource Development Projects (Appendix C)	Watershed,Water Body, Water Segment (WBID)	Level of Water Quality Impairment	Level of Violation of Adopted MFL
28908	Alachua County FWS Rebate	Ocklawaha,SUNLAND DRAIN(2709)	Impaired	None*
28913	Alachua County Landscape Retrofit	Ocklawaha,SWEETWATER BRANCH EXTENSION DITCH(2722)	Not impaired	None*
38601	Apopka Golden Gem Rd. RCW Ext	Middle St. Johns,ROCK SPRINGS RUN(2967)	Impaired - High	CFWI WUCA* Level 0 - 13 waterbodies
32008	Baldwin Brandy Branch Reuse	Nassau - St. Marys,UNNAMED DITCH(2298)	Not impaired	None*
30306	Bunnell Reclaimed Water Main Extension to SR100	Lower St. Johns,HAW CREEK ABOVE CRESCENT LAKE(2622D)	Planning List	None*
TBD	Black Creek Water Resource Development Project*	Lower St. Johns,BLACK CREEK(2415B 2415C)	Impaired	Level 1 - Lake Brooklyn Lake Geneva
Multiple	C-10 Reservoir Project*	Indian River Lagoon,SEBASTIAN RIVER(2963A)	Impaired	None*
28795	CCUA CR 209 Reclaimed Water Transmission Main	Lower St. Johns,LITTLE BLACK CREEK(2368)	Impaired - High	None*
28810	CCUA Old Jennings RCW Groundwater Storage Tank	Lower St. Johns,LITTLE BLACK CREEK(2368)	Impaired - High	None*
32002	Chuluota RCW Storage Tank	Middle St. Johns,ECONLOCKHATCHEE RIVER(2991)	Impaired	CFWI WUCA* Level 0 - 13 waterbodies
31825	Cocoa Toilet Rebate Program	Upper St. Johns,MUD LAKE OUTLET(3056)	Not impaired	CFWI WUCA* Level 0 - 13 waterbodies
28812	Daytona Beach 2.5 MG Reuse Tank	Upper East Coast,UNNAMED DITCH(2652)	Not impaired	Volusia PR* Level 0 - 6 waterbody Level 1 - 1 waterbody
32116	Crane Creek M-1 Canal Flow Restoration*	Indian River Lagoon,CRANE CREEK(3085A)	Impaired	None*
28592	Daytona Beach Potable Reuse Demo Testing Facility	Upper East Coast,DRAINAGE CANALS(2654)	Not impaired	None*
28851	Deland Reclaimed Water Retrofit Project Phase 2B	Middle St. Johns,LAKE BERESFORD DRAIN(2893U1)	Not impaired	Volusia PR* Level 0 - 6 waterbody Level 1 - 1 waterbody
38566	Deland RCW Main Extension Phase 3 & 3A	Middle St. Johns,LAKE BERESFORD DRAIN(2893U1)	Not impaired	Volusia PR* Level 0 - 6 waterbodies Level 1 - 1 waterbody
28850	Deland Reclaimed Water Retrofit Project 1	Lower St. Johns,TALMADGE LAKE DRAIN(2630D)	Not impaired	Volusia PR* Level 0 - 6 waterbodies Level 1 - 1 waterbody
32298	Deland St. Johns River Filtration System Upgrades	Middle St. Johns,LAKE BERESFORD DRAIN(2893U1)	Not impaired	Volusia PR* Level 0 - 6 waterbodies Level 1 - 1 waterbody
28855	Deltona - WVWS Project 4A Deltona Storage & Treatment Improvements	Middle St. Johns,GLEASON LAKE DRAIN(2893G1)	Not impaired	Volusia PR* Level 0 - 6 waterbodies Level 1 - 1 waterbody
28454	Dispersed Water Storage Project - Fellsmere*	Indian River Lagoon,N. Sebastian River(3128A)	Impaired	None*
28535	Dispersed Water Storage Project - Graves Brothers*	Indian River Lagoon,N. Sebastian River(3128A)	Impaired	None*
28807	Green Cove Springs North Grid RCW System Phase 2 & 3	Lower St. Johns,PETERS CREEK(2444)	Impaired - High	None*
32039	GRU Conservation Visualization Tool	Indian River Lagoon,BANANA RIVER ABOVE BARGE CANAL(3057C)	Impaired - High	None*
28911	GRU Indoor Plumbing Retrofit	Ocklawaha,KANAPAHA LAKE OUTLET(2717B)	Not impaired	None*
30275	Hawthorne Downtown Water Main Replacements	Ocklawaha,WEST HAWTHORNE BRANCH(2728)	Not impaired	None*
31855	JEA Gate Pkwy Shiloh Mill Blvd. to Town Ctr Pkwy RCW	Lower St. Johns,PUNCHEON BRANCH GUM SWAMP(2271)	Impaired	None*
31856	JEA Hidden Hills RCW	Lower St. Johns,ST JOHNS RIVER ABOVE ICWW(2213B)	Impaired - High	None*
28428	JEA Mandarin WWTP Upgrades	Lower St. Johns,DEEP BOTTOM CREEK(2361)	Impaired - High	None*
28815	JEA RG Skinner Parkway RW Trans	Lower St. Johns,PABLO CREEK (FRESHWATER SEGMENT)(2283B)	Not impaired	None*
31857	JEA River Town Phase 3 Parcel 23 RCW	Lower St. Johns,ORANGE GROVE BRANCH(2443)	Not impaired	None*
28806	JEA William Burgess Road	Nassau - St. Marys,PLUMMER CREEK(2130)	Impaired	None*
32300	Longwood Septic Tank Abatement Program Transmission Main	Middle St. Johns,SOLDIER CREEK(2986)	Impaired - High	None*
32283	Lucas Fairways Hidden Hills Golf Course RCW Connection	Lower St. Johns,ST JOHNS RIVER ABOVE ICWW(2213B)	Impaired - High	None*
30276	Macclenny System Wide Water Valve Replacements	Nassau - St. Marys,TURKEY CREEK(2318)	Not impaired	None*
28857	Marion County Enhanced Irrigation Evaluation Program	Ocklawaha,MARSHALL SWAMP DRAIN(2778)	Not impaired	Level 3 - Silver Springs
38565	Marion County US441 Water Main Interconnect	Ocklawaha,LAKE WEIR OUTLET(2790)	Not impaired	Level 3 - Silver Springs
31824	Minneola Septic to Sewer Phase 1	Ocklawaha,PALATLAKAHA RIVER(2839)	Impaired - High	None*
38581	Mount Dora RCW Interconnect with Apopka	Middle St. Johns,ROCK SPRINGS RUN(2967)	Impaired - High	CFWI WUCA* Level 0 - 13 waterbodies
28087	Orange County Malcolm Rd Minimized Impact Project -Lower Floridan Wells	Kissimmee River,LAKE HANCOCK DRAIN (ORANGE COUNTY)(3170G)	Not impaired	CFWI WUCA* Level 0 - 13 waterbodies
30220	Gainesville Suburban Heights - Beville Creek Restoration	Ocklawaha,UNNAMED DRAIN(2710)	Impaired	None*
28910	OCU Toilet Retrofit	Middle St. Johns,LUCY LAKE OUTLET(3002A1)	Not impaired	CFWI WUCA* Level 0 - 13 waterbodies
28909	OCU Water Wise Neighbor Program	Middle St. Johns,LAKE PREVATT OUTLET(2993B)	Not impaired	CFWI WUCA* Level 0 - 13 waterbodies
28843	OCU Waterwise Neighbor Program (New)	Middle St. Johns,ECONLOCKHATCHEE RIVER(2991)	Impaired	CFWI WUCA* Level 0 - 13 waterbodies
28842	OCU Waterwise Neighbor Program (Retrofit)	Middle St. Johns,ECONLOCKHATCHEE RIVER(2991)	Impaired	CFWI WUCA* Level 0 - 13 waterbodies

38578	OCU Waterwise Program (NEW) Phase 2	Middle St. Johns,UNNAMED BRANCH(3021)	Impaired	CFWI WUCA* Level 0 - 13 waterbodies
38595	OCU Waterwise Program Retrofit Phase 2	Middle St. Johns,UNNAMED BRANCH(3021)	Impaired	CFWI WUCA* Level 0 - 13 waterbodies
38561	Ocala Wetland Recharge	Ocklawaha,SILVER RIVER DRAIN(2772B)	Not impaired	Level 3 - Silver Springs
28846	Ormond Beach South Peninsula Reclaimed Water Expansion	Upper East Coast,GRANDA BLVD(8118A)	Not impaired	None*
32348	Palatka RCW Extension - REDI	Lower St. Johns,ST JOHNS RIVER ABOVE RICE CREEK(2213M)	Impaired - High	None*
31969	Sanford RCW Orl-Sanford Airport Phase 2	Middle St. Johns,LAKE GEORGE LEFTOVER(2893A3)	Not impaired	CFWI WUCA* Level 0 - 13 waterbodies
28912	Santa Fe College Plumbing Retrofit	Ocklawaha,IRVING SLOUGH(2760)	Not impaired	None*
28778	St. Johns St Augustine Beach Reclaimed Water Trans Main	Upper East Coast,SALT RUN (SHELLFISH PORTION)(2502C)	Impaired	None*
30339	St. Johns County Hastings Water Main Replacements	Lower St. Johns,CRACKER BRANCH(2555)	Impaired	None*
32459	Tater Farms Palatka Ranch RCW	Lower St. Johns,ST JOHNS RIVER ABOVE DUNNS CREEK(2213N)	Impaired - High	None*
TBD	Taylor Creek Reservoir Improvement Project*	Lake Poinsett,LAKE POINSETT(2893K)	Not impaired	CFWI WUCA* Level 0 - 13 waterbodies
28134	Titusville Draa Field Stormwater Park	Indian River Lagoon,INDIAN RIVER ABOVE NASA CAUSEWAY(2963EA)	Impaired - High	None*
31815	Titusville South Street Basin Baffle Boxes	Indian River Lagoon,INDIAN RIVER ABOVE NASA CAUSEWAY(2963EA)	Impaired - High	None*
28841	Umatilla Cassady Street Drainage Project	Ocklawaha,LAKE UMATILLA OUTLET(2806)	Not impaired	None*
30204	Umatilla Wastewater Collection Rehabilitation Phase 2	Ocklawaha,LAKE UMATILLA OUTLET(2806)	Not impaired	None*
28624	Umatilla Wastewater Collection System Rehabilitation	Ocklawaha,ISLAND LAKE OUTLET(2801A)	Not impaired	None*
28534	Vero Beach Hybrid Septic Tank Effluent Pumping System Phase 2 Service Lines	Indian River Lagoon,MAIN CANAL(3153A)	Impaired	None*
28183	Vero Beach Hybrid STEP System Force Main	Indian River Lagoon,MAIN CANAL(3153A)	Impaired	None*
28390	Vero Beach Reverse Osmosis WWTF Expansion	Indian River Lagoon,MAIN CANAL(3153A)	Impaired	None*
28819	Volusia RCW Main Extension for I-4/SR 472 Activity Center	Middle St. Johns,CHAIN OF LAKES(2938)	Not impaired	Volusia PR* Level 0 - 6 waterbodies Level 1 - 1 waterbody
27660	West Volusia Water Suppliers Doyle Road Reclaimed Water Inte	Middle St. Johns,CHAIN OF LAKES(2938)	Not impaired	Volusia PR* Level 0 - 6 waterbodies Level 1 - 1 waterbody
27657	West Volusia Water Suppliers Reclaimed Water Interconnect	Middle St. Johns,CHAIN OF LAKES(2938)	Not impaired	Volusia PR* Level 0 - 6 waterbodies Level 1 - 1 waterbody
28432	Winter Garden Reclaimed Water & Stormwater Recharge	Ocklawaha,UNNAMED DRAIN(2869)	Not impaired	CFWI WUCA* Level 0 - 13 waterbodies
32327	Winter Garden Reuse Distribution Retrofit	Ocklawaha,JOHNS LAKE OUTLET(2873)	Not impaired	CFWI WUCA* Level 0 - 13 waterbodies
38597	Winter Garden Water Conservation Program Expansion Phase 2	Ocklawaha,UNNAMED DRAIN(2869)	Not impaired	CFWI WUCA* Level 0 - 13 waterbodies Level 1 - 1 waterbody
	Surface Water Projects (Programmatic Code 2.3.0)			
28457	Apopka Water Reclamation Facility Nutrient Removal	Middle St. Johns,LUCY LAKE OUTLET(3002A1)	Not impaired	CFWI WUCA* Level 0 - 13 waterbodies Level 1 - 1 waterbody
31822	Brevard County Micco Sewer Line Extension	Indian River Lagoon,ST. SEBASTIAN RIVER ABOVE INDIAN RIVER LAGOON(3129A)	Impaired - High	None*
28256	Brevard County Oyster Reef Living Shorelines	Indian River Lagoon,INDIAN RIVER ABOVE 520 CAUSEWAY(2963D1)	Impaired - High	None*
28752	Brevard County Passive Nutrient Reduction for OSTDS	Indian River Lagoon,SYKES CREEK / BARGE CANAL(3044B)	Impaired - High	None*
28401	Brevard County South Patrick Drive Baffle Box	Indian River Lagoon,BANANA RIVER BELOW 520 CAUSEWAY(3057A)	Impaired - High	None*
31866	Bunnell WWTP Treatment	Lower St. Johns,UNNAMED CANAL(2610)	Impaired	None*
28760	Clermont West Lake Wetlands	Ocklawaha,PALATLAKAHA RIVER(2839)	Impaired - High	CFWI WUCA* Level 0 - 13 waterbodies Level 1 - 1 waterbody
31826	Cocoa Beach Muck Removal Phase 3	Indian River Lagoon,BANANA RIVER BELOW 520 CAUSEWAY(3057A)	Impaired - High	None*
28740	Cocoa Church Street Stormwater Retrofit	Indian River Lagoon,INDIAN RIVER ABOVE MELBOURNE CAUSEWAY(2963C1)	Impaired - High	None*
32166	Crane Creek M-1 Canal Flow Restoration*	Indian River Lagoon,Crane Creek(3085A)	Impaired	None*
28663	Crescent City Crescent Lake Outfall Improvements	Lower St. Johns,CRESCENT LAKE(2606B)	Impaired - High	None*
31865	Daytona Beach Bennett Swamp Rehydration & Conservation	Upper East Coast,UNNAMED DITCH(2666)	Impaired	None*
28818	Eustis Eastern Wastewater Treatment Plant Expansion	Middle St. Johns,SEMINOLE SPRING(2955)	Not impaired	None*
30174	Fellsmere North Regional Lake	Upper St. Johns,DRAINED FARMLAND(3138A)	Not impaired	CFWI WUCA* Level 0 - 13 waterbodies Level 1 - 1 waterbody
Multiple	Fellsmere Water Management Area*	Indian River Lagoon,SEBASTIAN RIVER(3135A)	Impaired	None*
32053	Fernandina Beach Area 1 Drainage Improvements	Nassau - St. Marys,EGANS CREEK(2127)	Not impaired	None*
28763	Fernandina Beach Swale Program	Nassau - St. Marys,AMELIA RIVER(2124)	Not impaired	None*
28856	Glen St Mary Northside Gravity Sewer Extensions	Nassau - St. Marys,ST MARYS RIVER (SOUTH PRONG)(2247A)	Not impaired	None*
28771	Indian River County North Sebastian Phase 1 Septic to Sewer	Indian River Lagoon,SOUTH INDIAN RIVER (NEAR ST. SEBASTIAN RIVER)(5003D1)	Impaired - High	None*
28730	Indian River County Osprey Acres Stormwater Park	Indian River Lagoon,SOUTH CANAL(3158)	Impaired	None*
28769	Jacksonville Beach Sewer Main & Septic	Lower St. Johns,ICWW (DUVAL COUNTY; ST JOHNS COUNTY)(2205C)	Impaired	None*

28469	Jacksonville Crystal Springs Drainage Improvements	Lower St. Johns,ORTEGA RIVER(2249A)	Impaired	None*
30175	JEA Water Purification Treatment Evaluation and Pilot Testing	Lower St. Johns,Fishing Creek(2324)	Impaired	None*
28729	Jacksonville Noroad/Lambing Water Quality & Drainage	Lower St. Johns,ORTEGA RIVER(2249A)	Impaired	None*
28780	Lake County Magnolia Lane Water Quality Project	Ocklawaha,LAKE BLUE SPRINGS(2838C)	Not impaired	CFWI WUCA* Level 0 - 13 waterbodies Level 1 - 1 waterbody
28430	Longwood FCCP Stormwater Pond	Middle St. Johns,FAIRY LAKE OUTLET(2994W)	Not impaired	CFWI WUCA* Level 0 - 13 waterbodies Level 1 - 1 waterbody
28430	Longwood FCCP Stormwater Pond	Middle St. Johns,FAIRY LAKE OUTLET(2994W)	Not impaired	CFWI WUCA* Level 0 - 13 waterbodies Level 1 - 1 waterbody
28735	Longwood N CR 427 & Lake Ruth Septic Tank Removal	Middle St. Johns,SOLDIER CREEK(2986)	Impaired - High	None*
28402	Longwood Septic Tank Abatement	Middle St. Johns,FAIRY LAKE OUTLET(2994W)	Not impaired	None*
28734	Longwood South Septic Tank Abatement Phase 2	Middle St. Johns,FAIRY LAKE OUTLET(2994W)	Not impaired	None*
38569	Lost Lake RV Park WWTP Upgrade	Middle St. Johns,LUCY LAKE OUTLET(3002A1)	Not impaired	CFWI WUCA* Level 0 - 13 waterbodies Level 1 - 1 waterbody
28852	Marion County CP #77 Retrofit of DRAs 7244 & 7396	Ocklawaha,MARSHALL SWAMP DRAIN(2778)	Not impaired	CFWI WUCA* Level 0 - 13 waterbodies Level 1 - 1 waterbody
TBD	Marion County Silver Springs Shores DRA Retrofit	Ocklawaha,MARSHALL SWAMP DRAIN(2778)	Not impaired	Level 3 - Silver Springs
28731	Merritt Island Septic Phase Out	Indian River Lagoon,NEWFOUND HARBOR(3044A)	Impaired - High	None*
28128	Ocala Septic Tank and Well Elimination Program	Ocklawaha,SILVER RIVER DRAIN(2772B)	Not impaired	Level 3 - Silver Springs
31843	Orange County EPD Lake Jennie Jewel Alum Treatment	Kissimmee River,JENNIE JEWEL LAKE(3168J)	Impaired	CFWI WUCA* Level 0 - 13 waterbodies Level 1 - 1 waterbody
38144	Orange County EPD Lake Lawne Irrigation Facility	Middle St. Johns,LITTLE WEKIVA CANAL(3004)	Impaired - High	CFWI WUCA* Level 0 - 13 waterbodies Level 1 - 1 waterbody
28603	Palatka Booker Park Regional Stormwater Pond	Lower St. Johns,ST JOHNS RIVER ABOVE RICE CREEK(2213M)	Impaired - High	None*
28765	Palatka South Historic District Stormwater	Lower St. Johns,ST JOHNS RIVER ABOVE RICE CREEK(2213M)	Impaired - High	None*
28761	Palm Coast Belle Terre Matanzas Woods Master Pump Station	Upper East Coast,HULETT BRANCH(2597)	Not impaired	None*
32018	Putnam WWTP Expansion	Lower St. Johns,ST JOHNS RIVER ABOVE RICE CREEK(2213M)	Impaired - High	None*
28088	Rockledge Eliminate Failing Septic Tanks and Construct Sewer	Indian River Lagoon,INDIAN RIVER ABOVE MELBOURNE CAUSEWAY(2963C1)	Impaired - High	None*
28737	Seminole County Passive Onsite Treatment System	Middle St. Johns,LITTLE WEKIVA RIVER(2987)	Impaired - High	CFWI WUCA* Level 0 - 13 waterbodies Level 1 - 1 waterbody
32006	St. Augustine Lincolnville Drainage Improvements	Middle St. Johns,LAKE GEORGE LEFTOVER(2893A3)	Not impaired	None*
28746	St. Johns County Bannon Lakes 2.0 MG RCW Tank & Pump Station	Lower St. Johns,SIXMILE CREEK(2411)	Not impaired	None*
28671	St. Johns County Crop Alternative Program	Lower St. Johns,TOCOI CREEK(2492)	Impaired	None*
31999	St. Johns County Players Club RCW Facility	Lower St. Johns,ICWW (DUVAL COUNTY; ST JOHNS COUNTY)(2205C)	Impaired	None*
28459	Volusia County Advanced Wastewater Treatment for the Protection of Blue Spring	Middle St. Johns,ST JOHNS RIVER ABOVE LAKE WOODRUFF(2893B)	Not impaired	Volusia PR* Level 0 - 6 waterbodies Level 1 - 1 waterbody
32329	Volusia County Gemini Springs Baffle Box	Middle St. Johns,LAKE MONROE DRAIN(2893D2)	Not impaired	Volusia PR* Level 0 - 6 waterbodies Level 1 - 1 waterbody
31823	Volusia County Rio Way Drainage Improvements	Upper East Coast,HOLLY HILL DITCH(2647)	Impaired	Volusia PR* Level 0 - 6 waterbodies Level 1 - 1 waterbody

CFWI WUCA* - SJRWMD Projects within the CFWI Water Use Caution Area (WUCA) are anticipated to benefit all SJRWMD waterbodies included within the WUCA. There is 1 waterbody not meeting its MFL and another 14 waterbodies that are projected to not meet the MFL within 20 years. Because the basis for not meeting these MFL's are due to groundwater withdrawals within the confined Upper Florida aquifer in the WUCA, a project within this area is anticipated to benefit the entire area. Therefore, all the impacted waterbodies within the WUCA have been included for each project.
Level 0: Lakes Apshawa North, Apshawa South, Cherry, Louisa, Minneola, Pine Island, Prevatt, and Brantley; Rock, Sanlando, Starbuck, and Wekiwa; and Wekiva River.
Level 1: Palm Springs

Volusia PR* - SJRWMD Projects within the Volusia Prevention and Recovery (PR) area are anticipated to impact all SJRWMD waterbodies included within the Volusia PR. There is 1 waterbody not meeting its MFLs and another 6 waterbodies that are projected to not meet the MFL within 20 years. Because the basis for not meeting these MFL's are due to groundwater withdrawals within the confined Upper Florida aquifer in the Volusia PR area, a project within this area is anticipated to impact the entire area. Therefore, all the impacted waterbodies within the Volusia PR have been included for each project.
Level 0: Big Lake, Lake Daugharty, Lake Helen, Lake Hires, Three Island Lakes and Blue Spring
Level 1: Indian Lake

None* - Project is in an area with no adopted MFLs or no MFLs recovery strategy or is not expected to fall below a minimum flow or level in 20 years

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