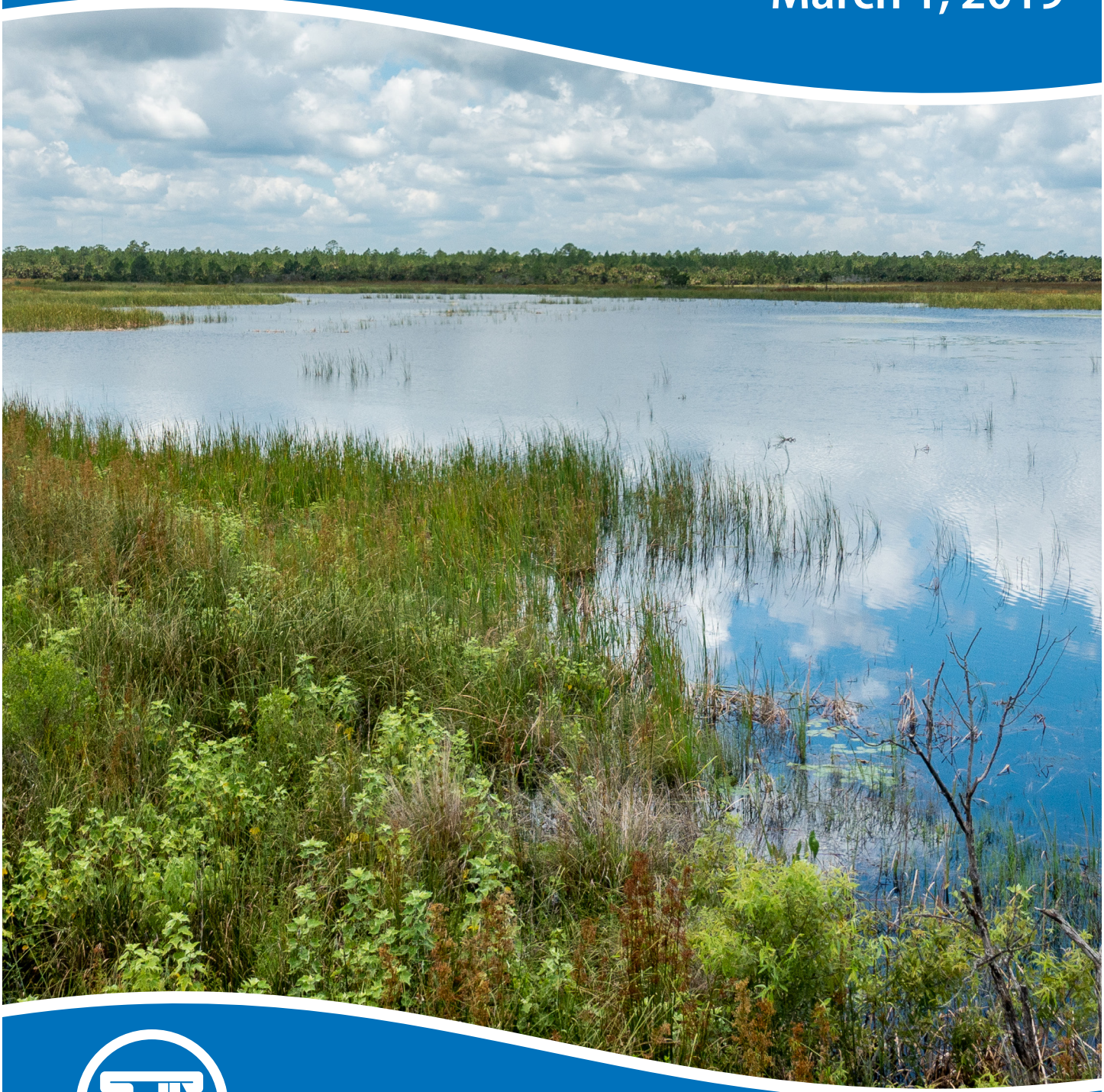
St. Johns River Water Management District

Consolidated Annual Report

March 1, 2019



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EXECUTIVE SUMMARY

The St. Johns River Water Management District's (District) 2019 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 (DEP), Florida's Governor, the President of the Florida Senate and the Speaker of the Florida House of Representatives by March 1 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 2017–2018

1 Strategic Plan Annual Work Plan Report

I. Executive Summary

The St. Johns River Water Management District (District) adopted the Fiscal Year (FY) 2017-2018 Strategic Plan in December 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 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.

District's core missions:

- Water Supply
- Water Quality
- Natural Systems
- Flood Protection

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 2017–2018 are identified on the following pages. The progress for each milestone and deliverable is also provided.

II. Water Supply

Goals

- Plan and implement regional water supply plans
- Implement water conservation strategies
- Develop and implement minimum flows and levels

Regional Water Supply Plans (RWSPs): In 2015, the District established three water supply planning regions: Central Florida, Central Springs and East Coast [CSEC], and North Florida. Regional water supply plans (RWSPs) will be updated for each planning region as needed and at a minimum of every five years. RWSPs 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 RWSPs are developed in an open public process and are subject to approval by the governing board. In the Central Florida planning region, the District has been working in partnership with the South Florida Water Management District (SFWMD), Southwest Florida Water Management District (SWFWMD), Florida Department of Environmental Protection (FDEP) and other stakeholders through the Central Florida Water Initiative (CFWI). In the North Florida planning region, the District has been working in partnership with the Suwannee River Water Management District (SRWMD), FDEP, and other stakeholders through the North Florida Regional Water Supply Partnership (NFRWSP).

The District and SRWMD, jointly approved the North Florida RWSP in January 2017, which included Nassau, Duval, Baker, Clay, St. Johns, Putnam, Alachua, and Flagler counties. Staff from SRWMD and the District have identified several alterative water resource development projects for implementation, including the Black Creek Water Resource Development project.

Additionally, staff are finalizing the development of the 2040 water demand projections for the 2020 CFWI RWSP and have completed the 2040 demand projections for the CSEC RWSP. Stakeholder outreach is continuing in advance of approval of the CSEC RWSP. The resource assessment was completed in FY 2017–2018, which determined those geographic areas within the CSEC planning region that may have water supply challenges due to environmental constraints or water quality issues. The CSEC RWSP is currently under development and scheduled to be presented to the Governing Board approval in spring 2019.

Finally, the District worked with SWFWMD to complete the update to the northern District groundwater flow model that was 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 2017–2018.

These efforts included sending District staff to discuss water conservation to 39 schools within the District, reaching 5,693 students, 92 civic organizations within the District, as well as 25 other public events, which reached 35,926 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 14 schools were awarded up to $1,000 each. In December 2017, the District launched the promotional Skip-a-Week campaign to encourage residents to further reduce irrigation during cooler winter months.

In 2018, the District transferred administration of the Florida Water Star^{SM} (FWS) program to the Florida Home Builders Association (FHBA). The Accredited Professional program continues to be administered by the Florida Nursery and Landscape Association. This program, developed by the District and launched in 2007, certifies buildings in an effort to promote water conservation strategies. In 2018, the FWS program exceeded 5,000 homes statewide and over 2,100 apartments and townhomes.

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 prevent significant harm to water resources due to excessive water 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 water bodies 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 was completed for Lochloosa Lake in Alachua County. The Notice of Proposed Rule for the Lochloosa Lake MFL was approved by the Governing Board in December 2018.

The District's draft 2018 MFLs Priority List and Schedule shows the planned year for completion and adoption of 18 MFLs (new and reevaluations) to be completed for the years 2019 through 2021. The District submitted the draft list to FDEP for review and approval on November 15, 2018. The 2018 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.

Goal: Plan and implement water supply plans

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]).

Progress summary:

- The District and 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 Five-Year 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 is designed 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 in the Keystone Heights area. Sixty percent design was completed, and the permitting process has begun.

Goal: Implement water conservation strategies

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 - increase in percentage of agricultural acres utilizing efficient irrigation methods.
   Measure: Percent change in acres due to change in irrigation method

Progress summary:

- The District, in partnership with local stakeholders implemented various water conservation strategies. As a result, residential water use decreased 28 percent from 111 gallons per capita day (gpcd) in 2008 to 87 gpcd in 2017.

- 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 1,934 agricultural acres. Additionally, these projects reduced overall groundwater consumption for these irrigated acres by 1.36 million gallons per day (mgd).

Goal: Development and implement minimum flows and levels (MFLs)

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.

Progress summary:

- The District completed one of the four MFLs scheduled for 2018 (25 percent). Rulemaking and adoption was completed for Lochloosa Lake in Alachua County. The three remaining systems (Lake Butler in Volusia County and Lakes Brooklyn and Geneva in Clay County) were moved to 2019. Significant progress was made on these three remaining 2018 systems, including model development, environmental criteria development, independent scientific peer review, and numerous stakeholder meetings.

III. Water Quality

Goals

- Provide restoration efforts to springs/aquifer
- Provide restoration efforts to coastal water bodies
- Provide restoration efforts to the St. Johns River

Springs/Aquifer: The District is committed to protecting Florida's springs. In 2016, the Legislature committed $50 million per year for 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 report was released in January 2018. Findings and implications were presented at University of Florida's Biennial Water Institute Symposium in February 2018 and other technical venues.

In an effort to find solutions while reducing the burden upon taxpayers, the District has utilized its cost-share program to fund 10 projects in support of springs protection in FY2017–2018. Two cost-share projects previously undertaken by the city of Ocala to protect Silver Springs are particularly noteworthy. A septic to sewer project was completed that decommissioned 908 septic tanks and transmitted the wastewater to an advanced treatment plant. Ocala also initiated construction of the Pine Oaks Wetland Recharge project that will annually remove about 30,000 pounds of both nitrogen and phosphorus from treated wastewater and recharge up to 5 million gallons per day to the aquifer.

In FY 2017–2018, 90 percent of the Silver Springs Forest Conservation Area construction was completed. A primary objective of the project is to improve water quality by reducing or eliminating turbid water discharges to the Silver River from the site. The reduction in turbid runoff was achieved through construction of low level roadside swale and ditch blocks and in

some cases stormwater turnouts. The final completion of this project is anticipated in FY 2018–2019.

In FY 2017–2018 design of the Prairie Creek Diversion Structure Project was completed. The objective of the project is to update the existing structure, which currently allows water to flow into Paynes Prairie. The new structure will contain three 54-inch culverts with gates, concrete headwalls and endwalls, riprap, guardrail and fencing. Surface water from Paynes Prairie moves toward the Alachua Sink, which feeds the nearby Springs. Construction of the project is planned for FY 2018–2019.

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 pounds of phosphorus annually. 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 begun design of one of the top ranked project, Cranes Creek. The District has completed the hydraulic modeling and is currently in the process of acquiring property.

The Eau Gallie dredging project commenced in FY 2017. The District has completed approximately two-thirds of the dredging and the dredging activity is expected to be completed in February 2019. More than 365,000 cubic yards of muck has been removed from the Eau Gallie River.

The District has continued its technical and financial support for the IRL National Estuary Program by contributing $500,000 annually.

St. Johns River: The District has made considerable progress enhancing the St. Johns River and its supporting water bodies, such as the completion of the Upper St Johns River Basin project. Below is a breakdown of the activities and progress made in FY 2017–2018.

Fellsmere Water Management Area (WMA):
The Fellsmere WMA is nearly complete (92 percent) 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 late 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 2017–2018 include repairing the perimeter levee following damage from

Hurricane Irma. In the last decade for which the District has loading estimates completed (2007–2017), the LANS discharges met the TMDL load allocation in seven years (2007, and 2011–2016). Due to Hurricane Irma, increased pumping from the LANS resulted in loading slightly exceeding the phosphorus target. In February 2018, the U.S. Fish and Wildlife Service concurred with using a biological assessment of the pesticide issues on the entire Lake Apopka North Shore related to pesticide concentrations in fish. This concurrence allows the District to engage in broader water, nutrient and vegetation management activities.

The District completed the Preliminary Design work on Duda Road and Pump Improvements and the Lake Level Canal Interconnect. The District will be initiating design on both projects in FY 2018–2019. Both projects will help manage the water on the LANS and reduce the total phosphorus entering the lake.

In Water-Body Restoration:
Lake Apopka Rough Fish Harvest: In 2018, the District harvested more than 1.2 million pounds of gizzard shad from Lake Apopka, reducing phosphorous by 8,500 pounds.

Wetland Filter projects: Through September 2018, mass removal for the Lake Apopka Marsh Flow-Way was 624 pounds of total phosphorus, and 3,952,554 pounds of suspended solids. Treatment performance was reduced because of lingering structural damage from Hurricane Irma. The culverts supplying water to the marsh flow-way were replaced in FY 2017–2018. This project included a total of 20, 54-inch diameter culverts along with control gates.

Portions of the experimental sump dredging in Lake Apopka were undertaken in FY 2017–2018 and should be completed in FY 2018–2019. The project is 80 percent complete.

Invasive exotic plant control: During FY 2017–2018, under an FWC contract, the District treated 507 acres of hydrilla and 237 acres of floating vegetation in Lake Apopka and 126 acres of hydrilla and 16 acres of floating vegetation at Emeralda Marsh Conservation Area (EMCA)/ Lake Griffin. Additionally, 891 acres of hydrilla were treated within the LANS, 105 acres of hydrilla were treated within Harris Bayou, and 120 acres of hydrilla and 18 acres of floating vegetation were treated at EMCA with District funds.

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 chopping of additional vegetation at EMCA/Lake Griffin. All work was completed without adversely impacting phosphorus concentrations. The District also provided recreational access to Area 3 with construction of a primitive boat ramp.

Goal: Provide restoration efforts to springs/aquifer

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 improvements in partnership with local governments and utilities.
   Measure: Number of projects, money invested (District and collectively), nitrogen load reduction achieved, and 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.

Progress summary:

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 (lbs/yr) and offset 0.36 mgd 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: 10
   - Funds invested:

SJRWMD	$ 5,432,916
Local Partners	$ 12,866,968
Total	$ 18,299,884

   - Total Nitrogen load reduction achieved: 11,589 lbs/yr
   - Groundwater offset/increase achieved: 0.506 mgd

3. Preservation/Conservation and Land Acquisition and Management:
   - To protect Volusia Blue Spring, the District, FDEP and a consortium of utilities have developed a Volusia Blue Spring Wetland Recharge project that involves acquisition of a 60-acre site just upgradient from the spring that will then be used to significantly

reduce nitrogen pollution and provide up to three cubic feet per second of increased flow at Volusia Blue Spring.

4. Monitor:
   - Springs and aquifer monitoring proceeded as planned. 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.

Goal: Provide restoration efforts to coastal waters

Success Indicator (Coastal Waters):

1. Reduce loads from watersheds:
   Target: Initiate dispersed water projects.
   Measure: Reductions in freshwater, sediments, nitrogen and phosphorus loads.

2. Rehabilitate natural processes in water bodies:
   Target: Successful implementation of a grant from the National Oceanic and Atmospheric Administration.
   Measure: Acres 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.

Progress summary:

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 2018–2019. 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, Brevard County Save Our Lagoon, IRL NEP Comprehensive Conservation and Management Plan, related to the Indian River Lagoon.

Goal: Provide restoration efforts to the St. Johns River

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) water bodies.

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 projects.
   Measure: Number of projects developed.

Progress summary:

1. Watershed Nutrient Load Reduction:

   - Upper Ocklawaha Lakes:

     Nutrient loading estimates are made on a calendar-year basis. For 2017, estimated total phosphorus loading exceeded the TMDL (total maximum daily load) or PLRG (pollutant load reduction goal) targets for all the major lakes in the basin, due largely to effects of Hurricane Irma on watershed runoff and tributary flows. For the lakes affected by major

District restoration projects, including Apopka, Beauclair, Dora, Eustis and Griffin, the TMDL loading targets were met for at least the six preceding years. Summary information is below:

Water body	TMDL TP Target (kg)	2018 Annual TP Load (kg)
Apopka	15,900	17,400
Beauclair	3,200	6,450
Dora	6,000	6,140
Eustis	9,200	10,800
Griffin	12,200	16,300
Harris	8,300	11,300
Yale	1,290	2,360
Weir	1,230	1,870

2. In Water-Body Restoration:

- Upper Ocklawaha Lakes:

Water quality was good in 2017 and 2018 in several of the basin lakes compared to historical levels, in some cases meeting (Griffin, Harris) or close to (Eustis) the TMDL total phosphorus concentration targets. The 2016 average total phosphorus concentration in Lake Apopka was the lowest in the period of record (64 ppb), although concentrations have been somewhat higher in 2017 and 2018. The total phosphorus concentration data below show the concentration target set by the District and approved by FDEP. The data also show the average phosphorus concentrations throughout calendar year 2016, 2017, as well as data from January 2018 through October 2018:

Annual Average TP Concentration (ppb)				
Water body	TMDL Target (ppb)	2016	2017	2018 (Jan. to Oct.)
Apopka	55	64	95	79
Beauclair	32	49	58	43
Dora	31	38	37	37
Eustis	25	25	29	26
Griffin	32	33	35	32
Harris	26	24	25	24
Yale	20	29	33	34
Weir	14	24	20	23

Chlorophyll-*a* (a measure of the amount of algae) also was good in 2017 and 2018 in several basin lakes compared to historical levels. Chlorophyll-*a*, averages for calendar year 2016, 2017, as well as data from January 2017 through October 18 are below:

Annual Average Chl-a Concentration (ppb)			
Water body	**2016**	**2017**	**2018 (Jan. to Oct.)**
Apopka	50	54	37
Beauclair	41	69	27
Dora	27	59	26
Eustis	14	27	22
Griffin	24	24	29
Harris	20	15	15
Yale	18	20	17
Weir	23	11	14

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 in February 2018 from the U.S. Fish and Wildlife Service (USFWS) that will allow active management of the entire LANS wetlands. There were no changes in total acreages of restored functional floodplains at EMCA, Harris Bayou, Sunnyhill or Ocklawaha Prairie during FY 2017–2018. 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 2018. 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. Cost-share projects with local partners are proceeding as planned.

IV. Natural Systems

Goals

- Implement activities that conserve or restore native communities

FY 2017–2018 was a successful year for the District's prescribe fire program despite the challenges of excessive rainfall. Staff were able to conduct 76 prescribed burns totaling 29,828 acres on 25 conservation areas. Additionally, staff fought five wildfires that burned at total of 456 acres and expended 308 hours of work time.

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, also known as old world

fern, and Carolina Willow. Of the 36,805 acres of invasive plant treatments conducted more than 10,00 acres was Lygodium and 5,415 acres were Carolina Willow. District staff continue to refine the invasive geodatabase data collection and reporting system. It is already making an impact on efficiencies and allows any field person to report new infestations allowing for better workload and triage management. The District continues to conduct regular surveys of Lygodium.

This District has continued surveys to track the spread of Lygodium presence and density throughout the District. This invasive species 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. Since 2003, District personnel have treated 113,690 acres of Lygodium.

The District used the previous year's contracted evaluation of the commercial airboat boat ramp use in the Upper St. Johns River Basin to better manage the heavy use of tour boats. The result was the District entering into contracts with two vendors that manage the commercial use of two ramps. It is expected that these contracts will reduce conflicts between tour boat operators and the general public that share the ramps.

The Lake Apopka North Shore wildlife drive and loop trail both received extensive damage during Hurricane Irma and had to be closed for repairs. The wildlife drive was intermittently opened and closed and was fully reopened in on June 2018. The loop trail was reopened in September 2018. The newly aligned wildlife drive at Emeralda Marsh was opened replete with a new observation tower. It had been closed due to the work being done for the reconnection of Area 3 and Lake Griffin. These wildlife drives are immensely popular with the public. The drive at Apopka receives about 300 vehicles each of the three days a week it is open. A new access point for the public was created for Ocklawaha Prairie Restoration area that allows better access to the Small Game Area during waterfowl season.

Restoration projects that occurred in FY 2018 include 800 acres of shrub encroachment on Moses Creek, Seminole Ranch, and Canaveral Marshes. Mulch mowing of 767 acres of shrubs and palmetto for habitat improvement and fuels management took place at Lochloosa, Heart Island, Micco Storm Water Park, Fort Drum, and Heart Island. Staff oversaw the planting of 123 acres of native ground cover at Emeralda Marsh and Lake Apopka North Shore. Emergent wetland plants were also planted on 200 acres of Lake Apopka North Shore. Staff also oversaw the planting of 456 acres of longleaf pine trees on seven conservation areas.

The District completed the third 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.

Goal: Implement activities which conserve or restore native communities

Success Indicators (Natural Systems):

1. Improve GIS-based technology capabilities for identifying, managing and 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 Condition Class 1 or 2 (a classification for measuring the condition of a land area relative to burn intervals), ecological Condition Class, acres of prescribe burn, and acres of invasive plants treated.

Progress summary:

1. Improve GIS-based technology capabilities for identifying, managing and planning restoration on District lands:
   - Approximately 40 percent of these tasks have been completed.

2. Restoration and Invasive Plant Management Survey and Treatment:
   - Carolina Willow survey 100 percent complete. Carolina Willow treatment — 110 percent of intended acres.
   - Lygodium survey is complete. Lygodium treatment — 102 percent of intended acres.

3. Management Plans:
    - In FY 2017–2018, three land management plans were updated and approved by the Governing Board. These were for Micco Water Management Area, Gemini Springs Addition and Bayard Conservation Area.

4. Wetland Plant Community Mapping:
    - Wetland plant community mapping was completed for phase three of the Upper St. Johns River Basin (USJRB) project area, covering conservation areas between U.S. 192 and State Road 26. The District documented net decreases in Carolina willow of 4,993 acres and restored 5,704 acres of beneficial herbaceous marsh. Wetland mapping was completed at Lake Apopka and Upper Ocklawaha River Basin (UORB) in FY 2017–2018 and vegetation community maps and GIS coverages for LANS, EMCA, Sunnyhill Restoration Area, and the Ocklawaha Prairie Restoration Area were completed.

5. Adaptive Management of Wetland Restoration Areas:
    - One hundred ten acres of native marsh grass species were planted at Emeralda Marsh and 200 acres of emergent wetland plants were planted at the Lake Apopka North Shore.
    - Three hundred acres of shrub encroached marsh were roller chopped or shredded to enhance herbaceous marsh restoration at Seminole Ranch and Canaveral Marshes.

6. Land Management:
    - Sixty-five percent of District properties are in Condition Class 1, and 17 percent are in Condition Class 2.
    - District staff conducted 77 prescribed burns totaling 29,828 acres and treated 36,805 acres of invasive plants.

V. Flood Protection

Goals

- Maintain Federal flood control systems
- Maintain Non-Federal flood control systems

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 2017–2018 include:

- Rehabilitation of Moss Bluff Lock side gates.
- Capped several miles of Federal levees (L) specifically L74, L77, L78 and L79.
- Regraded several miles of Federal levee slopes specifically L73, Section 1 and L73 Section 2B.
- Removed Cox Creek Structure (S231) from L73, Section 1.
- Relocated more than 130 gopher tortoises from L73, Section 1 and L73, Section 2B.
- Replaced hydraulic lift systems with drum and cable systems at S96D.

- Repaired several Non-Federal and Federal levees damaged by Hurricane Irma.
- 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.
- SWIF review comments and guidance received from USACE first quarter FY 2017–2018. (SWIF revisions scheduled for submittal to USACE in FY 2018–2019 pending completion of EAPs.)
- First and third quarter inspections were completed, and reports delivered on schedule.

Goal: Maintain Federal flood control system

Goal: Maintain Non-Federal flood control system

Success Indicator (Flood Protection):

1. Operate and Maintain the Federal Flood Control Project in Compliance with USACE Guidelines:
   Target: Resolve all deficiencies identified by USACE within five years of SWIF approval.
   Measure: Budget, schedule and complete deficiency resolution by addressing animal burrow and encroachment deficiencies.

   Target: Perform semi-annual inspections in the first and third 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 according to levee capping/repair work plan.

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: Inspections completed semi-annually (first and third quarter) with reports finalized by the following quarter.

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 two of three calibration study.

Progress summary:

1. Operate and Maintain the Federal Flood Control Project in Compliance with USACE Guidelines:
   - SWIF review comments and guidance received from USACE first quarter FY 2017–2018. (SWIF revisions scheduled for submittal to USACE in FY 2018–2019 pending completion of EAPs.). Inspection report summaries indicate that the number of deficiency findings to be consistent with previous year's findings. Due to the total number of inspection items, length of levees and normal degradation process, it is unlikely that the percentage improvement from year to year will be significantly different. The District will re-baseline deficiency findings in 2018–2019.
   - First and third 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 has been revised and extended by two years.
   - 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 Districtwide 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 second 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)

Goals

- Develop and implement supporting activities that efficiently assist District goals

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 2017–2018, 38 contracts were executed for the Districtwide cost-share program totaling $19,907,980. The District's cost-share program has benefited the environment and residents of the District, including:

- Approximate total nitrogen nutrient load reduction: 165,525 lbs/yr.
- Approximate total phosphorus nutrient load reduction: 66,800 lbs/yr.
- Approximate total water conserved: 0.5 mgd.
- Approximate total alternative water supplies developed: 7.3 mgd.
- Approximate total acres protected from flooding: 2,875 acres.
- Approximate total natural systems benefit (aquifer recharge): 3 to 5 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 2017–2018. Seven contracts were executed for the FY2017-2018 REDI/Innovative cost-share program totaling $3,462,000. Their Benefits include:

- Approximate total nitrogen nutrient load reduction of 3,076 lbs/yr.
- Approximate total phosphorus load reduction of 652 lbs/yr.
- Approximate total water conserved 0.6 mgd.

Partnerships: The District also utilizes a third cost-share program, known as the Districtwide agricultural cost-share program. This program funded 15 projects in FY 2017–2018. These projects are projected to conserve or make available 1.72 mgd of water and reduce TN loading by 56,862 lbs/yr and TP by 6,566 lbs/yr. Thirteen of the fifteen projects were completed within eleven months of Governing Board approval.

The Agricultural Advisory Committee met in February 2017 to discuss a variety of topics related to agriculture and provided recommendations to the Governing Board on apiary leases on District lands.

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 District agricultural projects, District grazing leases, water supply planning and agricultural cost-share funding opportunities. In addition, a Marion County grower was awarded the Commissioner's Environmental Leadership Award after District staff wrote and submitted the award application.

Goal: Develop and implement supporting activities that efficiently assist District Goals

Success Indicator (Supporting Activities):

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.

Progress summary:

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. Ten of the thirty-eight FY 2017–2018 Districtwide cost-share projects approved by the Board have been completed. None of the seven FY 2017–2018 REDI / Innovative cost-share projects have been completed. The remaining projects are scheduled to be completed in FY 2019 and FY 2020.

2. Districtwide Agricultural Cost-Share:
   - Eighty-one percent of the allocated funds were expended during the fiscal year. Two projects were amended for time extensions into the following fiscal year

3. Outreach to the Agricultural Community:
   - There have been 23 presentations to various agricultural groups including the Florida Cattlemen, Florida Farm Bureau, Wekiva High School Aquaponics Program, the District's Agricultural Advisory Committee, a delegation from Taiwan, 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

Pursuant to Sections 373.036(7) and 373.042(3), Florida Statutes (F.S.), the St. Johns River Water Management District (District) is required to annually update its priority list and schedule for the establishment of minimum flows and levels (MFLs), submit the updated list and schedule to the Florida Department of Environmental Protection (FDEP) by November 15 for review and approval, and include the FDEP-approved list and schedule in the District's Consolidated Annual Report. In accordance with Section 373.042(3), F.S., the District proposed a 2018 MFLs Priority List and Schedule (2018 Priority List) for establishing MFLs during the planning period 2018–2021. The District's Governing Board approved the 2018 Priority List on November 13, 2018, and it was submitted to FDEP for review and approval on November 15, 2018. FDEP approved the District's 2018 Priority List on January 15, 2019.

Chapter 373, F.S., requires Florida's water management districts to establish MFLs for water courses, water bodies, 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 the District 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, and for some lakes, MFLs are set as exceedance percentiles (e.g., minimum P50). 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." Water bodies experience variations in flows and levels that often contribute to significant functions of the system, such as the environmental values listed above.

Section 373.036(7)(b)2, F.S., requires the FDEP-approved MFLs priority list and schedule to be included 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. 2018 MFLs Priority List and Schedule

During the planning period from 2019–2021, the District plans to evaluate or re-evaluate a total of 18 systems. The 2018 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 2018 Priority List; Wekiwa Springs and Rock Springs are reevaluations, and therefore not listed under springs. The District's 2018 Priority List is presented in Tables 2–1 through 2–3. As noted in Tables 2-1 through 2-3, some systems will have adopted MFLs only if they are the most constraining within their group. For example, the Burrell basin lakes will result in one adopted MFL (the most constraining), not four.

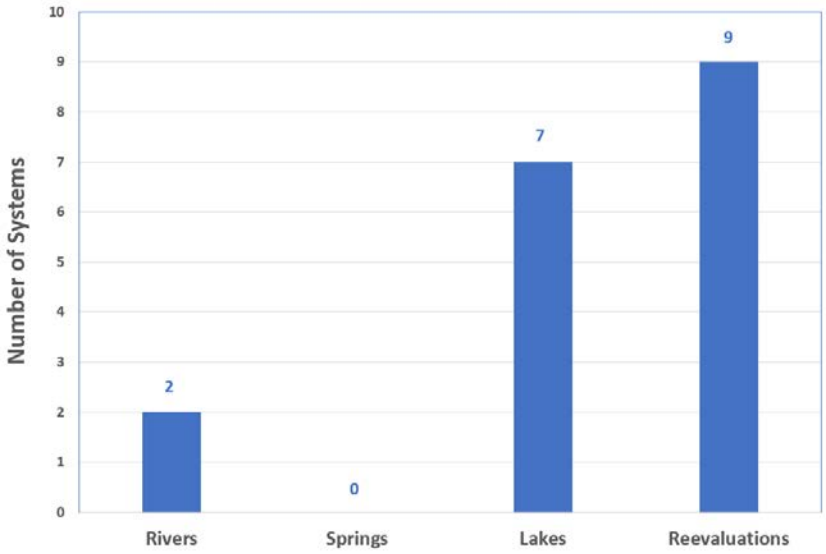

Figure 2-1. Number of systems to be evaluated

Currently, the District has established 129 MFLs (102 lakes, 14 springs, six rivers, and seven wetlands). The updates reflected in the 2018 Priority List are summarized below.

The Notice of Rule Development and Notice of Proposed Rule for Lochloosa Lake, in Marion County, were approved by the District Governing Board on October 9, 2018, and December 11, 2018, respectively.

The 2018 Priority List includes the following changes to the approved 2017 MFLs Priority List and Schedule:

- Rescheduling of Lake Brooklyn and Lake Geneva from 2018 to 2019 to respond to peer review comments and recommendations;
- Rescheduling of Lake Butler in Volusia County to allow for completion of the surface water model update; and
- Rescheduling of Lake Apopka, Lake Harris (or other Burrell basin lake) and Lake Griffin from 2019 to 2021 to allow resource balancing to complete 2019 and 2020 MFLs, coordination with ongoing lake projects, and for completion of the Central Florida Water Initiative (CFWI) peer review process for 13 systems 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 2018 Priority List shows the planned year for completion of new MFLs and reevaluations for the remainder of 2018 and for the years 2019–2021. As work is completed and MFLs are ready for rulemaking, staff may initiate rulemaking earlier than shown on the 2018 Priority List.

At this time, the District is not requesting that FDEP adopt any of the MFLs on the 2018 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 CFWI area will follow the standard peer review process for MFLs and water reservations within the CFWI area.

Table 2-1. St. Johns River Water Management District (SJRWMD) Minimum Flows and Levels to be adopted in 2019

New or Re-Evaluation	Water body Name or Compliance Point[1]	System Name[2]	Water body Type[3]	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude[4]	Longitude[4]	Rulemaking Status[5]
Re-Evaluation	*Brooklyn*	*Brooklyn*	*Lake*	*Clay*	*Yes*	*No*	*29.800796*	*-82.028988*	Notice of Rule Development published May 9, 2018
Re-Evaluation	*Geneva*	*Geneva*	*Lake*	*Clay*	*Yes*	*No*	*29.767463*	*-82.02482*	Notice of Rule Development published May 9, 2018
New	*Butler*	*Butler*	*Lake*	*Volusia*	*Yes*	*No*	*28.870555*	*-81.188333*	N/A
New	*Little Wekiva at Spring Landing Blvd, and associated springs † **	*Little Wekiva at Spring Landing Blvd**	*River and springs - 3*	*Seminole/ Orange*	*Yes*	*Yes*	*28.702106*	*-81.392197*	N/A
Re-Evaluation	*Wekiva at SR46**	*Wekiva**	*River*	*Seminole/ Lake*	*Yes*	*Yes*	*28.815175*	*-81.419472*	N/A
Re-Evaluation	*Wekiwa/and associated spring †† **	*Wekiwa**	*Springs - 2*	*Seminole/ Orange*	*Yes*	*Yes*	*28.711989*	*-81.460303*	N/A
Re-Evaluation	*Rock**	*Rock**	*Springs - 2*	*Orange*	*Yes*	*Yes*	*28.755827*	*-81.499235*	N/A

* Water bodies within the Central Florida Water Initiative (CFWI) area. 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 and the potential for prevention or recovery strategies.

† Associated springs include Palm, Sanlando, and Starbuck

†† Associated spring includes Miami

Table 2-2. SJRWMD Minimum Flows and Levels to be adopted in 2020

New or Re-Evaluation	Water body Name or Compliance Point[1]	System Name[2]	Water body Type[3]	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude[4]	Longitude[4]	Rulemaking Status[5]
New	*Johns (or Avalon)**	*Johns (or Avalon)**	*Lakes*	*Orange*	*Yes*	*Yes*	*28.535277*	*-81.632848*	N/A
New	*East Crystal**	*East Crystal**	*Lake*	*Seminole*	*Yes*	*Yes*	*28.768325*	*-81.313674*	N/A
New	*Hodge**	*Hodge**	*Lake*	*Seminole*	*Yes*	*Yes*	*28.691666*	*-81.321667*	N/A
Re-Evaluation	*Apshawa South**	*Apshawa South**	*Lake*	*Lake*	*Yes*	*Yes*	*28.601166*	*-81.775405*	N/A
Re-Evaluation	*Prevatt**	*Prevatt**	*Lake*	*Orange*	*Yes*	*Yes*	*28.712117*	*-81.489902*	N/A
Re-Evaluation	*Sylvan**	*Sylvan**	*Lake*	*Seminole*	*Yes*	*Yes*	*28.804991*	*-81.380342*	N/A
Re-Evaluation	*Weir*	*Weir*	*Lake*	*Marion*	*Yes*	*Yes*	*29.023590*	*-81.938138*	N/A

* Water bodies within the Central Florida Water Initiative (CFWI) area. 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 and the potential for prevention or recovery strategies.
† Associated springs include Palm, Sanlando, and Starbuck
†† Associated spring includes Miami

Table 2-3. SJRWMD Minimum Flows and Levels to be adopted in 2021

New or Re-Evaluation	Water body Name or Compliance Point[1]	System Name[2]	Water body Type[3]	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude[4]	Longitude[4]	Rulemaking Status[5]
New	*Ocklawaha at SR40*	*Ocklawaha*	*River*	*Marion*	*Yes*	*Yes*	*29.216102*	*-81.984588*	N/A
New	*Apopka**	*Apopka**	*Lake*	*Lake/Orange*	*Yes*	*Yes*	*28.651666*	*-81.658056*	N/A
New	*Griffin*	*Griffin*	*Lake*	*Lake*	*Yes*	*Yes*	*28.842500*	*-81.849167*	N/A
New	*Harris (or other Burrell basin lake)*	*Burrell basin*	*Lake*	*Lake*	*Yes*	*Yes*	*28.775000*	*-81.818056*	N/A

* Water bodies within the Central Florida Water Initiative (CFWI) area. 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 and the potential for prevention or recovery strategies.
† Associated springs include Palm, Sanlando, and Starbuck
†† Associated spring includes Miami

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.).

IV. 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.).

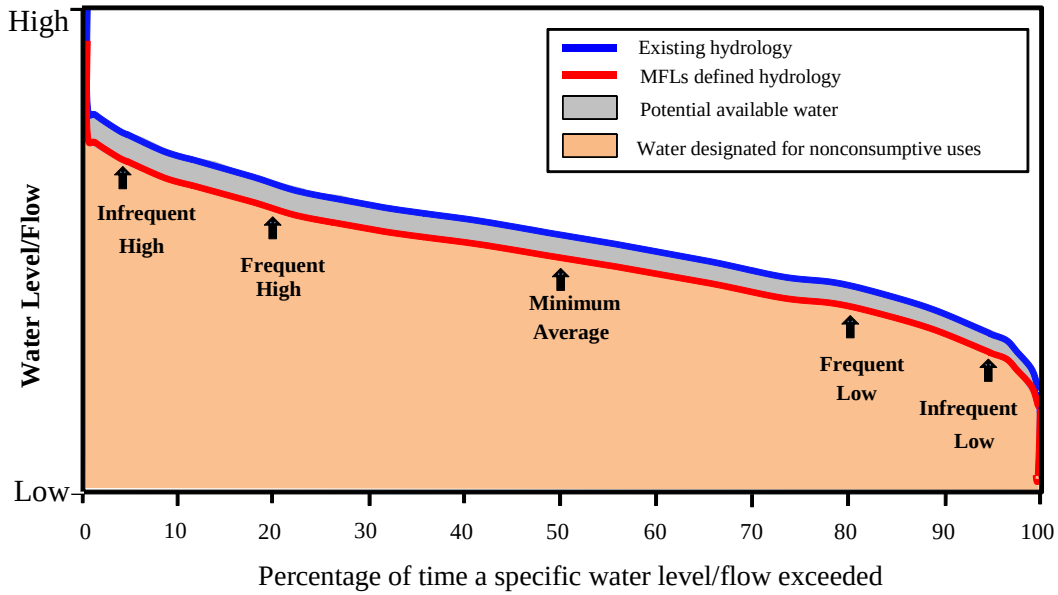

Figure 2-2. Exceedance curves for existing and MFLs defined hydrologic conditions

V. 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, 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.

VI. History of MFLs Established and Adopted by Rule

Since 1990 when the MFLs program was initiated, the District has established 161 MFLs (including 129 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 2-4 shows the number of MFLs that have been adopted by rule by water body type.

Table 2-4 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
2018	1					1	161
Total	**102**	**6**	**7**	**14**	**32**	**161**	**161**

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 (FDEP), and the five water management districts. The CIP presents current and projected revenues and expenditures for capital improvement projects for fiscal year (FY) 2018–2019 through FY 2022–2023.

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 and numbering for this plan is drawn from the standard budget reporting format and numbering prescribed by the EOG. The EOG format requires capital improvement projects be budgeted in the standard program categories. The 2019 CIP covers two standard programs and associated activities and subactivities shown below:

2**.0 Land 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

II. Proposed Capital Projects and Expenditures During the Planning Period

The District proposes to spend $36.74 million on multiple projects/subprojects during the planning period from FY 2018–2019 through FY 2022–2023. 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 $11.18 million, which is a 20.8 percent, or $1.92 million, increase as compared to the adopted budget for FY 2017–2018.

Significant changes in capital expenditures during the planning period are:

- Excluding land acquisitions, the District is planning for 16 multimillion-dollar capital projects. Eight of these are in activity 2.3, including the Fellsmere Water Management Area ($4.67 million), St. Johns Marsh Conservation Area (SJMCA) Project ($1.73 million), Lake Apopka Marsh Flow-Way Improvements ($2.18 million), Lake Apopka North Shore Infrastructure Improvements ($2.09 million), Lake Apopka North Shore Levee Improvements ($1.16 million), Lake Level Canal Interconnection ($1.39 million), Coastal Oaks Preserve ($1.37 million), First Coast Expressway — Restoration ($1.18 million). The remaining eight are in activity 3.2, which are primarily major and minor water control structure rehabilitation projects in the range of $1–2 million.
- The District is planning for several small land acquisitions. There is no planned capital outlay for land acquisition beyond FY 2019–2020.
- The District will primarily rely on District revenues (including fund balances and ad valorem revenues) to fund capital projects.

Among the activities and subactivities that have capital expenditures, Surface Water Projects account for almost 48 percent of the total expenditures during the planning period (see Figure 3-2).

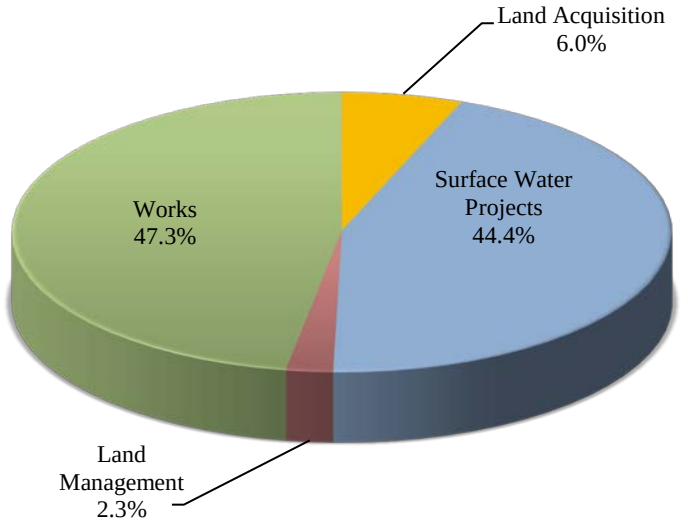

Figure 3-2. Five-year total capital improvement project expenditures by activity

The District's capital improvement projects are funded primarily by District sources. Figure 3-3 below shows that approximately three quarters of the total revenues during the planning period will come from District sources. Historically, state funding sources such as FDEP, Florida Forever and the Ecosystem Management Trust Fund have provided most of the funding for the District's capital projects. However, neither Florida Forever or the Ecosystem Management Trust Fund are available to the District and FDEP funding is subject to legislative appropriations. Therefore, the District will not account for potential funding, yet to be appropriated by the state Legislature, in the preparation of this plan.

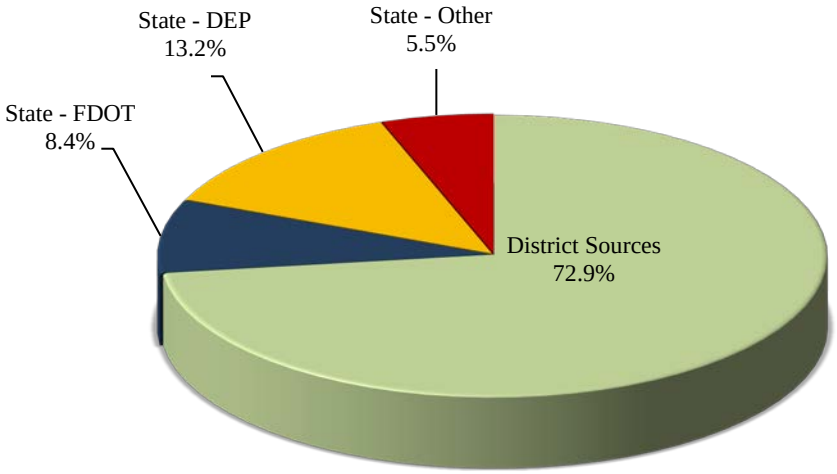

Figure 3-3. Five-year total capital improvement project expenditures by funding source

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 2018–2019 Adopted Budget, FY 2019–2020 Preliminary Budget, and projected capital improvement projects through FY 2022–2023. 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:

- 2015, 2016, 2017 and 2018 FDOT Annual Mitigation Plan
- 2016 Indian River Lagoon (IRL) Stormwater Capture and Treatment Feasibility Study
- Five-Year Infrastructure Management, Operations and Maintenance Plan
- FY 2018–2019 Adopted Budget
- FY 2019–2020 Preliminary Budget
- IRL Comprehensive Conservation and Management Plan 2018 Update
- IRL SWIM Plan 2002 Update
- Individual Land Management Area Plans
- Project Planning Group – District Projects Evaluation

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

IV. Project Descriptions by Program and Activity

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

Land Acquisition: Several projects are proposed in the CIP, including potential land acquisitions and acquisition support services. Some of the projects include small parcel land acquisitions associated with future restoration projects.

Surface Water Projects: Eleven 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 three mitigation projects during the planning period.

Land Management: Four projects have been planned under this activity. Two of these intend to provide public access to District-owned lands and enhancements to District-owned lands. The other two are for FDOT mitigations.

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

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

2.0 LAND ACQUISITION, RESTORATION AND PUBLIC WORKS

2.1 Land Acquisitions

REVENUES	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	FY 2022-2023	5-Year Total
District Sources	$ 594,500	$ 594,500	$ 94,500	$ 94,500	$ 94,500	$ 1,472,500
State - FDOT	420,000	-	-	-	-	420,000
State - WMLTF	300,000	-	-	-	-	300,000
TOTAL	**$ 1,314,500**	**$ 594,500**	**$ 94,500**	**$ 94,500**	**$ 94,500**	**$ 2,192,500**

EXPENDITURES	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	FY 2022-2023	5-Year Total
Crane Creek M-1 Canal Flow Restoration	$ 300,000	$ -	$ -	$ -	$ -	$ 300,000
First Coast Expressway - Restoration	420,000	-	-	-	-	420,000
Potential Land Purchases	594,500	594,500	94,500	94,500	94,500	1,472,500
TOTAL	**$ 1,314,500**	**$ 594,500**	**$ 94,500**	**$ 94,500**	**$ 94,500**	**$ 2,192,500**

2.3 Surface Water Projects

REVENUES	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	FY 2022-2023	5-Year Total
Upper St. Johns River Basin						
District Sources	$ 2,010,000	$ 1,891,025	$ 1,100,000	$ -	$ -	$ 5,001,025
State - Other	982,000	432,000	-	-	-	1,414,000
UORB/Lake Apopka Basin						
District Sources	1,160,000	-	1,100,000	-	-	2,260,000
State - FDEP	1,585,000	3,273,500	-	-	-	4,858,500
Districtwide						
District Sources	101,980	108,500	-	-	-	210,480
State - FDOT	335,000	1,002,869	1,143,069	60,000	50,000	2,590,938
TOTAL	**$ 6,173,980**	**$ 6,707,894**	**$ 3,343,069**	**$ 60,000**	**$ 50,000**	**$ 16,334,943**

EXPENDITURES	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	FY 2022-2023	5-Year Total
Upper St. Johns River Basin						
Fellsmere Water Management Area Biomonitoring	$ 10,000	$ 8,000	$ -	$ -	$ -	$ 18,000
Fellsmere Water Management Area Construction	2,150,000	1,416,000	1,100,000	-	-	4,666,000
St. Johns Marsh Conservation Area Project	832,000	899,025	-	-	-	1,731,025
UORB/Lake Apopka Basin						
Duda Pump and Road / Berm Improvements	200,000	108,000	-	-	-	308,000
Lake Apopka Marsh Flow-Way Improvements	150,000	2,025,000	-	-	-	2,175,000
Lake Apopka North Shore Infrastructure Improvements	1,050,000	1,035,000	-	-	-	2,085,000
Lake Apopka North Shore Levee Improvements	1,160,000	-	-	-	-	1,160,000
Lake Level Canal Interconnection	185,000	105,500	1,100,000	-	-	1,390,500
Indian River Lagoon Basin						
District-Other						
Coastal Oaks Preserve	335,000	518,069	518,069	-	-	1,371,138
First Coast Expressway - Restoration	-	484,800	595,000	50,000	50,000	1,179,800
Halfmile Creek Tract	101,980	108,500	30,000	100,000	-	250,480
TOTAL	**$ 6,173,980**	**$ 6,707,894**	**$ 3,343,069**	**$ 60,000**	**$ 50,000**	**$ 16,334,943**

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

3.0 OPERATION AND MAINTENANCE OF LANDS AND WORKS

3.1 Land Management

REVENUES	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	FY 2022-2023	5-Year Total
District Sources	$ 153,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 553,000
State - FDOT	65,280	9,483	-	-	-	74,763
State - Other	208,700	-	-	-	-	208,700
TOTAL	**$ 426,980**	**$ 109,483**	**$ 100,000**	**$ 100,000**	**$ 100,000**	**$ 836,463**

EXPENDITURES	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	FY 2022-2023	5-Year Total
Field Activities - Fencing	$ 70,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	270,000
Field Activities - Public Use Structures	291,700	50,000	50,000	50,000	50,000	491,700
Lake Jesup Conservation Area	13,280	9,483	-	-	-	22,763
Micco Water Management Area	52,000	-	-	-	-	52,000
TOTAL	**$ 426,980**	**$ 109,483**	**$ 100,000**	**$ 100,000**	**$ 100,000**	**$ 836,463**

3.2 Works

REVENUES	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	FY 2022-2023	5-Year Total
District Sources	$ 3,170,000	$ 1,455,000	$ 4,570,000	$ 4,101,000	$ 3,994,000	$ 17,290,000
State-Other	90,000	-	-	-	-	90,000
TOTAL	**$ 3,260,000**	**$ 1,455,000**	**$ 4,570,000**	**$ 4,101,000**	**$ 3,994,000**	**$ 17,380,000**

EXPENDITURES	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	FY 2022-2023	5-Year Total
Ansin East Levee Repairs	$ 195,000	$ -	$ -	$ -	$ -	$ 195,000
Drum and Cable Replacements	-	-	800,000	1,150,000	400,000	2,350,000
Gopher Tortoise Relocation	100,000	-	-	-	-	100,000
Improve Fellsmere Grade Driving Surface	-	190,000	190,000	-	-	380,000
Infrastructure Rehabilitation and Improvements	200,000	300,000	200,000	200,000	200,000	1,100,000
Levee Repairs	230,000	360,000	400,000	250,000	600,000	1,840,000
Loop Trail Upgrades	90,000	-	-	-	-	90,000
Miscellaneous Infrastructure Improvements	-	-	450,000	530,000	320,000	1,300,000
Miscellaneous Parking Lot/Roadway Improvements	-	-	300,000	275,000	300,000	875,000
Miscellaneous Walkway Installations	-	-	100,000	100,000	100,000	300,000
Pump Management/Remote Gate Operations	150,000	-	-	-	-	150,000
Remove / Mulch Canal Vegetation	-	100,000	100,000	100,000	100,000	400,000
Refurbish (2) Airboat Crossings on L77W	-	80,000	-	-	-	80,000
Rehabilitation of the Marsh Flow-Way Pumps	-	125,000	-	-	-	125,000
Replace S-252 A, B and C Walkways	120,000	-	-	-	-	120,000
S-96 Structure Rehabilitation	-	-	-	-	1,974,000	1,974,000
S-96B Structure Rehabilitation	1,950,000	-	-	-	-	1,950,000
S-96C Drum and Cable	-	200,000	-	-	-	200,000
S-96C Structure Rehabilitation	-	-	1,805,000	-	-	1,805,000
S-96D Structure Rehabilitation	-	-	-	1,496,000	-	1,496,000
Slip Line Piping at Fellsmere Grade	225,000	-	225,000	-	-	450,000
Walkway Platforms at S252F, BCWMA and Orange Lake	-	100,000	-	-	-	100,000
TOTAL	**$ 3,260,000**	**$ 1,455,000**	**$ 4,570,000**	**$ 4,101,000**	**$ 3,994,000**	**$ 17,380,000**

GRAND TOTAL EXPENDITURES	**$ 11,175,460**	**$ 8,866,877**	**$ 8,107,569**	**$ 4,355,500**	**$ 4,238,500**	**$ 36,743,906**

REVENUES	FY 2018-2019	FY 2019-2020	FY 2020-2021	FY 2021-2022	FY 2022-2023	5-Year Total
GRAND TOTAL REVENUES	**$ 11,175,460**	**$ 8,866,877**	**$ 8,107,569**	**$ 4,355,500**	**$ 4,238,500**	**$ 36,743,906**

Program: Land Acquisition, Restoration and Public Works

Activity: Land Acquisition

Project Title: Crane Creek M-1 Canal Flow Restoration

Type: Land Acquisitions

Project Manager: Ramesh Buch, William Tredik

Physical Location: Brevard County

Square Footage/Physical Description: Not available

Expected Completion Date: September 2019

Historical Background/Need for Project: The M-1 Canal is a century old man-made flood control feature in Brevard County that cuts through the coastal ridge, diverting stormwater flow from 5,300 acres of the historic St. Johns River (SJR) Basin to the Indian River Lagoon (IRL). The Crane Creek / M-1 Canal Project (identified in the 2016 IRL Stormwater Capture and Treatment Feasibility Study) will treat and return diverted runoff to the SJR.

Located in West Melbourne, Melbourne Village and portions of unincorporated Brevard County, the project will reduce nutrient and sediment loads to the IRL by treating and returning baseflows and small storm flows back to the SJR. This project includes an operable weir near the natural coastal ridge, a stormwater pump station and a stormwater treatment area.

The project will provide environmental benefit to the IRL and water supply benefit to the SJR by restoring currently diverted flows to the SJR. The proposed project is to acquire appropriate property that is necessary for the construction of a stormwater pumping station to return diverted runoff to the SJR, which is a portion of an approximately $9 million flow restoration project cooperative funded by the District, Florida Department of Environmental Protection and Brevard County.

Plan Linkages: 2016 IRL Stormwater Capture and Treatment Feasibility Study, IRL Comprehensive Conservation and Management Plan 2018 Update, IRL SWIM Plan 2002 Update, and FY 2018–2019 Adopted Budget

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communication requirements, utilities outside building, site development, other): Approximately $2 million for construction of a stormwater pump station.

Other Project Costs (includes land survey, existing facility acquisitions, professional service, other): A total of $300,000 was budgeted in FY 2018–2019 for acquisition of the appropriate property interests.

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 the pump station and are estimated to be approximately $50,000 per year.

Program: Land Acquisition, Restoration and Public Works

Activity: Land Acquisition

Project Title: First Coast Expressway – Land Acquisition

Type: Land Acquisitions

Project Manager: Ramesh Buch, Ryan Spohn

Physical Location: St. Johns and Putnam counties

Square Footage/Physical Description: Not available

Expected Completion Date: August 2019

Historical Background/Need for Project: The First Coast Expressway project by FDOT will impact an estimated 35.73 acres of tidal freshwater forested wetland and 2.24 acres of submersed aquatic vegetation (SAV) habitat. The functional loss associated with the tidal freshwater forested impacts is planned to be offset by the preservation, enhancement, and/or restoration of like communities as additional conservation lands or on existing conservation lands in Regulatory Basins 4, 5, and 8, as appropriate. The District is tasked with implementation of the FDOT Mitigation Program, therefore the District will purchase lands suitable to offset for these impacts pursuant to the FDOT mitigation plan.

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

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communication requirements, utilities outside building, site development, other): None.

Other Project Costs (includes land survey, existing facility acquisitions, professional service, other): The District budgeted $420,000 in FY 2018–2019 for land acquisition only.

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

Anticipated Additional Operating Costs/Continuing: The annual cost per acre for the management of District lands varies based on the type of activity that may be necessary during a fiscal year. The District's current estimated annual activity costs per acre are: recreation, $0.57; invasive plant control, $6.60; prescribed fire, $11.22; security, $0.60.

Program: Land Acquisition, Restoration and Public Works

Activity: Land Acquisition

Project Title: Potential Land Purchases

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 $1.13 million in FF funds to the District for land acquisitions in FY 2010–2011. No appropriations have been received since FY 2011–2012. The proposed budgets are for potential land purchases in FY 2018–2019 and FY 2019–2020.

Plan Linkages: FY 2018–2019 Adopted Budget and FY 2019–2020 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): None

Other Project Costs (includes land survey, existing facility acquisitions, professional service, other): A total of $594,500 was budgeted in FY 2018–2019 and the FY 2019–2020 Preliminary Budget for potential land purchases and other real estate research and related transactional costs. The District currently has no plans to budget additional funds for land purchases beyond FY 2019–2020. However, the District plans to budget $94,500 through FY 2022–2023 for other real estate research and related transactional costs.

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

Anticipated Additional Operating Costs/Continuing: The annual cost per acre for the management of District lands varies based on the type of activity that may be necessary during a fiscal year. The District's current estimated annual activity costs per acre are: recreation, $0.57; invasive plant control, $6.60; prescribed fire, $11.22; security, $0.60.

Program: Land 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 Fellsmere Water Management Area (FWMA) and is the District's responsibility.

Plan Linkages: FY 2018–2019 Adopted Budget and FY 2019–2020 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 $10,000 in FY 2018–2019 and plans to budget $8,000 in FY 2019–2020.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other.): Land acquisition costs of approximately $9.8 million were expended for the purchase of 4,000 acres during FY 2001–2002 and $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: Land 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 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 2021

Historical Background/Need for Project: To improve water quality downstream in the St. Johns River, the District began construction of the 10,000-acre Fellsmere Water Management Area (FWMA) reservoir in 2007. The FWMA is designed to treat agricultural discharges prior to entering the SJWMA, provide water supply potential, and enhance flood protection benefits of the Upper St. Johns River Basin (USJRB) Project. It is expected that with the completion of the FWMA project, 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 USJRB Project.

Plan Linkages: FY 2018–2019 Adopted Budget and FY 2019–2020 Preliminary Budget

Area(s) of Responsibility: 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 $2.15 million in FY 2018–19 and plans to budget $1.42 million in FY 2019–2020 and $1.1 million in FY 2020–2021. Historical construction expenses total $51.8 million.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other.): Land acquisition costs of approximately $9.8 million were expended for the purchase of 4,000 acres during FY 2001–2002 and $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 are estimated to be approximately $200,000 per year based on 2 percent of capital costs, not including land purchase.

Program: Land 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: SJMCA is located on the westside of the Upper St. Johns River Basin 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 2020

Historical Background/Need for Project: 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 water bodies 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): To be determined

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $832,000 in FY 2018–2019 and plans to budget $899,025 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: These costs are estimated to be approximately $30,000 per year based on 2 percent of capital costs.

Program: Land Acquisition, Restoration and Public Works

Activity: Surface Water Projects

Project Title: Duda Pump and Road / Berm Improvements

Type: Natural Systems and Water Quality

Project Manager: Lindsey Porter

Physical Location: Duda property on the Lake Apopka North Shore

Square Footage/Physical Description: 2,500 acres of wetland habitat with internal levees/roads

Expected Completion Date: January 2022

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 provide safe wetland habitat and reduce phosphorus loading to Lake Apopka. The project will use hydrology management, plantings, herbicides, and ultimately prescribed fire to develop desirable vegetation communities. The improvements also facilitate the ability to retain TP and TSS in the Duda property of the Lake Apopka North Shore.

Plan Linkages: FY 2018–2019 Adopted Budget and FY 2019–2020 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 budgeted $200,000 in FY 2018–2019 and plans to budget $108,000 in FY 2019–2020 for this project.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): 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: These costs are estimated to be approximately $48,000 per year based on 2 percent of capital costs.

Program: Land 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: Lindsey Porter

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

Square Footage/Physical Description: 760 acres of marsh flow-way

Expected Completion Date: July 2020

Historical Background/Need for Project: After more than 15 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 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. Based on this evaluation, construction projects will commence in FY 2018–2019 to improve the efficiency of the marsh flow-way.

Plan Linkages: FY 2018–2019 Adopted Budget and FY 2019–2020 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 budgeted $150,000 in FY 2018–2019 and plans to budget $2.03 million 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: These costs are estimated to be approximately $50,000 per year based on 2 percent of capital costs.

Program: Land Acquisition, Restoration and Public Works

Activity: Surface Water Projects

Project Title: Lake Apopka North Shore Infrastructure Improvements

Type: Water Quality and Natural Systems Improvements

Project Manager: Robert Naleway

Physical Location: Lake Apopka North Shore

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

Expected Completion Date: September 2021

Historical Background/Need for Project: Infrastructure improvements are needed on the Lake Apopka North Shore to improve the storage and management of water within the North Shore. Benefits include encouraging desirable wetland vegetation and reducing phosphorus-rich discharges of water to Lake Apopka. The work includes raising internal levees and constructing a pump station to facilitate water management.

Plan Linkages: FY 2018–2019 Adopted Budget and FY 2019–2020 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 residual 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 budgeted $1.05 million in FY 2018–2019 budget and plans to budget $1.04 million in FY 2019–2020.

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: These costs are estimated to be approximately $30,000 per year based on 2 percent of capital costs.

Program: Land Acquisition, Restoration and Public Works

Activity: Surface Water Projects

Project Title: Lake Apopka North Shore Levee Improvements

Type: Rehabilitation of Water Control Structures

Program 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 the North Shore from Lake Apopka by raising the lake levee between the lake and the North Shore. Benefits include improved water management within the North Shore to encourage desirable wetland vegetation and limiting the phosphorus-rich discharges of water to Lake Apopka.

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

Area(s) of Responsibility: Flood protection, natural systems water quality, water supply

Alternative(s): A no action alternative would 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 residual 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, utilities outside building, site development, other): The District budgeted $1.16 million in FY 2018–2019 to complete this project.

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

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

Anticipated Additional Operating Costs/Continuing: These costs are estimated to be approximately $24,000 per year based on 2 percent of capital costs.

Program: Land Acquisition, Restoration and Public Works

Activity: Surface Water Projects

Project Title: Lake Level Canal Interconnection

Type: Natural Systems and Water Quality

Project Manager: Robert Naleway

Physical Location: Lake Apopka North Shore

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

Expected Completion Date: September 2021

Historical Background/Need for Project: Interconnect improvements will help to contain more water on the Lake Apopka North Shore. A study completed by Wood PLC, Environment and Infrastructure Solutions estimated the interconnect improvements between the Duda Area and Unit 1, along with additional improvements around the North Shore, would result in a 57 percent reduction in total discharge and associated total phosphorus discharge to the lake from the North Shore.

Plan Linkages: FY 2018–2019 Adopted Budget and FY 2019–2020 Preliminary Budget

Area(s) of Responsibility: Natural systems, water quality

Alternative(s): Pump all excess water with associated total phosphorous from the north shore to Lake Apopka.

Basic Construction Costs (includes permits, inspections, communications requirements, site development, other): The District budgeted $185,000 in FY 2018–2019 budget and plans to budget $105,500 in FY 2019–2020 and $1.1 million in FY 2020–2021.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): Professional engineering services

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

Anticipated Additional Operating Costs/Continuing: These costs are estimated to be approximately $24,000 per year based on 2 percent of capital costs.

Program: Land Acquisition, Restoration and Public Works

Activity: Surface Water Projects

Project Title: Coastal Oaks Preserve

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. Highway 1 (U.S. 1).

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

Expected Completion Date: September 2021

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 Section 373.4137, F.S. The District plans to use funding from the FDOT Mitigation Program for this project.

Plan Linkages: 2015 FDOT Annual Mitigation Plan, FY 2018–2019 Adopted Budget, and FY 2019–2020 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 $335,000 in FY 2018–2019 for this project and plans to budget $518,069 in both FY 2019–2020 and 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: Land Acquisition, Restoration and Public Works

Activity: Surface Water Projects

Project Title: First Coast Expressway – Restoration

Type: Restoration

Project Manager: Ryan Spohn

Physical Location: St. Johns and Putnam counties

Square Footage/Physical Description: Not available

Expected Completion Date: August 2023

Historical Background/Need for Project: The First Coast Expressway project by FDOT will impact an estimated 35.73 acres of tidal freshwater forested wetland and 2.24 acres of submerged aquatic vegetation (SAV) habitat. The functional loss associated with the tidal freshwater forested impacts is planned to be offset by the preservation, enhancement, and/or restoration of like communities as additional conservation lands or on existing conservation lands in Regulatory Basins 4, 5, and 8 as appropriate. The District is tasked with implementation of the FDOT Mitigation Program, therefore the District will purchase lands suitable to offset for these impacts pursuant to the FDOT mitigation plan. The restorations will take place after the District acquires the suitable lands for this project.

Plan Linkages: 2016 FDOT Annual Mitigation Plan, FY 2018–2019 Adopted Budget, and FY 2019–2020 Preliminary Budget

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communication requirements, utilities outside building, site development, other): The District budgeted $484,800 in FY 2019–2020 Preliminary Budget and plans to budget $595,000 in FY 2020–2021 and $50,000 in both FY 2021–2022 and 2022–2023.

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: Land Acquisition, Restoration and Public Works

Activity: Surface Water Projects

Project Title: Halfmile Creek Tract

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 (HCCA). 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 HCCA 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 area. This project is necessary to offset FDOT's mitigation needs pursuant to Section 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 2018–2019 Adopted Budget, and FY 2019–2020 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 $101,980 in FY 2018–19 and plans to budget $108,500 in FY 2019–2020, $30,000 in FY 2020–2021, and $10,000 in FY in 2021–2022 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: The annual cost per acre for the management of District lands varies based on the type of activity that may be necessary during a fiscal year. The District's current estimated annual activity costs per acre are: recreation, $0.57; invasive plant control, $6.60; prescribed fire, $11.22; security, $0.60.

Program: Operation and Maintenance of Lands and Works

Activity: Land Management

Project Title: Field Activities — Fencing

Type: Land Management

Program Manager: Brian Emanuel

Physical Location: Various Conservation Areas

Square Footage/Physical Description: TBD

Expected Completion Date: September 2023

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 2018–2019 Adopted Budget, and FY 2019–2020 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 budgeted $70,000 in FY 2018–2019 and plans to budget $50,000 each year through FY 2022–2023 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: Brian Emanuel

Physical Location: TBD

Square Footage/Physical Description: Replacement of picnic pavilions, inclement weather shelters, boardwalks, and kiosks along existing public trails at various District properties. The sizes of these structures cannot be determined at the present time.

Expected Completion Date: September 2023

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 these structures arises on an infrequent basis. These facilities will replace existing facilities that have deteriorated over time.

Plan Linkages: Individual Land Management Plans, FY 2018–2019 Adopted Budget, and FY 2019–2020 Preliminary Budget.

Area(s) of Responsibility: Natural systems

Alternative(s): None

Basic Construction Costs (includes permits, site preparation and other): The District budgeted $291,700 in FY 2018–2019 and plans to budget $50,000 each year from FY 2019–2020 through FY 2022–2023 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 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 Section 373.4137, F.S. The District plans to use funding from the FDOT Mitigation Program for this project.

Plan Linkages: 2016 and 2017 FDOT Annual Mitigation Plan, FY 2018–2019 Adopted Budget, and FY 2019–2020 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 $13,280 in FY 2018–2019 as part of the implementation of the project and plans to budget $9,483 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: The annual cost per acre for the management of District lands varies based on the type of activity that may be necessary during a fiscal year. The District's current estimated annual activity costs per acre are: recreation, $0.57; invasive plant control, $6.60; prescribed fire, $11.22; security, $0.60.

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 includes planting trees within creation areas and controlling invasive exotic species on approximately 19.7 acres.

Expected Completion Date: September 2020

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 Section 373.4137 F.S. The District plans to utilize funding from the FDOT Mitigation Program for this project.

Plan Linkages: 2016 and 2017 FDOT Annual Mitigation Plan and FY 2018–2019 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 budgeted $52,000 in FY 2018–2019 for additional planting and control invasive species in wetland 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: The annual cost per acre for the management of District lands varies based on the type of activity that may be necessary during a fiscal year. The District's current estimated annual activity costs per acre are: recreation, $0.57; invasive plant control, $6.60; prescribed fire, $11.22; security, $0.60.

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: Ansin East Levee Repairs

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: Farm levee in northeast corner of Blue Cypress Water Management Area — East, approximately 1.7 miles east of State Road (SR) 512

Square Footage/Physical Description: The farm levee is an earthen levee and the breach is approximately 30 feet in width. It is expected that the breach will be repaired using sheet piles.

Expected Completion Date: September 2019

Historical Background/Need for Project: The farm levee isolates agricultural discharges from adjacent farmlands and directs the discharge to S251 to the west. This levee prevents this discharge from mixing with water in the Blue Cypress Water Management Area (BCWMA) – East, which is critical in meeting the environmental criteria dictated in the biological opinion for this water management area. The breach is in an area regularly used by airboats and developed over time due to airboat traffic and weathering.

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

Area(s) of Responsibility: Flood protection

Alternative(s): Reconstruct earthen farm levee with general fill (considered more expensive option due to access issues) or do nothing which could violate biological opinion.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $195,000 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: Drum and Cable Replacements

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: Multiple water control structures within the Upper St. Johns River Basin (USJRB) in Indian River, Brevard and Osceola counties and the Upper Ocklawaha River Basin (UORB) in Lake and Marion counties.

Square Footage/Physical Description: Various major water control structure gates: S161A (2 gates), S96 (2 gates), S157 (3 gates), S161 (2 gates) and Moss Bluff (2 gates)

Expected Completion Date: September 2023

Historical Background/Need for Project: The District is converting all major water control structure gates in the USJRB and UORB from a hydraulic lift system to a drum and cable winch system. These gates are frequently used during minor and major storm events. 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

Area(s) of Responsibility: Flood protection, natural systems

Alternative(s): Repair the Existing Hydraulic Systems

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District plans to budget $800,000 in FY 2020–2021, $1.15 million in FY 2021–2022, and $400,000 in FY 2022–2023.

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: 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 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 United States Army Corps of Engineers (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 2019

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 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 Florida Fish and Wildlife Conservation Commission (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 five-year permits. Within each five-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 five-year permit and span the life of the five-year permit. Current levee evaluations for burrows will require relocation through FY 2019–2020. Within the permit duration, the District will evaluate levee structures every year to identify active gopher tortoise burrows. If needed, staff will trap and relocate the gopher tortoises, and fill burrows with non-shrinking grout to repair the levees.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2018-2019 Adopted 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 budgeted $100,000 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: Improve Fellsmere Grade Driving Surface

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: Fellsmere Grade is approximately 6.0 miles in length with a 24-foot wide surface.

Expected Completion Date: September 2021

Historical Background/Need for Project: This roadway consists of a sandy-clay base that requires grading two to three times per week. With the construction of access point one (AP1), traffic on this roadway is expected to increase. Therefore, constructing a compacted limerock driving surface should reduce periodic maintenance costs.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan and FY 2019–2020 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 plan to budget $190,000 in both 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: These costs are estimated to be approximately $8,000 per year based on 2 percent of capital costs.

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: Infrastructure Rehabilitation and Improvements

Type: Infrastructure Renovation

Program Manager: Woody Boynton

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

Square Footage/Physical Description: Culverts range in size from 36-inches to 84-inches and in length from approximately 100-200 feet. The culvert material is typically corrugated metal pipe or corrugated aluminum pipe.

Expected Completion Date: September 2023

Historical Background/Need for Project: The District is responsible for the maintenance of 60 federal and 15 non-federal minor water control structures associated with managing the District's flood control system. USCAE requires that all minor water control structures be inspected every five years. Most of these structures are under water and require a diving contractor to complete the inspection. The findings of inspection reports form the basis of a work plan to repair any deficiencies that are identified.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2018–2019 Adopted Budget, and FY 2019–2020 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 budgeted $200,000 in FY 2018–2019 and plans to budget $300,000 in FY 2019–2020 for the inspection of all minor water control structures and $200,000 a year from FY 2020–2021 through FY 2022–2023 for repairs from the findings of the inspections.

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: Woody Boynton

Physical Location: Upper St. Johns River Basin (USJRB) in Indian River, Brevard and Osceola counties and the 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 and 190 miles of project 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 and/or District guidelines and require improvements and rehabilitation.

Expected Completion Date: September 2023

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. In addition, the District maintains more than 190 miles of project levees that separate various water bodies and/or provide access throughout the property. This rehabilitation work is to address deficiencies associated with levee depressions/rutting, levee height, slope geometry, vegetation cover, encroachments, animal control and other appurtenant works.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2019–2020 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 budgeted $230,000 in FY 2018–2019 and plans to budget $360,000 for FY 2019–2020, $400,000 in FY 2020–2021, $250,000 in FY 2021–2022, and $600,000 in FY2022–2023.

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: These costs are estimated to be approximately $50,000 per year based on 2 percent of capital costs.

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: Loop Trail Upgrades

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: Lake Apopka North Shore

Square Footage/Physical Description: The part of the Loop Trail that will be renovated/capped is approximately 10 to 12 feet wide and 6.5 miles long.

Expected Completion Date: September 2019

Historical Background/Need for Project: The Loop Trail is an important component of the recreational trails associated with the Lake Apopka North Shore. The roadways need to be rehabilitated to maintain safe public access.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2018–2019 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 $90,000 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: These costs are estimated to be approximately $2,000 per year based on 2 percent of capital costs.

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: Miscellaneous Infrastructure Improvements

Type: Infrastructure Renovation

Program Manager: Woody Boynton

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

Square Footage/Physical Description: Varies

Expected Completion Date: September 2023

Historical Background/Need for Project: The District has structures including pumps, bridges, weirs, generators and airboat crossings that are reaching the useful life of the structure. These structures are important aspects of the District lands including providing flood protection, public and District access, and environmental protections, and require rehabilitation to maintain the long-term viability of the District's infrastructure.

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

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 plans to budget $450,000 in FY 2020–2021, $530,000 in FY 2021–2022 and $320,000 in FY 2022–2023.

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: These costs are estimated to be approximately $26,000 per year based on 2 percent of capital costs.

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: Miscellaneous Parking Lot/Roadway Improvements

Type: Infrastructure Renovation

Program Manager: Woody Boynton

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

Square Footage/Physical Description: Parking lots vary in size from approximately 100,000 square feet (sf) to 250,000 sf. The proposed parking lots will be resurfaced and striped for parking. The access roadway in the St. Sebastian State Park, which is approximately 4.5 miles long by 24-foot wide, will be also improved.

Expected Completion Date: September 2023

Historical Background/Need for Project: Parking lot surfaces in several locations are deteriorating and need to be resurfaced to protect the long-term investment of the paved surface. The roadway consists of a sandy-clay base that requires grading two to three times per week. Constructing a compacted limerock driving surface should reduce this maintenance cycle and associated costs.

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

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 plans to budget $300,000 in FY 2020–2021, $275,000 in FY 2021–2022 and $300,000 in FY 2022–2023.

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: These costs are estimated to be approximately $26,000 per year based on 2 percent of capital costs.

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: Miscellaneous Walkway Installations

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: Multiple locations in the Upper St. Johns River Basin (USJRB) in Indian River and Brevard counties as well as on Orange Lake in Marion County.

Square Footage/Physical Description: Walkways are typically 3 feet to 6 feet wide by varying lengths (50–60 ft.). New walkways are typically constructed with painted or galvanized structural steel or structural aluminum.

Expected Completion Date: September 2023

Historical Background/Need for Project: The District has many wooden walkways that are showing signs of deterioration. This project will replace older wooden walkways with new steel/aluminum walkways.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2019–2020 Preliminary 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 plans to budget $100,000 in FY 2020–2021 through FY 2022-2023.

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 and 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 Adopted 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 budgeted $150,000 in FY 2018–2019 to complete 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: These costs are estimated to be approximately $3,000 per year based on 2 percent of capital costs.

Program: Operation and Maintenance of Lands and Works

Activity: Works

Project Title: Remove / Mulch Canal Vegetation

Type: Infrastructure Renovation

Program Manager: Woody Boynton

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

Square Footage/Physical Description: Proposed canals include Ansin East, C-65 Canal and Ansin Center Canal. These canals vary in length and in width.

Expected Completion Date: September 2024

Historical Background/Need for Project: Vegetation islands restrict the flow of water within the canal and can adversely affect flood protection during storm events. Using a “cookie cutter” type of equipment, the vegetation islands are mulched creating an open water body.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2019–2020 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 plans to budget $100,000 a year from FY 2019–2020 through FY 2022–2023.

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: Refurbish Two Airboat Crossings on L77W

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: Two locations on the L77W levee in the Upper St. Johns River Basin (USJRB) in Indian River, County.

Square Footage/Physical Description: Ramp sizes vary from approximately 10- to 12-foot wide by 100- to 120-foot long.

Expected Completion Date: September 2020

Historical Background/Need for Project: Wooden crossings on L77W are showing signs of deterioration. If not repaired, airboats may incur damage.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2019–2020 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 plans to budget $80,000 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: Rehabilitation of the Lake Apopka Marsh Flow-Way Pumps

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: The pump station is located at the northwest shore of Lake Apopka in Lake County.

Square Footage/Physical Description: The pump station consists of five pumps, ranging in size from 24 inches to 36 inches with pumping capacity from 20,000 to 27,000 gallons-per-minute (gpm).

Expected Completion Date: September 2021

Historical Background/Need for Project: This pump station has not been rehabilitated since its initial installation in 2003. The proposed rehab will minimize future repairs and make the system more efficient.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2019–2020 Preliminary 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 plans to budget $125,000 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: Replace S-252 A, B and C Walkways

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: S-252A, B, and C are located on L-78, approximately three miles west of the State Road (SR) 60 entrance in the Upper St. Johns River Basin (USJRB) in Indian River and Brevard counties.

Square Footage/Physical Description: Walkways are typically 3 to 6 inches wide by varying lengths (50–60 feet). New walkways that are constructed are typically constructed with painted or galvanized structural steel or structural aluminum.

Expected Completion Date: September 2019

Historical Background/Need for Project: The wooden walkways at these locations are showing signs of deterioration. This project will replace older wooden walkways with new steel/aluminum walkways.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2018–2019 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 budgeted $120,000 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-96 Structure Rehabilitation

Type: Infrastructure Renovation

Program Manager: Robert Zammataro

Physical Location: S-96 is located at the western end of C-54, six miles west of State Road (SR) 507 (Babcock Street).

Square Footage/Physical Description: The structure is a two bay, hydraulically controlled vertical gate, with a total maximum discharge capacity of 6,000 cubic feet per second (cfs).

Expected Completion Date: September 2023

Historical Background/Need for Project: S-96 was built in 1968 as part of the original flood control plan that was later incorporated into the St. Johns River Upper Basin Project. S-96 is designed to discharge water from the St. Johns Water Management Area (SJWMA) into C-54 in times of high water. The S-96 gate rehabilitation includes dewatering, concrete repair and all ancillary items associated with the structure. A separate capital improvements project involves upgrading the hydraulic gates at S-96 and several other structures to drum and cable winch systems.

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

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 $1.97 million for FY 2022–2023.

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: These costs are estimated to be approximately $40,000 per year based on 2 percent of capital costs.

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 feet wide by 10.9 feet high, 9,000 lbs.) hydraulically controlled spillway with a maximum flow capacity of l,000 cubic feet per second (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 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 $1.95 million 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: These costs are estimated to be approximately $40,000 per year based on 2 percent of capital costs.

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 2020

Historical Background/Need for Project: The District is converting all major water control structure gates in the USJRB from a hydraulic lift system to a drum and cable winch system. The S-96C 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 2019–2020 Preliminary Budget

Area(s) of Responsibility: Flood protection, natural systems

Alternative(s): Repair hydraulic lift system, which is not as reliable and requires additional long-term maintenance.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District plans to budget $200,000 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: S-96C Structure Rehabilitation

Type: Infrastructure Renovation

Program Manager: Robert Zammataro

Physical Location: S-96C is located at the eastern end of L-74W at the tie back levee that connects to the south side of S-96B. S-96C serves as the main outlet for the Blue Cypress Marsh Conservation Area in the Upper St. Johns River Basin (USJRB) in Brevard County.

Square Footage/Physical Description: The structure is a single vertical gate, hydraulically controlled spillway with a maximum flow capacity of l,500 cubic feet per second (cfs).

Expected Completion Date: September 2021

Historical Background/Need for Project: S-96C was completed in 1993 and is the main outlet from the St. Johns Water Management Area (SJWMA) into the historic St. Johns River floodplain. The S-96C gate rehabilitation includes dewatering, concrete repair 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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $1.81 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: These costs are estimated to be approximately $36,000 per year based on 2 percent of capital costs.

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-96D is located on L-75 just west of S-3 in the Upper St. Johns River Basin (USJRB) in Indian River County, approximately 4.75 miles south of Fellsmere Grade.

Square Footage/Physical Description: S-96D is a single vertical gate and is designed to release water from the BCWMA to the St. Johns Water Management Area (SJWMA) through C-65, a canal formed between L-75 and L-76. Maximum flow is 1,000 cubic feet per second (cfs).

Expected Completion Date: September 2022

Historical Background/Need for Project: S-96D was completed in 1993 and is designed to release water from the Blue Cypress Water Management Area (BCWMA) to the SJWMA. The S-96D gate rehabilitation includes dewatering, concrete repair 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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District plans to budget $1.5 million for FY 2021–2022.

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: These costs are estimated to be approximately $30,000 per year based on 2 percent of capital costs.

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: The pipes at Fellsmere Grade 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 2018-2019 Adopted Budget and FY 2019–2020 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 budgeted $225,000 in FY 2018–2019 and plans to budget $225,000 in 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: Walkway Platforms at S252F, Blue Cypress Water Management Area (BCWMA) and Orange Lake

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: Multiple locations in the Upper St. Johns River Basin (USJRB) in Indian River and Brevard counties, as well as on Orange Lake in Marion County.

Square Footage/Physical Description: Walkways are typically 3 to 6 feet wide by varying lengths (50–60 ft.). New walkways are constructed are typically constructed with painted or galvanized structural steel or structural aluminum.

Expected Completion Date: September 2020

Historical Background/Need for Project: The District has many wooden walkways that are showing signs of deterioration. This project will replace the older wooden walkways at these locations with new steel/aluminum walkways.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2019–2020 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 plans to budget $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

V. Appendix A

STANDARD FORMAT PROGRAM DEFINITIONS FOR PROGRAMS AND ACTIVITIES

2.0 Land 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 water bodies.

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."

2.3 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.

Fiscal Year 2019 Five-Year Water Resource Development Work Program

4. Fiscal Year (FY) 2018–19 Five-Year Water Resources Development Work Program

Table of Contents

Figures

Tables

I. Introduction

Water management districts are required by Section 373.709, *Florida Statutes* (F.S.), to develop a regional water supply plan (RWSP) if they determine the existing sources of water are 1) inadequate to supply water for all existing and future reasonable-beneficial uses, and/or 2) may not sustain water resources and related natural systems for a 20-year planning period. Regional Water Supply Plans (RWSPs) include analysis of current and future water demands, evaluation of available water sources, and identification of water resource and water supply development projects to meet demands.

The St. Johns River Water Management District (District) is also required to prepare a Five-Year Water Resource Development Work Program (Work Program) as a part of its annual budget reporting process, pursuant to Subsection 373.536(6)(a)4., F.S. The Work Program must describe the District's implementation strategy relating to its water resource development and water supply development (including alternative water supply development) components over the next five years. Further, the Work Program must:

- Address all the elements of the water resource development component in the District's approved RWSPs, as well as the water supply projects proposed for District funding and assistance;
- Identify both anticipated available District funding and additional funding needs for the second through fifth years of the funding plan;
- Identify projects in the Work Program which will provide water;
- Explain how each water resource and water supply project will produce additional water available for consumptive uses;
- Estimate the quantity of water to be produced by each project;
- Provide an assessment of the contribution of the District's RWSPs in supporting the implementation of minimum flows and levels (MFLs) and water reservations; and
- Ensure sufficient 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 to avoid the adverse effects of competition for water supplies.

This Work Program covers the period from fiscal year (FY) 2018–19 through FY 2022–23 and is consistent with the planning strategies of the District's RWSPs. Over the last three years, the District has amended the 2005 District Water Supply Plan (DWSP) and developed two RWSPs. A third RWSP is under development. The RWSP's are briefly summarized below in Section II and depicted in Figure 1: Water supply planning regions. For additional information about the District's RWSPs, please see *www.sjrwmd.com/watersupply*.

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.

The District is divided into three planning regions and is working with other water management districts on water supply planning in most regions. The three planning regions are Central Florida, Central Springs and East Coast (CSEC), and North Florida.

In the Central Florida planning region, the District has been working in partnership with the South Florida Water Management District (SFWMD), Southwest Florida Water Management District (SWFWMD), Florida Department of Environmental Protection (DEP) and other stakeholders through the Central Florida Water Initiative (CFWI). A joint, regional water supply plan (RWSP) was adopted in 2015 by the three water management districts for the CFWI planning area of Orange, Osceola, Seminole and Polk counties and southern Lake County.

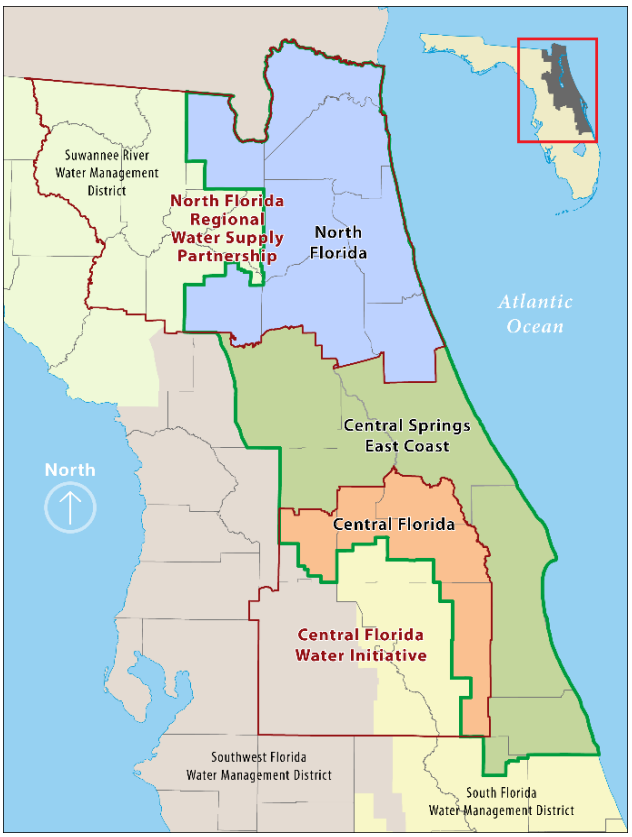

Figure 4-1: Water supply planning regions

In the CSEC planning region, the District has been coordinating with the SFWMD, SWFWMD and other stakeholders in advance of development of the CSEC RWSP. The planning region encompasses three sub-regions that include Marion and northern Lake counties, Volusia County and Brevard, Indian River and Okeechobee counties. The District anticipates having a draft RWSP by late 2018.

In the North Florida planning region, the District has been working in partnership with the Suwannee River Water Management District, DEP, and other stakeholders through the North Florida Regional Water Supply Partnership (NFRWSP). A joint, RWSP was adopted in January 2017 by the District and SRWMD for the NFRWSP planning area of Alachua, Baker, Bradford, Clay, Columbia, Duval, Flagler, Gilchrist, Hamilton, Nassau, Putnam, St. Johns, Suwannee and Union counties.

Table 1. Regional water supply plan approval and five-year updates.

Planning Region	Current Water Supply Plan	Next Update
North Florida	January 2017	January 2022
Central Florida	November 2015	November 2020
Central Springs and East Coast	2005 DWSP 5th Addendum, 2017	March/April 2019

The 2018 Central Springs and East Cost RWSP Update is scheduled for Governing Board approval in early to mid-2019.

The District updates the following on an annual basis to keep RWSPs 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
- MFL prevention and recovery strategies

III. Work Program Summary

The Work Program presented herein identifies sufficient water sources to meet the water supply needs of existing and future reasonable-beneficial uses for a 1-in-10-year drought event and to avoid the adverse effects of competition for water supplies. Over the next five years, this Work Program outlines the District's commitment to identifying projects that provide adequate water supplies for all reasonable-beneficial uses and to maintain the function of natural systems. It additionally illustrates the contributions of the District in support of MFLs and water reservations.

In total, this Work Program outlines projects that, upon completion, will make available approximately 93 million gallons per day (mgd) of water, including reuse and non-reuse water. These benefits are associated with approximately $33 million budgeted for FY 2018–19. The proposed funding for the five-year Work Program is approximately $127 million through FY 2022–23.

In addition, these projects set forth a commitment to develop projects associated with implementation of MFLs, recovery or prevention strategies and water reservations. The projects benefitting MFLs are anticipated to make available nearly 38 mgd of reuse and non-reuse water upon completion. Of that, approximately 27 mgd of reuse and non-reuse water upon completion benefits a water body with an approved recovery or prevention strategy.

IV. Water Resource and Water Supply Development

Water resource development components are those that involve the *"…formulation and implementation of regional water resource management strategies, including the collection and evaluation of surface water and groundwater data; structural and nonstructural programs to protect and manage water resources; the development of regional water resource implementation programs; the construction, operation, and maintenance of major public works facilities to provide for flood control, surface and underground water storage, and groundwater recharge augmentation; and related technical assistance to local governments, government-owned and privately owned water utilities, and self-suppliers to the extent assistance to self-suppliers promotes the policies as set forth in s. 373.016."*[1]

Water supply development (WSD) components are those that involve: *"… planning, design, construction, operation, and maintenance of public or private facilities for water collection, production, treatment, transmission, or distribution for sale, resale, or end use."*[2]

[1] Section 373.019(24), F.S.
[2] Section 373.019(26), F.S.

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 WSD projects (AWS and WC) are generally the responsibility of the local entities and/or water suppliers. Currently, the District provides funding for both WRD and WSD projects. In addition, the District provides funding for WC projects and strategies. To support the core mission areas, the District currently procures four cost-share programs on an annual basis:

1. The Districtwide program
2. The Rural Economic Development Initiative (REDI) Communities / Innovative Projects program
3. The Districtwide Agricultural program
4. Tri-County Agricultural Water Management Partnership Cost-Share Program

A list of all projects meeting these statutory definitions is provided in the attached spreadsheet. Also listed in the spreadsheet are programmatic efforts such as abandoned artesian well plugging and hydrologic and water quality data collection, monitoring and analysis programs.

Abandoned artesian well plugging program:

- 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.

Hydrologic and water quality data collection, monitoring and analysis program:

- Data collection and analysis activities are a critical part of the water resource development component implemented by the District. Northeast and east-central Florida rely on groundwater to meet more than 90 percent of the region's 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 Work Program). The District operates and maintains nearly 1,200 hydrologic surface and groundwater monitoring stations, and processes data from more than 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 more than 21,000 gridded locations every year.

- The District's water quality monitoring network is comprised of more than 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.

MFLs under development and included within this Work Program include:

- The District is currently re-evaluating MFLs for Lakes Brooklyn and Geneva scheduled for adoption in early 2019. Water resource development funding has been approved for the Black Creek Water Resource Development Project that is currently in engineering and design. This project will provide additional recharge water to the Upper Floridan aquifer to achieve the MFLs for these two lakes.

A complete list of all MFL and Water Reservation development activities may be found on the District's website at: *www.sjrwmd.com/minimumflowsandlevels*.

Please refer to the subsequent series of tables for identification of the WRD and WSD (WC and AWS) projects currently underway or anticipated to begin within the five-year planning horizon. For each project, the tables delineate RWSP region supported, primary MFL supported, the quantity of water produced, funding and project descriptions.

Table 2: Project, RWSP Region and MFL Supported, and Quantity of Water Made Available

Project Name	Project Type	RWSP Region Supported	Primary MFL Supported	Quantity of Water Made Available upon Completion (MGD)	Reuse Flow Made Available upon Project Completion (MGD)	Storage Capacity Created (MG)
Alachua County Landscape Irrigation Retrofit Rebate Program	Public Supply (PS) and Commercial, Industrial, Institutional (CII) Conservation	SJR NFRWSP		0.05		
Alachua County Water Star Rebate Program	PS and CII Conservation	SJR NFRWSP	Lower Santa Fe Ichetucknee	0.02		
Andrew Frederick Silver Springs Ag BMP	Agricultural Conservation	SJR Central Springs East Coast	Silver Springs	0.002		
Apopka Cost-Share Golden Gem Road (Rd) Reclaimed Water (RCW) Extension	Reclaimed Water (for potable offset)	SJR CFWI	Rock, Wekiwa Springs		5.00	
Baldwin - Brandy Branch Reuse	Reclaimed Water (for potable offset)	SJR NFRWSP			0.25	
Bernard A. Eagan Groves	Agricultural Conservation	SJR Central Springs East Coast		0.248		
Black Creek Water Resource Development Project	Groundwater Recharge	SJR NFRWSP	Lakes Brooklyn and Geneva, Lower Santa Fe Ichetucknee	7.00		
C P & Wesley Smith Inc.	Agricultural Conservation	SJR NFRWSP		0.097		
C-10 Water Management Area	Surface Water Storage	SJR Central Springs East Coast				212
Caldwell Citrus Groves Irrigation Retrofit	Agricultural Conservation	SJR Central Springs East Coast		0.015		
Cherrylake Inc. Pressure Regulation	Agricultural Conservation	SJR CFWI	Cherry Lake	0.275		
Crane Creek M-1 Canal Flow Restoration	Surface Water	SJR Central Springs East Coast		8.80		
Daytona Beach Williamson Boulevard Reuse	Reclaimed Water (for potable offset)	SJR Central Springs East Coast	Blue Springs		0.65	

Project Name	Project Type	RWSP Region Supported	Primary MFL Supported	Quantity of Water Made Available upon Completion (MGD)	Reuse Flow Made Available upon Project Completion (MGD)	Storage Capacity Created (MG)
Deland RCW Main Extension Phase 3 and 3A	Reclaimed Water (for potable offset)	SJR Central Springs East Coast	Blue Springs		0.14	
DeLand St. Johns River Intake and Surface Water Filtration System Upgrades	Surface Water	SJR Central Springs East Coast		1.50		
Deltona - West Volusia Water Suppliers Project 4A Deltona Storage and Treatment System Improvements	Stormwater	SJR Central Springs East Coast	Blue Springs	4.00		3
Deltona Reclaimed Water Retrofits	Reclaimed Water (for potable offset)	SJR Central Springs East Coast	Blue Springs		0.16	
Deltona West Volusia Water Suppliers Aquifer Recharge Phase 1	Reclaimed Water (for groundwater recharge or natural system restoration)	SJR Central Springs East Coast	Blue Springs	0.23		
Dispersed Water Storage Project — Fellsmere	Surface Water Storage	SJR Central Springs East Coast		18.00		1,372
Dispersed Water Storage Project — Graves Brothers	Surface Water Storage	SJR Central Springs East Coast		5.00		182
Edgewater Reclaimed Water Quality Reservoir	Reclaimed Water (for potable offset)	SJR Central Springs East Coast			0.20	
Estes Groves Inc. Pump Automation	Agricultural Conservation	SJR Central Springs East Coast		0.028		
Fellsmere Water Management Area	Surface Water Storage	SJR Central Springs East Coast				2,139
Flagler County Plantation Bay WWTF Modifications	Reclaimed Water (for potable offset)	SJR NFRWSP			0.50	
GRU Conservation Visualization Tool	PS and CII Conservation	SJR NFRWSP		0.14		
GRU Indoor Plumbing Retrofit Program	PS and CII Conservation	SJR NFRWSP	Lower Santa Fe Ichetucknee	0.03		
Hammond Station Growers Irrigation Retrofit	Agricultural Conservation	SJR Central Springs East Coast		0.012		

Project Name	Project Type	RWSP Region Supported	Primary MFL Supported	Quantity of Water Made Available upon Completion (MGD)	Reuse Flow Made Available upon Project Completion (MGD)	Storage Capacity Created (MG)
IMG Enterprises Irrigation Retrofit	Agricultural Conservation	SJR Central Springs East Coast		0.007		
Interlachen Water System Improvements P3	PS and CII Conservation	SJR NFRWSP		0.008		
JEA Gate Pkwy. Kernan to T-Line RCW Main	Reclaimed Water (for potable offset)	SJR NFRWSP	Lakes Brooklyn, Geneva		1.02	
JEA RG Skinner Parkway RW Trans	Reclaimed Water (for potable offset)	SJR NFRWSP	Lakes Brooklyn, Geneva		0.47	
JEA William Burgess Road	Reclaimed Water (for potable offset)	SJR NFRWSP	Lakes Brooklyn, Geneva		0.46	
Kenneth MacKay Silver Springs Ag BMP	Agricultural Conservation	SJR Central Springs East Coast	Silver Springs	0.002		
Legacy Farms and Ornamentals	Agricultural Conservation	SJR Central Springs East Coast		0.039		
Little Orange Creek Aquifer Recharge Project	Groundwater Recharge	SJR Central Springs East Coast	Silver Springs	0.50		
Lochloosa Creek Farms Silver Springs Ag BMP	Agricultural Conservation	SJR Central Springs East Coast	Silver Springs	0.002		
Longwood Septic Tank Abatement Program Transmission Main	Reclaimed Water (for potable offset)	SJR CFWI			0.70	
Lucas Fairways Hidden Hills Golf Course RCW Connection	Reclaimed Water (for potable offset)	SJR NFRWSP	Lakes Brooklyn, Geneva		0.36	
Marion County SE108 Water Main Interconnect	Other Project Type	SJR Central Springs East Coast	Silver Springs	0.03		
Mascotte SR50 Water Main Replacement-Ph1	PS and CII Conservation	SJR CFWI		0.05		

Project Name	Project Type	RWSP Region Supported	Primary MFL Supported	Quantity of Water Made Available upon Completion (MGD)	Reuse Flow Made Available upon Project Completion (MGD)	Storage Capacity Created (MG)
Minneola Septic-to-Sewer	Reclaimed Water (for potable offset)	SJR CFWI	Lakes Minneola, Louisa, Apshawa North and South, Rock and Wekiwa Springs		0.40	
Mount Dora RCW Interconnect with Apopka	Reclaimed Water (for potable offset)	SJR CFWI	Lake Apshawa North		3.00	
North Caledonia Farm Silver Springs Ag BMP	Agricultural Conservation	SJR Central Springs East Coast	Silver Springs	0.02		
Ocala LFA Conversion — Phase 1	Other Non-Traditional Source	SJR Central Springs East Coast	Silver Springs	8.90		
Ocala Wetland Recharge — Pine Oaks	Groundwater Recharge	SJR Central Springs East Coast	Silver Springs	5.00		
Ocoee Windermere Groves RCW Retrofit	Reclaimed Water (for potable offset)	SJR CFWI	Wekiwa, Rock		0.02	
Orange County Utilities Waterwise Neighbor Program Year 3	PS and CII Conservation	SJR CFWI	Wekiwa, Rock	0.11		
Ormond Beach Breakaway Trails RCW	Reclaimed Water (for potable offset)	SJR Central Springs East Coast			0.35	2
OUC Irrigation Conservation Phase 2	PS and CII Conservation	SJR CFWI	Wekiwa, Rock	0.06		
Palatka Heights Phase A Potable Water Project	PS and CII Conservation	SJR NFRWSP		0.03		
Palatka RCW Extension	Reclaimed Water (for potable offset)	SJR NFRWSP			1.09	
Sanford RCW Orlando-Sanford Airport Phase 2	Reclaimed Water (for potable offset)	SJR CFWI	Lake Sylvan		0.10	
Seminole County Conservation Tool	PS and CII Conservation	SJR CFWI		0.30		

Project Name	Project Type	RWSP Region Supported	Primary MFL Supported	Quantity of Water Made Available upon Completion (MGD)	Reuse Flow Made Available upon Project Completion (MGD)	Storage Capacity Created (MG)
Southern Grace Berries LLC Silver Springs Ag BMP	Agricultural Conservation	SJR Central Springs East Coast	Silver Springs	0.009		
St. Johns County Bannon Lakes RCW Pump Station	Reclaimed Water (for potable offset)	SJR NFRWSP			0.09	3
Tater Farms Palatka Ranch RCW	Reclaimed Water (for potable offset)	SJR NFRWSP			0.07	
Taylor Creek Reservoir Improvement Project	Surface Water Storage	SJR CFWI		17.00		
Volusia County Water Conservation	PS and CII Conservation	SJR Central Springs East Coast	Blue Springs	0.22		
Winter Garden Reuse Distribution Retrofit	Reclaimed Water (for potable offset)	SJR CFWI			0.10	
Cost-Share Program Placeholder		SJR Districtwide				
Abandoned Artesian Well Plugging	Water Resource Management Programs	SJR Districtwide				
Hydrologic and Water Quality Data Collection, Monitoring and Analysis	Data Collection and Evaluation	SJR Districtwide				

Table 3: Five-Year Work Program / Funding Projections

Project Name	FY2018-2019	FY2019-2020	FY2020-2021	FY2021-2022	FY2022-2023	Subtotal
Alachua County Landscape Irrigation Retrofit Rebate Program	$ 131,215					$ 131,215
Alachua County Water Star Rebate Program	$ 74,725					$ 74,725
Andrew Frederick Silver Springs Ag BMP	$ 19,266					$ 19,266
Apopka Cost Share Golden Gem Road (Rd) Reclaimed Water (RCW) Extension	$ 308,626					$ 308,626
Baldwin — Brandy Branch Reuse	$ 444,675					$ 444,675
Bernard A. Eagan Groves	$ 165,642					$ 165,642
Black Creek Water Resource Development Project	$ 8,133,334	$ 25,000,000	$ 2,700,000			$ 35,833,334
C P & Wesley Smith Inc.	$ 210,573					$ 210,573
C-10 Water Management Area		$ 7,017,333	$ 9,004,000	$ 8,004,000	$ 2,974,667	$ 27,000,000
Caldwell Citrus Groves Irrigation Retrofit	$ 167,866					$ 167,866
Cherrylake Inc. Pressure Regulation	$ 93,584					$ 93,584
Crane Creek M-1 Canal Flow Restoration	$ 1,650,000	$ 3,948,698	$ 3,990,698			$ 9,589,396
Daytona Beach Williamson Blvd. Reuse	$ 516,379					$ 516,379
Deland RCW Main Extension Phase 3 and 3A	$ 150,000					$ 150,000
DeLand St. Johns River Intake and Surface Water Filtration System Upgrades	$ 360,000					$ 360,000
Deltona — West Volusia Water Suppliers Project 4A Deltona Storage and Treatment System Improvements	$ 147,491					$ 147,491
Deltona Reclaimed Water Retrofits	$ 401,737	$ 172,173				$ 573,910
Deltona West Volusia Water Suppliers Aquifer Recharge Phase 1	$ 219,406	$ 146,271				$ 365,677

Project Name	FY2018-2019	FY2019-2020	FY2020-2021	FY2021-2022	FY2022-2023	Subtotal
Dispersed Water Storage Project — Fellsmere	$ 100,000	$ 730,500	$ 730,500	$ 730,500	$ 730,500	$ 3,022,000
Dispersed Water Storage Project — Graves Brothers	$ 100,000	$ 203,000	$ 203,000	$ 203,000	$ 203,000	$ 912,000
Edgewater Reclaimed Water Quality Reservoir	$ 350,000	$ 717,680	$ 350,000			$ 1,417,680
Estes Groves Inc. Pump Automation	$ 103,699					$ 103,699
Fellsmere Water Management Area	$ 2,150,000					$ 2,150,000
Flagler County Plantation Bay WWTF Modifications	$ 416,669					$ 416,669
GRU Conservation Visualization Tool	$ 23,000					$ 23,000
GRU Indoor Plumbing Retrofit Program	$ 120,000					$ 120,000
Hammond Station Growers Irrigation Retrofit	$ 38,574					$ 38,574
IMG Enterprises Irrigation Retrofit	$ 106,484					$ 106,484
Interlachen Water System Improvements P3	$ 500,000					$ 500,000
JEA Gate Pkwy. Kernan to T-Line RCW Main	$ 930,745	$ 569,255				$ 1,500,000
JEA RG Skinner Parkway RW Trans	$ 600,000					$ 600,000
JEA William Burgess Road	$ 339,011					$ 339,011
Kenneth MacKay Silver Springs Ag BMP	$ 37,248					$ 37,248
Legacy Farms and Ornamentals	$ 51,349					$ 51,349
Little Orange Creek Aquifer Recharge Project	$ 250,000	$ 400,000				$ 650,000
Lochloosa Creek Farms Silver Springs Ag BMP	$ 14,880					$ 14,880
Longwood Septic Tank Abatement Program Transmission Main	$ 1,653,706	$ 442,129				$ 2,095,835
Lucas Fairways Hidden Hills Golf Course RCW Connection	$ 32,175					$ 32,175

Project Name	FY2018-2019	FY2019-2020	FY2020-2021	FY2021-2022	FY2022-2023	Subtotal
Marion County SE108 Water Main Interconnect	$ 596,106					$ 596,106
Mascotte SR50 Water Main Replacement-Ph1	$ 320,000					$ 320,000
Minneola Septic-to-Sewer	$ 389,400					$ 389,400
Mount Dora RCW Interconnect with Apopka	$ 350,000					$ 350,000
North Caledonia Farm Silver Springs Ag BMP	$ 450,036					$ 450,036
Ocala LFA Conversion — Phase 1	$ 795,713					$ 795,713
Ocala Wetland Recharge — Pine Oaks	$ 3,000,000					$ 3,000,000
Ocoee Windermere Groves RCW Retrofit	$ 136,488					$ 136,488
Orange County Utilities Waterwise Neighbor Program Year 3	$ 150,354					$ 150,354
Ormond Beach Breakaway Trails RCW	$ 198,000	$ 594,000				$ 792,000
OUC Irrigation Conservation Phase 2	$ 177,740					$ 177,740
Palatka Heights Phase A Potable Water Project	$ 500,000					$ 500,000
Palatka RCW Extension	$ 962,820					$ 962,820
Sanford RCW Orlando-Sanford Airport Phase 2	$ 28,827					$ 28,827
Seminole County Conservation Tool	$ 20,509	$ 4,491				$ 25,000
Southern Grace Berries LLC Silver Springs Ag BMP	$ 167,728					$ 167,728
St. Johns County Bannon Lakes RCW Pump Station	$ 120,791					$ 120,791
Tater Farms Palatka Ranch RCW	$ 59,400					$ 59,400
Taylor Creek Reservoir Improvement Project						$ -
Volusia County Water Conservation	$ 478,380					$ 478,380

Project Name	FY2018-2019	FY2019-2020	FY2020-2021	FY2021-2022	FY2022-2023	Subtotal
Winter Garden Reuse Distribution Retrofit	$ 375,000					$ 375,000
Cost Share Program Placeholder		$ 3,500,000	$ 3,500,000	$ 3,500,000	$ 3,500,000	$ 14,000,000
Abandoned Artesian Well Plugging	$ 160,000	$ 160,000	$ 160,000	$ 160,000	$ 160,000	$ 800,000
Hydrologic and Water Quality Data Collection, Monitoring and Analysis	$ 2,310,880	$ 2,310,880	$ 2,310,880	$ 2,310,880	$ 2,310,880	$ 11,554,400
Totals:	**$ 3,324,260**	**$ 5,970,880**	**$ 5,970,880**	**$ 5,970,880**	**$ 5,970,880**	**$ 126,513,146**

Table 4: Project Descriptions

Project Name	Project Description	Project Status	Construction Beginning Date	Construction Completion Date
Alachua County Landscape Irrigation Retrofit Rebate Program	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.	Construction/Underway	01/01/17	01/31/19
Alachua County Water Star Rebate Program	This project contains a financial incentive for builders to apply for Florida Water Star^{SM} certification for new construction.	Construction/Underway	03/01/17	01/31/19
Andrew Frederick Silver Springs Ag BMP	Purchase and installation of items associated with a soil moisture and climate sensor system and upgrades to the existing irrigation system on approximately 20 acres.	Construction/Underway	06/01/18	09/30/19
Apopka Cost-Share Golden Gem Road (Rd) Reclaimed Water (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.	Construction/Underway	08/24/18	12/31/18
Baldwin — Brandy Branch Reuse	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.	Construction/Underway	09/01/18	09/30/19
Bernard A. Eagan Groves	Weather stations with remote sensing.	Design	10/01/18	09/30/19
Black Creek Water Resource Development Project	The project 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 19,000 LF 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 southernmost portion of the Camp Blanding property.	Design	07/15/19	09/03/21
C P & Wesley Smith Inc.	Convert from seepage irrigation to sub-irrigation drain tile	Construction/Underway	05/23/18	12/30/18
C-10 Water Management Area	The C-10 Reservoir includes a 1,300-acre reservoir with a pump station and outlet structure to the Upper St. Johns River Basin.	On Hold	04/01/20	02/14/23
Caldwell Citrus Groves Irrigation Retrofit	Irrigation conversion	Design	10/01/18	09/30/19
Cherrylake Inc. Pressure Regulation	Pressure regulation for irrigation system	Design	10/01/18	09/30/19

Project Name	Project Description	Project Status	Construction Beginning Date	Construction Completion Date
Crane Creek M-1 Canal Flow Restoration	This project will reduce nutrient and sediment loading to the Indian River Lagoon (IRL) by treating and restoring diverted baseflows back to the St. Johns River. The project will involve construction of an operable control structure, pump station, force main, and a stormwater treatment area.	Design	10/10/19	09/29/21
Daytona Beach Williamson Blvd. Reuse	The project will construct approximately 2,200 feet of reclaimed water main along Williamson Blvd. between Dunn Avenue and Mason Avenue. The project consists of two sections of 240-inch (HDPE) and 20-inch (PVC) piping of approximately 1,300 feet and 900 feet respectively.	Design	10/01/18	04/30/19
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).	Construction/Underway	09/01/18	02/28/19
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	Construction/Underway	09/04/18	12/30/19
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.	Construction/Underway	06/01/17	03/31/19
Deltona Reclaimed Water Retrofits	The project includes the retrofit of three existing residential neighborhoods (421 units) and one sports complex to replace potable water for irrigation with reclaimed water distribution mains.	Design	11/01/18	12/31/19
Deltona West Volusia Water Suppliers Aquifer Recharge Phase 1	This project provides aquifer recharge to the UFA through construction of a 20-acre Rapid Infiltration Basin (RIB).	Design	01/01/19	03/31/20
Dispersed Water Storage Project — Fellsmere	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. The Fellsmere project will create a ~2,000-acre reservoir that should store about 18 MGD on an annual basis. Nutrient reductions should be approximately 24 metric tons (MT) nitrogen and 3 MT phosphorus annually.	Design	10/01/18	09/30/19
Dispersed Water Storage Project — Graves Brothers	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. The Graves Brothers project will create a ~200-acre reservoir that should store about 5 MGD on an annual basis. Nutrient reductions should be approximately 3 MT nitrogen and 1 MT phosphorus annually.	Design	10/01/18	09/30/19
Edgewater Reclaimed Water Quality Reservoir	Construction of reclaimed water main extensions, a new reuse storage reservoir and wetland outfall intended to eliminate effluent discharges into the IRL.	Design	11/01/18	06/30/20
Estes Groves Inc. Pump Automation	Pump automation	Design	10/01/18	09/30/19

Project Name	Project Description	Project Status	Construction Beginning Date	Construction Completion Date
Fellsmere Water Management Area	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.	Construction/Underway	10/01/07	04/16/21
Flagler County Plantation Bay WWTF Modifications	This project includes modifications to the WRF to improve process and effluent reliability to provide additional irrigation.	Construction/Underway	04/30/18	09/30/19
GRU Conservation Visualization Tool	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.	Construction/Underway	10/01/17	09/30/19
GRU Indoor Plumbing Retrofit Program	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.	Construction/Underway	01/01/17	01/31/19
Hammond Station Growers Irrigation Retrofit	Irrigation retrofit	Design	10/01/18	09/30/19
IMG Enterprises Irrigation Retrofit	Automated irrigation/fertigation system with soil moisture sensors	Construction/Underway	01/29/18	12/30/18
Interlachen Water System Improvements P3	The project consists of upgrades to the town's water distribution system by replacing approximately 5,740 LF of aged, undersized, and leaking water mains, along with new valves, fire hydrants, and water services. The project also includes the construction of 4,800 LF of new water main extension, creating a much-needed looping in the Town's Grassy Lakes WTP service area.	Design	11/01/18	06/28/19
JEA Gate Pkwy. Kernan to T-Line RCW Main	This project includes construction of 6,600 LF of 30-inch diameter and 8,700 LF of 16-inch diameter reclaimed water pipe to serve current and future reclaimed water demands with JEA's southeast reclaimed water grid.	Design	11/01/18	04/30/20
JEA RG Skinner Parkway RW Trans	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/Underway	01/01/18	03/29/19
JEA William Burgess Road	This project will provide reclaimed water via 13,000 LF of reclaimed water pipe to a major development called the East Nassau Community Planning Area in Nassau County.	Construction/Underway	01/01/18	12/31/18
Kenneth MacKay Silver Springs Ag BMP	Upgrading of an existing less efficient micro-jet irrigation system to include purchase and installation of soil moisture and climate sensor telemetry, and the purchase and installation of precision agriculture equipment on approximately 65 acres.	Construction/Underway	06/05/18	09/30/19

Project Name	Project Description	Project Status	Construction Beginning Date	Construction Completion Date
Legacy Farms and Ornamentals	Irrigation conversion	Design	10/01/18	09/30/19
Little Orange Creek Aquifer Recharge Project	This project involves construction of an aquifer recharge well, pump, and intake structure. Surface water from Little Orange Creek will be the source water for recharge into the UFA.	Design	09/30/20	09/30/21
Lochloosa Creek Farms Silver Springs Ag BMP	The project involves the purchase and installation of items associated with a soil moisture and climate sensor system and precision agriculture equipment on approximated 20 acres of farm land.	Construction/Underway	06/01/18	09/30/19
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.	Construction/Underway	12/01/17	12/30/19
Lucas Fairways Hidden Hills Golf Course RCW Connection	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.	Design	12/01/18	06/01/19
Marion County SE108 Water Main Interconnect	This project includes the construction of a water main interconnect for two existing potable water systems. It will relocate the withdrawals approximately 6.5 miles farther from Silver Springs.	Design	10/01/18	06/01/19
Mascotte SR50 Water Main Replacement-Phase 1	The project consists of the replacement of 7,800 LF of leaking water main.	Construction/Underway	08/06/18	03/29/19
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. Once all three phases of the project are completed, the WWTF will be able to start providing reclaimed water to offset potable use.	Construction/Underway	06/01/18	09/30/19
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.	Design	11/01/18	03/29/19
North Caledonia Farm Silver Springs Ag BMP	Purchase and installation of items associated with: a fuel tank, a ditch system (approximately 35,574 linear feet), a surface water pumping station, a well to reservoir (PVC), a drain tile system (approximately 92 acres), a mobile sprayer (JACTO ARBUS-Sapphire 2000), and excavating approximately 27,400 cubic yards for a retention pond (including an outflow pipe, road work and a ditch to connect to pond). This project is on approximately 575 acres.	Construction/Underway	06/01/18	09/30/19
Ocala LFA Conversion - Phase 1	This project includes the construction of three, 24-inch diameter Lower Floridan aquifer (LFA) production wells, each with a capacity of 5 MGD. This non-traditional LFA water supply source will support flow improvements to Silver Springs by replacing current permitted withdrawals from the Upper Floridan aquifer (UFA) that are now located 4-miles closer to Silver Springs.	Design	03/04/19	09/30/19

Project Name	Project Description	Project Status	Construction Beginning Date	Construction Completion Date
Ocala Wetland Recharge - Pine Oaks	The project will construct a 33-acre groundwater recharge wetland that will receive advanced treated wastewater from the City's WRF #2, #3, and stormwater from the Old City Yard Drainage Retention Area.	Construction/Underway	05/28/18	06/30/19
Ocoee Windermere Groves RCW Retrofit	The project includes the extension of reclaimed water lines to the 128-home Windermere Groves neighborhood, replacing the current use of potable water for irrigation.	Design	01/14/19	07/31/19
Orange County Utilities Waterwise Neighbor Program Year 3	The project involves the continuation (year 3) of the county's comprehensive water conservation program to about 300 new construction and 300 existing homes.	Design	10/01/18	12/31/18
Ormond Beach Breakaway Trails RCW	The project includes construction of a 2 MG ground storage tank and a high service pump station with 3 variable frequency drive-controlled high service pumps. This will allow expansion of reclaimed water service to new developments that were required to install dry lines for reclaimed water.	Design	03/15/19	03/15/20
OUC Irrigation Conservation Phase 2	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, evapotranspiration (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.	Construction/Underway	10/01/17	09/30/19
Palatka Heights Phase A Potable Water Project	The project consists of the replacement of 10,000 LF of leaking cast iron pipes.	Design	10/31/18	08/01/19
Palatka RCW Extension	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/Underway	04/01/18	06/28/19
Sanford RCW Orlando-Sanford Airport Phase 2	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.	Construction/Underway	06/01/18	02/28/19

Project Name	Project Description	Project Status	Construction Beginning Date	Construction Completion Date
Seminole County Conservation Tool	The project involves the purchase of the University of Florida's Program for Efficient Communities (UF/PREC) GeoViz tool and integration with the County's existing conservation program. Utilization of this tool will provide information that allows the County to inform higher-water use customers of their conservation potential and conservation programs or educational sessions that could help them reduce water consumption.	Design	10/01/18	09/30/20
Southern Grace Berries LLC Silver Springs Ag BMP	Upgrades to the existing irrigation system on approximately 30 acres.	Design	04/01/19	09/30/19
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 GPM booster pump, control valve, electrical building, and associated work.	Construction/Underway	06/01/17	12/31/18
Tater Farms Palatka Ranch RCW	This project consists of construction of the infrastructure necessary to receive treated wastewater from the city of Palatka to use for irrigating sod.	Construction/Underway	04/01/18	05/01/19
Taylor Creek Reservoir Improvement Project	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.	On Hold		
Volusia County Water Conservation	This project includes implementation of a water conservation infrastructure for Volusia County Utilities. The Sensus Flexnet system will be installed on production wells and flushing units to assist in the reduction of unaccounted for water use.	Design	11/20/18	06/30/19
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 includes backflow prevention devises, and project construction includes all labor, materials, equipment, and incidentals via both open trench and directional drilling.	Construction/Underway	04/01/18	06/30/19
Cost-Share Program Placeholder	Funds are for projects approved during the District's annual application process for the District's general cost share program to include projects that will be listed in the Water Resource Development Work Program and Alternative Water Supply Plan.	Design	10/01/19	09/30/23
Abandoned Artesian Well Plugging	The objective of this program is to properly plug abandoned artesian wells to protect the resources of Florida.	Construction/Underway		09/30/23
Hydrologic and Water Quality Data Collection, Monitoring and Analysis	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).	Construction/Underway		09/30/23

V. Basin Management Action Plan Appendix

Basin Management Action Plans (BMAP) are the "blueprint" for restoring impaired waters by reducing pollutant loadings to meet the allowable loadings established in a Total Maximum Daily Load. In 2016, the Florida Legislature amended Section 373.036, F.S., to require the identification of all specific projects that implement a BMAP or a recovery or prevention strategy in the Work Program. The District's Work Program has historically identified water resource development projects that support MFL recovery and prevention but has not included specific descriptions of projects primarily intended to implement BMAPs. Consistent with section 373.036, F.S., and in a manner that has been coordinated with the Florida Department of Environmental Protection and all five water management districts, the District makes available as part of this Work Program a five-year funding outlook for projects specifically identified in an adopted BMAP.

BMAP Appendix Table

Project Name	Project Description	Project Type	Project Status	Construction Completion Date	BMAP	Lead Entity	DEP Project Number	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Location	Acres Treated
Putnam Non-MS4	Phase 1 - Force main installation from Paradise Point to Yelvington Road Master Lift Station.	Wastewater Service Area Expansion	Underway	3/29/2019	LSJR Mainstem	Putnam County	PUT-09	270	45	Freshwater	16
Atlantic Bch MS4 FLS000012	Phasing out existing septic tanks.	Septic Tank Phase Out	Design	9/30/2019	LSJR Mainstem	City of Atlantic Beach	AB-11	145	N/A	Marine	N/A
Osprey Acres Flow Way and Nature Preserve	This is a managed aquatic plant system that will remove sediment and suspended solids through settling and filtration by aquatic plant roots. The aquatic plants will be harvested on a regular basis.	Other Structural BMP	Underway	12/27/2018	IRL- Central	Indian River County	IRC-15	9,000	300	SEB/Estuarine	9,784
South Regional Lake	Created wetland flow through system.	BMP Treatment Train	Design	9/30/2019	IRL- Central	City of Fellsmere	F-10	479	139	SEB/Estuarine	450
Stormwater Project — NIRL — Titusville — South Street	SOIRLP-20.	Baffle Box - Second generation	Design	9/30/2019	IRL-North	Brevard County	BC-84	720	125	Estuarine	202
Septic Removal — NIRL -MIRA	SOIRLP-44.	Septic Tank Phase Out	Underway	9/30/2020	IRL-North	Brevard County	BC-88	2,501	822	Estuarine	unknown/not provided

BMAP Appendix Table Continued

Project Name	FY2018 - 2019	FY2019 - 2020	FY2020 - 2021	FY2021 - 2022	FY2022 - 2023	Subtotal	Total State Funding	Total District Funding	Lead Entity Match	Project Total
Putnam Non-MS4	$ 1,200,000					$ 1,200,000		$ 2,000,000	$ 250,000	$ 2,000,250
Atlantic Bch MS4 FLS000012	$ 132,323					$ 132,323		$ 132,323	$ 268,657	$ 400,980
Osprey Acres Flow Way and Nature Preserve	$ 1,200,250					$ 1,200,250		$ 1,200,250	$ 2,436,873	$ 3,637,123
South Regional Lake	$ 500,000					$ 500,000		$ 500,000	$ 287,187	$ 787,187
Stormwater Project — NIRL — Titusville — South Street	$ 110,000					$ 110,000		$ 110,000	$ 227,920	$ 337,920
Septic Removal — NIRL — MIRA	$ 306,127	$ 568,695				$ 874,822		$ 912,255	$ 1,852,155	$ 2,764,410
Totals	**$ 3,448,700**	**$ 568,695**	**$ -**	**$ -**	**$ -**	**$ 4,017,395**				

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 $143 million in cost-share funding for 162 alternative water supply (AWS) projects that will or have resulted in the production of 272 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 as follows.

- 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 resulting in a demonstrated benefit for prevention or recovery of MFL waterbodies not being met, or 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 2018–2019. 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 project funded through the Water Protection and Sustainability Program Trust Fund (WPSPTF) FY 2005-2006 to FY 2018-2019

Table 5-1: AWS project funded through programs Water Protection and Sustainability Program Trust Fund (WPSPTF), FY 2005-2006 to FY 2018

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	Complete	0.05	2016-2017	$ 94,873	$ 94,873	$ 385,244	$ 574,990
CCUA Old Jennings RWSP GST	Reclaimed Water	Clay County Utility Authority	Complete	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	Complete	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	Complete	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	$ 1,025,00
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	Complete	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

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	WPSP Fiscal Year	WPSP Amount	SJRWMD Amount	Local Sponsor Amount	Total Cost
Groveland Eagle Ridge Water Distribution Facility Phase 3	Reclaimed Water	City of Groveland	Complete	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
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	Complete	3.05	2016-2017	$ 593,881	$ 722,119	$ 2,678,000	$ 3,994,000
JEA Nocatee North RW Storage Tank	Reclaimed Water	JEA	Complete	1.80	2015-2016	$ 330,000	$ 330,000	$ 1,340,000	$ 2,000,000
JEA Nocatee Pkwy RW Transmission	Reclaimed Water	JEA	Complete	1.65	2015-2016	$ 56,100	$ 56,100	$ 227,800	$ 340,000
JEA RG Skinner Parkway RW Trans	Reclaimed Water	JEA	In Progress	0.47	2016-2017	$ 330,000	$ 330,000	$ 1,340,000	$ 2,000,000
JEA William Burgess Road	Reclaimed Water	JEA	In Progress	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 Utilities	Complete	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 Utilities	Complete	3	2015-2016	$ 198,000	$ 198,000	$ 804,000	$ 1,200,000
Ormond Beach South Peninsula Reclaimed Water Expansion	Reclaimed Water	City of Ormond Beach	Complete	0.56	2016-2017	$ 727,589	$ 727,589	$ 2,954,452	$ 4,409,630

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	WPSP Fiscal Year	WPSP Amount	SJRWMD Amount	Local Sponsor Amount	Total Cost
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	Complete	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 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
Construction of a 3,800-linear foot 20-inch diameter reclaimed water main extension to serve the future development area near the intersection of County Road (CR) 220 and County Road 209/Henley Road.

Clay County Utility Authority (CCUA) Old Jennings Reclaimed Water Plant Ground Storage Tank
Construction of 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 mg 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
Construction of two 2.2 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 United States Highway (US) 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
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 wastewater treatment plant (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 Supervisory Control and Data Acquisition System (SCADA) system-controlling access to the Yankee Lake distribution system.

Groveland Eagle Ridge Water Distribution Facility Phase 3
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
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
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
Construction of a 2 mg storage tank to provide additional reclaimed water capacity.

JEA Nocatee Parkway Reclaimed Water Transmission
Construction of a 16-inch reclaimed water 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 Lower Floridian Well (LFW) Phase 2
This project includes construction of 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 mg 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 US 1 and Palm Coast Park
Construction of a reclaimed water line along US 1 in Palm Coast.

Rockledge Reclaimed Water Storage
Construction of a 6 mg 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
Construction of 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 mg 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
Volusia County 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 3 mg 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 mg storage tank and pumping facilities at an existing WRF and new construction of a 0.25 mg 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 project funded through programs other than Water Protection and Sustainability Program Trust Fund (WPSPTF) FY 2005-2006 to FY 2018-2019

Table 5-2: AWS project funded through programs other than Water Protection and Sustainability Program Trust Fund (WPSPTF), FY 2005-2006 to FY 2018

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	In Progress	5.00	2017-2018	CCSP	$ 308,626	$ 308,624	$ 617,250
Baldwin - Brandy Branch Reuse	Reclaimed Water	City of Baldwin	In Progress	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	Complete	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	Complete	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	Complete	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

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	Funding Fiscal Year	Program*	SJRWMD Amount	Local Sponsor Amount	Total Cost
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
City of DeLand RW Retrofit - Ph 1	Reclaimed Water	City of Deland	Complete	0.12	2016-2017	CCSP	$ 606,000	$ 606,000	$ 1,212,000
City of DeLand RW Retrofit - Ph 2B	Reclaimed Water	City of Deland	Complete	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 Project	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	Complete	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 Orlando-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
Daytona Beach Williamson Blvd. Reuse	Reclaimed Water	City of Daytona Beach	In Progress	0.65	2018-2019	CCSP	$ 516,379	$ 1,048,405	$ 1,564,784
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	In Progress	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	In Progress	1.50	2017-2018	CCSP	$ 600,000	$ 600,000	$ 1,200,000

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	Funding Fiscal Year	Program*	SJRWMD Amount	Local Sponsor Amount	Total Cost
Deltona Reclaimed Water Retrofits	Reclaimed Water	City of Deltona	In Progress	0.16	2018-2019	CCSP	$ 573,910	$ 1,165,211	$ 1,739,121
Deltona West Volusia Water Suppliers Aquifer Recharge Phase 1	Reclaimed Water	City of Deltona	Not Started	0.23	2018-2019	CCSP	$ 365,677	$ 742,436	$ 1,108,113
Deltona - West Volusia Water Suppliers Project 4A Deltona Storage and Treatment System Improvements	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
Edgewater Reclaimed Water Quality Reservoir	Reclaimed Water	City of Edgewater	In Progress	0.20	2018-2019	CCSP	$ 1,417,680	$ 2,878,320	$ 4,296,000
Eustis Eastern WWTP Upgrade	Reclaimed Water	City of Eustis	Complete	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 Kernan to T-Line RCW Main	Reclaimed Water	JEA	Not Started	1.02	2018-2019	CCSP	$ 1,500,000	$ 3,924,091	$ 5,424,091
JEA Gate Pkwy - Shiloh Mill Blvd to Town Ctr Pkwy - RCW	Reclaimed Water	JEA	Complete	0.03	2017-2018	CCSP	$ 121,224	$ 246,120	$ 367,344
JEA Hidden Hills - RCW	Reclaimed Water	JEA	Complete	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
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	In Progress	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

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	Complete	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	In Progress	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	In Progress	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	In Progress	5.00	2017-2018	CCSP	$ 4,000,000	$ 4,362,766	$ 8,362,766
Ocoee Windermere Groves RCW Retrofit	Reclaimed Water	City of Ocoee	Not Started	0.02	2018-2019	CCSP	$ 136,488	$ 277,112	$ 413,600
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	Complete	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	Complete	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
Ormond Beach Breakaway Trails RCW	Reclaimed Water	City of Ormond Beach	Not Started	0.35	2018-2019	CCSP	$ 792,000	$ 1,608,000	$ 2,400,000
Palatka RCW Extension - REDI	Reclaimed Water	City of Palatka	In Progress	1.09	2017-2018	CCSP	$ 1,109,220	$ -	$ 1,109,220
Queens Harbor Residential & Golf Course Reclaimed Water System 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 Orlando-Sanford Airport Phase 2	Reclaimed Water	City of Sanford	Complete	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

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	In Progress	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	Complete	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	Complete	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	In Progress	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:				**135.00**			**$ 64,719,049**	**$ 114,241,970**	**$ 178,961,020**

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 stormwater 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.
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
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 an approximately 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 Boulevard to State Road (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 includes the installation of reclaimed water irrigation to the park and two medians along US 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 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 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
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
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
Construction of 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 stormwater 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
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
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 mg 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
Installation of meters for reclaimed water service to residential units.

City of Palm Coast Grand Landings RW Transmission Main
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
Construction of a reclaimed water transmission main extension along Matanzas Woods Parkway between Old Kings Road and United States Highway 1.

City of Palm Coast Royal Palms Parkway Reclaimed Water Transmission Pipeline
Construction of 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
Construction of 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
Construction of 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.

Daytona Beach Williamson Boulevard Reuse
Construction of approximately 2,200 feet of reclaimed water main along Williamson Boulevard between Dunn Avenue and Mason Avenue. The project consists of two sections of 24-inch (HDPE) and 20-inch (PVC) piping of approximately 1,300 feet and 900 feet respectively.

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
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
Upgrade of 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 Reclaimed Water Retrofits
Retrofit of three existing residential neighborhoods (421 units) and one sports complex to replace potable water for irrigation with reclaimed water distribution mains.

Deltona West Volusia Water Suppliers Aquifer Recharge Phase 1
Construction of a 20-acre Rapid Infiltration Basin (RIB) to provides aquifer recharge to the UFA.

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

Edgewater Reclaimed Water Quality Reservoir
Construction of reclaimed water main extensions, a new reuse storage reservoir and wetland outfall intended to eliminate effluent discharges into the IRL.

Eustis Eastern WWTP Upgrade
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 mg 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
Construction of 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 Pkwy Kernan to T-Line RCW Main
Construction of 6,600 LF of 30-inch diameter and 8,700 LF of 16-inch diameter reclaimed water pipe to serve current and future reclaimed water demands with JEA's southeast reclaimed water grid.

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

JEA Hidden Hills — RCW
Expansion 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 Country Club.

JEA Nocatee – Coastal Oaks Phase 4
Construction of a reclaimed water transmission main extension in the Nocatee Coastal Oaks Phase 4 area.

JEA Nocatee – Riverwood RW Transmission
Construction of 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 River Town Phase 3 — Parcel 23 - RCW
Expansion of 2,500 feet of 10-inch reclaimed water pipe to serve Parcel 23 of the River Town 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
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
Expansion of JEA's reclaimed water system through installation of meters, valves, piping, and appurtenances. The project will enable JEA to supply reclaimed water to the club for golf course irrigation.

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

Marion County US. 441 Water Main Interconnect
Construction of 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.

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
Installation of 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
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 mg storage/recharge pond at the City of Apopka's Northwest Recreation Facility.

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

Ocala Wetland Recharge
Construction of 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.

Ocoee Windermere Groves RCW Retrofit
Extension of reclaimed water lines to the 128-home Windermere Groves neighborhood, replacing the current use of potable water for irrigation.

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
Installation of new individual water meters for reclaimed water as well as backflow prevention devices for the potable water system on existing "dry" reclaimed waterlines to provide reclaimed water to the Oakhurst residential development.

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

Orange County: Wekiwa Springshed AWS Expansion – Phase 1
Construction involves 3,500 feet of 24-inch reclaimed water main and related pumping improvements to provide 3 mgd 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
Improvements to the electrical control building and the installation of three additional pumps to the original project for a total of five pumps.

Ormond Beach Breakaway Trails RCW
Construction of a 2 mg ground storage tank and a high service pump station with three variable frequency drive-controlled high service pumps. This will allow expansion of reclaimed water service to new developments that were required to install dry lines for reclaimed water.

Palatka RCW Extension — REDI
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.

Sanford RCW Orlando-Sanford Airport Phase 2
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
Construction includes a 2.5 mg reclaimed water storage tank, 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
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
Construction of the infrastructure necessary to receive treated wastewater 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 (RO) WTF Expansion
Expansion of the RO treatment capacity from 2 to 4.5 mgd, improving finished water quality and decreasing 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
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
Retrofits to accommodate reclaimed water use in the Stoneybrook West community (the third and final phase). 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 $143 million in cost-share funding on 162 AWS projects that will or have resulted in the production of more than 272 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	215.39
Surface water	11.50
Brackish groundwater	34.50
Stormwater	11.00
Rainwater	0.14
Total	272.53

Table 5-3: Funding by AWS Source, FY 2005-2006 to FY 2018-2019

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	$2,767,567	$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:	$ -	$ -	$ -	$ -	$ -	$ -

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	FY 2018–2019					
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	CCSP
Brackish Groundwater						
Reclaimed Water						$5,302,134
Surface Water						
Seawater						
Rainwater						
Storm Water						
Total:	$ -	$ -	$ -	$ -	$ -	$5,302,134

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	$46,391,854
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	$55,393,854
Grant Total:	**$143,319,716**					

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 18th 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) 2017–2018. 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 percent 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 FY 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 15.8percent for water resource development (WRD) projects, 12 percent for restoration projects, and 72.2 percent 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**	

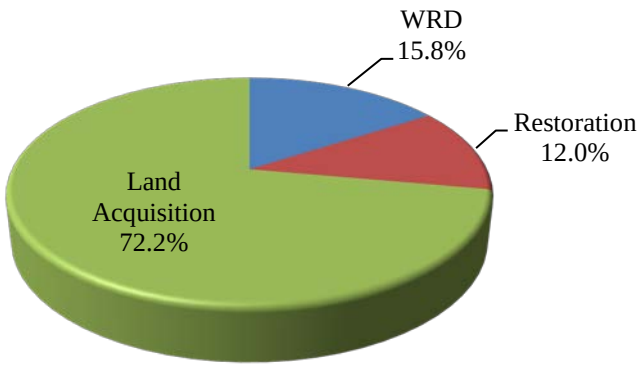

Figure 6-1. Florida Forever program lifetime expenditures by District program

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 percent 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 percent of the total estimated FF expenditures by the District.

Land Acquisitions

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.

The District plans to use no new FF funding for land acquisition-related expenses during the planning period from FY 2018–2019 to FY 2022–2023. The program's expenditures in the past totaled $168.6 million, accounting for 72.2 percent of the total estimated FF expenditures by the District.

2019 Map Revisions to Potential Acquisition Areas

The District proposes no changes to the potential acquisition areas for the FY 2018–2019 Land Acquisition Map. The areas identified as potential acquisitions in the FY 2018–2019 Land Acquisition Map total 115,760 acres, or a reduction of 1,633 acres from the FY 2017–2018 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 2017–2018 and were within the "potential acquisition" layer.

2019 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 2017 (the most recent meeting) for the 2018 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 2017 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-5-High
Etoniah Creek/Cross Florida Greenway	Clay, Marion, Putnam	CNL-10-High/Med
Longleaf Pine Ecosystem	Marion, Volusia	CNL-11-Med
Pine Island Slough Ecosystem	Indian River, Osceola	CNL-13-Med
Osceola Pine Savannas	Osceola	CNL-14-Med
Camp Blanding to Raiford Greenway	Baker, Bradford, Clay,	CNL-20-Low
Pinhook Swamp	Baker	CNL-22-Low
Southeastern Bat Maternity Caves	Alachua, Marion	CNL-29-Low
Substantially Complete (SC)		**3 of 9 Total Projects**
Lochloosa Wildlife	Alachua	SC-5-MedLow
Spruce Creek	Volusia	SC-6-Low
Clay Ranch	Putnam	SC-9-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 14 Total Projects**
Northeast Florida Blueway	Duval, Flagler, St. Johns	CC-5-Med/Low
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)		**7 of 31 Total Projects**
Kissimmee-St. Johns River Connector	Indian River, Okeechobee	LTF-8-Med
Matanzas to Ocala Conservation Corridor	Flagler, St. Johns, Putnam	LTF-11-Med/Low
Big Bend Swamp/Holopaw Ranch	Osceola	LTF-12-Low
Ranch Reserve	Brevard, Indian River, Osceola	LTF-15-Low
Raiford to Osceola Greenway	Baker, Union	LTF-16-Low
Maytown Flatwoods	Brevard	LTF-20-Low
Mill Creek	Marion	LTF-22-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-3-High
Brevard Coastal Scrub Ecosystem	Brevard	PR-5-High
Volusia Conservation Corridor	Flagler, Volusia	PR-9-Med
Heather Island/Ocklawaha River	Marion	PR-10-Med
Green Swamp (formerly four projects now combined into one project)	Lake, Polk	PR-11-Med/Low
Lochloosa Forest – new project in 2016	Alachua	PR-12-Low
Flagler County Blueway	Flagler, Volusia	PR-13-Low
Lake Santa Fe	Alachua, Bradford	PR-15-Low
Pumpkin Hill Creek	Duval	PR-27-Low
Baldwin Bay/St. Marys River	Duval, Nassau	PR-28-Low
Carr Farm/Price's Scrub	Alachua, Marion	PR-29-Low
Pringle Creek Forest	Flagler	PR-30-Low

IV. Land Acquisitions Completed During FY 2017–2018

This section is a summary of land transactions for FY 2017–2018. Please be noted that the totals reported as "net" reflect both acquisitions (additions) and dispositions (subtractions) of property interests. During this reporting period, the District completed 18 transactions totaling 1,063.41 acres of land. The types of transactions included fee simple acquisitions and exchanges; conservation easement acquisitions, easements for monitoring wells, utilities and access; and assistance to other governmental programs. The total net purchase price was $65,480.

Table 6-4 provides a list of all land transactions that closed between FY 2017–2018, and Table 6-5 presents the lands that were under contract as of September 2018. A summary of all District land transactions since 1979 may be obtained by contacting the District's Real Estate Services Program at 386-329-4500.

Table 6-3. FY 2017–2018 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 Basins
12/14/17	Lake Apopka Lust Farms, Inc.	1996-092-P1	Fee	Orange	-1.53	$0	$0	Exchange	Ocklawaha River
12/14/17	Roper, L.F. Trust	2017-005-P1	Fee	Orange	4.43	$0	$0	Exchange	Ocklawaha River
3/16/18	Fellsmere Water Control District - Sun Ag	2001-058-PB	Fee	Indian River	-21.53	$0	$0	Exchange	Upper St. Johns River
3/16/18	Fellsmere Joint Venture - Sun Ag - 2018 Addition	2001-058-PD	Fee	Indian River	15.75	$0	$0	Exchange	Upper St. Johns River
3/16/18	Fellsmere WMA - Easements-FJV to SJR – 2018	2001-058-PH	Less Than Fee - Other	Indian River	0.00	$0	$0	Exchange	Upper St. Johns River
3/16/18	Fellsmere WMA -- Easements - SJR to FJV - 2018	2001-058-PI	Less Than Fee - Other	Indian River	0.00	$0	$0	Exchange	Upper St. Johns River
4/23/18	CFWI Monitoring Site - Rock Springs Run State Reserve	2017-014-P1	Less Than Fee - Other	Orange	0.00	$0	$0	Donation	Middle St. Johns River
4/24/18	Durbin Fire Tower Monitoring Well Easement	2018-005-P1	Less Than Fee - Other	St. Johns	0.00	$0	$0	Donation	Lower St. Johns River
5/1/18	Sylvan West-WFGP Conservation Easement	1997-003-PC	Less Than Fee - Conservation Easement	St. Johns	-33.22	($46,000)	($46,000)	Surplus to FDOT project	Lower St. Johns River
5/1/18	Bayard FDOT Surplus	1995-087-P1	Fee	Clay	-35.15	($919,180.00)	($919,180.00)	Surplus to FDOT project	Lower St. Johns River
5/1/18	Bayard FDOT Surplus	1991-063-P1	Fee	Clay	-31.627	$0	$0	Exchange	Lower St. Johns River
5/2/18	Transfers - CSFFCD - Mockingbird Lane	1977-003-P6	Less Than Fee - Other	Brevard	-0.02	($55,300)	($55,300)	Surplus - external funding	Indian River Lagoon
5/16/18	Camp Blanding Easement - Black Creek WRD	2017-018-P1	Less Than Fee - Other	Clay	240.00	$0	$0		Lower St. Johns River
6/27/18	Fellsmere Jt Venture - Flowage Easement – 2018	2001-058-PE	Less Than Fee - Flowage easement/hold harmless	Indian River	414.00	$0	$0		Upper St. Johns River
7/31/18	Kemcho Mitigation Donation 1	2000-006-P2	Fee	Volusia	115.54	$0	$0	Mitigation-Donation of Property	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 Basins
8/8/18	FDG Cordova Palms LLC	2016-016-P1	Fee	St. Johns	141.52	$0	$0	Exchange	Northern Coastal
8/8/18	Twelve Mile Exchange South Access Easement #1	1997-003-P2	Less Than Fee - Other	St. Johns	5.40	$0	$0	Exchange	Northern Coastal
8/8/18	Twelve Mile Exchange North Access Easement #2	1997-003-P3	Less Than Fee - Other	St. Johns	6.85	$0	$0	Exchange	Northern Coastal
8/30/18	Sumner Property	2016-008-P1	Fee	Marion	240.00	$907,000	$907,000	Surplus to FDOT project	Ocklawaha River
9/15/18	Seamark Ranch	2017-020-P1	Fee	Clay	3.00	$48,000	$48,000	Ad Valorem	Northern Coastal
10/31/18	Bayard FDOT - River Bend Golf Course	2017-031-P1	Fee	Clay	75.31	$0	$0	Exchange	Lower St. Johns River
Total					**1,138.72**	**$65,480**	**$65,480**		

Table 6-5. Parcels under contract as of September 30, 2018

Parcel Name	LA Number	County	Acres	Transaction Type	SJRWMD Portion of Purchase Price	Estimated Purchase Price	Funding Source	Surface Water Basin
Volusia Blue Spring Borrow Pit	2018-018-P1	Volusia	-1.53	Fee	$0	$0	Exchange	Lake George
Vainik Property	2015-001-P1	Marion	10	Fee	$40,000	$40,000	Ad Valorem	Lake George
Doctors Lake Nelson Point	2018-023-P1	Clay	0	Assistance to other Governmental Programs	$0	$1,962,000	Special Appropriation	Lake George
MTWCD — Melbourne Tillman Water Control District	2015-003-P1	Brevard	96	Fee	$0	$0	Exchange	Upper St. Johns River
Melbourne Tillman - MTWCD Perpetual Easement	1996-034-PC	Brevard	9	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

V. Surplus Lands During FY 2017–2018

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 2017–2018, the District disposed of 123.08 acres of land in four transactions and received land, conservation easements, and $1.02 million in compensation. Table 6–6 below shows more details about the transactions. Since 1997, the District has disposed of 15,197 acres of land and received approximately $12.4 million in compensation.

Table 6-4. Surplus parcels during FY 2017–2018

Transaction Date	Parcel Name	LA Number	Transaction Type	County	Surface Water Basins	Total Net Fee or CE Acres	Compensation
12/14/17	Lake Apopka Lust Farms, Inc.	1996-092-P1	Fee	Orange	Ocklawaha River	-1.53	4.43 acres
3/16/18	Fellsmere Water Control District - Sun Ag	2001-058-PB	Fee	Indian River	Upper St. Johns River	-21.53	15.75 acres plus easements to construct a public boat ramp
5/1/18	Sylvan West-WFGP Conservation Easement	1997-003-PC	Less Than Fee - Conservation Easement	St. Johns	Lower St. Johns River	-33.22	$46,000
5/1/18	Bayard FDOT Surplus Parcel 160	1991-063-P1	Fee	Clay	Lower St. Johns River	-31.627	75.31 acres
5/1/18	Bayard FDOT Surplus Parcel 190	1995-07-P1	Fee	Clay	Lower St. Johns River	-35.15	$919,180
5/2/18	Transfers - CSFFCD - Mockingbird Lane - Arens Wild Acres	1977-003-P6	Less Than Fee - Other	Brevard	Indian River Lagoon	-0.02	$55,300
Total						**-123.08**	**$1,020,480**

VI. District Land Management Activities

District Land Management Program

Since 1979, the District owns or manages approximately 735,500 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 approximately 735,500 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 6-5. 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 development	SJRWMD/Univ. of Florida	✓	✓	✓	✓	**No**	✓	✓
Bayard Conservation Area	Complete	SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
Belmore State Forest	Complete	FFS/SJRWMD	✓	No	✓	✓	No	No	✓
Black Creek Ravines Conservation Area	Complete	SJRWMD/Clay Co.	✓	✓	No	✓	✓	✓	✓
Blue Cypress Conservation Area	Complete	SJRWMD/FWC	✓	✓	✓	No	✓	✓	✓
Buck Lake Conservation Area	Complete	SJRWMD/FWC /Brevard Co.	✓	✓	✓	✓	✓	✓	✓
Canaveral Marshes Conservation Area	Complete	SJRWMD/DEP/Great Outdoors	✓	✓	No	✓	✓	No	✓
Caravelle Ranch Wildlife Management Area	Complete	FWC/SJRWMD	✓	✓	✓	✓	Canoe/ kayak	✓	✓
Cary State Forest	Complete	FFS/SJRWMD	✓	No	✓	✓	No	✓	✓
Charles H. Bronson State Forest	Complete	FFS/SJRWMD/Orange Co.	✓	✓	✓	✓	Canoe/ kayak	✓	✓
Clark Bay Conservation Area	Complete	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	Complete	SJRWMD	✓	No	No	✓	No	✓	✓
Deep Creek Conservation Area	Complete	SJRWMD/DEP	✓	✓	No	✓	✓	No	✓
Deep Creek Preserve	Complete	SJRWMD/Volusia Co.	✓	✓	No	✓	✓	No	✓
Dunns Creek Conservation Area	Complete	SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
Econlockhatchee Sandhills Conservation Area	Complete	SJRWMD	✓	✓	No	✓	No	No	✓
Emeralda Marsh Conservation Area	Complete	SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
Faver-Dykes State Park	Complete	DEP/SJRWMD	✓	✓	No	✓	✓	✓	✓
Fellsmere Water Management Area	In development	SJRWMD	✓	✓	✓	No	✓	No	✓
Fort Drum Marsh Conservation Area	Complete	SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
Four Creeks State Forest	Complete	FFS/SJRWMD	✓	✓	✓	✓	✓	No	✓
Gemini Springs Addition	Complete	SJRWMD	✓	No	No	✓	No	No	✓
Gemini Springs County Park	Complete	Volusia Co./SJRWMD	✓	✓	No	No	No	No	✓
Gourd Island Conservation Area	Complete	SJRWMD	✓	No	No	✓	No	No	✓
Hal Scott Regional Preserve and Park	Complete	SJRWMD/Orange Co.	✓	✓	No	✓	Canoe/ Kayak	✓	✓
Haw Creek Preserve	Complete	Flagler Co./SJRWMD/FFS	✓	✓	No	✓	✓	✓	✓
Heart Island Conservation Area	Complete	SJRWMD/FWC	✓	✓	✓	✓	No	✓	✓
Herky Huffman/Bull Creek Wildlife Management Area	Complete	FWC/SJRWMD	✓	✓	✓	✓	Canoe/ kayak	✓	✓
Hull Swamp Conservation Area	In development	SJRWMD	✓	✓	✓	✓	No	✓	✓
Newnans Lake Conservation Area	Complete	FFS/SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
John Bethea State Forest	Complete	FFS/SJRWMD	✓	✓	✓	✓	No	✓	✓
Julington-Durbin Preserve	Complete	SJRWMD/DEP/COJ	✓	✓	No	✓	✓	No	✓
Lake Apopka North Shore	Complete	SJRWMD/NRCS	✓	✓	No	✓	✓	No	✓
Lake George Conservation Area	Complete	SJRWMD/ FWC/Volusia Co.	✓	✓	✓	✓	✓	✓	✓
Lake George Forest	Complete	Volusia Co./FWC/SJRWMD	✓	✓	✓	✓	✓	✓	✓

Management Area	Mgmt. Plan Status	Cooperative Management Agreement	Public Access	Recreational Opportunities					
				Fish	Hunt	Horse	Boat	Camp	Hike
Lake Jesup Conservation Area	Complete	SJRWMD	✓	✓	No	✓	✓	✓	✓
Lake Monroe Conservation Area	Complete	SJRWMD/Seminole Co./FWC	✓	✓	✓	✓	✓	✓	✓
Lake Norris Conservation Area	Complete	SJRWMD/LCWA	✓	✓	No	✓	Canoe/ kayak	✓	✓
Lake Woodruff National Wildlife Refuge	Complete	USFWS/SJRWMD	✓	✓	✓	No	✓	No	✓
Little-Big Econ State Forest	Complete	FFS/SJRWMD	✓	✓	✓	✓	✓	✓	✓
Lochloosa Wildlife Conservation Area	Complete	SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
Longleaf Flatwoods Reserve	Complete	SJRWMD/Alachua Co.	✓	No	No	✓	No	✓	✓
Longleaf Pine Preserve	Complete	Volusia Co./SJRWMD	✓	✓	No	✓	No	✓	✓
Matanzas State Forest	Complete	FFS/SJRWMD	✓	✓	✓	✓	No	✓	✓
Micco Water Management Area	Complete	SJRWMD	✓	No	No	✓	No	No	✓
Moses Creek Conservation Area	Complete	SJRWMD	✓	✓	No	✓	✓	✓	✓
Murphy Creek Conservation Area	Complete	SJRWMD	✓	✓	No	✓	✓	✓	✓
Neighborhood Lakes	Complete	Lake Co./SJRWMD	✓	No	No	✓	No	No	✓
Newnans Lake Conservation Area	Complete	SJRWMD/Alachua Co.	✓	✓	✓	✓	Canoe/ kayak	✓	✓
Ocklawaha Prairie Restoration Area	Complete	SJRWMD/NRCS	✓	✓	✓	✓	✓	✓	✓
Orange Creek Restoration Area	Complete	SJRWMD/NRCS	✓	✓	✓	✓	✓	✓	✓
Oslo Riverfront Conservation Area	Complete	Indian River Co./SJRWMD	✓	✓	No	No	✓	No	✓
Palm Bluff Conservation Area	Complete	SJRWMD	✓	✓	No	✓	No	✓	✓
Paynes Prairie Preserve State Park	Complete	DEP/SJRWMD	✓	✓	No	✓	✓	✓	✓
Pellicer Creek Conservation Area	Complete	SJRWMD/FWC/Flagler Co.	✓	✓	No	✓	✓	No	✓
Pine Island Conservation Area	Complete	Brevard Co/SJRWMD	✓	✓	No	✓	✓	No	✓
Princess Place Preserve	Complete	Flagler Co./SJRWMD	✓	✓	No	✓	✓	✓	✓
Pumpkin Hill Creek Preserve State Park	Complete	DEP/SJRWMD	✓	✓	No	✓	✓	No	✓
Ralph E. Simmons Memorial State Forest	Complete	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	Complete	SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
Rock Springs Run State Reserve	Complete	DEP/SJRWMD/Orange Co.	✓	✓	✓	✓	Canoe/ kayak	✓	✓
Salt Lake Wildlife Management Area	Complete	FWC/SJRWMD	✓	✓	✓	✓	No	No	✓
Sand Lakes Conservation Area	Complete	SJRWMD	✓	No	No	✓	No	No	✓
Sebastian Stormwater Park	Complete	SJRWMD/City of Sebastian	✓	No	No	No	No	No	✓
Seminole Ranch Conservation Area	Complete	SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
Seminole State Forest	Complete	DOF/SJRWMD	✓	✓	✓	✓	✓	✓	✓
Silver Springs Forest Conservation Area	In development	SJRWMD	✓	✓	No	✓	No	No	✓
Spruce Creek Preserve	Complete	Volusia Co./SJRWMD	✓	✓	No	No	✓	No	✓
St. Sebastian River Preserve State Park	Complete	DEP/SJRWMD/Indian River Co.	✓	✓	No	✓	✓	✓	✓
Stokes Landing Conservation Area	Complete	SJRWMD	✓	✓	No	✓	✓	✓	✓
Sunnyhill Restoration Area	Complete	SJRWMD/NRCS	✓	✓	No	✓	✓	✓	✓
T.M Goodwin Waterfowl Management Area	Complete	FWC/SJRWMD	✓	✓	✓	No	✓	No	✓
Thomas Creek Conservation Area	Complete	SJRWMD/COJ/FWC	✓	✓	✓	✓	✓	No	✓
Three Forks Conservation Area	Complete	SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
Tiger Bay State Forest	Complete	FFS/SJRWMD/FWC	✓	✓	✓	✓	✓	✓	✓
Triple N Ranch Wildlife Management Area	Complete	FWC/SJRWMD	✓	✓	✓	✓	No	✓	✓
Turnbull Hammock Conservation Area	Complete	SJRWMD	✓	✓	No	No	No	No	✓
Twelve Mile Swamp Conservation Area	Complete	SJRWMD/DEP	✓	No	✓	✓	No	No	✓
Wekiva River Buffer Conservation Area	Complete	SJRWMD	✓	✓	No	No	✓	No	✓
Wiregrass Prairie Preserve	Complete	Volusia Co./SJRWMD	✓	✓	No	✓	✓	✓	✓

Tours by District staff are available for environmental education on all District-owned lands, by request.

FY 2017–2018 Land Management Activities

This section provides a summary of various land management activities that were conducted by the District from October 2017 through September 2018.

Land Management Planning

- There were two plans approved by the Governing Board for the following properties, including Bayard Conservation Area and Micco Water Management Area.

Recreational Public Meetings

- Five recreational public meetings were conducted. Three were in the District's Southern Region, one in the Central Region, and one in the Northern Region.

Management Review Teams

- Four Management Review Team (MRT) tours were conducted at Julington Durbin Preserve, Heart Island Conservation Area, Emeralda Marsh Conservation Area, Moses 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 new southern trailhead at Ocklawaha Prairie Restoration Area was opened.
- The newly aligned wildlife drive and new observation platform was opened at Emeralda Marsh Conservation Area.
- The Willow Inclement Weather Shelter at Three Forks Conservation Area was rebuilt.

- A new online recreation reservation system for the public's use of District facilities was implemented.
- The parking area/access point for the Micco SWP was completed. The District held the grand opening of the property to the public.

Forest Management/Restoration

- Completed tree planting projects on 456 acres within seven conservation areas (Bayard, Thomas Creek, Rice Creek, Hull Swamp, Micco Stormwater Park, Lochloosa, and Lake Norris).
- Prepared 177 acres of land for tree planting.
- Conducted eight timber sales on 1,280 acres. Total timber revenue received in FY 2017–2018 was $660,414.
- Marked 455 acres of timber for thinning.
- Cruised 982 forest inventory plots.

Fire Management

- Conducted 76 prescribed burns for a total of 29,828 acres across 25 conservation areas.
- Fought five wildfires that burned 456 acres. Staff expended 308 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 37 prescribed burns totaling 16,498 acres. They also conducted 220 miles of fireline maintenance and 162 acres of chemical fuels management.

Restoration Activities

- District staff completed 800 acres of roller-chopping encroaching shrubs at Moses Creek, Seminole Ranch and Canaveral Marshes.
- District staff completed mulch mowing of 767 acres of shrubs and palmetto for habitat improvement and wildland urban interface fuels management at, Lochloosa, Heart Island, Micco, Fort Drum and Hal Scott.
- Staff planted native ground cover on 123 acres at Lake Apopka North Shore and Emeralda Marsh.
- Staff completed 300 acres of offsite tree removal (oaks and sand pines) to improve longleaf pine habitats at Julington-Durbin.
- A fallow 60-acre orange grove was leveled at Micco Water Management Area for future planting of pine seedlings and move toward enhancement of the site.
- 5.4 miles of wildfire suppression lines (plow lines) were rehabilitated on Sand Lakes.
- District staff planted 200 acres of emergent wetland plants on Lake Apopka North Shore.
- District staff cooperated with the Sandhill Plant Rescue Partnership where 25 volunteers from the Native Plant Society and other partners helped "rescue" over a 1,000 sandhill plants (more than 100 different species) from an area slated for development to Lake Apopka North Shore.

Special Projects

- District staff worked with volunteers in the 11th annual Jaywatch survey to survey for Florida scrub jays concurrently at Lake Monroe Conservation Area and Buck Lake Conservation Area on three consecutive days.
- District staff removed and relocated 125 gopher tortoises and 14 tortoise eggs from 16 miles of L-73, a U.S. Army Corps of Engineers levee related to the Jane Green Swamp and Taylor Creek Reservoir.
- District staff translocated 10 red-cockaded woodpeckers from Withlacoochee State Forest to augment the small population at St. Sebastian River Preserve State Park (of which the District is co-owner).

Security

- District staff oversaw the replacement/construction of 2.95 miles of fencing on multiple properties.

Invasive Plant Management

- District staff treated 36,970 acres of lands with invasive species in FY 2017–2018, which includes 30,715 acres of broadcast treatment and 6,090 acres of survey and spot treatment. Breakdown by target is shown below:
  - 10,320 acres of climbing fern.
  - 12,723 acres of aquatic invasive species, which included 1,667 acres of hydrilla.
  - 5,415 of willow treatment.
  - 876 acres of sovereign waters under contract with FWC.

Leases of District Land

- Over the past year, 111 leases have been developed and/or renewed for use of 513,078 acres of District properties, primarily for agricultural and land management purposes. (See Table 6-8 for more details).

Table 6-6. 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
John Watson	Apiary	1	Longleaf Flatwoods Reserve	Alachua

Lessee	Use	Acres	Management Area	Counties
Lake Indianhead Honey Farms	Apiary	1	Lake Norris Conservation Area	Lake
Mario and Shelly Jacob, D & J Apiary	Apiary	4	Clark Bay, Heart Island, Hull Swamp, and Lake George Conservation Area	Flagler, Putnam, Volusia
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
Sweet Wings Honey Bee Farm (Ricky Marshall) LRS 1323	Apiary	<1	Fellsmere Water Management Area	Indian River
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 Worldwide	Billboard	1	Buck Lake Conservation Area	Brevard
Clear Channel Worldwide	Billboard	1	Gourd Island Conservation Area	St. Johns
Outfront Media - No. 1170	Billboard	1	Gourd Island Conservation Area	St. Johns
Outfront Media - No. 1172	Billboard	1	Gourd Island Conservation Area	St. Johns
Outfront Media - SR 407	Billboard	1	Canaveral Marshes Conservation Area	Brevard
Brevard Soil & Water Conservation District	Cattle Grazing	4,000	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
Ilean Speer	Cattle Grazing	114	Buck Lake Conservation Area	Brevard
ITO for Fly'n R Ranch, Country Oaks, Dr. Freel (Revenue-Cattle)	Cattle Grazing	952	Sunnyhill Restoration Area	Marion

Lessee	Use	Acres	Management Area	Counties
ITO for Lake Jesup Cattle Grazing Lease - Jeff Lefils J & J Cattle LLC	Cattle Grazing	<1	Lake Jesup Conservation Area	Seminole
Ivan Townsend	Cattle Grazing	4,966	Canaveral Marshes Conservation Area	Brevard
James Dean	Cattle Grazing	32	Turnbull Hammock Conservation Area	Volusia
James Farley, Farley Cattle Company	Cattle Grazing	369	Bayard Conservation Area	Clay
John Tanner	Cattle Grazing	630	Canaveral Marshes Conservation Area	Brevard
Ken Elliott	Cattle Grazing	400	Murphy Creek Conservation Area	Putnam
Kenneth Rigdon, East Florida Livestock	Cattle Grazing	1929	Seminole Ranch Conservation Area	Orange
Lawrence Fleckinger /BCSWCD	Cattle Grazing	4,000	Canaveral Marshes Conservation Area	Brevard
LeFils, James C.	Cattle Grazing	1,216	Lake Monroe Conservation Area	Volusia
LeFils, Jeff; J & J Cattle	Cattle Grazing	2,217	Lake Jesup Conservation Area	Seminole
Mo Williams	Cattle Grazing	463	Lake Norris Conservation Area	Lake
Payton Tilton	Cattle Grazing	3,095	Lake Monroe Conservation Area	Seminole, Volusia
Payton Tilton	Cattle Grazing	1,545	Palm Bluff Conservation Area	Volusia
Richard Evans	Cattle Grazing	371	Orange Creek Restoration Area	Alachua
Schuller / Crescent TS Cattle Company	Cattle Grazing	1,615	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
Shirley Ward Grazing Agreement	Cattle Grazing	1,600	Little-Big Econ State Forest	Seminole
Strawn	Cattle Grazing	73	Heart Island Conservation Area	Volusia
Tanner, Jean - Seminole Ranch	Cattle Grazing	1,980	Seminole Ranch Conservation Area	Orange
Tucker, Far Reach Ranch	Cattle Grazing	561	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	311	Three Forks Conservation Area	Brevard
Yarborough	Cattle Grazing	3,748	Little-Big Econ State Forest	Seminole
Cory Oxford, Circle X	Cattle Grazing	1,928	Fort Drum Marsh Conservation Area	Indian River County
Dr. Freel, Country Oaks Angus Ranch	Cattle Grazing	425	Sunnyhill Restoration Area	Marion

Lessee	Use	Acres	Management Area	Counties
City of Apopka Reclaimed Water Lease	Facility	40	Lake Apopka North Shore	Orange
Dept. of the Air Force	Facility	1	Canaveral Marshes Conservation Area	Brevard
Florida Department of Environmental Protection	Facility	1	Palatka Headquarters (disaster preparedness & emergency offices)	Putnam
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
FWC Facility Use Agr Palatka	Facility	1	Palatka Headquarters Buildings	Putnam
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
Patrick Air Force Base	Facility	1	Seminole Ranch Conservation Area	Brevard
Refuge at Ocklawaha	Facility	103	Ocklawaha Prairie Restoration Area	Marion
Sebastian River High School — Rowing Facility	Facility	1	C-54	Brevard
Audubon Society and Wekiva River Buffer Conservation Area	Management Lease	<1	Wekiva Buffer Conservation Area	Seminole
Austin Cary Lease and Management Agreement	Management Lease	566	Austin Cary Forest	Alachua
Belmore State Forest — Bull Creek North (Satsuma Tract)	Management Lease	3,496	Belmore State Forest — Satsuma Tract	Clay
Central - Charles H. Bronson State Forest - Trustees Lease #4580 FDACS Contract #014466	Management Lease	7,096	Charles H. Bronson State Forest	Seminole
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
Intergov Twelve Mile Swamp, District and TIITF, assigning management responsibilities to District	Management Lease	21,898	Twelve Mile Swamp Conservation Area	St. Johns

Lessee	Use	Acres	Management Area	Counties
Lake Monroe Submerged Land Lease from Trustees - First Amendment to Trustees Lease #3803	Management Lease	<1	Lake Monroe Conservation Area	Seminole, Volusia
Lease # 4397 - St. Sebastian River Preserve State Park	Management Lease	<1	St. Sebastian River Preserve State Park	Indian River
LEASE #3803 - LAKE WASHINGTON (RIVER LAKES)	Management Lease	<1	River Lakes Conservation Area	Brevard
Lease #4402 Julington- Durbin Coop Agrmt - District and TIITF	Management Lease	<1	Julington-Durbin Preserve	Duval
Lease #4524 Lambert at Deep Creek Coop Agrmt	Management Lease	<1	Deep Creek Conservation Area	St. Johns
Lease #4609 - Cary State Forest - Thomas Creek Rayonier parcel	Management Lease	2,235	Cary State Forest	Duval, Nassau
Little Big Econ State Forest Lease	Management Lease	7,156	Little-Big Econ State Forest	Seminole
Moss Bluff recreation - USACE Contract & Lease 1980 & 1982	Management Lease	<1	Sunnyhill Restoration Area	Marion
Paynes Prairie - LEASE TO FLORIDA PARK SERVICE - 1990	Management Lease	203	Paynes Prairie Preserve State Park	Alachua
Pumpkin Hill Creek Preserve State Park Trustees Lease #4074	Management Lease	3,994	Pumpkin Hill Creek Preserve State Park	Duval
Redshirt Lease - Cary State Forest	Management Lease	325	Cary State Forest	Duval, Nassau
Rock Springs Run State Reserve — Neighborhood Lakes — Orange County	Management Lease	316	Rock Springs Run State Reserve	Orange
T.M. Goodwin Waterfowl Management Area Lease	Management Lease	3,870	T.M. Goodwin Waterfowl Management Area	Brevard
Thomas Creek Intergov Coop Mgmt Agrmt District, City of Jacksonville	Management Lease	3,941	Thomas Creek Conservation Area	Duval, Nassau
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

Lessee	Use	Acres	Management Area	Counties
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
Cooperative Agreement & Lease - Lake County - CR 455 (Green Mountain) Trailhead	Other	9	Lake Apopka North Shore	Orange
Lake George Wildlife Management Area. District, FWC, and Volusia County	Other	<1	Lake George Forest - Volusia County	Volusia
Salt Lake WMA Cooperative Lease Agreement #4344 - District/Trustees/FWC	Other	5,045	Salt Lake Wildlife Management Area	Brevard
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
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 = 111 LEASES		**513,078**		

Special Use Authorizations

- A total of 101 Special Use Authorizations were in effect during the FY 2017–2018 for activities ranging from scientific research, to feral hog trapping, to miscellaneous recreational activities. (See Table 6-9 for more details.)

Table 6-7. Inventory of special use authorizations

User Name	Purpose	Management Area
Al Roberts Operation Outdoor Freedom	Recreational Event	Ocklawaha Prairie Restoration Area
Amvets, Sons of Amvets Post 45	Special Use	Moses Creek Conservation Area
Anderson Contract Engineering, Inc.	Special Use	Lake Apopka North Shore
Avian Reconditioning Center, Inc.	Special Use	Lake Apopka North Shore
Beau Bass Feral	Hog Removal	Thomas Creek Conservation Area
Benjamin S. Williams	Hog Removal	Rice Creek Conservation Area
Bill Berthet Lepidoptera Surveys	Research	Julington-Durbin Preserve Bayard Conservation Area
Bowman Consulting Group, LTD., Inc. Rick Barnes	Storage	Lake Apopka North Shore
Brevard Nature Alliance, Inc.	Recreational Event	N/A
BSTR Inc. Allen Pearce	Recreational Event	Lake George Conservation Area
Carter Logging, Inc.	Special Use	Bayard Conservation Area
Cheryl Peterson Bok Tower Gardens Inc.	Research	Lake Monroe Conservation Area Palm Bluff Conservation Area
Clemson University - Calvin Norman	Research	Silver Springs Forest Conservation Area
Cremer Wood, Inc.	Special Use	Murphy Creek Conservation Area
DeAnn L. Hansen	Special Use	Lake George Conservation Area
DEP Pamela Marcum	Survey	Moses Creek Conservation Area Pellicer Creek Conservation Area
Deviant Wolfe Brewing, LLC Johnathan Wolverton	Recreational Event	Lake Monroe Conservation Area
Duke Energy Florida, LLC	Special Use	Heart Island Conservation Area
Empower Coaching & Fitness, LLC Stacey Smith	Recreational Event	Julington-Durbin Preserve
Epic Sports Marketing LLC, Buttar Inc. Manager	Recreational Event	Lake Apopka North Shore
Eric Heribacka	Special Use	Canaveral Marshes Conservation Area
Eric Meade Pellicer Creek	Hog Removal	Pellicer Creek Conservation Area
Ester Reyes Wedding	Recreational Event	Econlockhatchee Sandhills Conservation Area
Farm Credit of Florida SUA for Access Tilton Cattle	Cattle Grazing	Palm Bluff Conservation Area
FDEP - FL Geological Survey Rick Green	Research	Hal Scott Regional Preserve and Park
FFWCC Brandon Stys Youth Hunts	Recreational Event	Newnans Lake Conservation Area Longleaf Flatwoods Reserve Alachua County Sand Lakes Conservation Area
FL Forest Service Operation Outdoor Freedom 2018	Research	Orange Creek Restoration Area
Flagler County	Hog Trapping	Pellicer Creek Conservation Area
Flagler County Hog Trapper 2018	Hog Trapping/Removal	Pellicer Creek Conservation Area

User Name	Purpose	Management Area
Florida Fish and Wildlife Conservation Commission	Recreational Event	Sand Lakes Conservation Area
Florida Fish and Wildlife Conservation Commission -FWRI Avian Research	Research	Emeralda Marsh Conservation Area Sunnyhill Restoration Area Lake Norris Conservation Area Lake Apopka North Shore Blue Cypress Conservation Area River Lakes Conservation Area Three Forks Conservation Area
Florida Fish and Wildlife Conservation Commission Justin Miller	Apiary	Sunnyhill Restoration Area
Florida Forest Service	Recreational Event	Crescent Lake Conservation Area Heart Island Conservation Area
Florida Forest Service - David Hunt	Recreational Event	Seminole Ranch Conservation Area
Florida Forest Service Chad Williamson	Recreational Event	Newnans Lake Conservation Area
Florida Orienteering Club Bob Putnam	Recreational Event	Pellicer Creek Conservation Area
Florida Orienteering Club Ron Eaglin	Recreational Event	Pellicer Creek Conservation Area
Friends of Lake Apopka Joe Dunn	Recreational Event	Lake Apopka North Shore
G & J Tree Service Burrell Lock and Dam	Special Use	Burrell Lock & Dam
Gina DelPizzo Bald Eagle Surveying	Research	Lake Norris Conservation Area
Gulf Archaeology Research Institute, Inc.	Special Use	Pellicer Creek Conservation Area
Inactive Florida Forest Service Operation Outdoor Freedom	Recreational Event	Crescent Lake Conservation Area Heart Island Conservation Area
James Bess Northand Env Services LLC USFWS	Research	Hal Scott Regional Preserve and Park Seminole Ranch Conservation Area
James Dumoulin Eagle Scout Project	Special Use	Hal Scott Regional Preserve and Park
Jesse C. Black	Hog Removal	Lake Jesup Conservation Area
John Chris Anderson Feral	Hog Removal	Deep Creek Conservation Area
Jonathan Martin UCF	Research	Lake Monroe Conservation Area Lake Norris Conservation Area Lake Apopka North Shore Buck Lake Conservation Area Canaveral Marshes Conservation Area Hal Scott Regional Preserve and Park Seminole Ranch Conservation Area Wekiva River Buffer Conservation Area River Lakes Conservation Area Three Forks Conservation Area Lake Jesup Conservation Area Econlockhatchee Sandhills Conservation Area Palm Bluff Conservation Area
Joshua Williams	Hog Removal	Dunns Creek Conservation Area
Justin E. Ellenberger	Hog Removal	Deep Creek Conservation Area
Kennedy Space Center of NASA	Special Use	Lake Apopka North Shore
Larry Propper	Hog Trapping	Thomas Creek Conservation Area

User Name	Purpose	Management Area
Larry Propper Hog Trapper	Hog Trapping/Removal	Thomas Creek Conservation Area
Laura Harmon University of Florida	Research	Ocklawaha Prairie Restoration Area
Laura Johannsen Bird Count	Research	Moses Creek Conservation Area
Lawrence and Fran Fleckinger	Hog Removal	Canaveral Marshes Conservation Area
Lorne K. Malo	Research	Hal Scott Regional Preserve and Park
Lorne K. Malo Christmas Bird Count	Research	Hal Scott Regional Preserve and Park
Marion County - Supervisor of Elections	Special Use	Sunnyhill Restoration Area
Mount Dora Area Chamber of Commerce	Recreational Event	Emeralda Marsh Conservation Area
Mount Dora Area Chamber of Commerce, Inc. Bicycle Event	Recreational Event	Emeralda Marsh Conservation Area
National Wild Turkey Federation, Inc. Gator Gobblers Chapter	Recreational Event	Newnans Lake Conservation Area Longleaf Flatwoods Reserve - Alachua County
Northrup Grumman Systems Corporation	Research	Fort Drum Marsh Conservation Area
Ocklawaha Valley Audubon Society Festival of Flight 2018	Recreational Event	Emeralda Marsh Conservation Area Lake Apopka North Shore
Orange Audubon Society	Research	Canaveral Marshes Conservation Area Hal Scott Regional Preserve and Park Seminole Ranch Conservation Area
Orange Audubon Society, Inc.	Recreational Event	Lake Apopka North Shore
Patty Kaishian University of Florida	Research	Emeralda Marsh Conservation Area
Paul Washko	Special Use	Pellicer Creek Conservation Area
Peter Johnson	Research	Julington-Durbin Preserve
PIMCORP, LLC DBA Masters of All Terrain	Recreational Event	Hal Scott Regional Preserve and Park
PIMCORP, LLC Josh Weisman	Recreational Event	Hal Scott Regional Preserve and Park
PIMCORP, LLC Josh Weisman	Recreational Event	Lake Apopka North Shore
Power of 2, Inc. Gwen Creel	Recreational Event	Newnans Lake Conservation Area
Power of 2, Inc. Gwen Creel	Recreational Event	Newnans Lake Conservation Area
Ralph Viviano Disabled	Special Use	Three Forks Conservation Area
Randy White	Recreational Event	Blue Cypress Conservation Area
Robert E. Burns Jr.	Hog Removal	Sample Swamp
Roundstone Native Seed	Special Use	Hal Scott Regional Preserve and Park
Runner's High Timing and Race Management LLC	Recreational Event	Palm Bluff Conservation Area
Ryan M. Campbell	Hog Removal	Murphy Creek Conservation Area
Scott Sumpter	Hog Removal	Sunnyhill Restoration Area
SEARCH Inc. Jessica Fish 2017	Special Use	Heart Island Conservation Area
Sommer Sports, Inc.	Recreational Event	Rice Creek Conservation Area

User Name	Purpose	Management Area
Stephen M. Farris	Hog Removal	Twelve Mile Swamp Conservation Area
Stetson University - Cindy Bennington	Research	Heart Island Conservation Area
Steve Rockwood FFWCC	Research	Emeralda Marsh Conservation Area
Sun Ag LLC Mike Monroe	Hog Removal	Fellsmere Water Management Area
Sunland Construction Inc.	Special Use	Three Forks Conservation Area
Susan Killeen	Research	Pellicer Creek Conservation Area
The Florida Wildflower Foundation, Inc.	Recreational Event	Hal Scott Regional Preserve and Park
Timothy Galladay	Special Use	Hal Scott Regional Preserve and Park
Todd G. Follrod	Hog Trapping/Removal	Seminole Ranch Conservation Area
Todd G. Follrod	Hog Removal	Seminole Ranch Conservation Area
UCF Gregg Klowden	Research	Econlockhatchee Sandhills Conservation Area
University of Central Florida - Jennifer Stewart	Research	Lake Monroe Conservation Area Buck Lake Conservation Area Econlockhatchee Sandhills Conservation Area
University of Florida Audrey Wilson	Research	Ocklawaha Prairie Restoration Area
University of Florida Kayla M. Hess	Research	Newnans Lake Conservation Area Longleaf Flatwoods Reserve - Alachua County
University of Florida Patrick Minogue	Research	Longleaf Flatwoods Reserve - Alachua County
University of South Florida - Bryan K. Delius	Research	
USGS Florida Water Science Center	Apiary	Blue Cypress Conservation Area
Whitaker Econlockhatchee	Hog Removal	Econlockhatchee Sandhills Conservation Area
William B. Snyder	Special Use	Dunns Creek Conservation Area

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 6-8. 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 & 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
- Sebastian 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 6-9. 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
6/1/2005	2004-002-P1	Newnans Lake Addition - Rayonier/Alachua	1,619,563.30	Joint Fee	1,708.20

Original Close Date	LA Number	Parcel Name	Florida Forever Amount	Acquisition Type	Acres
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 South Daytona - Fee Reverter	1,051,100.00	Fee Reverter	0.00
12/14/2007	2006-013-P1	Robert Berner - City of South 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 — 2019 Land Acquisition Map

The 2019 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 percent 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 2019. The reduction in Potential Acquisition acres from 2018 is attributed only to acres that were both purchased during FY 2017–2018 and were within the "Potential Acquisition" layer. The number of acres in the 2019 "Potential Acquisition" layer is 115,760 acres.

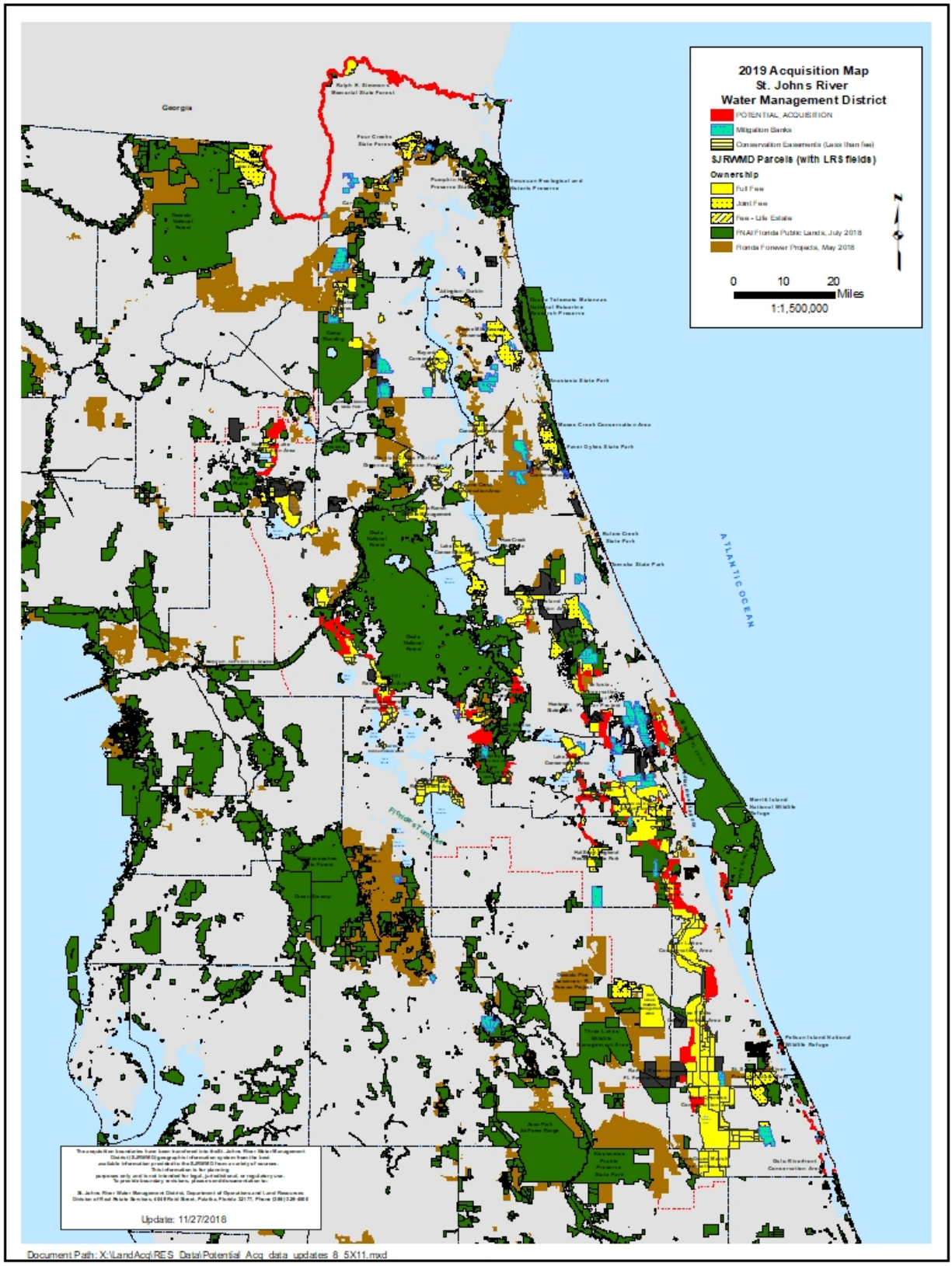

Figure 6-2. 2019 Land Acquisition Map

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 2017-2018

During FY 2017–2018, the District did not receive any cash donation for wetland mitigation purposes. Figure 7-1 provides information on cash donations received FY 2005–2006 when the District received cash donations.

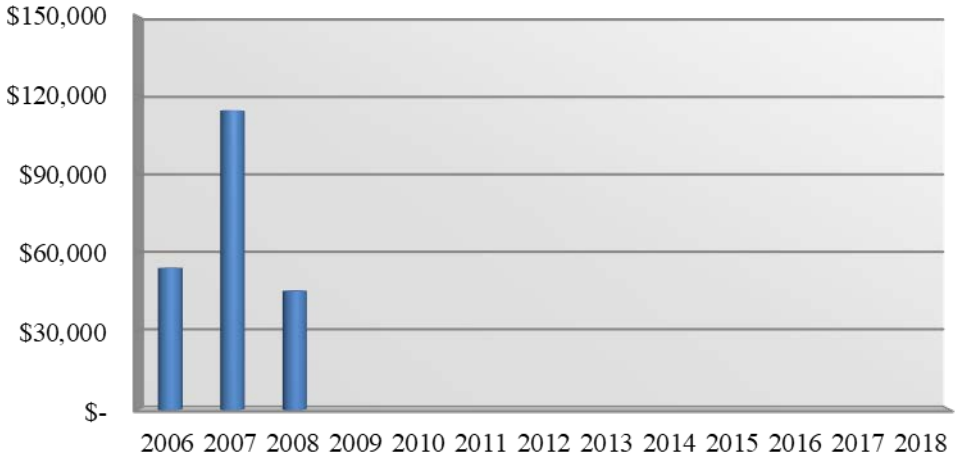

Figure 7-1. Cash donations for wetland mitigation purposes by fiscal year

Water Quality and Water Quantity Grading Report

8 Water Quality and Water Quantity Grading Report

Table of Contents

Tables

I. Introduction

Section 373.036(7)(b)9., F.S., provides that the Consolidated Annual Report shall contain a "grade for each watershed, water body, 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, water body, or water segment."

Table 1 lists the projects contained within the 2019 Five-year Water Resource Development Work Plan, the watershed, water body, 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 water body 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 water body is impaired for one or more parameters other than mercury.
>
> **Not impaired:** This grade is assigned if the water body 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 Water body 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 water body 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 water body was also evaluated based on the regional significance of the water body 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 St. Johns River Water Management District (District) considered the water body'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 water body is meeting the MFL, but is projected to not meet the MFL within 20 years (that is, the water body is in prevention).

Level I: This grade is assigned if the water body is close to meeting the MFL and the water body is rated as a Tier 3 or Tier 2 for regional significance; or the water body is moderately close to meeting the MFL and the water body is rated a Tier 3 for regional significance

Level II: This grade is assigned if the water body is close to meeting the MFL and the water body is rated a Tier 1 for regional significance; or the water body is moderately close to meeting the MFL and the water body is rated a Tier 2 for regional significance; or the water body is not close to meeting the MFL and the water body is rated a Tier 3 for regional significance.

Level III: This grade is assigned if the water body is moderately close to meeting the MFL and the water body is rated a Tier 1 for regional significance; or the water body is not close to meeting the MFL and the water body 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 water bodies within a Water Use Caution Area (WUCA) or Prevention and Recovery (PR) strategy. Those projects are anticipated to impact all water bodies that are included within the WUCA or PR area. As an example, the Central Florida Water Initiative (CFWI) Water Use Caution Area within the St. Johns River Water Management District covers all or parts of Orange, Seminole and Lake counties. Within the CFWI, there are 14 water bodies (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 water bodies within a WUCA have been included for each project.

Table 1. Projects contained within the 2019 Five-year Water Resource Development Work Plan, including grades for water quality level of impairment and the level of violation of minimum flows or minimum water levels (MFLs)

Contract Number	Water Resource Development Projects	Program Code Sorting	Basin	Water body	WBID	Level of Water Quality Impairment	BMAP	Latitude	Longitude	Level of Violation of Adopted MFL
2.0 Acquisition, Restoration and Public Works										
Water Resource Development Projects (Programmatic Code 2.2.1)										
28908	Alachua County Florida Water Star℠ (FWS) Rebate	2.2.1	Ocklawaha	SUNLAND DRAIN	2709	Impaired	Orange Creek	29.64250739	-82.27809262	None*
28913	Alachua County Landscape Retrofit	2.2.1	Ocklawaha	SWEETWATER BRANCH EXTENSION DITCH	2722	Not impaired	Orange Creek	29.61631232	-82.36066975	None*
38601	Apopka Golden Gem Road RCW Extension	2.2.1	Middle St. Johns	ROCK SPRINGS RUN	2967	Impaired - High	Wekiva	28.73578868	-81.57069213	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body
32008	Baldwin Brandy Branch Reuse	2.2.1	Nassau — St. Marys	UNNAMED DITCH	2298	Not impaired	N/A	30.29556	-81.97833	None*
30593	Black Creek Water Resource Development Project*	2.2.1	Lower St. Johns	BLACK CREEK	2415B 2415C	Impaired	N/A	30034907	-81422535	Level 1 - Lake Brooklyn Lake Geneva
28919	C-10 Reservoir Project*	2.2.1	Indian River Lagoon	SEBASTIAN RIVER	2963A	Impaired	Central Indian River Lagoon	27590530	-80442498	None*
31825	Cocoa Toilet Rebate Program	2.2.1	Upper St. Johns	MUD LAKE OUTLET	3056	Not impaired	N/A	28.377564	-80.764645	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body
28812	Daytona Beach 2.5 MG Reuse Tank	2.2.1	Upper East Coast	UNNAMED DITCH	2652	Not impaired	N/A	29.21135423	-81.08664038	Volusia PR* Level 0 - 6 water bodies Level 1 - 1 water body

Contract Number	Water Resource Development Projects	Program Code Sorting	Basin	Water body	WBID	Level of Water Quality Impairment	BMAP	Latitude	Longitude	Level of Violation of Adopted MFL
32116	Crane Creek M-1 Canal Flow Restoration*	2.2.1	Indian River Lagoon	CRANE CREEK	3085A	Impaired	Central Indian River Lagoon	28042841	-80361854	None*
28592	Daytona Beach Potable Reuse Demo Testing Facility	2.2.1	Upper East Coast	DRAINAGE CANALS	2654	Not impaired	N/A	29.17736038	-81.11433271	None*
28850	DeLand Reclaimed Water Retrofit Project 1	2.2.1	Lower St. Johns	TALMADGE LAKE DRAIN	2630D	Not impaired	Lower St. Johns Mainstem	29.05455605	-81.31014148	Volusia PR* Level 0 - 6 water bodies Level 1 - 1 water body
28851	DeLand Reclaimed Water Retrofit Project Phase 2B	2.2.1	Middle St. Johns	LAKE BERESFORD DRAIN	2893U1	Not impaired	Volusia Blue Springshed (In progress)	29.0523846	-81.28966952	Volusia PR* Level 0 - 6 water bodies Level 1 - 1 water body
38566	DeLand RCW Main Extension Phase 3 and 3A	2.2.1	Middle St. Johns	LAKE BERESFORD DRAIN	2893U1	Not impaired	Volusia Blue Springshed (In progress)	28.988391	-81.306694	Volusia PR* Level 0 - 6 water bodies Level 1 - 1 water body
32298	DeLand St. Johns River Filtration System Upgrades	2.2.1	Middle St. Johns	LAKE BERESFORD DRAIN	2893U1	Not impaired	Middle St. Johns	29.009167	-81.296667	Volusia PR* Level 0 - 6 water bodies Level 1 - 1 water body
28855	Deltona - WVWS Project 4A Deltona Storage and Treatment Improvements	2.2.1	Middle St. Johns	GLEASON LAKE DRAIN	2893G1	Not impaired	Middle St. Johns	28.88110538	-81.25057697	Volusia PR* Level 0 - 6 water bodies Level 1 - 1 water body
28454	Dispersed Water Storage Project - Fellsmere*	2.2.1	Indian River Lagoon	N. Sebastian River	3128A	Impaired	Central Indian River Lagoon	27471522	-80384863	None*
28535	Dispersed Water Storage Project - Graves Brothers*	2.2.1	Indian River Lagoon	N. Sebastian River	3128A	Impaired	Central Indian River Lagoon	27475946	-80.33457	None*

Contract Number	Water Resource Development Projects	Program Code Sorting	Basin	Water body	WBID	Level of Water Quality Impairment	BMAP	Latitude	Longitude	Level of Violation of Adopted MFL
32653	Flagler County Plantation Bay WWTF Modifications	2.2.1	Northern Coastal	Bulow Creek	N/A	Not impaired	N/A	29.402411	-81.171367	None*
28807	Green Cove Springs North Grid RCW System Phases 2 and 3	2.2.1	Lower St. Johns	PETERS CREEK	2444	Impaired - High	Lower St. Johns Mainstem	30.03371215	-81.71497966	None*
32039	GRU Conservation Visualization Tool	2.2.1	Indian River Lagoon	BANANA RIVER ABOVE BARGE CANAL	3057C	Impaired - High	Banana River	28.520078	-80.611369	None*
28911	GRU Indoor Plumbing Retrofit	2.2.1	Ocklawaha	KANAPAHA LAKE OUTLET	2717B	Not impaired	Orange Creek	29.62653912	-82.37973596	None*
32784	Interlachen Water System Improvements P3	2.2.1	Ocklawaha/Lower St. Johns River	N/A	N/A	N/A	Ocklawaha/Lower St. Johns River Mainstem	29.63	-81.89	None*
30275	Hawthorne Downtown Water Main Replacements	2.2.1	Ocklawaha	WEST HAWTHORNE BRANCH	2728	Not impaired	Orange Creek	29.59215109	-82.08881729	None*
33190	JEA Gate Parkway Kernan to T-Line RCW Main	2.2.1	Lower St. Johns	St. Johns River above Piney Point	2213F	Impaired — High	Lower St. Johns Mainstem	30.251819	-81.51275	None*
28428	JEA Mandarin WWTP Upgrades	2.2.1	Lower St. Johns	DEEP BOTTOM CREEK	2361	Impaired — High	Lower St. Johns Mainstem	30.17890636	-81.62182396	None*
28815	JEA RG Skinner Parkway RW Trans	2.2.1	Lower St. Johns	PABLO CREEK (FRESHWATER SEGMENT)	2283B	Not impaired	Lower St. Johns Mainstem	30.20109917	-81.50642508	None*
31857	JEA River Town Phase 3 Parcel 23 RCW	2.2.1	Lower St. Johns	ORANGE GROVE BRANCH	2443	Not impaired	Lower St. Johns Mainstem	30.032217	-81.628815	None*

Contract Number	Water Resource Development Projects	Program Code Sorting	Basin	Water body	WBID	Level of Water Quality Impairment	BMAP	Latitude	Longitude	Level of Violation of Adopted MFL
30175	JEA Water Purification Treatment Evaluation and Pilot Testing	2.2.1	Lower St. Johns	St Johns River above Trout River	2213D	Impaired	Lower St. Johns Mainstem	30.35992648	-81.62626371	None*
28806	JEA William Burgess Road	2.2.1	Nassau — St. Marys	PLUMMER CREEK	2130	Impaired	N/A	30.61539179	-81.63188984	None*
32300	Longwood Septic Tank Abatement Program Transmission Main	2.2.1	Middle St. Johns	SOLDIER CREEK	2986	Impaired — High	Lake Jesup	28.703752	-81.339423	None*
32283	Lucas Fairways Hidden Hills Golf Course RCW Connection	2.2.1	Lower St. Johns	ST JOHNS RIVER ABOVE ICWW	2213B	Impaired — High	Lower St. Johns Mainstem	30.3725	-81.50222	None*
30276	Macclenny System Wide Water Valve Replacements	2.2.1	Nassau - St. Marys	TURKEY CREEK	2318	Not impaired	N/A	30.28062719	-82.12256591	None*
28857	Marion County Enhanced Irrigation Evaluation Program	2.2.1	Ocklawaha	MARSHALL SWAMP DRAIN	2778	Not impaired	Silver Springs	29.16774924	-82.04564568	Level 3 - Silver Springs
38565	Marion County US441 Water Main Interconnect	2.2.1	Ocklawaha	LAKE WEIR OUTLET	2790	Not impaired	Silver Springs	28.984381	-81.989275	Level 3 - Silver Springs
32642	Mascotte SR50 Water Main Replacement-Ph1	2.2.1	Ocklawaha	PALATLAKAHA RIVER	2839	Impaired High	Ocklawaha	28.572516	-81.879618	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body
31824	Minneola Septic to Sewer Phase 1	2.2.1	Ocklawaha	PALATLAKAHA RIVER	2839	Impaired — High	Upper Ocklawaha	28.5779889	-81.7500111	None*

Contract Number	Water Resource Development Projects	Program Code Sorting	Basin	Water body	WBID	Level of Water Quality Impairment	BMAP	Latitude	Longitude	Level of Violation of Adopted MFL
38581	Mount Dora RCW Interconnect with Apopka	2.2.1	Middle St. Johns	ROCK SPRINGS RUN	2967	Impaired — High	Wekiva	28.75724	-81.584882	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body
28087	Orange County Malcolm Rd Minimized Impact Project -Lower Floridan Wells	2.2.1	Kissimmee River	LAKE HANCOCK DRAIN (ORANGE COUNTY)	3170G	Not impaired	Lake Okeechobee	28.4927145	-81.62467441	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body
30220	Gainesville Suburban Heights - Beville Creek Restoration	2.2.1	Ocklawaha	UNNAMED DRAIN	2710	Impaired	Orange Creek	29.66512568	-82.39810424	None*
28910	OCU Toilet Retrofit	2.2.1	Middle St. Johns	LUCY LAKE OUTLET	3002A1	Not impaired	Wekiva	28.65776972	-81.46484436	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body
28909	OCU Water Wise Neighbor Program	2.2.1	Middle St. Johns	LAKE PREVATT OUTLET	2993B	Not impaired	Wekiva	28.69900759	-81.50180349	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body
28843	OCU Waterwise Neighbor Program (New)	2.2.1	Middle St. Johns	ECONLOCKHATCHEE RIVER	2991	Impaired	N/A	28.52882037	-81.15212982	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body
28842	OCU Waterwise Neighbor Program (Retrofit)	2.2.1	Middle St. Johns	ECONLOCKHATCHEE RIVER	2991	Impaired	N/A	28.52834752	-81.14021668	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body
38578	OCU Waterwise Program (NEW) Phase 2	2.2.1	Middle St. Johns	UNNAMED BRANCH	3021	Impaired	N/A	28.557192	-81.196421	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body

Contract Number	Water Resource Development Projects	Program Code Sorting	Basin	Water body	WBID	Level of Water Quality Impairment	BMAP	Latitude	Longitude	Level of Violation of Adopted MFL
38595	OCU Waterwise Program Retrofit Phase 2	2.2.1	Middle St. Johns	UNNAMED BRANCH	3021	Impaired	N/A	28.557192	-81.196421	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body
38561	Ocala Wetland Recharge	2.2.1	Ocklawaha	SILVER RIVER DRAIN	2772B	Not impaired	Silver Springs	29.211875	-82.158065	Level 3 - Silver Springs
28846	Ormond Beach South Peninsula Reclaimed Water Expansion	2.2.1	Upper East Coast	GRANDA BLVD	8118A	Not impaired	N/A	29.28406778	-81.03979175	None*
32512	OUC Irrigation Conservation Phase 2	2.2.1	Middle St. Johns	Various lakes	N/A	N/A	Middle St. Johns	28.54193564	-81.36119745	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body
32903	Palatka Heights Phase A Potable Water Project	2.2.1	Lower St. Johns	ST JOHNS RIVER ABOVE RICE CREEK	2213M	Impaired — High	Lower St. Johns Mainstem	29.640291	-81.642269	None*
32348	Palatka RCW Extension - REDI	2.2.1	Lower St. Johns	ST JOHNS RIVER ABOVE RICE CREEK	2213M	Impaired — High	Lower St. Johns Mainstem	29.63446	-81.64821	None*
28912	Santa Fe College Plumbing Retrofit	2.2.1	Ocklawaha	IRVING SLOUGH	2760	Not impaired	N/A	29.405017	-82.255926	None*
28778	St. Johns St Augustine Beach Reclaimed Water Trans Main	2.2.1	Upper East Coast	SALT RUN (SHELLFISH PORTION)	2502C	Impaired	N/A	29.85554401	-81.27769053	None*
32459	Tater Farms Palatka Ranch RCW	2.2.1	Lower St. Johns	ST JOHNS RIVER ABOVE DUNNS CREEK	2213N	Impaired — High	Lower St. Johns Mainstem	29.61785	-81.65589	None*
TBD	Taylor Creek Reservoir Improvement Project*	2.2.1	Lake Poinsett	LAKE POINSETT	2893K	Not impaired	N/A	28.20175	-80564255	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body

Contract Number	Water Resource Development Projects	Program Code Sorting	Basin	Water body	WBID	Level of Water Quality Impairment	BMAP	Latitude	Longitude	Level of Violation of Adopted MFL
28134	Titusville Draa Field Stormwater Park	2.2.1	Indian River Lagoon	INDIAN RIVER ABOVE NASA CAUSEWAY	2963EA	Impaired — High	North Indian River Lagoon	28.6188205	-80.82015662	None*
31815	Titusville South Street Basin Baffle Boxes	2.2.1	Indian River Lagoon	INDIAN RIVER ABOVE NASA CAUSEWAY	2963EA	Impaired — High	North Indian River Lagoon	28.608031	-80.806703	None*
28841	Umatilla Cassady Street Drainage Project	2.2.1	Ocklawaha	LAKE UMATILLA OUTLET	2806	Not impaired	Upper Ocklawaha	28.92609416	-81.66254753	None*
30204	Umatilla Wastewater Collection Rehabilitation Phase 2	2.2.1	Ocklawaha	LAKE UMATILLA OUTLET	2806	Not impaired	Upper Ocklawaha	28.92849222	-81.66837882	None*
28624	Umatilla Wastewater Collection System Rehabilitation	2.2.1	Ocklawaha	ISLAND LAKE OUTLET	2801A	Not impaired	Upper Ocklawaha	28.91564435	-81.68253634	None*
28534	Vero Beach Hybrid Septic Tank Effluent Pumping System Phase 2 Service Lines	2.2.1	Indian River Lagoon	MAIN CANAL	3153A	Impaired	Central Indian River Lagoon	27.63285053	-80.40774669	None*
28183	Vero Beach Hybrid STEP System Force Main	2.2.1	Indian River Lagoon	MAIN CANAL	3153A	Impaired	Central Indian River Lagoon	27.64210718	-80.40833869	None*
28390	Vero Beach Reverse Osmosis WWTF Expansion	2.2.1	Indian River Lagoon	MAIN CANAL	3153A	Impaired	Central Indian River Lagoon	27.65316954	-80.40290764	None*
27660	West Volusia Water Suppliers Doyle Road Reclaimed Water Inte	2.2.1	Middle St. Johns	CHAIN OF LAKES	2938	Not impaired	Lake Harney, Lake Monroe, Middle St. Johns River and Smith Canal	28.85996947	-81.19884019	Volusia PR* Level 0 - 6 water bodies Level 1 - 1 water body

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27657	West Volusia Water Suppliers Reclaimed Water Interconnect	2.2.1	Middle St. Johns	CHAIN OF LAKES	2938	Not impaired	Volusia Blue Springshed	28.93018483	-81.23946985	Volusia PR* Level 0 - 6 water bodies Level 1 - 1 water body
28432	Winter Garden Reclaimed Water and Stormwater Recharge	2.2.1	Ocklawaha	UNNAMED DRAIN	2869	Not impaired	Upper Ocklawaha	28.57841927	-81.58171567	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body
32327	Winter Garden Reuse Distribution Retrofit	2.2.1	Ocklawaha	JOHNS LAKE OUTLET	2873	Not impaired	Upper Ocklawaha	28.52804	-81.61137	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body
Surface Water Projects (Programmatic Code 2.3.0)										
33852	Altamonte Springs Regional Water Reclamation Facility AWWT	2.3	Middle St. Johns	Wekiwa Spring and Rock Springs	2987	Impaired	Wekiva	28.6409178	-81.3998818	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body
33662	Apopka Camp Thunderbird Septic to IDWTS	2.3	Middle St. Johns	Wekiwa Spring and Rock Springs	2956	Impaired	Wekiva	28.422487	-81.293337	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body
28457	Apopka Water Reclamation Facility Nutrient Removal	2.3	Middle St. Johns	LUCY LAKE OUTLET	3002A1	Not impaired	Wekiva	28.6530647	-81.50282354	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body
33191	Atlantic Beach Septic to Sewer	2.3	Lower St. Johns	ICWW (DUVAL COUNTY; ST JOHNS COUNTY)	2205C	Impaired	Lower St. Johns Mainstem	30.333	-81.424	None*
31822	Brevard County Micco Sewer Line Extension	2.3	Indian River Lagoon	ST. SEBASTIAN RIVER ABOVE INDIAN RIVER LAGOON	3129A	Impaired — High	Central Indian River Lagoon	27.87431838	-80.5024287	None*

Contract Number	Water Resource Development Projects	Program Code Sorting	Basin	Water body	WBID	Level of Water Quality Impairment	BMAP	Latitude	Longitude	Level of Violation of Adopted MFL
28401	Brevard County South Patrick Drive Baffle Box	2.3	Indian River Lagoon	BANANA RIVER BELOW 520 CAUSEWAY	3057A	Impaired — High	Banana River	28.21072849	-80.60248514	None*
32717	Bunnell Westside Storm and Sanitary Improvements	2.3	Lower St. Johns	UNNAMED CANAL	2610	Impaired	Lower St. Johns Mainstem	29.468942	-81.269872	None*
31866	Bunnell WWTP Treatment	2.3	Lower St. Johns	UNNAMED CANAL	2610	Impaired	Lower St. Johns Mainstem	29.46439	-81.26421	None*
31826	Cocoa Beach Muck Removal Phase 3	2.3	Indian River Lagoon	BANANA RIVER BELOW 520 CAUSEWAY	3057A	Impaired — High	Banana River	28.31494	-80.61534	None*
33246	Cocoa Beach Water Reclamation Facility Upgrade	3.3	Indian River Lagoon	BANANA RIVER BELOW 520 CAUSEWAY	3057A	Impaired — High	Banana River	28.3176	-80.633	None*
32116	Crane Creek M-1 Canal Flow Restoration*	2.3	Indian River Lagoon	Crane Creek	3085A	Impaired	Central Indian River Lagoon	28.043068	-80362789	None*
31865	Daytona Beach Bennett Swamp Rehydration & Conservation	2.3	Upper East Coast	UNNAMED DITCH	2666	Impaired	N/A	29.14826752	-81.06150211	None*
33649	Edgewater Reclaimed Water Quality Reservoir	2.3	Indian River Lagoon	Mosquito Lagoon	2924B2	Not impaired	N/A	28.99	-80.91	None*
32694	Fellsmere South Regional Lake	2.3	Indian River Lagoon	Central Indian River Lagoon	3129B2	Impaired	Central Indian River Lagoon	27.756393	-80.596976	None*
28364, 33366,	Fellsmere Water Management Area*	1/2/1900	Indian River Lagoon	SEBASTIAN RIVER	3135A	Impaired	South Indian River	27.47	-80.413861	None*
32053	Fernandina Beach Area 1 Drainage Improvements	2.3	Nassau - St. Marys	EGANS CREEK	2127	Not impaired	N/A	30.68443792	-81.44743753	None*

Contract Number	Water Resource Development Projects	Program Code Sorting	Basin	Water body	WBID	Level of Water Quality Impairment	BMAP	Latitude	Longitude	Level of Violation of Adopted MFL
28856	Glen St Mary Northside Gravity Sewer Extensions	2.3	Nassau - St. Marys	ST MARYS RIVER (SOUTH PRONG)	2247A	Not impaired	N/A	30.27743724	-82.16133812	None*
28730	Indian River County Osprey Acres Stormwater Park	2.3	Indian River Lagoon	SOUTH CANAL	3158	Impaired	Central Indian River Lagoon	27.59221721	-80.39419634	None*
33228	Indian River County West Wabasso Septic Phase 2	2.3	Indian River Lagoon	South Prong Sebastian River	3129B2	Impaired	Central Indian River Lagoon	27.74474	-80.455762	None*
28469	Jacksonville Crystal Springs Drainage Improvements	2.3	Lower St. Johns	ORTEGA RIVER	2249A	Impaired	Lower St. Johns Mainstem	30.30290476	-81.84347582	None*
30175	JEA Water Purification Treatment Evaluation and Pilot Testing	2.3	Lower St. Johns	Fishing Creek	2324	Impaired	Lower St. Johns Mainstem	30.35992648	-81.62526371	None*
28780	Lake County Magnolia Lane Water Quality Project	2.3	Ocklawaha	LAKE BLUE SPRINGS	2838C	Not impaired	Upper Ocklawaha	28.74423427	-81.82528977	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body
32379	Marion County Silver Springs Shores DRA Retrofit	2.3	Ocklawaha	MARSHALL SWAMP DRAIN	2778	Not impaired	Silver Springs	29.1355	-82.037	Level 3 - Silver Springs
28731	Merritt Island Septic Phase Out	2.3	Indian River Lagoon	NEWFOUND HARBOR	3044A	Impaired — High	Banana River	28.34588543	-80.69220217	None*
31824	Minneola Septic to Sewer Phase 1	2.3	Upper Ocklawaha	Palatlakaha River	2839	Impaired	Ocklawaha	28.5779889	-81.7500111	None*
31843	Orange County EPD Lake Jennie Jewel Alum Treatment	2.3	Kissimmee River	JENNIE JEWEL LAKE	3168J	Impaired	Lake Okeechobee	28.497192	-81.370875	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body

Contract Number	Water Resource Development Projects	Program Code Sorting	Basin	Water body	WBID	Level of Water Quality Impairment	BMAP	Latitude	Longitude	Level of Violation of Adopted MFL
38144	Orange County EPD Lake Lawne Irrigation Facility	2.3	Middle St. Johns	LITTLE WEKIVA CANAL	3004	Impaired — High	Wekiva	28.56382	-81.44401	CFWI WUCA* Level 0 - 13 water bodies Level 1 - 1 water body
33296	Putnam County Horse Landing Septic	2.3	Lower St. Johns	ST JOHNS RIVER ABOVE RICE CREEK	2213M	Impaired — High	Lower St. Johns Mainstem	29.57539167	-81.60638889	None*
33295	Putnam Elsie Drive Septic to Sewer	2.3	Lower St. Johns	ST JOHNS RIVER ABOVE RICE CREEK	2213M	Impaired — High	Lower St. Johns Mainstem	29.63815	-81.59222222	None*
32018	Putnam WWTP Expansion	2.3	Lower St. Johns	ST JOHNS RIVER ABOVE RICE CREEK	2213M	Impaired — High	Lower St. Johns Mainstem	29.60268	-81.58896	None*
32006	St. Augustine Lincolnville Drainage Improvements	2.3	Middle St. Johns	LAKE GEORGE LEFTOVER	2893A3	Not impaired	N/A	29.336142	-81.551349	None*
28746	St. Johns County Bannon Lakes 2.0 MG RCW Tank and Pump Station	2.3	Lower St. Johns	SIXMILE CREEK	2411	Not impaired	Lower St. Johns Mainstem	29.98966713	-81.45503211	None*
28671	St. Johns County Crop Alternative Program	2.3	Lower St. Johns	TOCOI CREEK	2492	Impaired	Lower St. Johns Mainstem	29.88191478	-81.5115037	None*
31999	St. Johns County Players Club RCW Facility	2.3	Lower St. Johns	ICWW (DUVAL COUNTY; ST JOHNS COUNTY)	2205C	Impaired	Lower St. Johns Mainstem	30.18611	-81.39361	None*
31815	Titusville South Street Basin Baffle Boxes	2.3	Indian River Lagoon	Indian River above NASA CSWY	2963E	Impaired — High	Indian River Lagoon North	28.608031	-80.806703	None*
32707	Umatilla Sanitary Sewer and Lift Station	2.3	Upper Ocklawaha	Lake Umatilla	2806A	Impaired	Ocklawaha	28.9264294	-81.668769	None*
32329	Volusia County Gemini Springs Baffle Box	2.3	Middle St. Johns	LAKE MONROE DRAIN	2893D2	Not impaired	Lake Harney, Lake Monroe, Middle St. Johns River and Smith Canal	28.868191	-81.296905	Volusia PR* Level 0 - 6 water bodies Level 1 - 1 water body

Contract Number	Water Resource Development Projects	Program Code Sorting	Basin	Water body	WBID	Level of Water Quality Impairment	BMAP	Latitude	Longitude	Level of Violation of Adopted MFL
31823	Volusia County Rio Way Drainage Improvements	2.3	Upper East Coast	HOLLY HILL DITCH	2647	Impaired	N/A	29.25655785	-81.0658649	Volusia PR* Level 0 - 6 water bodies Level 1 - 1 water body
*Denotes non-cost share project										

CFWI WUCA* — St. Johns River Water Management District (SJRWMD) Projects within the CFWI Water Use Caution Area (WUCA) are anticipated to benefit all SJRWMD water bodies included within the WUCA. There is 1 water body not meeting its MFL and another 14 water bodies 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 water bodies 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 water bodies included within the Volusia PR. There are 2 water bodies not meeting their MFLs and another 5 water bodies 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 water bodies within the Volusia PR have been included for each project.
Level 0: Blue Spring, Big Lake, Lake Daugharty, Lake Helen, Lake Hires, and Three Island Lakes
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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