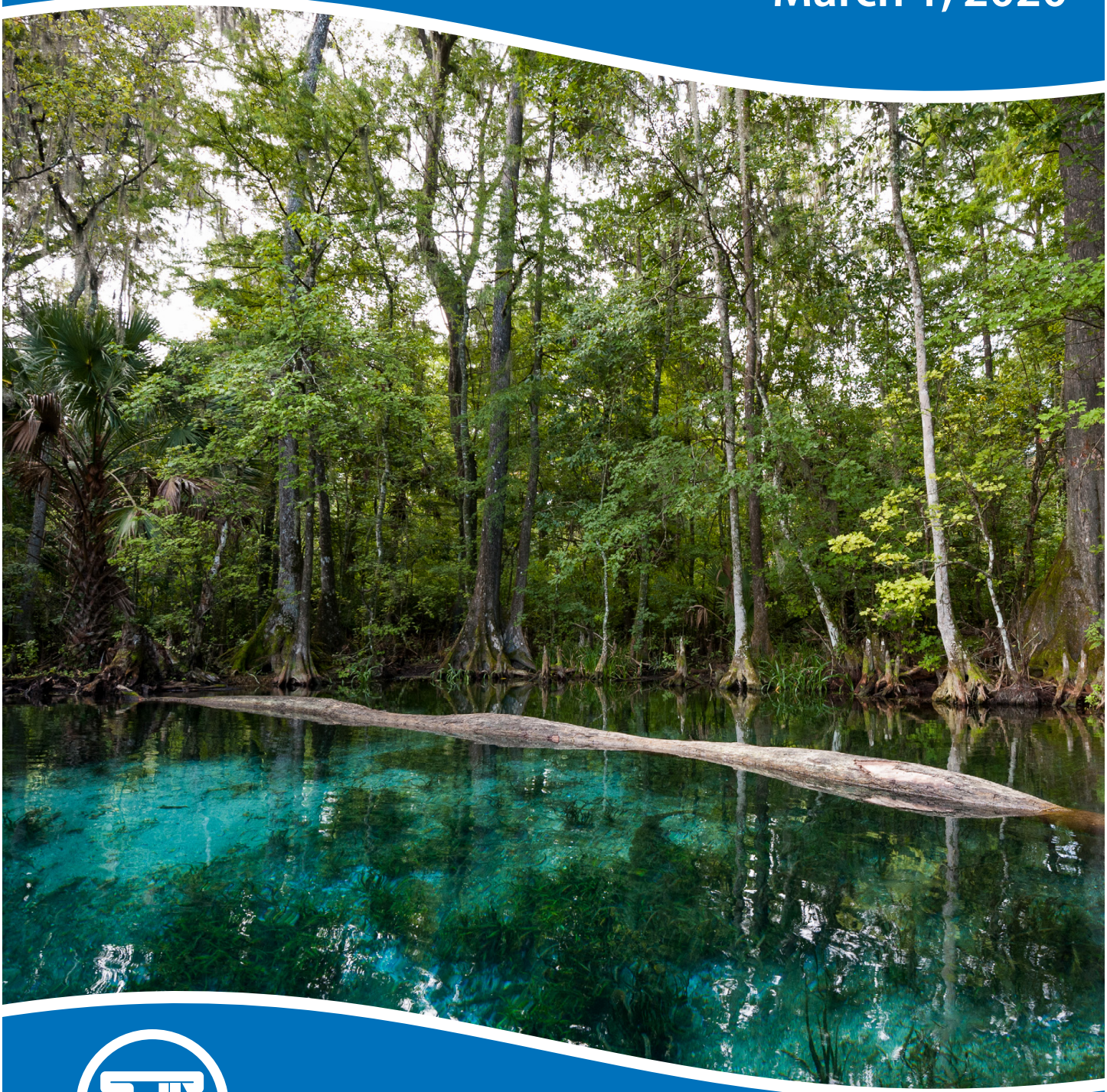
St. Johns River Water Management District

Consolidated Annual Report

March 1, 2020



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EXECUTIVE SUMMARY

The St. Johns River Water Management District's (District) 2020 Consolidated Annual Report is a collection of several plans and reports as established by Section 373.036(7), *Florida Statutes* (F.S.).

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

Strategic Plan Annual Work Plan Report
Fiscal Year 2018–2019

1. Strategic Plan Annual Work Plan Report

I. Executive Summary

The St. Johns River Water Management District (District) adopted the Fiscal Year (FY) 2018–2019 Strategic Plan in October 2018. 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, *Florida Statutes* (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 2018–2019 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
- Develop minimum flows and levels (MFLs) and implement prevention and recovery strategies as necessary
- Implement water conservation strategies

Plan and implement regional water supply plans

In 2015, the District established three water supply planning regions: Central Florida, Central Springs / 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 (DEP), and other stakeholders through the Central Florida Water Initiative (CFWI). The 2020–2040 CFWI RWSP is scheduled for approval by all three water management districts in November 2020. In the North Florida planning region, the District has been working in partnership with the Suwannee River Water Management District (SRWMD), DEP, and other stakeholders through the North Florida Regional Water Supply Partnership.

The District and SRWMD, jointly approved the North Florida RWSP (NFRWSP) 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 finalized the development of the 2040 water demand projections for the 2020 CFWI RWSP in collaboration with the other CFWI stakeholders and 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 for approval in 2020.

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.

The District's success indicator, targets, and measures for the goal to plan and implement regional water supply plans, along with a progress summary, are below.

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

   Target: Implementation of RWSPs and MFL prevention and recovery strategies
   Measure: Draft RWSPs and MFL prevention and recovery strategies completed and approved

   Target: Continued development and implementation of projects in partnership with water users
   Measure: Number of projects and water made available

   Progress summary:
   The District and SRWMD jointly approved the NFRWSP in January 2017. District staff finalized the 2040 water supply demand projections for the CFWI 2020 RWSP and the CSEC RWSP. In conjunction with development of the CSEC RWSP, staff conducted 27 stakeholder outreach meetings to solicit local stakeholder resource perspectives and input to the RWSP.

   The District publishes a yearly Five-Year Water Resource Development Work Program (WRDWP). This document lists all of the water resource projects that are ongoing and funded for the next five years. By September 30, 2019, 32 projects listed in the 2019 WRDWP were completed. The total estimated water made available through these projects is 14 million gallons per day (mgd).

   The NFRWSP identified a series of water resource development (WRD) projects that included the Black Creek WRD project. This project, which will be built over four years, will capture up to 10 mgd of water flow from the Black Creek South Fork during high water periods. The water will then be pumped through a transmission system and discharged to an Upper Floridan aquifer recharge system and into Alligator Creek. The project is expected to contribute to regional MFLs recovery and may help improve water levels in lakes in the Alligator Creek system, including drought-stressed lakes Brooklyn and Geneva. Funding for the estimated $46 million dollar project includes legislative appropriations from the Land Acquisition Trust Fund in 2017, 2018, and 2019. First year funding was $13.3 million. Ninety percent of project design is complete and permitting activities are ongoing. Land and easements for the project have been acquired.

Develop minimum flows and levels and implement prevention and recovery strategies as necessary

In accordance with Section 373.042(2), 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, 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, which was on the 2018 MFLs Priority List and Schedule (Priority List). The Notice of Proposed Rule for the Lochloosa Lake MFL was approved by the Governing Board in December 2018 and the MFL became effective January 2019.

The District's 2019 Priority List originally identified seven water bodies scheduled for adoption. The District updated the list identifying one water body, Lake Butler, planned for completion and adoption in 2019 due to the incorporation of new, technical information. Seventeen MFLs (new and reevaluations) are still due to be completed by 2022. The District's Governing Board approved the 2019 Priority List on November 12, 2019, and it was submitted to DEP for review and approval on November 15, 2019. DEP approved the 2019 Priority List on January 6, 2020. The 2019 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.

The District's success indicator, target and measure for the goal to develop minimum flows and levels and implement prevention and recovery strategies as necessary, along with a progress summary, are below.

1. MFL 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 draft and final annual MFLs Priority List and Schedule milestones met on schedule

   Progress summary: The District completed one MFL in 2019. Rulemaking and adoption were completed for Lochloosa Lake in Alachua County. The remaining systems (Lake Butler in Volusia County; Lakes Brooklyn and Geneva in Clay County; Little Wekiva River in Seminole and Lake counties; Wekiwa and associated springs in Seminole and Orange counties; and Rock Springs in Orange County) were moved to 2020. Significant progress was made on these remaining systems, including model development, environmental criteria development, independent scientific peer review, and numerous stakeholder meetings.

Implement water conservation strategies

The District works with stakeholders and partners to find new and innovative ways to conserve water. The District implemented multiple outreach efforts during FY 2018–2019.

These efforts included sending District staff to discuss water conservation to 46 schools within the District, reaching 2,586 students, 78 civic organizations within the District, as well as 25 other public events, which reached 19,266 individuals. The Blue Schools Grant Program, which focuses on water conservation, is in its fourth year. Middle and high schools were eligible to apply for the funds and 11 schools were awarded up to $2,000 each. In October 2019, the District launched a year-long campaign to encourage a reduction in irrigation water use. The Water Less campaign includes four seasonal messages to remind homeowners to maintain their irrigation systems and monitor their water use.

Administration of the Florida Water Star[SM] (FWS) program by the Florida Home Builders Association (FHBA) continues to gain traction with builders and resulted in just under 6,000 homes certified and 2,500 multifamily residences certified. The Accredited Professional program continues to be administered by the Florida Nursery and Landscape Association and has trained more than1,000 landscape professionals to date. FWS, developed by the District and launched in 2007, becoming a statewide program by 2010. The program certifies that residential and commercial buildings meet certain criteria that result in measurable water savings.

The District's success indicator, targets and measures for the goal to implement water conservation strategies, along with a progress summary, are below.

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 of agricultural areas utilizing efficient irrigation method

   Progress summary: The District, in partnership with local stakeholders, implemented various water conservation strategies. As a result, residential water use decreased 32 percent from 111 gallons per capita day (gpcd) in 2008 to 84 gpcd in 2018.

   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 4,0441 agricultural acres. Additionally, these projects reduced overall groundwater consumption for these irrigated acres by 2.26 mgd.

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

Provide restoration to springs/aquifer

The District is committed to protecting Florida's springs. Since 2016, the Legislature has committed $200 million for springs protection, which has led to new partnerships with regional stakeholders. In addition, 2016 legislative changes require a prevention and recovery strategy for an Outstanding Florida Spring to include financial assistance from the District for each listed project, which may not be less than 25 percent of the total project cost. The science developed in the 2018 District and University of Florida Collaborative Research Initiative on Sustainability and Protection of Springs continues to spawn additional research, some of which will be presented at the University of Florida's Biennial Water Institute Symposium in February 2020.

In an effort to find solutions while reducing the burden upon taxpayers, the District has utilized its cost-share program, funding 13 projects in support of springs protection in FY 2018–2019. Some of the cost-share projects underway are particularly noteworthy. First, the latest Volusia County Wastewater Infrastructure upgrade project will decommission an outdated wastewater plant and provide advanced wastewater treatment resulting in a reduction of 6,390 pounds per year of nitrogen in the Blue Spring springshed. Also, the city of Ocala's Lower Floridan Conversion project is in its third year of implementation. When complete in 2027, the project should increase Silver Springs flow by 14 cubic feet per second (cfs).

In addition, a cost-share project is being undertaken by the city of Altamonte Springs to protect Wekiwa Springs. This project consists of treatment process improvements at the city's regional wastewater reclamation facility from secondary to advanced wastewater treatment standards and reducing nutrient effluent concentrations to 3 milligrams per liter (mg/l) for total nitrogen (TN) and 1 mg/l for total phosphorus (TP). The plant is located in the Wekiwa-Rock Springs Priority Focus Area (PFA), and the process improvements benefit the Wekiwa-Rock Springs Basin Management Action Plan (BMAP)/PFA, the Lake Jesup BMAP, and the Lake Apopka Total Maximum Daily Load (TMDL). When completed, the project is expected to provide a nutrient load reduction benefit of 10,274 pounds per year (lbs/yr) TN and 54,794 lbs/yr TP.

In FY 2018–2019, the Silver Springs Forest Conservation Area construction was completed. A primary objective of the project was 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.

In FY 2018–2019 construction of the Prairie Creek Diversion Structure Project was completed. The objective of the project was to update the existing structure, which was in very poor condition. The structure allows some of the water from Prairie Creek to follow its historic route into Paynes Prairie. Surface water from Paynes Prairie moves toward the Alachua Sink, which

feeds nearby springs. Under typical conditions, the structure is open, but can be closed when water levels on the prairie become too high. Remaining Prairie Creek flows continue through Camps Canal to Orange Lake. The new structure contains three 54-inch culverts with gates, concrete headwalls and endwalls, riprap, guardrail, and fencing.

The District's success indicators, targets, and measures for the goal to provide restoration to springs/aquifer, along with a progress summary, are below.

1. Restoration project identification and prioritization
   Target: Inform/support project prioritization
   Measure: Number of strategically valuable projects implemented

   Progress summary: In addition to the annual cost-share program projects, the District identified and funded the Volusia Blue Wetland Recharge Project in collaboration with DEP and local partners. This is a strategically important multi-year springs restoration project totaling more than $10,000,000 that will reduce total nitrogen loading by approximately 24,000 lbs/yr and provide 2 to 4 mgd of recharge at the site, which will benefit flow at Volusia Blue Spring.

2. Actively improve water quality and quantity in major springs via leveraging of District and other 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; Groundwater offset/increase reuse achieved; MFLs met; Enhanced aquifer recharge achieved

   Progress summary:
   - Number of FY 2018–2019 Cost-share Projects Approved: 13 (includes FY 2018–2019 Agricultural Cost-Share and Districtwide Cost-Share only)
   - Funds invested for FY 2018–2019 cost-share:

SJRWMD	$ 4,516,336
Local Partners	$ 9,166,029
Total	$13,682,365
Note: DEP also contributed	$ 4,950,621
Grand Total	$18,632,986

   - TN load reduction achieved: 13,200 lbs/yr
   - Groundwater offset/increase achieved: 0.35 mgd

3. Preservation/conservation, 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; Recharge achieved; Nitrogen load reduction achieved

Progress summary: To protect Volusia Blue Spring, the District, DEP, and a consortium of utilities have continued to advance the Volusia Blue Spring Wetland Recharge project. The feasibility study was completed and the District exercised the option to acquire the strategic 60-acre site just upgradient of the spring. The project will reduce nitrogen pollution and provide up to four cubic feet per second of increased flow at Volusia Blue Spring.

4. Monitor aquifer and springs
   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: Springs and aquifer monitoring proceeded as planned. Aquifer and springs monitoring is shared with DEP for BMAP preparation and evaluation. Groundwater data are also reported in the District's status and trends report on the website.

Provide restoration to coastal water bodies

Coastal waters, such as the Indian River Lagoon (IRL), have become increasingly more fragile due to rising sea levels and discharges of freshwater 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 23 mgd water and 7,937 pounds of phosphorus annually. Construction is planned for FY 2019–2020 and FY 2020–2021.

The District has progressed design and permitting for one of the top-ranked projects benefitting the IRL, Crane Creek M-1 Canal Flow Restoration. The District has completed the hydraulic modeling and is currently in the process of completing the design and obtaining permits. Property and easements are being acquired and permits are being prepared and submitted. The objective of this project is to reduce nutrient loading to the IRL by redirecting flows to a treatment pond prior to flowing into the headwaters of the St. Johns River.

The Eau Gallie dredging project that commenced in FY 2016–2017 was completed in March 2019. The District has completed the dredging and is finalizing the dredge material permanent disposal site. This project removed more than 600,000 cubic yards of muck from the Eau Gallie River and this translates into removal of more than 1,000 pounds of nitrogen and more than 200 pounds of phosphorus.

The C-10 Water Management Area is a 1,300-acre reservoir in western Palm Bay designed to increase the re-diversion volume of freshwater to the St. Johns River from the IRL, thereby reducing nutrient and sediment loads to the IRL. The design includes four miles of new levee, improvement of four miles of existing federal levee, and an outfall structure and pump station.

The District has continued its technical and financial support for the IRL National Estuary Program (IRL Council) by monitoring water quality and seagrass and contributing $500,000 annually.

The District's success indicators, targets, and measures for the goal to provide restoration to coastal water bodies, along with a progress summary, are below.

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

   Progress summary: 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. Enhance coastal wetland functions
   Target: Coastal wetlands restored and providing ecological goods to coastal waters
   Measure: Number of projects and acres of stored wetlands

   Progress summary: The District has provided funding to reconnect and enhance more than 200 acres of the impounded wetlands in Indian River County.

3. Cope with uncertainty and demonstrate accountability
   Target: Valued contribution to annual updates on progress to implement Basin Management Action Plans
   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: The District has contributed to updates to plans related to the IRL, including three BMAPs, the Brevard County Save Our IRL Project Plan, and the IRL National Estuary Program Comprehensive Conservation and Management Plan.

Provide restoration to the 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 2018–2019.

Fellsmere Water Management Area (FWMA):
The FWMA is nearly complete and is currently in operation storing and treating water. The remaining portion will be completed over the next few years, including a boat ramp and southern inlet connection of Pump Station 6 construction in FY 2019–2020.

Upper St. Johns River Basin:
The District's ambient water quality monitoring plan has noted a significant increase in total phosphorus concentration in portions of the Upper St. Johns River Basin. Multiple potential sources were evaluated, and one significant increasing source was identified, the land application

of Class B biosolids. The land application of Class B biosolids is managed by DEP. Following initial discussions with the District, DEP convened a technical advisory committee to examine questions around Class B biosolids. This committee reviewed existing data and management practices and suggested several actions to address the situation, including revisions to the rules which regulate the land application of Class B biosolids. The rule-making process is currently underway.

Lake Jesup:

The Lake Jesup Nutrient Reduction and Flow Enhancement project design will be initiated in FY 2019–2020. The objective of this project is to complete the design for a wetland treatment system that will capture and treat pumped inflow from Lake Jesup, whenever lake water levels make it feasible, and develop a dredging plan for the flow enhancement channel (known as Channel C) connecting the St. Johns River to the eastern portion of Lake Jesup.

Lake Apopka North Shore Management:

Since the purchase of the Lake Apopka North Shore (LANS) in the late 1990s, the District has restored the former agricultural lands back into wetlands, which in turn has reduced phosphorus loading to Lake Apopka below the TMDL. The LANS was completely inundated in FY 2012–2013, and the District continues to monitor the progress and develop new strategies to manage water and reduce phosphorus loading while recreating diverse, healthy wetlands. In the last decade for which the District has loading estimates completed (2008–2018), the LANS discharges met the TMDL load allocation in seven years (2007, and 2011–2016). In February 2018, the U.S. Fish and Wildlife Service concurred with using a biological assessment of the pesticide issues on the entire LANS 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 the Lake Apopka Duda Property Water Storage Improvements project and in FY 2019–2020 will be completing the design. This project will raise internal levees, install a culvert system to increase water storage, and reduce pumping to Lake Apopka. The District will also begin construction of a pump station to connect the former Duda farm with other areas of the LANS.

The District initiated the design of the Lake Apopka Lake Level Canal Interconnect project in FY 2018–2019 and will be complete in FY 2019–2020. Permitting activities will also be initiated in FY 2019–2020. This project will install infrastructure to move water between the Duda and Zellwood portions of the LANS to better manage water and reduce nutrient loading to Lake Apopka.

The District completed design of the Lake Apopka North Shore Infrastructure Improvements project in FY 2018–2019 and construction will be completed in FY 2019–2020. The improvements include raising levees to increase storage and pump construction to improve water management within the North Shore.

Lake Apopka In Water-Body Restoration:
Lake Apopka Rough Fish Harvest: In the FY 2018–2019 fishing season, the District harvested more than 1 million pounds of gizzard shad from Lake Apopka, reducing phosphorus by 8,265 pounds.

Wetland Filter Projects: For January–June 2019, mass removal for the Lake Apopka Marsh Flow-Way was 1,407 pounds of TP, and 364,907 pounds of suspended solids. The flow-way was shut down in June 2019 to begin a project to regrade the wetland cells, which will improve future performance.

The experimental sump dredging in Lake Apopka continued through FY 2018–2019. The project should be completed in FY 2019–2020.

Design of the Lake Apopka Targeted Lake Restoration Dredging of unconsolidated floc was initiated in FY 2017–2018 and completed in FY 2018–2019. Permitting activities will be completed in FY 2019–2020. The project includes removal of much of the unconsolidated floc present on the lake bottom with placement of this material on the LANS. The unconsolidated floc limits light and submerged aquatic vegetation expansion in the lake. Material placement on the LANS provides cover over soil with elevated pesticide levels and the soil restoration in areas with significant subsidence and oxidation.

Invasive exotic plant control: During FY 2018–2019, under a Florida Fish and Wildlife Conservation Commission (FWC) contract, the District treated 107 acres of hydrilla and 97 acres of floating vegetation in Lake Apopka and 615 acres of floating vegetation at Emeralda Marsh Conservation Area (EMCA)/ Lake Griffin. Additionally, 930 acres of hydrilla and 946 acres of floating plants were treated within the LANS, 100 acres of hydrilla were treated within Harris Bayou, and 78 acres of hydrilla and 548 acres of floating vegetation were treated at EMCA with District funds.

Lake Apopka Submersed Aquatic Vegetation (SAV) Restoration: Approximately 2 acres of SAV was planted in Lake Apopka as part of a project to assess successful planting approaches. Larger plantings are planned in future fiscal years.

The District entered into a contract with a vendor during FY 2018–2019 for an Innovative Total Phosphorus Removal project. The vendor is responsible for the design, permitting, construction, and operation of the project. This work began in FY 2018–2019, and construction of all project components will be completed during FY 2019–2020 with project start up to follow. The vendor will be paid per pound of TP removed from Lake Apopka.

Doctors Lake:
In FY 2018–2019 a full-scale demonstration project to remove TP from Doctors Lake wastewater treatment plant effluent was designed and will begin operation FY 2019–2020. The goal of the project is to clearly demonstrate that nutrient treatment technologies can cost-effectively remove TP from wastewater effluent water. The treatment technology selected will be run at full scale and remove an estimated 6,500 lbs/yr.

Beginning in early FY 2019–2020, the District anticipates entering into an agreement with Clay County Utility Authority for voluntary abandonment of certain residential septic systems and connection of those residences to the central sewer system in the Doctors Lake area, which is in Clay County. This project will result in the installation of 6,190 linear feet of sewer main and the connection of 79 residences to central sewer that are currently on septic. It is estimated that this effort will reduce TN entering the lake by approximately 1,486 lbs/yr.

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.

The District's success indicators, targets, and measures for the goal to provide restoration to the St. Johns River, along with a progress summary, are below.

1. Watershed nutrient load reduction
   Target: Progress toward TMDL/Pollutant Load Reduction Goals (PLRG) targets
   Measure: Reduced nutrient loading to nutrient-impaired water bodies

   Progress summary:
   - Upper Ocklawaha lakes:

     Nutrient loading estimates are made on a calendar-year basis. For 2018, estimated TP loading exceeded the TMDL or PLRG (pollutant load reduction goal unique to Lake Weir) targets for all the major lakes in the basin, except for Lake Apopka, due largely to high tributary flows from upstream lakes. Loading also exceeded the TMDL or PLRG targets for all the lakes in 2017, but 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	13,900
Beauclair	3,200	7,260
Dora	6,000	7,010
Eustis	9,200	10,300
Griffin	12,200	19,200
Harris	8,300	10,500
Yale	1,290	1,640
Weir	1,230	1,500

2. In-water body restoration
   Target: Improved water quality and restore critical habitats
   Measure: Improved nutrient concentration and water transparency, fewer algal blooms, increased submerged aquatic vegetation (SAV)

Progress summary:

- Upper Ocklawaha lakes:

  Water quality was good in 2018 and 2019 in several of the basin lakes compared to historical levels, in some cases meeting (Eustis, Harris) or close to (Griffin) the TMDL TP concentration targets. The 2016 average TP concentration in Lake Apopka was the lowest in the period of record (64 ppb), although concentrations had been somewhat higher in 2017 to 2019. The TP concentration data below show the concentration target set by the District and approved by DEP. The data also show the average phosphorus concentrations throughout calendar year 2017 and 2018, as well as data from January 2019 through October 2019:

Annual Average TP Concentration (ppb)				
Water body	**TMDL Target (ppb)**	**2017**	**2018**	**2019 (Jan. to Oct.)**
Apopka	55	95	79	69
Beauclair	32	58	41	48
Dora	31	37	36	35
Eustis	25	29	25	22
Griffin	32	35	34	33
Harris	26	25	23	22
Yale	20	33	32	25
Weir	14	20	23	14

  Chlorophyll-*a* (a measure of the amount of algae) was good in 2017 and 2018 in several basin lakes compared to historical levels. Lake Griffin developed an algal bloom in fall 2018 that carried over into 2019, although chlorophyll-*a* levels during this period were still low compared to the 1990s to early 2000s. Chlorophyll-*a*, averages for calendar year 2017, 2018, as well as data from January through October 2019, are below:

Annual Average Chl-a Concentration (ppb)			
Water body	**2017**	**2018**	**2019 (Jan. to Oct.)**
Apopka	54	37	38
Beauclair	69	27	21
Dora	59	24	28
Eustis	27	21	20
Griffin	24	37	38
Harris	15	17	19
Yale	20	17	14
Weir	11	14	18

3. Floodplain enhancement
   Target: Improve floodplain functions related to water quality, flood storage, and habitat condition
   Measure: Number of acres of functional floodplain preserved or restored

Progress summary: A total of 14,614 acres on the LANS have been flooded as functional wetlands since 2013. Concurrence was received in February 2018 from the U.S. Fish and Wildlife Service 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 2018–2019. 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
   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: Monitoring was accomplished as planned during 2019. Water quality monitoring results are published in the District's status and trends report.

5. Diagnostic assessments
   Target: Identify projects for cost-effective water quality improvement projects
   Measure: Number of projects developed and implemented

   Progress summary: District water quality improvement projects are proceeding as planned. The District is working with county partners to operate the Tri-County Agricultural 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

Implement activities that conserve or restore native communities

FY 2018–2019 was a successful year for the District's prescribed fire program despite the challenges of excessive rainfall. Staff were able to conduct 51 prescribed burns totaling 28,979 acres on 22 conservation areas. Additionally, staff fought 13 wildfires that burned a total of 168 acres and expended 693 hours of work time.

The District's Bureau of Land Resources had a successful year treating invasive plants; meeting goals with regards to aerial treatments of both Lygodium, known as old world climbing fern, and Carolina Willow. Of the 34,701 acres of invasive plant treatments conducted, more than 7,000 acres was Lygodium and 3,142 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 state. Management of Lygodium begins with an accurate inventory. Through FY 2018–2019 223,278 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 susceptible to this invader. Since 2003, District personnel have treated 120,707 acres of Lygodium.

To improve the compatibility of commercial airboat usage at two boat ramps in the Upper St. Johns River Basin, the District entered into two contracts with the operators that limited their usage to avoid natural resource harm and conflicts with other users. These agreements have improved conditions at both ramps and are working successfully.

The Lake Apopka North Shore Wildlife Drive and Loop Trail both received maintenance and repairs in 2019. District staff spread 10,000 tons of limerock and regraded more than 10 miles of the Loop Trail. The District raised nearly 4.75 miles of the Apopka North Shore levee. The objective was to reconstruct portions of the North Shore levee from Magnolia Park to Laughlin Road to an elevation of 70 feet NAVD to protect the levee from breaching during storm events.

Restoration projects that occurred in FY 2018–2019 include 393 acres of shrub encroachment on three conservation areas. Mulch mowing of 595 acres of shrubs and palmetto for habitat improvement and fuels management took place at six conservation areas. Staff oversaw the planting of 123 acres of native ground cover at Emeralda Marsh and LANS. Emergent wetland plants were also planted on 200 acres of LANS. Staff also oversaw the planting of 456 acres of longleaf pine trees on seven conservation areas. Staff oversaw the planting of 50 acres of emergent wetland plants on LANS. District staff completed three miles of wildland fire suppression line restoration at Buck Lake Conservation Area.

The District's success indicators, targets, and measures for the goal to implement activities that conserve or restore native communities, along with a progress summary, are below.

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

   Progress summary: Approximately 50 percent of these tasks have been completed.

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

   Progress summary:
   - Carolina Willow survey is 100 percent complete. Carolina Willow treatment — 157 percent of intended acres.
   - Lygodium survey is complete. Lygodium treatment — 100 percent of intended acres.

3. Management plans
   Target: Develop plans that detail strategies for Carolina Willow management and invasive plant management activities to improve ecologic and hydrologic conditions
   Measure: Annual completion of identified documents and plans

   Progress summary: In FY 2018–2019, due to staffing issues, no management plan updates were presented to the Governing Board.

4. Wetland plant community mapping
   Target: Maintain healthy and diverse wetland plant composition
   Measure: Reduction in percent cover of invasive species
   Progress summary: No wetland plant community mapping was performed in FY 2018–2019

5. Adaptive management of wetland restoration areas
   Target: Improved or restored wetland habitat
   Measure: Acres of wetlands restored

   Progress summary:
   - Emergent wetland plants were planted on 50 acres at the LANS.
   - 65 acres of shrub encroached marsh were roller chopped at Canaveral Marshes.
   - 3,142 acres of willow-encroached marsh were treated.

6. Land management

Target: Healthy managed ecosystems on District lands

Measure: Percent of District property rated level 1 or 2 of Ecological Condition Class
Acres treated with prescribe burn
Acres of invasive plants treated

Progress summary:

- Fifty-five percent of District properties are in Condition Class 1, and 14 percent are in Condition Class 2.
- District staff conducted 51 prescribed burns totaling 28,979 acres and treated 34,701 acres of invasive plants.

V. Flood Protection

Goals

- Maintain federal flood management systems
- Maintain non-federal flood management systems

Maintain federal and non-federal flood management systems

The District is responsible for flood control structures within its region, 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 2018–2019 include:

- Completed S-96B water control structure rehabilitation.
- Completed Lake Apopka North Shore levee improvements project, which reconstructed and raised approximately 4.75 miles of levee.
- Regraded and stabilized approximately 3.5 miles of Taylor Creek levee.
- Regraded and stabilized approximately 3.5 miles of C-231 levee.
- Replaced deteriorated culverts in L-76 levee.
- Relocated nine gopher tortoises from federal levee systems and backfilled burrows to reduce potential piping failures within levees.
- Replaced generators in five major flood control structures.
- Upgraded remote operations hardware at all major flood control structures.
- Slip lined CS-3 culvert system under Fellsmere Grade.
- Maintenance of the projects was performed according to USACE guidelines.
- Non-federal structures operated by the District were operated and maintained according to internal guidance.
- Emergency Action Plans (EAPs) completed, accepted by Governing Board and submitted to county partners. System-wide Improvement Framework (SWIF) revisions scheduled for submittal to USACE in FY 2019–2020.
- First and third quarter inspections were completed, and reports delivered on schedule.

The District's success indicators, targets, and measures for the goals to maintain federal and non-federal flood management systems, along with a progress summary, are below.

1. Operate and maintain the federal flood management project in compliance with USACE guidelines
   Target: Resolve deficiencies identified by USACE or District staff within approved time frame
   Measure: Budget, schedule, and resolve deficiencies

   Target: Perform semi-annual inspections in the first and third quarters
   Measure: Inspections completed 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 bureau chief

Target: Complete rehabilitation of major water control structures and levees on schedule
Measure: Budget, schedule, and complete water control structure rehabilitation according to work plan

Progress summary:

- EAPs completed, accepted by Governing Board and submitted to impacted counties for inclusion in their EAPs. SWIF revisions scheduled for submittal to USACE in FY 2019–2020.
- Improved inspection reporting procedures, reducing time required to prepare reports.
- Deficiency findings re-baselined in FY 2018–2019, new objective includes completing all "poor" findings before the next inspection is completed. Developed metrics to track completion percentage.
- 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 schedule revised and on schedule.
- Major levee rehabilitation work is complete. Minor regrading and slope stabilization are ongoing per inspection findings.

2. Operate and maintain non-federal flood protection projects in compliance with internal operation and maintenance guidance:
   Target: Resolve deficiencies identified by District staff within approved time frame
   Measure: Budget, schedule, and resolve deficiencies
   Measure: Inspections completed semi-annually (first and third quarter) with reports finalized by the following quarter

   Progress summary:

   - 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 management water level data sites:
   Target: Inspect, calibrate, and maintain flood management water level data sites, and disseminate data in near real-time
   Measure: Priority sites are maintained and repaired within the agreed upon by time frames
   Measure: Complete year three of three calibration study (survey and calibrate staff gauges)

   Progress summary:

   - Maintenance and repairs were completed within acceptable time frames.
   - The third and final year of the calibration study was completed to verify that all flood control water level staff gauges are at the appropriate elevation. Identified discrepancies are being adjusted in FY 2019–2020.

VI. Supporting Activities

Goals

- Develop and implement supporting activities that efficiently assist District 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 2018–2019, 24 contracts were executed for the districtwide cost-share program totaling $19,961,491. The District's cost-share program has benefited the environment and residents of the District, including:

- Approximate TN nutrient load reduction: 55,020 lbs/yr.
- Approximate TP nutrient load reduction: 63,579 lbs/yr.
- Approximate total water conserved: 0.6 mgd.
- Approximate total alternative water supplies developed: 17.5 mgd.
- Approximate total acres protected from flooding: 56 acres.
- Approximate total natural systems benefit (aquifer recharge): 0.327 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 2018–2019. Seven contracts were executed for the FY 2018–2019 REDI/Innovative cost-share program totaling $3,462,000. Their benefits include:

- Approximate TN nutrient load reduction of 2,585 lbs/yr.
- Approximate TP load reduction of 821 lbs/yr.
- Approximate total water conserved: 0.1 mgd.

Partnerships

The District also utilizes a third cost-share program, known as the districtwide agricultural cost-share program. This program funded 26 projects in FY 2018–2019. These projects are projected to conserve or make available 2.3 mgd of water and reduce TN loading by 2,475 lbs/yr and TP by 371 lbs/yr.

The Agricultural Advisory Committee met in February 2019 to discuss biosolids application on agricultural lands, among other topics.

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 St. Johns County grower was awarded the Commissioner's Environmental Leadership Award after District staff wrote and submitted the award application.

The District's success indicators, targets, and measures for the goal to develop and implement supporting activities that efficiently assist District goals**,** along with a progress summary, are below.

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

   Progress summary: The Bureau of Project Management has presented the Governing Board with quarterly reports. Three of the 24 FY 2018–2019 districtwide cost-share projects approved by the Board have been completed. One of the eight FY 2018–2019 REDI / Innovative cost-share projects have been completed. The remaining projects are scheduled to be completed in FY 2019–2020 and FY 2020–2021.

2. Districtwide agricultural cost-share
   Target: Award funding to projects resulting in water conservation and nutrient load reduction
   Measure: Percent allocated funds expended annually

   Progress summary: The Governing Board awarded an additional $704,229 over the allocated budget in 2019. Seventy percent of the allocated funds were expended during the fiscal year. Six projects were amended for time extensions into the following fiscal year and two projects were cancelled.

3. Outreach to the agricultural community
   Target: Present to commodity groups as requested
   Measure: Number of presentations completed

   Progress summary: There have been 25 presentations to various agricultural groups including the Florida Cattlemen, Florida Farm Bureau, LINC Conference, the District's Agricultural Advisory Committee, and the University of Florida's Institute of Food and Agricultural Sciences Symposium and field days.

Minimum Flows and Minimum Water Levels Priority List and Schedule

2. Minimum Flows and Minimum Water Levels Annual Priority List and Schedule

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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 (DEP) by November 15 for review and approval, and include the DEP-approved list and schedule in the District's Consolidated Annual Report. In accordance with Section 373.042(3), F.S., the District proposed a 2019 MFLs Priority List and Schedule (2019 Priority List) for establishing MFLs during the planning period 2019–2022. The District's Governing Board approved the 2019 Priority List on November 12, 2019, and it was submitted to DEP for review and approval on November 13, 2019. DEP approved the District's 2019 Priority List on January 6, 2020.

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 DEP-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. 2019 MFLs Priority List and Schedule

During the planning period from 2020–2022, the District plans to evaluate or re-evaluate a total of 17 systems. The 2019 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 2019 Priority List; Wekiwa Springs and Rock Springs are reevaluations, and therefore not listed under springs. The District's 2019 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.

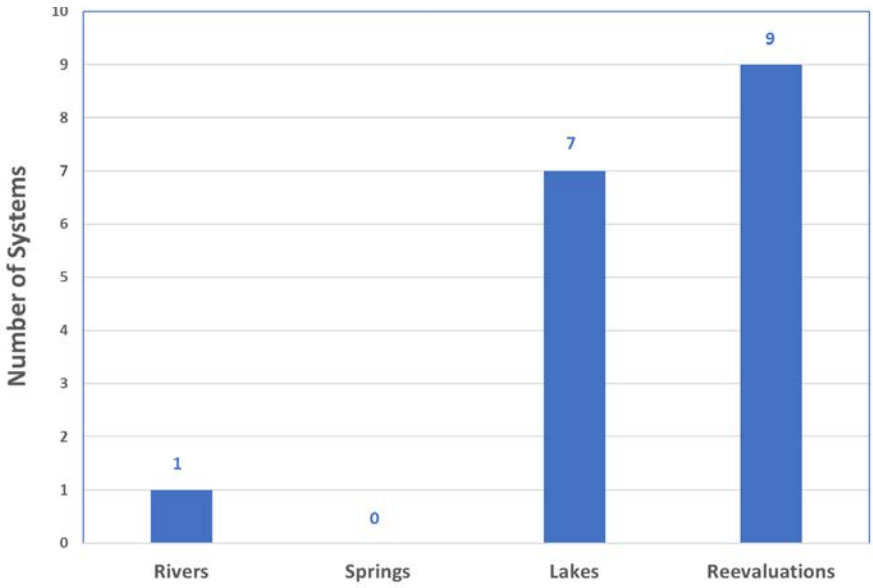

Figure 2-1. Number of systems to be evaluated

Currently, the District has established 129 MFLs (102 lakes, 14 springs, six rivers, and seven wetlands). The updates reflected in the 2019 Priority List are summarized below.

The Notice of Proposed Rule for Lochloosa Lake (Alachua County) was approved by the District Governing Board on December 11, 2018. The MFL for Lochloosa Lake became effective January 30, 2019.

The 2019 Priority List includes the following changes to the approved 2018 MFLs Priority List and Schedule:

- Rescheduling of Lake Butler from 2019 to 2020 to allow for updates to bathymetry data and surface water model.
- Rescheduling of Lake Brooklyn and Lake Geneva from 2019 to 2020 to allow for stakeholder review of changes made to the MFLs criteria and recalibration of the surface water model used for MFLs determination and assessment. The changes to the criteria and the model were made in response to the initial peer review recommendations and stakeholder comments.
- Rescheduling of Wekiva River at State Road (SR) 46, Wekiwa Springs, Rock Springs, and the Little Wekiva River from 2019 to 2020, rescheduling of Johns Lake, East Crystal Lake, and Lake Prevatt from 2020 to 2021, and rescheduling of Lake Apopka, Lake Harris (or other Burrell Basin lake) and Lake Griffin from 2021 to 2022 to allow for completion of groundwater and surface water model revisions and 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, F.S., and completion of the CFWI collaborative peer review process that involves all interested stakeholders.

- Replacement of Lake Hodge (Seminole County) with Red Bug Lake (Seminole County). This replacement is proposed because Red Bug Lake is larger in size and has a greater extent of good quality, intact wetlands than Lake Hodge.
- Removal of the Ocklawaha River at SR 40. This water body was originally added to the list because it was proposed as a future alternative water supply (AWS) site. The Ocklawaha River at SR 40 is no longer a proposed AWS, and therefore the immediate potential for impact due to surface water withdrawal has also been removed.

The 2019 Priority List shows the planned year for completion of new MFLs and reevaluations for the years 2020–2022. As work is completed and MFLs are ready for rulemaking, staff may initiate rulemaking earlier than shown on the 2019 Priority List. At this time, the District is not requesting that DEP adopt any of the MFLs on the 2019 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 peer review process for MFLs and water reservations within the CFWI area.

Table 2-1. 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	Butler	Butler	Lake	Volusia	Yes	No	28.8706	-81.1883	N/A
New	Little Wekiva and associated springs*	Little Wekiva*	River and springs - 3	Seminole/ Orange	Yes	Yes	28.7021	-81.3922	N/A
Re-Evaluation	Brooklyn	Brooklyn	Lake	Clay	Yes	No	29.8008	-82.0290	Notice of Rule Development published May 9, 2018
Re-Evaluation	Geneva	Geneva	Lake	Clay	Yes	No	29.7675	-82.0248	Notice of Rule Development published May 9, 2018
Re-Evaluation	Wekiva at SR46*	Wekiva*	River	Seminole/ Lake	Yes	Yes	28.8152	-81.4195	N/A
Re-Evaluation	Wekiwa (OFS)/and associated spring*	Wekiwa*	Springs - 2	Seminole/ Orange	Yes	Yes	28.7120	-81.4603	N/A
Re-Evaluation	Rock (OFS)*	Rock*	Springs - 2	Orange	Yes	Yes	28.7558	-81.4992	N/A
Re-Evaluation	Apshawa South*	Apshawa South*	Lake	Lake	Yes	Yes	28.6012	-81.7754	N/A
Re-Evaluation	Sylvan*	Sylvan*	Lake	Seminole	Yes	Yes	28.8050	-81.3803	N/A
Re-Evaluation	Weir	Weir	Lake	Marion	Yes	Yes	29.0236	-81.9381	N/A

Table 2-2. 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	Johns*	Johns*	Lakes	Orange	Yes	Yes	28.5353	-81.6328	N/A
New	East Crystal*	East Crystal*	Lake	Seminole	Yes	Yes	28.7683	-81.3137	N/A
New	Red Bug*	Red Bug*	Lake	Seminole	Yes	Yes	28.6510	-81.2914	N/A
Re-Evaluation	Prevatt*	Prevatt*	Lake	Orange	Yes	Yes	28.7121	-81.4899	N/A

Table 2-3. SJRWMD Minimum Flows and Levels to be adopted in 2022

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	Apopka*	Apopka*	Lake	Lake/Orange	Yes	Yes	28.6517	-81.6581	N/A
New	Griffin	Griffin	Lake	Lake	Yes	Yes	28.8425	-81.8492	N/A
New	Harris (or other Burrell Basin lake)	Burrell Basin	Lake	Lake	Yes	Yes	28.7750	-81.8181	N/A

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

[1]A spring with one vent should be labeled as "Example Spring.” A spring with multiple associated vents should be labeled as "Example Springs.” Multiple springs grouped together in a system should be labeled as "Example Spring Group.” (Please refer to Florida Spring Classification System and Spring Glossary, Special Publication No. 52, for more details.) Indicate that the spring is an OFS by including "OFS" in parentheses: Example Spring (OFS). Include on individual lines, with specific names, if it is known at this time that there will be multiple water bodies or compliance points (such as springs or multiple river gages) associated with the MFL.

[2]Include a system name if the water body (or compliance point) is a part of a larger system (i.e. river and spring water bodies belong to one overall system, multiple priority springs represent individual MFLs but belong to one system). If not, then the Water body Name and System should be the same.

[3]Aquifer, Estuary, Lake, River, River-Estuary, Spring-1, Spring-2, Spring-3, Wetland.

[4]For rivers, use the coordinates for the most upstream gage used to measure flow. For lakes, use the lake’s center point. For springs, use the coordinates for the gage used to measure flow unless the gage is not located on the spring/spring run, in which case, use the spring’s vent. For aquifers, wetlands, and estuaries, use the coordinates for the wells or gage used to measure the water source’s level. Please use Decimal Degrees (DD) formatting.

[5]Rulemaking Status would be the last action taken: Notice of Rule Development published; Notice of Proposed Rule published; Rule challenge pending; Rule adopted, Ratification not required; Rule adopted, Awaiting ratification; Rule adopted, Ratified. If formal rulemaking has not yet begun, enter N/A.

III. MFLs Determination and Adoption

Section 40C-8.011(3), 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 are defined by the MFLs, significant ecological harm would be expected to occur (orange 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.).

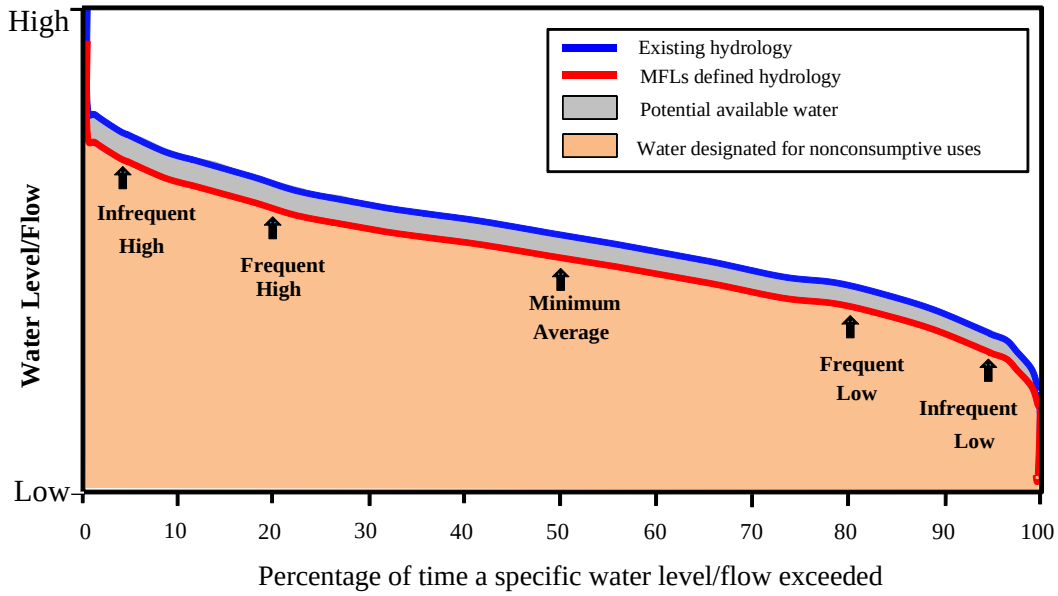

Figure 2-2. Exceedance curves for existing and MFLs defined hydrologic conditions

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 DEP, 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
2019						0	161
Total	**102**	**6**	**7**	**14**	**32**	**161**	**161**

Annual Five-Year Capital Improvements Plan

3. Annual Five-Year Capital Improvements Plan

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Table

I. Introduction

The Five-year Capital Improvements Plan (CIP) is prepared to meet the reporting requirements of Section 373.536(6)(a)3., *Florida Statutes* (F.S.). The format for the CIP was developed jointly by the Executive Office of the Governor (EOG), the Florida Department of Environmental Protection (DEP), and the five water management districts. The CIP presents current and projected revenues and expenditures for capital improvement projects for fiscal year (FY) 2019–2020 through FY 2023–2024.

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 2020 CIP covers two standard programs and associated activities shown below:

2.0 Land Acquisition, Restoration, and Public Works
- 2.1 Land Acquisition
- 2.3 Surface Water Projects
- 2.5 Facilities Construction and Major Renovations

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

II. Proposed Capital Projects and Expenditures During the Planning Period

The District proposes to spend $53.92 million on 45 fixed capital projects during the planning period from FY 2019–2020 through FY 2023–2024. Figure 3-1 shows the projected annual expenditures during the five-year planning period.

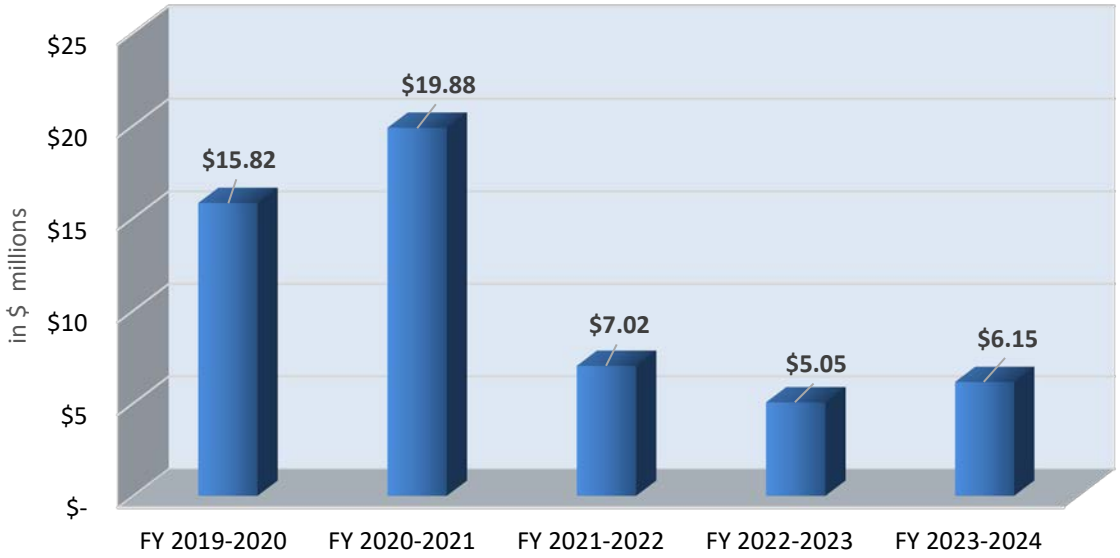

Figure 3-1. Five-year projected expenditures for capital improvement projects

Total planned capital expenditures in FY 2019–2020 are $15.82 million, which is a 24.8 percent, or $3.14 million, increase as compared to the adopted budget for FY 2018–2019.

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 projects are in activity 2.3, including the Lake Jesup Nutrient Reduction and Flow Enhancement ($1.1 million), Fellsmere Water Management Area Construction ($2.19 million), S-96C Rehabilitation ($2.1 million), Lake Apopka Duda Property Water Storage Improvements ($2.65 million), Lake Apopka Marsh Flow-Way Improvements ($2.26 million), Lake Apopka North Shore Infrastructure Improvements ($1.33 million), Lake Apopka Lake Level Canal Interconnection ($1.46 million), and First Coast Expressway Restoration / Enhancement Project in Basin 8 ($1.15 million). One project is in activity 2.5 for the Building Fund ($9.76 million). The remaining seven projects are in activity 3.2, which consist of major and minor water control structure rehabilitation projects in the range of $1–4 million.
- The District will primarily rely on District revenues (including fund balances and ad valorem revenues) to fund capital projects.

Among the activities that have capital expenditures, Works accounts for 37.24 percent of the total and leads all other activities for the second year in a row in terms of total projected

spending. Surface Water Projects ranks second and account for 28.4 percent of the total expenditures during the planning period (see Figure 3-2).

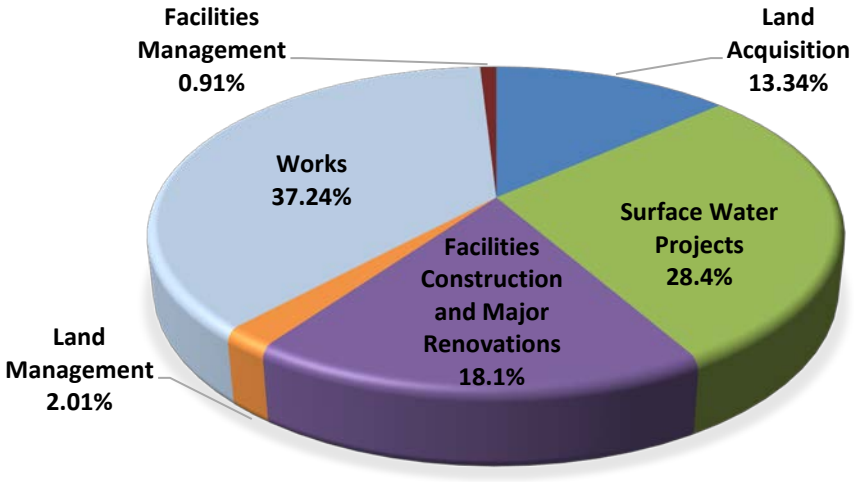

Figure 3-2. Five-year total capital improvement project expenditures by activity

The District's capital improvement projects are funded primarily by District sources. Figure 3-3 below shows that more than 71 percent of the total revenues during the planning period will come from District sources. Potential funding, yet to be appropriated by the state Legislature, has not been projected in the preparation of this plan.

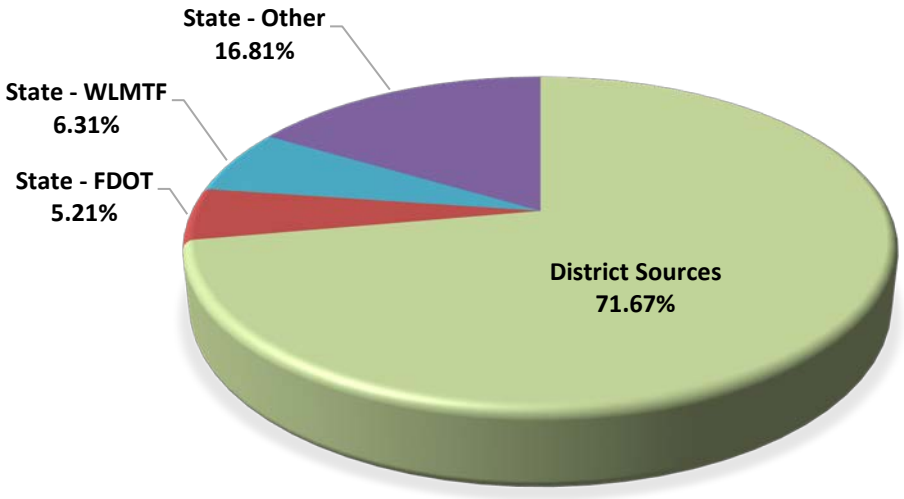

Figure 3-3. Five-year total capital improvement project expenditures by funding source

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 FY 2019–2020 Adopted Budget, FY 2020–2021 Preliminary Budget, and projected capital improvement projects through FY 2023–2024. 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 Florida Department of Transportation (FDOT) Annual Mitigation Plan
- Five-Year Infrastructure Management, Operations, and Maintenance Plan
- FY 2019–2020 Adopted Budget
- FY 2020–2021 Preliminary Budget
- Individual Land Management Area Plans

Digital copies of the above-referenced reports and plans may be obtained from the District's website at *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: Three projects are proposed in the CIP, including one for potential land acquisitions and acquisition support services and two for FDOT mitigation-related acquisitions.

Surface Water Projects: Twelve surface water projects are included in this CIP. 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 four mitigation projects during the planning period.

Facilities Construction and Major Renovations: Only one project is included in this CIP for the construction of a District-owned facility.

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

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

Facilities: Two projects are included under this activity for aging roof replacements.

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 2019–2020	FY 2020–2021	FY 2021–2022	FY 2022–2023	FY 2023–2024	5-Year Total
District Sources	$ 294,500	$ 294,500	$ 689,500	$ 684,500	$ 287,049	$ 2,250,049
State - FDOT	-	642,701	-	-	-	642,701
State - WMLT	1,265,000	1,265,000	870,000	-	-	3,400,000
State - Other	-	-	-	797,500	101,111	898,611
TOTAL	**$ 1,559,500**	**$ 2,202,201**	**$ 1,559,500**	**$ 1,482,000**	**$ 388,160**	**$ 7,191,361**

EXPENDITURES	FY 2019–2020	FY 2020–2021	FY 2021–2022	FY 2022–2023	FY 2023–2024	5-Year Total
Lake Jesup Conservation Area	$ -	$ 65,000	$ -	$ -	$ -	$ 65,000
Land Purchases and Support Services	1,559,500	1,559,500	1,559,500	1,482,000	388,160	6,548,660
Tomoka River Riparian Habitat Protection Zone	-	577,701	-	-	-	577,701
TOTAL	**$ 1,559,500**	**$ 2,202,201**	**$ 1,559,500**	**$ 1,482,000**	**$ 388,160**	**$ 7,191,361**

2.3 Surface Water Projects

REVENUES	FY 2019–2020	FY 2020–2021	FY 2021–2022	FY 2022–2023	FY 2023–2024	5-Year Total
Middle and Lower St. Johns River Basin						
District Sources	$ 1,100,000	$ -	$ -	$ -	$ -	$ 1,100,000
Upper St. Johns River Basin						
District Sources	3,522,000	783,629	6,000	6,000	6,000	4,323,629
UORB/Lake Apopka Basin						
State - DEP	2,074,500	-	-	-	-	2,074,500
State – Land Acquisition Trust Fund DEP	-	5,615,000	-	-	-	5,615,000
District-Other						
District Sources	108,500	26,657	-	-	-	135,157
State - FDOT	1,002,869	592,858	290,000	95,000	82,000	2,062,727
TOTAL	**$ 7,807,869**	**$ 7,018,144**	**$ 296,000**	**$ 101,000**	**$ 88,000**	**$ 15,311,013**

EXPENDITURES	FY 2019–2020	FY 2020–2021	FY 2021–2022	FY 2022–2023	FY 2023–2024	5-Year Total
Middle and Lower St. Johns River Basin						
Lake Jesup Nutrient Reduction and Flow Enhancement	$ 1,100,000	$ -	$ -	$ -	$ -	**$** 1,100,000
Upper St. Johns River Basin						
Fellsmere Water Management Area Biomonitoring	6,000	6,000	6,000	6,000	6,000	30,000
Fellsmere Water Management Area Construction	1,416,000	777,629	-	-	-	2,193,629
S-96C Rehabilitation	2,100,000	-	-	-	-	2,100,000
UORB/Lake Apopka Basin						
Lake Apopka Duda Property Water Storage Improvements	140,000	2,510,000	-	-	-	2,650,000
Lake Apopka Marsh Flow-Way Improvements	500,000	1,755,000	-	-	-	2,255,000
Lake Apopka North Shore Infrastructure Improvements	1,329,000	-	-	-	-	1,329,000
Lake Apopka Lake Level Canal Interconnection	105,500	1,350,000	-	-	-	1,455,500
District-Other						
Coastal Oaks Preserve	518,069	125,000	40,000	20,000	20,000	723,069
First Coast Expressway Restoration / Enhancement Project in Basin 8	484,800	425,000	200,000	25,000	12,000	1,146,800
Halfmile Creek Tract	108,500	42,000	50,000	50,000	50,000	300,500
Nine Mile Rice Creek	-	27,515	-	-	-	27,515
TOTAL	**$ 7,807,869**	**$ 7,018,144**	**$ 296,000**	**$ 101,000**	**$ 88,000**	**$ 15,311,013**

2.5 Facilities Construction and Major Renovations

REVENUES	FY 2019–2020	FY 2020–2021	FY 2021–2022	FY 2022–2023	FY 2023–2024	5-Year Total
District Sources	$ 3,500,000	$ 6,260,129	$ -	$ -	$ -	$ 9,760,129
TOTAL	**$ 3,500,000**	**$ 6,260,129**	**$ -**	**$ -**	**$ -**	**$ 9,760,129**

EXPENDITURES	FY 2019–2020	FY 2020–2021	FY 2021–2022	FY 2022–2023	FY 2023–2024	5-Year Total
Building Fund	$ 3,500,000	$ 6,260,129	$ -	$ -	$ -	$ 9,760,129
TOTAL	**$ 3,500,000**	**$ 6,260,129**	**$ -**	**$ -**	$ -	**$ 9,760,129**

3.0 OPERATION AND MAINTENANCE OF LANDS AND WORKS

3.1 Land Management

REVENUES	FY 2019–2020	FY 2020–2021	FY 2021–2022	FY 2022–2023	FY 2023–2024	5-Year Total
District Sources	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 100,000	$ 500,000
State - FDOT	9,483	18,465	68,465	5,000	5,000	106,413
State - Other	277,569	198,700	-	-	-	476,269
TOTAL	**$ 387,052**	**$ 317,165**	**$ 168,465**	**$ 105,000**	**$ 105,000**	**$ 1,082,682**

EXPENDITURES	FY 2019–2020	FY 2020–2021	FY 2021–2022	FY 2022–2023	FY 2023–2024	5-Year Total
Field Activities - Fencing	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 50,000	$ 250,000
Field Activities - Public Use Structures	248,700	248,700	50,000	50,000	50,000	647,400
Lake Jesup Conservation Area	9,483	18,465	68,465	5,000	5,000	106,413
Land Management / Restoration Work	78,869	-	-	-	-	78,869
TOTAL	**$ 387,052**	**$ 317,165**	**$ 168,465**	**$ 105,000**	**$ 105,000**	**$ 1,082,682**

3.2 Works

REVENUES	FY 2019–2020	FY 2020–2021	FY 2021–2022	FY 2022–2023	FY 2023–2024	5-Year Total
District Sources	$ 2,162,000	$ 3,990,000	$ 5,002,000	$ 3,361,000	$ 5,567,000	$ 20,082,000
TOTAL	**$ 2,162,000**	**$ 3,990,000**	**$ 5,002,000**	**$ 3,361,000**	**$ 5,567,000**	**$ 20,082,000**

EXPENDITURES	FY 2019–2020	FY 2020–2021	FY 2021–2022	FY 2022–2023	FY 2023–2024	5-Year Total
Lake Apopka Lock and Dam	$ -	$ -	$ -	$ 1,811,000	$ -	$ 1,811,000
Drum and Cable Replacements	-	-	400,000	-	-	400,000
Improve Fellsmere Grade Driving Surface	380,000	-	-	-	-	380,000
Infrastructure Rehabilitation and Improvements	300,000	300,000	300,000	350,000	240,000	1,490,000
Lake Apopka Pump Station Unit 2 Pump Basin Isolation	-	250,000	-	-	-	250,000
Levee Repairs	360,000	150,000	250,000	250,000	820,000	1,830,000
Miscellaneous Infrastructure Improvements	-	160,000	570,000	650,000	290,000	1,670,000
Miscellaneous Parking Lot/Roadway Improvements	-	-	125,000	150,000	175,000	450,000
Miscellaneous Walkway Installations	-	-	100,000	100,000	100,000	300,000
Moss Bluff Lock	-	-	-	-	3,892,000	3,892,000
Refurbish (2) Airboat Crossings on L-77W	80,000	-	-	-	-	80,000
Refurbish Airboat Crossings at L-76	-	80,000	-	-	-	80,000
Rehabilitate the Apopka Marsh Flow-Way Pumps	250,000	-	-	-	-	250,000
Remove / Mulch Canal Vegetation	100,000	100,000	100,000	50,000	50,000	400,000
S-157 Drum and Cable	-	660,000	-	-	-	660,000
S-161A Drum and Cable Installation	392,000	-	-	-	-	392,000
S-96 Rehabilitation	-	-	2,932,000	-	-	2,932,000
S-96C Drum and Cable	200,000	-	-	-	-	200,000
S-96D Rehabilitation	-	1,820,000	-	-	-	1,820,000
Slipline Piping at Fellsmere Grade	-	225,000	225,000	-	-	450,000
Tom Lawton Road Resurfacing	-	125,000	-	-	-	125,000
Walkway/Platforms at S-252F, BCWMA and Orange Lake	100,000	-	-	-	-	100,000
Walkway/Platforms at S-252F, Eustis Muck Farm and Lake Apopka	-	120,000	-	-	-	120,000
TOTAL	**$ 2,162,000**	**$ 3,990,000**	**$ 5,002,000**	**$ 3,361,000**	**$ 5,567,000**	**$ 20,082,000**

3.3 Facilities Management

REVENUES	FY 2019–2020	FY 2020–2021	FY 2021–2022	FY 2022–2023	FY 2023–2024	5-Year Total
District Sources	$ 400,000	$ 90,000	$ -	$ -	$ -	$ 490,000
TOTAL	**$ 400,000**	**$ 90,000**	**$ -**	**$ -**	**$ -**	**$ 490,000**
EXPENDITURES	**FY 2019–2020**	**FY 2020–2021**	**FY 2021–2022**	**FY 2022–2023**	**FY 2023–2024**	**5-Year Total**
Palm Bay Roof Replacement	$ 400,000	$ -	$ -	$ -	$ -	$ 400,000
Sunnyhill Blue House Roof Replacement	-	90,000	-	-	-	90,000
TOTAL	**$ 400,000**	**$ 90,000**	**$ -**	**$ -**	**$ -**	**$ 490,000**
GRAND TOTAL EXPENDITURES	**$ 15,816,421**	**$ 19,877,639**	**$ 7,025,965**	**$ 5,049,000**	**$ 6,148,160**	**$ 53,917,185**

REVENUES	FY 2019–2020	FY 2020–2021	FY 2021–2022	FY 2022–2023	FY 2023–2024	5-Year Total
GRAND TOTAL REVENUES	**$ 15,816,421**	**$ 19,877,639**	**$ 7,025,965**	**$ 5,049,000**	**$ 6,148,160**	**$ 53,917,185**

PROGRAM: Land Acquisition, Restoration, and Public Works
ACTIVITY: Land Acquisition

Project Title: Lake Jesup Conservation Area

Type: Land Purchase

Project Manager: Ryan Spohn

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

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

Expected Completion Date: September 2021

Historical Background/Need for Project: This is an existing mitigation project initiated in 2016. The project involves habitat and hydrologic restoration within the LJCA. Site preparation and backfilling of ditches are complete. Planting of the restoration areas was started in FY 2017–2018. The work in FY 2020–2021will include additional land acquisition of an outparcel for $65,000 based upon comparable estimates of adjacent parcels. Five years of monitoring will occur after planting is complete and the costs will be budgeted under activity 3.1, if needed.

Plan Linkages: 2016 and 2017 FDOT Annual Mitigation Plan and FY 2020–2021 Preliminary Budget

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District has expended funds and will incur future expenses for this project under activity 3.1. Additional funds will be required if there is a problem meeting the success criteria of the mitigation project.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): The District plans to budget, for the land purchase, $65,000 in FY 2020–2021.

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, $0.60; invasive plant control, $7.50; prescribed fire, $19.50; security, $0.75.

PROGRAM: Land Acquisition, Restoration, and Public Works
ACTIVITY: Land Acquisition

Project Title: Land Purchases and Support Services

Type: Land Purchase

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 Trust Fund (P2000), which expanded the scope of the SOR program, was passed by the Florida Legislature in 1990. In 1999, the Florida Forever Trust Fund (FF) replaced the P2000 program and became the primary source of funding for District land acquisitions through 2011. In 2008, the Florida Legislature authorized the continuation of the FF program for a second 10-year period. The proposed budgets are for potential land purchases, real estate research, and related transactional costs from FY 2019–2020 through FY 2023–2024.

Plan Linkages: FY 2019–2020 Adopted Budget and FY 2020–2021 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 $1,559,500 was budgeted in FY 2019–2020 and plans to be budgeted in FY 2020–2021 for potential land acquisitions. Budgets from FY 2021–2022 through FY 2023–2024 are based on the District's unencumbered land acquisition fund balances and other state sources.

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, $0.60; invasive plant control, $7.50; prescribed fire, $19.50; security, $0.75.

PROGRAM: Land Acquisition, Restoration, and Public Works
ACTIVITY: Land Acquisition

Project Title: Tomoka River Riparian Habitat Protection Zone (RHPZ)

Type: Wetland and Upland RHPZ Protection

Project Manager: Ryan Spohn

Physical Location: The project is in Volusia County within the RHPZ for the Tomoka River.

Square Footage/Physical Description: The project will encompass 10–20 acres of uplands and wetlands within the Tomoka River RHPZ.

Expected Completion Date: September 2021

Historical Background/Need for Project: This project is for the purchase of a conservation easement and will mitigate wetland and upland impacts within the RHPZ and 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: 2019 FDOT Annual Mitigation Plan and FY 2020–2021 Preliminary Budget

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements): None

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): The District plans to budget $577,701 in FY 2020–2021.

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: Lake Jesup Nutrient Reduction and Flow Enhancement

Type: Restoration and Historic Flow

Program Manager: Hector Herrera

Physical Location: Lake Jesup Conservation Area and the confluence of the St. Johns River and Lake Jesup in Seminole County

Square Footage/Physical Description: Northwestern side of Lake Jesup within the Lake Jesup Conservation Area

Expected Completion Date: September 2020

Historical Background/Need for Project: The St. Johns River is impaired from nutrients within the upstream reaches of the Middle St. Johns River Basin (MSJRB) in Lake Harney to the downstream reaches of the Lower St. Johns River basin (LSJRB). Efforts to develop nutrient reduction projects should result in the necessary improvements to meet or exceed nutrient load reductions, though multiple projects may be required to achieve necessary reductions. The confluence of Lake Jesup and the St. Johns River has been modified by activities dating back to the 1800s. Recreating flow paths between the river and lake will improve habitat conditions for submerged aquatic vegetation in the northern portion of the lake.

Plan Linkages: FY 2019–2020 Adopted Budget

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $1,100,000 for design services for the flow enhancement and nutrient reduction components of the project 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: Unsure at this time – dependent upon future construction estimates.

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 reservoir is approximately 10,000 acres.

Expected Completion Date: Biomonitoring is ongoing and dependent on the spread of apple snails within Fellsmere Water Management Area (FWMA).

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 apple snail tissue samples are collected by District staff and submitted to a commercial laboratory for analysis of pesticides and heavy metals. Biomonitoring of fish and apple snails for contaminants is the District's responsibility as an original permit condition for FWMA. Fish biomonitoring has been completed, but apple snail biomonitoring is ongoing.

Plan Linkages: FY 2019–2020 Adopted Budget and FY 2020–2021 Preliminary Budget

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

Alternative(s): None

Basic Construction Costs: (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $6,000 in FY 2019–2020 and plans to budget $6,000 each year from FY 2020–2021 through FY 2023–2024.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other.): Other project costs are included in the Fellsmere Water Management Area master project.

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

Anticipated Additional Operating Costs/Continuing: Continuing costs will include staff time for collection and processing of apple snails. 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 SJWMA and within the Fellsmere Water Control District in Indian River County.

Square Footage/Physical Description: The reservoir is 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 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 concentration 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 2019–2020 Adopted Budget and FY 2020–2021 Preliminary Budget

Area(s) of Responsibility: Water Supply, Water Quality, Flood Protection, and Natural Systems
Alternative(s): None

Basic Construction Costs: (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District has expended $52.4 million, budgeted $1,416,000 in FY 2019–2020, and plans to budget $777,629 in FY 2020–2021.

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 2001–02 and $35 million for the purchase of 6,000 acres in FY 2006–07.

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

Anticipated Additional Operating Costs/Continuing: Operating expenses, approximately $100,000, may be incurred, as necessary, for the operation and maintenance of the discharge outlets for FWMA.

PROGRAM: Land Acquisition, Restoration, and Public Works
ACTIVITY: Surface Water Projects

Project Title: S-96C Rehabilitation

Type: Infrastructure Renovation

Program Manager: Gretchen Kelly

Physical Location: S-96C is located at the eastern end of L74W at the tie back levee that connects to the south side of S96B. S-96C serves as the main outlet for the Blue Cypress Marsh Conservation Area (BCMCA) in the USJRB in Indian River 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: July 2020

Historical Background/Need for Project: S-96C was constructed in 1993 and is the main outlet from BCMCA into the historic St. Johns River floodplain. The S-96C gate rehabilitation includes dewatering, concrete repairs, and all ancillary items associated with the structure.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, and FY 2019–2020 Adopted Budget

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District expended $3,152 in FY 2018–2019 and budgeted $2,100,000 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: These costs are estimated to be approximately $42,000 per year based on two percent of capital costs.

PROGRAM: Land Acquisition, Restoration, and Public Works
ACTIVITY: Surface Water Projects

Project Title: Lake Apopka Duda Property Water Storage Improvements

Type: Infrastructure Improvements

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: November 2021

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. This project will use hydrology management, plantings, herbicides, and ultimately prescribed fire to develop desirable vegetation communities. The improvements also facilitate the ability to retain water, phosphorus, and sediments in the Duda property, reducing loads to Lake Apopka.

Plan Linkages: FY 2019–2020 Adopted Budget and FY 2020–2021 Preliminary Budget

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

Alternative(s): None

Basic Construction Costs (includes contracts, permits, inspections, communications requirements, utilities, site development, other): The District budgeted $140,000 in FY 2019–2020 and plans to budget $2,510,000 in FY 2020–2021.

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 $53,000 per year based on two percent of capital costs.

PROGRAM: Land Acquisition, Restoration, and Public Works
ACTIVITY: Surface Water Projects

Project Title: Lake Apopka Marsh Flow-Way Improvements

Type: Rehabilitation

Project Manager: Lindsey Porter

Physical Location: Lake Apopka North Shore

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 commenced in FY 2018–2019 to improve the efficiency and lifespan of the marsh flow-way.

Plan Linkages: FY 2019–2020 Adopted Budget and FY 2020–2021 Preliminary Budget

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities, site development, other): The District expended $8,882 in FY 2017–2018 and $203,441 in FY 2018–2019; budgeted $500,000 in FY 2019–2020 and plans to budget $1,755,000 in FY 2020–2021 .

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

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

Anticipated Additional Operating Costs/Continuing: These costs are estimated to be approximately $49,400 per year based on two percent of capital costs.

PROGRAM: Land Acquisition, Restoration, and Public Works
ACTIVITY: Surface Water Projects

Project Title: Lake Apopka North Shore Infrastructure Improvements

Type: Infrastructure 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 2020

Historical Background/Need for Project: Infrastructure improvements are needed on the Lake Apopka North Shore to improve the storage and management of water and phosphorus 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 2019–2020 Adopted Budget

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

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 water, nutrients, and fish between the North Shore and Lake Apopka. This free exchange would result in stricter or non-consumption limits being placed on Lake Apopka fishing 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 expended $190,362 in FY 2018–2019 and budgeted $1,329,000 in FY 2019–2020.

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

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

Anticipated Additional Operating Costs/Continuing: These costs are estimated to be approximately $50,000 per year .

PROGRAM: Land Acquisition, Restoration, and Public Works
ACTIVITY: Surface Water Projects

Project Title: Lake Apopka Lake Level Canal Interconnection

Type: Infrastructure 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: Interconnect improvements will help to contain more water and phosphorus 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 loadings to the lake from the North Shore.

Plan Linkages: FY 2019–2020 Adopted Budget and FY 2020–2021 Preliminary Budget

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

Alternative(s): Pump all excess water with associated phosphorous from the North Shore to Lake Apopka.

Basic Construction Costs (includes permits, inspections, communications requirements, site development, other): The District expended $40,674 in FY 2018–2019, budgeted $105,500 in FY 2019–2020, and plans to budget $1,350,000 in FY 2020–2021.

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

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

Anticipated Additional Operating Costs/Continuing: These costs are estimated to be approximately $29,900 per year based on two 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 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.

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

Expected Completion Date: September 2024

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. 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 2019–2020 Adopted Budget, and FY 2020–2021 Preliminary Budget

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District expended $116,270 in FY 2017–2018 and $334,603 in FY 2018–2019; budgeted $518,069 in FY 2019–2020, and plans to budget $125,000 in FY 2020–2021, $40,000 in FY 2021–2022, and $20,000 each year in FY 2022–2023 and FY 2023–2024.

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 / Enhancement Project in Basin 8

Type: Restoration

Project Manager: Ryan Spohn

Physical Location: St. Johns and Putnam counties

Square Footage/Physical Description: 79.6 acres in St. Johns and Putnam counties

Expected Completion Date: August 2023

Historical Background/Need for Project: FDOT's First Coast Expressway project is permitted to impact 35.73 acres of tidal freshwater forested wetlands and 2.24 acres of submerged aquatic vegetation (SAV) habitat. The functional loss associated with the tidal freshwater forested impacts will be offset by the preservation, enhancement, and/or restoration of like communities as on conservation lands in Regulatory Basins 8. The District is tasked with implementation of the FDOT Mitigation Program, therefore the District has purchased 79.6 acres, suitable to offset for these impacts pursuant to the FDOT mitigation plan.

Plan Linkages: 2016 FDOT Annual Mitigation Plan, FY 2019–2020 Adopted Budget, and FY 2020–2021 Preliminary Budget

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communication requirements, utilities outside building, site development, other): The District expended $11,875 in FY 2017–2018 and $246,818 in FY 2018–2019; budgeted $484,800 in FY 2019–2020 and plans to budget $425,000 in FY 2020–2021, $200,000 in FY 2021–2022, $25,000 in FY 2022–2023, and $12,000 in FY 2023–2024.

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 326 and north of State Road 40.

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

Expected Completion Date: September 2024

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 2019–2020 Adopted Budget, and FY 2020–2021 Preliminary Budget

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District has expended $1,364,834, budgeted $108,500 in FY 2019–2020, and plans to budget $42,000 in FY 2020–2021 and $50,000 each year in FY 2021–2022, FY 2022–2023, and FY 2023–2024.

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, $0.60; invasive plant control, $7.50; prescribed fire, $19.50; security, $0.75.

PROGRAM: Land Acquisition, Restoration, and Public Works
ACTIVITY: Surface Water Projects

Project Title: Nine Mile Rice Creek

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 Putnam County at the Nine Mile Rice Creek property.

Square Footage/Physical Description: The enhancement/restoration at Nine Mile Rice Creek Property is expected to improve management access within the 5,061-acre property.

Expected Completion Date: September 2021

Historical Background/Need for Project: This project is a habitat enhancement project needed to partially complete the mitigation obligations for multiple road projects by FDOT. 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 and FY 2020–2021 Preliminary Budget

Area(s) of Responsibility: Water Quality 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 $27,515 in FY 2020–2021.

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

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

Anticipated Additional Operating Costs/Continuing: 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, $0.60; invasive plant control, $7.50; prescribed fire, $19.50; security, $0.75.

PROGRAM: Land Acquisition, Restoration, and Public Works
ACTIVITY: Facilities Construction and Major Renovations

Project Title: Building Fund

Type: Facilities Construction

Project Manager: Dave Dickens

Physical Location: The project is planned to occur in Orange County near the North Shore of Lake Apopka. This property is located south of Binion Road 437 and west of State Road 429.

Square Footage/Physical Description: The new building footprint is expected to encompass approximately 17,000 square feet (sf.) on the five-acre tract acquired from the city of Apopka. This building will reduce the District's current leased square footage and replace the Maitland Service Center.

Expected Completion Date: September 2022

Historical Background/Need for Project: The District has leased space in the Orlando area since 1986. The location allows District staff to work with local customers and stakeholders on a variety of matters, including Regulatory permitting. It is also used for a variety of agency collaborative meetings, outreach and training events, workshops, and serves as a data disaster recovery center. At the end of our current lease we will have worked from leased facilities in the Greater Orlando area for 35 years. Owning both the service center's land and building will result in long-term savings for the District.

Plan Linkages: FY 2019–2020 Adopted Budget and FY 2020–2021 Preliminary Budget

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

Alternative(s): Continued leasing service center space at a higher long-term cost

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District expended $51,876 in FY 2018–2019, budgeted $3,500,000 in FY 2019–2020, and plans to budget $6,260,129 in FY 2020–2021.

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

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

Anticipated Additional Operating Costs/Continuing: The annual cost per square foot for the management of District building varies based on the type and use of the building. The District's current estimated annual operating cost for this service center is $134,810 per year.

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 2024

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 2019–2020 Adopted Budget, and FY 2020–2021 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 $50,000 in FY 2019–2020 and plans to budget $50,000 each year through FY 2023–2024.

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.

Expected Completion Date: September 2024

Historical Background/Need for Project: 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, and some of the existing structures are aging and need to be replaced. The need to replace these structures arises on an infrequent basis.

Plan Linkages: Individual Land Management Plans, FY 2019–2020 Adopted Budget, and FY 2020–2021 Preliminary Budget

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

Alternative(s): None

Basic Construction Costs (includes permits, site preparation and other): The District budgeted $248,700 in FY 2019–2020, plans to budget $248,700 in FY 2020–2021, and $50,000 each year from FY 2021–2022 through FY 2023–2024.

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 2024

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 2019–2020 Adopted Budget, and FY 2020–2021 Preliminary Budget

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District expended $69,666 in FY 2017–2018 and $79,619 in FY 2018–2019; budgeted $9,483 in FY 2019–2020, and plans to budget $18,465 in FY 2020–2021, $68,465 in FY 2021–2022, and $5,000 each year in FY 2022–2023 and FY 2023–2024.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): An additional land purchase for $65,000 in FY 2020–2021 under activity 2.1.

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, $0.60; invasive plant control, $7.50; prescribed fire, $19.50; security, $0.75.

PROGRAM: Operation and Maintenance of Lands and Works
ACTIVITY: Land Management

Project Title: Land Management / Restoration Work

Type: Recreational Facilities

Program Manager: Brian Emanuel

Physical Location: Bayard Conservation Area, Clay County

Square Footage/Physical Description: 2 acres

Expected Completion Date: April 2020

Historical Background/Need for Project: Replace two parking lots on Highway 16 that were traded to FDOT as part of the exchange for the First Coast Expressway. One new 2-acre parking lot will be completed. The budgeted funds will also be spent on restoration of a defunct golf course that was received from FDOT as part of the transaction.

Plan Linkages: FY 2019–2020 Adopted Budget

Area(s) of Responsibility: Natural Systems

Alternative(s): None

Basic Construction Costs (includes permits, site preparation and other): The District budgeted $78,869 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: Lake Apopka Lock and Dam

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: This structure is located on the Apopka-Beauclair Canal 500 feet south of Astatula Road (County Road 48).

Square Footage/Physical Description: The structure is a steel sheet pile dam consisting of a 15-foot by 50-foot lock and a concrete spillway equipped with two 12-foot radial gates.

Expected Completion Date: September 2023

Historical Background/Need for Project: Built in 1956, these structures are operated to maintain desirable water levels in Lake Apopka and safely move boat traffic from Lake Apopka to Lake Beauclair.

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

Area(s) of Responsibility: Water Supply, Water Quality, 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 $1,811,000 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: Because the planned work is the rehabilitation of an existing structure, no additional operating costs are anticipated.

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 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, including S-96 (2 gates), S-161 (2 gates), and Moss Bluff (2 gates)

Expected Completion Date: September 2022

Historical Background/Need for Project: The District is converting all major water control structure gates in the USJRB and the 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. This project is created to serve as a place holder for future replacements of drum and cable systems at various major works.

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

Area(s) of Responsibility: Flood Protection and 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 $400,000 in 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: Because the planned work is the rehabilitation of an existing structure; no additional operating costs are anticipated.

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: In the USJRB in Indian River and Brevard counties.

Square Footage/Physical Description: Fellsmere Grade is approximately 6 miles in length with a 24-foot-wide surface.

Expected Completion Date: September 2020

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) for the Fellsmere Water Management Area, 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 Adopted Budget

Area(s) of Responsibility: Flood Protection

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $380,000 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: These costs are estimated to be approximately $8,000 per year based on two 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 USJRB in Indian River, Brevard, and Osceola counties and the UORB in Lake and Marion counties.

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

Expected Completion Date: September 2024

Historical Background/Need for Project: The District is responsible for the maintenance of 61 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 2019–2020 Adopted Budget, and FY 2020–2021 Preliminary Budget

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $300,000 in FY 2019–2020 and plans to budget $300,000 each year in FY 2020–2021 and FY 2021–2022, $350,000 in FY 2022–2023, and $240,000 in FY 2023–2024.

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: Because the planned work is the rehabilitation of an existing structure, no additional operating costs are anticipated.

PROGRAM: Operation and Maintenance of Lands and Works
ACTIVITY: Works

Project Title: Lake Apopka Pump Station Unit 2 Pump Basin Isolation

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: The Unit 2 pump basin is located on the Lake Apopka North Shore at the west end of Lust Road.

Square Footage/Physical Description: The pump basin is approximately 280 feet wide by 600 feet long and 15 feet deep.

Expected Completion Date: September 2021

Historical Background/Need for Project: This basin is used to treat and mix discharges from Phases 3, 4, and 5, (2 East and 2 West), with alum prior to discharging into Lake Apopka.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, and FY 2020–2021 Preliminary Budget

Area(s) of Responsibility: Water Supply, Water Quality, 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 $250,000 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: These costs are estimated to be approximately $5,000 per year based on two percent of capital costs.

PROGRAM: Operation and Maintenance of Lands and Works
ACTIVITY: Works

Project Title: Levee Repairs

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: In the USJRB in Indian River, Brevard, and Osceola counties and the UORB in Lake and Marion counties.

Square Footage/Physical Description: There are more than 115 miles of federal flood protection levees and 175 miles of farm/project levees located within the USJRB and the 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 2024

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 175 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 Adopted Budget, and FY 2020–2021 Preliminary Budget

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $360,000 in FY 2019–2020 and plans to budget $150,000 in FY 2020–2021, $250,000 each year in FY 2021–2022 and FY 2022–2023, and $820,000 in FY 2023–2024.

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: Because the planned work is the rehabilitation of an existing structure, no additional operating costs are anticipated.

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 USJRB in Indian River, Brevard, and Osceola counties and the UORB in Lake and Marion counties.

Square Footage/Physical Description: Varies

Expected Completion Date: September 2024

Historical Background/Need for Project: The District has many structures, including pumps, bridges, weirs, generators, and airboat crossings that are reaching the end of 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. They require rehabilitation to maintain the long-term viability of the District's infrastructure.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2020–2021 Preliminary Budget

Area(s) of Responsibility: Water Supply, Water Quality, 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 $160,000 in FY 2020–2021, $570,000 in FY 2021–2022, $650,000 in FY 2022–2023, and $290,000 in FY 2023–2024.

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: Because the planned work is the rehabilitation of an existing structure, no additional operating costs are anticipated.

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 USJRB in Indian River and Brevard counties.

Square Footage/Physical Description: Parking lots vary in size from approximately 100,000 sf. to 250,000 sf. The proposed parking lots will be resurfaced and striped for parking. Roadways vary in width and length throughout the District.

Expected Completion Date: September 2024

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. Roadways generally consist of a sandy-clay base that requires grading two to three times per week. Constructing compacted limerock driving surfaces should reduce this maintenance cycle and associated costs.

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

Area(s) of Responsibility: Water Quality and Flood Protection

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 2021–2022, $150,000 in FY 2022–2023, and $175,000 in FY 2023–2024.

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: Because the planned work is the rehabilitation of an existing structure, no additional operating costs are anticipated.

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 USJRB in Indian River and Brevard counties as well as Marion County.

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

Expected Completion Date: September 2024

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

Area(s) of Responsibility: Water Supply, Water Quality, 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 each year from FY 2021–2022 through FY 2023–2024.

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: Because the planned work is the rehabilitation of an existing structure, no additional operating costs are anticipated.

PROGRAM: Operation and Maintenance of Lands and Works
ACTIVITY: Works

Project Title: Moss Bluff Lock

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: In the UORB on the edge of the Ocala National Forest in Marion County.

Square Footage/Physical Description: The spillway incorporates two hydraulic motor operated gates. The gates are 20 feet wide by 12.9 feet high. The concrete lock has a 30-foot wide by 125-foot long chamber with filling and emptying times of approximately 8–10 minutes.

Expected Completion Date: September 2024

Historical Background/Need for Project: The structure was completed in 1968 and serves as a navigational aid and flood control structure on the Ocklawaha River. The lock can drop the navigational water level by 23 feet.

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

Area(s) of Responsibility: Flood Protection

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District plans to budget $3,892,000 in FY 2023–2024 .

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: Because the planned work is the rehabilitation of an existing structure, no additional operating costs are anticipated.

PROGRAM: Operation and Maintenance of Lands and Works
ACTIVITY: Works

Project Title: Refurbish (2) Airboat Crossings on L-77W

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: Two locations on the L-77W levee in the USJRB in Indian River County.

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

Expected Completion Date: September 2020

Historical Background/Need for Project: Wooden crossings on L-77W are showing signs of deterioration. If not repaired, airboats may incur damage when crossing.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, FY 2019–2020 Adopted Budget

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $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: Refurbish Airboat Crossings at L-76

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: This crossing is located on L-76 just north of the S96D structure in the 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 2021

Historical Background/Need for Project: The wooden crossing on L-76 is showing signs of deterioration. If not repaired, airboats may incur damage when crossing.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, and FY 2020–2021 Preliminary Budget

Area(s) of Responsibility: Water Quality, 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 $80,000 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: Rehabilitate the 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 in. to 36 in. with pumping capacity from 20,000 to 27,000 gallons-per-minute (gpm).

Expected Completion Date: September 2020

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

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, and FY 2019–2020 Adopted Budget

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District expended $2,672 in FY 2018–19 and budgeted $250,000 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: Because the planned work is the rehabilitation of an existing structure, no additional operating costs are anticipated.

PROGRAM: Operation and Maintenance of Lands and Works
ACTIVITY: Works

Project Title: Remove / Mulch Canal Vegetation

Type: Vegetation Management

Program Manager: Woody Boynton

Physical Location: Multiple canals within the USJRB in Indian River, Brevard and Osceola counties, and the UORB in Lake and Marion counties.

Square Footage/Physical Description: Proposed canals include C52 Canal and various others. 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 Adopted Budget, and FY 2020–2021 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 budgeted $100,000 in FY 2019–2020 and plans to budget $100,000 each year in FY 2020–2021 and FY 2021–2022, and $50,000 each year in FY 2022–2023 and FY 2023–2024.

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-157 Drum and Cable

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: The S-157 structure is located on the C54 canal in Brevard County, just north of Indian River County. It is approximately 6,300 feet east of I-95.

Square Footage/Physical Description: The S-157 structure is a three bay U-shaped gated spillway, has an ogee weir with vertical lift gates, and a design discharge of 6,500 cfs. Each gate is 25 feet wide by 12.5 feet high.

Expected Completion Date: September 2021

Historical Background/Need for Project: The District is converting all major water control structure gates in the USJRB and the 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, and FY 2020–2021 Preliminary Budget

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

Alternative(s): Repair the existing hydraulic system.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District plans to budget $660,000 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: Because the planned work is the rehabilitation of an existing structure, no additional operating costs are anticipated.

PROGRAM: Operation and Maintenance of Lands and Works
ACTIVITY: Works

Project Title: S-161A Drum and Cable Installation

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: The S-161A structure is located on L-73, approximately 1.5 miles south of Highway 92 in Osceola County.

Square Footage/Physical Description: The structure is a U-shaped spillway, has an ogee weir with two vertical lift gates with a design discharge of 8,465 cfs.

Expected Completion Date: September 2020

Historical Background/Need for Project: The District is converting all major water control structure gates in the USJRB and the 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, and FY 2019–2020 Adopted Budget

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

Alternative(s): Repair the existing hydraulic system.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $392,000 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: Because the planned work is the rehabilitation of an existing structure, no additional operating costs are anticipated.

PROGRAM: Operation and Maintenance of Lands and Works
ACTIVITY: Works

Project Title: S-96 Rehabilitation

Type: Infrastructure Renovation

Program Manager: Vince Seibold

Physical Location: S-96 is located at the western end of C-54, six miles west of State Road 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 cfs.

Expected Completion Date: September 2022

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 SJWMA into C-54 in times of high water. The S-96 rehabilitation includes dewatering, concrete repairs, and all ancillary items associated with the structure.

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

Area(s) of Responsibility: Flood Protection

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District plans to budget $2,932,000 in 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: Because the planned work is the rehabilitation of an existing structure, no additional operating costs are anticipated.

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: The project is in the USJRB in Indian River, Brevard, and Osceola counties.

Square Footage/Physical Description: 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 USJRB in Brevard County.

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 Adopted Budget

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

Alternative(s): Repair the existing hydraulic system.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $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: Because the planned work is the rehabilitation of an existing structure, no additional operating costs are anticipated.

PROGRAM: Operation and Maintenance of Lands and Works
ACTIVITY: Works

Project Title: S-96D Rehabilitation

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: S-96D is located on L-75 just west of S-3 in the USJRB in Indian River County, approximately 4.75 miles south of the Fellsmere Grade.

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

Expected Completion Date: September 2021

Historical Background/Need for Project: S-96D was completed in 1993 and is designed to release water from the BCWMA to the SJWMA. The S-96D gate rehabilitation includes dewatering, concrete repairs, and all ancillary items associated with the structure.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, and FY 2020–2021 Preliminary Budget

Area(s) of Responsibility: Water Supply, Water Quality, 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 $1,820,000 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: Because the planned work is the rehabilitation of an existing structure, no additional operating costs are anticipated.

PROGRAM: Operation and Maintenance of Lands and Works
ACTIVITY: Works

Project Title: Slipline Piping at Fellsmere Grade

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: In the 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 2022

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, and FY 2020–2021 Preliminary Budget

Area(s) of Responsibility: Water Supply, Water Quality, 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 $225,000 each year in both FY 2020–2021 and 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: Because the planned work is the rehabilitation of an existing structure, no additional operating costs are anticipated.

PROGRAM: Operation and Maintenance of Lands and Works
ACTIVITY: Works

Project Title: Tom Lawton Road Resurfacing

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: In USJRB in Indian River, Brevard and Osceola counties.

Square Footage/Physical Description: The Tom Lawton Boat Ramp is located in Brevard County at the west end of Malabar Road.

Expected Completion Date: September 2021

Historical Background/Need for Project: Tom Lawton Road was designed originally as a northerly access point to Three Forks Marsh and a public recreation area. There is a large parking area, a boat launch, and some picnic tables provided at the recreation area.

Plan Linkages: Five-Year Infrastructure Management, Operations and Maintenance Plan, and FY 2020–2021 Preliminary Budget

Area(s) of Responsibility: Water Quality and Flood Protection

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 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: Because the planned work is the rehabilitation of an existing structure, no additional operating costs are anticipated.

PROGRAM: Operation and Maintenance of Lands and Works
ACTIVITY: Works

Project Title: Walkway Platforms at S-252F, BCWMA, and Orange Lake

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: Multiple locations in the USJRB in Indian River and Brevard counties, as well as Marion County.

Square Footage/Physical Description: Walkways are typically 3- to 6-foot wide by varying lengths. New walkways 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, and FY 2019–2020 Adopted Budget

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $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: Because the planned work is the rehabilitation of an existing structure, no additional operating costs are anticipated.

PROGRAM: Operation and Maintenance of Lands and Works
ACTIVITY: Works

Project Title: Walkway / Platforms at S-252F, Eustis Muck Farm, and Lake Apopka

Type: Infrastructure Renovation

Program Manager: Woody Boynton

Physical Location: Multiple locations in the USJRB in Indian River and Brevard counties, as well as Orange and Lake counties.

Square Footage/Physical Description: Walkways are typically 3- to 6-foot wide by varying lengths. New walkways are typically constructed with painted or galvanized structural steel or structural aluminum.

Expected Completion Date: September 2021

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, and FY 2020–2021 Preliminary Budget

Area(s) of Responsibility: Water Supply, Water Quality, 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 $120,000 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: Because the planned work is the rehabilitation of an existing structure, no additional operating costs are anticipated.

PROGRAM: Operation and Maintenance of Lands and Works
ACTIVITY: Facilities Management

Project Title: Palm Bay Roof Replacement

Type: Facilities Renovation

Project Manager: Sam Morris

Physical Location: The project is planned to occur in Brevard County at the Palm Bay Service Center. This property is located at 525 Community College Parkway S.E. in Palm Bay, Florida.

Square Footage/Physical Description: The project will replace approximately 37,500 square feet of roof on the administration building at the Palm Bay Service Center.

Expected Completion Date: September 2020

Historical Background/Need for Project: The objective of this project is to provide a structurally sound and watertight roof for protection of District staff and property. The roof was damaged during the 2004 Hurricane season and was repaired; however, since then the roof has continued to have leaking issues and has reached the end of its lifecycle.

Plan Linkages: FY 2019–2020 Adopted Budget

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District budgeted $400,000 in FY 2019–2020.

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

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

Anticipated Additional Operating Costs/Continuing: None

PROGRAM: Operation and Maintenance of Lands and Works
ACTIVITY: Facilities Management

Project Title: Sunnyhill Blue House Roof Replacement

Type: Facilities Renovation

Project Manager: Sam Morris

Physical Location: The project is planned to occur in Marion County at the Sunnyhill Field Station. This property is located at 19561 S.E. Highway 42 in Umatilla, Florida.

Square Footage/Physical Description: The project will replace approximately 4,000 square foot of roof on the Blue House Building.

Expected Completion Date: September 2021

Historical Background/Need for Project: The objective of this project is to provide a structurally sound and watertight roof for protection of District staff and property. The roof has reached the end of its lifecycle.

Plan Linkages: FY 2020–2021 Preliminary Budget

Area(s) of Responsibility: Water Supply, Water Quality, 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 $90,000 in FY 2020–2021.

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

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

Anticipated Additional Operating Costs/Continuing: None

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
This activity includes those 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.

2.5 Facilities Construction and Major Renovations
This activity includes project management, permitting and conceptual, preliminary and detailed engineering for the development and preparation of contract plans and specification for the construction of planned replacement, improvement or repair to the District's administrative and field station facilities.

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

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

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

3.3 Facilities Management
The operation and maintenance of District support and administrative facilities.

Fiscal Year 2020 Five-Year Water Resource Development Work Program

4. 2020 Five-Year Water Resource Development Work Program

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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) 2019–20 through FY 2023–24 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 / 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 RWSP was approved in 2015 by the three water management districts for the CFWI planning area of Orange, Osceola, Seminole and Polk counties and southern Lake County. The draft 2020 RWSP should be completed by November 2020.

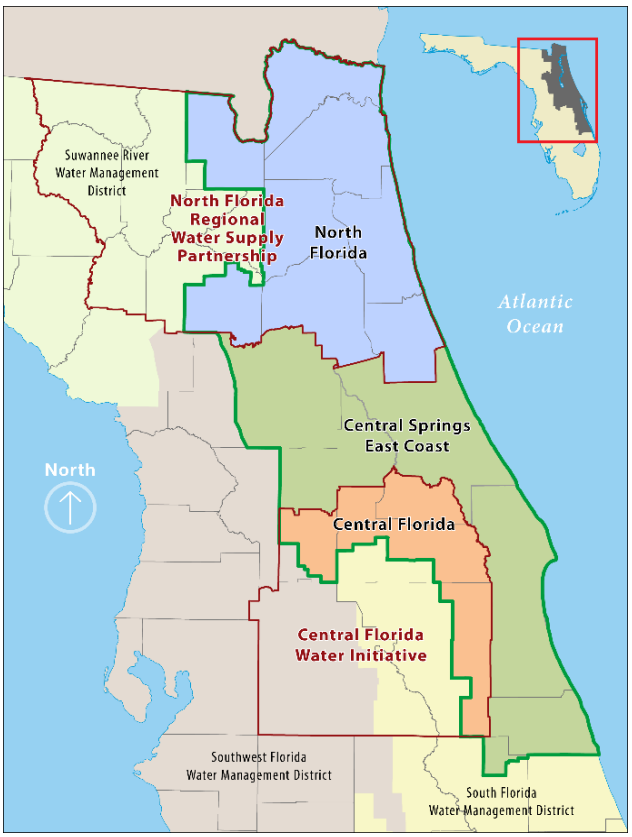

Figure 1: Water supply planning regions

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 completing a draft RWSP by late 2019 or early 2020.

In the North Florida planning region, the District continues to work in partnership with the Suwannee River Water Management District, DEP, and other stakeholders through the North Florida Regional Water Supply Partnership (NFRWSP) to develop the 2022 plan update. A joint RWSP was approved 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 / East Coast	2005 DWSP 5th Addendum, 2017	March/April 2020

The 2020 Central Springs / East Cost RWSP Update is scheduled for Governing Board approval in early to mid-2020.

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 84 million gallons per day (mgd) of water, including reuse and non-reuse water. These benefits are associated with approximately $21 million budgeted for FY 2019–20. The proposed funding for the five-year Work Program is approximately $86 million through FY 2023–24.

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 29 mgd of reuse and non-reuse water upon completion. Of that, approximately 24 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]

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

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]

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

A list of projects meeting these statutory definitions is provided in Tables 2 through 4. Programmatic efforts such as abandoned artesian well plugging and hydrologic and water quality data collection, monitoring and analysis programs are also included as described below.

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 200 additional sites collected by other agencies. More than 16 million measurements are collected, verified, processed and stored each year, including an intensive radar rainfall database, composed of hourly data for more than 21,000 gridded locations.

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

- The District's water quality monitoring network is comprised of more than 400 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:

- The District is currently re-evaluating MFLs for Lakes Brooklyn and Geneva scheduled for adoption in 2020. 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 that will help 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 the RWSP region supported, the 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)
Black Creek Water Resource Development Project	Groundwater Recharge	SJR NFRWSP	Lakes Brooklyn and Geneva, Lower Santa Fe Ichetucknee	7.00		
Bunnell SR 100 West RCW Extension	Reclaimed Water (for potable offset)	SJR NFRWSP			0.29	
C-10 Water Management Area	Surface Water Storage	SJR CSEC				212
CCUA Stormwater Harvesting Project	Stormwater	SJR NFRWSP	Lakes Brooklyn and Geneva, Lower Santa Fe Ichetucknee	0.70		
CCUA Tynes Reclaimed Water Storage	Reclaimed Water (for potable offset)	SJR NFRWSP	Lakes Brooklyn and Geneva, Lower Santa Fe Ichetucknee		0.10	
Crane Creek M-1 Canal Flow Restoration	Surface Water	SJR CSEC		8.80		
Daytona Beach Williamson Boulevard Reuse	Reclaimed Water (for potable offset)	SJR CSEC	Blue Springs		0.65	
DeLand St. Johns River Intake and Surface Water Filtration System Upgrades	Surface Water	SJR CSEC		1.50		
Deltona Reclaimed Water Retrofits	Reclaimed Water (for potable offset)	SJR CSEC	Blue Springs		0.16	
Deltona West Volusia Water Suppliers Aquifer Recharge Phase 1	Reclaimed Water (for groundwater recharge or natural system restoration)	SJR CSEC	Blue Springs	0.23		
Dispersed Water Storage Project — Fellsmere	Surface Water Storage	SJR CSEC		18.00		1,372
Dispersed Water Storage Project — Graves Brothers	Surface Water Storage	SJR CSEC		5.00		182
Edgewater Reclaimed Water Quality Reservoir	Reclaimed Water (for potable offset)	SJR CSEC			0.20	

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)
Fellsmere Water Management Area	Surface Water Storage	SJR CSEC				2,139
Flagler County Plantation Bay WWTF Modifications	Reclaimed Water (for potable offset)	SJR NFRWSP			0.50	
JEA Gate Pkwy. Kernan to T-Line RCW Main	Reclaimed Water (for potable offset)	SJR NFRWSP	Lakes Brooklyn, Geneva		1.02	
JEA Low Income Toilet Exchange	PS and CII Conservation	SJR NFRWSP		0.012		
JEA Twin Creeks RCW Storage and Delivery	Reclaimed Water (for potable offset)	SJR NFRWSP	Lakes Brooklyn, Geneva		1.88	
Kenneth MacKay Round 3 Silver Springs BMP	Agricultural Conservation	SJR CSEC	Silver Springs	0.001		
Lake Apopka North Shore Recharge Project	Groundwater Recharge	SJR CFWI	Wekiwa and Rock Springs	1.00		
Little Orange Creek Aquifer Recharge Project	Groundwater Recharge	SJR CSEC	Silver Springs	0.50		
Longwood Septic Tank Abatement Program Transmission Main	Reclaimed Water (for potable offset)	SJR CFWI			0.70	
Marion County SE108 Water Main Interconnect	Other Project Type	SJR CSEC	Silver Springs	0.03		
Marion County Silver Springs Shores Regional Capacity Improvements	Other Project Type	SJR CSEC	Silver Springs	0.01		
Mascotte SR50 Water Main Replacement-Ph2	Other Project Type	SJR CFWI		0.05		
Minneola Septic-to-Sewer	Reclaimed Water (for potable offset)	SJR CFWI	Lakes Minneola, Louisa, Apshawa North and South, Rock and Wekiwa Springs		0.40	

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)
Mount Dora RCW Interconnect with Apopka	Reclaimed Water (for potable offset)	SJR CFWI	Lake Apshawa North		3.0	
Ocala LFA Conversion — Phase 1	Other Non-Traditional Source	SJR CSEC	Silver Springs	8.90		
Ocala LFA Supply Wells Phase 2	Other Non-Traditional Source	SJR CSEC	Silver Springs	0.38		
Ocala Wetland Recharge - Pine Oaks	Groundwater Recharge	SJR CSEC	Silver Springs	5.00		
Orange County Utilities Waterwise Neighbor Program Year 3	PS and CII Conservation	SJR CFWI	Wekiwa and Rock Springs	0.11		
Ormond Beach Breakaway Trails RCW	Reclaimed Water (for potable offset)	SJR CSEC			0.35	2.0
OUC Irrigation Conservation Phase 2	PS and CII Conservation	SJR CFWI	Wekiwa and Rock Springs	0.06		
Seminole County Conservation Tool	PS and CII Conservation	SJR CFWI		0.30		
St. Johns County Marsh Landing RCW Main	Reclaimed Water (for potable offset)	SJR NFRWSP			0.06	
Taylor Creek Reservoir Improvement Project	Surface Water Storage	SJR CFWI		17.0		

Table 3: Five-Year Work Program / Funding Projections

Project Name	FY2019-2020	FY2020-2021	FY2021-2022	FY2022-2023	FY2023-2024	Subtotal
Black Creek Water Resource Development Project	$ 500,000	$ 200,000	$ 1,900,000	$ 24,000,000	$ 10,488,124	$ 37,088,124
Bunnell SR 100 West RCW Extension	$ 98,635	$ 394,541				$ 493,176
C-10 Water Management Area	$ 10,000					$ 10,000
CCUA Stormwater Harvesting Project	$ 228,450	$ 76,140				$ 304,590
CCUA Tynes Reclaimed Water Storage	$ 1,485,000					$ 1,485,000
Crane Creek M-1 Canal Flow Restoration	$ 3,885,000	$ 3,990,698				$ 7,875,698
Daytona Beach Williamson Blvd. Reuse	$ 66,000					$ 66,000
DeLand St. Johns River Intake and Surface Water Filtration System Upgrades	$ 59,403					$ 59,403
Deltona Reclaimed Water Retrofits	$ 704,488					$ 704,488
Deltona West Volusia Water Suppliers Aquifer Recharge Phase 1	$ 332,434	$ 221,622				$ 554,056
Dispersed Water Storage Project — Fellsmere	$ 730,500	$ 730,500	$ 730,500	$ 730,500	$ 730,500	$ 3,652,500
Dispersed Water Storage Project — Graves Brothers	$ 203,000	$ 203,000	$ 203,000	$ 203,000	$ 203,000	$ 1,015,000
Edgewater Reclaimed Water Quality Reservoir	$ 350,000	$ 717,680	$ 350,000			$ 1,417,680
Fellsmere Water Management Area	$ 1,422,000	$ 1,096,800				$ 2,518,800
Flagler County Plantation Bay WWTF Modifications	$ 6,128					$ 6,128
JEA Gate Pkwy. Kernan to T-Line RCW Main	$ 930,745	$ 569,255				$ 1,500,000
JEA Low Income Toilet Exchange	$ 75,000					$ 75,000
JEA Twin Creeks RCW Storage and Delivery	$ 120,000	$ 1,305,000				$ 1,425,000
Kenneth MacKay Round 3 Silver Springs BMP	$ 15,215					$ 15,215

Project Name	FY2019-2020	FY2020-2021	FY2021-2022	FY2022-2023	FY2023-2024	Subtotal
Lake Apopka North Shore Recharge Project	$ 226,500	$ 500,000				$ 726,500
Little Orange Creek Aquifer Recharge Project	$ 500,000					$ 500,000
Longwood Septic Tank Abatement Program Transmission Main	$ 1,941,849					$ 1,941,849
Marion County SE108 Water Main Interconnect	$ 301,064					$ 301,064
Marion County Silver Springs Shores Regional Capacity Improv	$ 1,743,519	$ 1,743,519				$ 3,487,038
Mascotte SR50 Water Main Replacement-Ph2	$ 450,000	$ 50,000				$ 500,000
Minneola Septic-to-Sewer	$ 349,578					$ 349,578
Mount Dora RCW Interconnect with Apopka	$ 258,275					$ 258,275
Ocala LFA Conversion — Phase 1	$ 904,218					$ 904,218
Ocala LFA Supply Wells Phase 2	$ 240,000					$ 240,000
Ocala Wetland Recharge — Pine Oaks	$ 1,500,000					$ 1,500,000
Orange County Utilities Waterwise Neighbor Program Year 3	$ 50,000					$ 50,000
Ormond Beach Breakaway Trails RCW	$ 441,514					$ 441,514
OUC Irrigation Conservation Phase 2	$ 177,740					$ 177,740
Seminole County Conservation Tool	$ 5,614					$ 5,614
St. Johns County Marsh Landing RCW Main	$ 542,685					$ 542,685
Taylor Creek Reservoir Improvement Project						$ -
Cost-Share Program Placeholder		$ 3,500,000	$ 3,500,000	$ 3,500,000	$ 3,500,000	$ 14,000,000
Totals:	**$ 20,854,554**	**$ 15,298,755**	**$ 6,683,500**	**$ 28,433,500**	**$ 14,921,624**	**$ 86,193,933**

Table 4: Project Descriptions

Project Name	Project Description	Project Status	Construction Beginning Date	Construction Completion Date
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 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	09/06/22	09/10/24
Bunnell SR 100 West RCW Extension	Extension of reclaimed distribution main from Grand Reserve Boulevard west along SR 100 to N. Palmetto Street (approximately 1.1 miles).	Design	10/01/19	11/30/19
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.	Design	04/01/21	02/14/23
CCUA Stormwater Harvesting Project	Installation of approximately 1,000 to 1,200 linear feet of horizontal well and a wet well with a submersible pump adjacent to FDOT's wet detention stormwater ponds.	Design	10/01/19	03/30/20
CCUA Tynes Reclaimed Water Storage	Construction of two 750,000 gallon reclaimed water storage tanks and a distribution facility to provide reclaimed water to over 772 new customers within the Two Creeks, Pine Ridge, Linda Lakes, and Azalea Ridge subdivisions.	Construction/Underway	06/06/19	09/30/20
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	05/01/20	04/21/22
Daytona Beach Williamson Blvd. Reuse	The project will construct 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.	Construction/Underway	01/15/19	12/30/19
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 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.	Construction/Underway	03/11/19	06/30/20
Deltona West Volusia Water Suppliers Aquifer Recharge Phase 1	This project provides aquifer recharge to the Upper Floridan aquifer (UFA) through construction of a 20-acre Rapid Infiltration Basin (RIB).	Design	10/21/19	12/31/20

Project Name	Project Description	Project Status	Construction Beginning Date	Construction Completion Date
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 IRL. 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	10/01/19	09/30/21
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 IRL. 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	10/01/19	09/30/20
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.	Construction/Underway	02/28/19	03/31/21
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 water reclamation facility (WRF) to improve process and effluent reliability to provide additional irrigation.	Construction/Underway	04/30/18	03/28/20
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.	Construction/Underway	05/31/19	06/30/20
JEA Low Income Toilet Exchange	The program will provide eligible low-income customers up to two high-efficient toilets in exchange for older, inefficient toilets in JEA’s service area. JEA will offer toilet replacements to approximately 200 homes per year, replacing up to 400 toilets.	Design	10/01/19	09/30/20
JEA Twin Creeks RCW Storage and Delivery	Construction of two 1.5-million-gallon storage tanks, five pumps, pump house, and connector pipes from the existing reclaimed water system to the tanks. The upgrades will serve the Twin Creeks development.	Design	05/28/20	08/20/21
Kenneth MacKay Round 3 Silver Springs 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	02/13/19	12/31/19

Project Name	Project Description	Project Status	Construction Beginning Date	Construction Completion Date
Lake Apopka North Shore Recharge Project	This project involves construction of an aquifer recharge well and infrastructure. Surface water from the Lake Apopka North Shore will be the source water for recharge into the UFA.	Design	10/01/19	09/30/22
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	01/13/20	04/23/20
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
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.	Construction/Underway	05/15/19	01/30/20
Marion County Silver Springs Shores Regional Capacity Improvements	The project consists of improvements to the Silver Springs Shores (SSS) Wastewater Treatment Facility (WWTF) to meet Advanced Wastewater Treatment standards and to expand the capacity by 0.5 mgd for future package plant and septic-to-sewer connections. The project also includes the construction of infrastructure to connect two package WWTFs and one church septic system to the SSS WWTF. This includes construction of three new lift stations, rebuilding two existing lift stations and installation of three new force mains. The two package plants will also be decommissioned and demolished.	Construction/Underway	11/05/18	06/30/21
Mascotte SR50 Water Main Replacement-Phase 2	The project involves the replacement of approximately 5,500 linear feet of water main along SR50 from west of Sunset Avenue to west of Palmwood Avenue. The project is expected to provide a water supply benefit of 0.05 MGD by reducing the number of line breaks.	Design	11/29/19	12/30/20
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	12/31/19
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.	Construction/Underway	12/15/18	12/31/19
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 UFA that are now located 4-miles closer to Silver Springs.	Construction/Underway	06/03/19	09/30/20

Project Name	Project Description	Project Status	Construction Beginning Date	Construction Completion Date
Ocala LFA Supply Wells - Phase 2	This is the second phase of a multi-year project. Phase 2 includes the installation of three 150 HP Pumps, three motors, and three controllers to operate three 24-inch LFA wells at Ocala's water treatment plant No. 2.	Design	01/04/20	01/04/22
Ocala Wetland Recharge - Pine Oaks	The project involves construction of 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	07/31/20
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.	Construction/Underway	12/11/18	06/30/20
Ormond Beach Breakaway Trails RCW	The project includes 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.	Construction/Underway	03/15/19	09/30/20
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 controllers, soil moisture sensors, and Florida Friendly Landscaping. 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	03/30/20
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.	Construction/Underway	01/01/19	09/30/20
St. Johns County Marsh Landing RCW Main	This project includes the construction of a pump station and approximately 7,200 linear feet of reclaimed water main from the Marsh Landing WWTF to the Oak Bridge Golf Course.	Design	11/01/19	05/30/20
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		

V. Basin Management Action Plan Appendix

Basin Management Action Plans (BMAPs) 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 DEP 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
Atlantic Bch MS4 FLS000012	Phasing out existing septic tanks.	Septic Tank Phase Out	Planned	3/27/2020	LSJR Mainstem	City of Atlantic Beach	AB-11	145	N/A	Marine	N/A
South Regional Lake	Created wetland flow through system.	BMP Treatment Train	Underway	3/21/2020	IRL- Central	City of Fellsmere	F-10	479	139	SEB/Estuarine	450
Septic Removal — NIRL —MIRA	Abandonment of ~ 75 septic tanks as well as construction of stormwater infrastructure. (SOIRLP-44.)	Septic Tank Phase Out	Underway	9/30/2020	IRL-North	Brevard County	BC-88	2,501	822	Estuarine	unknown/not provided
Indian River County Moorhen Marsh LEAPS	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.	Floating Islands/ Managed Aquatic Plant Systems (MAPS)	Planned	12/31/2020	IRL-Central	Indian River County	CIRL-IRC-07	7,614	1251	Estuarine	6,300
Rockledge Gus Hipp Ditch Denitrification	Add BAM for denitrification to major canal in the city.	BMP Treatment Train	Planned	02/28/2020	IRL-North	City of Rockledge	Rock-28	5,500	800	Estuarine	1,500
Volusia County Wastewater Infrastructure for Protection of Blue Spring	Decommissioning of Del North WWTF and construction of a master lift station with 3 miles of 12" force main to connect to the Southwest Regional WRF.	WWTF Nutrient Reduction	Planned	12/31/2020	Volusia Blue	Volusia County	WU-1	6,390	2,065	Spring/ Riverine	NA

BMAP Appendix Table Continued

Project Name	FY2019 - 2020	FY2020 - 2021	FY2021 - 2022	FY2022 - 2023	FY2023 - 2024	Subtotal	Total State Funding	Total District Funding	Lead Entity Match	Project Total
Atlantic Bch MS4 FLS000012	$ 132,323					$ 132,323		$ 132,323	$ 268,657	$ 400,980
South Regional Lake	$ 150,000					$ 150,000		$ 500,000	$ 287,187	$ 787,187
Septic Removal — NIRL —MIRA	$ 306,127	$ 568,695				$ 874,822		$ 912,255	$ 1,852,155	$ 2,764,410
Indian River County Moorhen Marsh LEAPS	$ 750,000	$ 750,000				$ 1,500,000		$ 1,500,000	$ 7,305,000	$ 8,805,000
Rockledge Gus Hipp Ditch Denitrification	$ 66,000					$ 66,000		$ 66,000	$ 147,000	$ 213,900
Volusia County Wastewater Infrastructure for Protection of Blue Spring	$ 2,193,750	$ 731,250				$ 2,925,000	$ 1,500,000	$ 1,425,000	$ 2,919,175	$ 6,173,500
Totals	**$ 3,598,200**	**$ 2,049,945**	**$ -**	**$ -**	**$ -**	**$ 5,648,145**				

Alternative Water Supplies Annual Report

5 Alternative Water Supplies Annual Report

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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 $150 million in cost-share funding for 167 AWS projects that will or have resulted in the production of 276 million gallons per day (mgd) of alternative water supplies.

Section II contains Table 5-1 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 (WPSP) 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 5-2 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, Dispersed Water Storage/Nutrient Reduction Pilot Projects, 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 water bodies not being met, or projected not to be met, within 20 years.

- Dispersed Water Storage/Nutrient Reduction Pilot Projects (DWS) — Funding for two DWS projects that benefit the Indian River Lagoon were approved in FY 2015–2016. While utilizing public/private partnerships, the projects will hold stormwater on land to reduce the amount of water flowing into the Indian River Lagoon. Stormwater retention also provides valuable groundwater recharge for water supply, opportunities for water quality improvement, and rehydration of drained systems.

- 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 IV contains a summary of AWS funding from the District for FY 2005–2006 through FY 2019–2020. Table 5-3 captures all AWS funding by fiscal year, funding source, and water source (brackish groundwater, reclaimed water, surface water, rainwater or stormwater).

II. AWS projects funded through the Water Protection and Sustainability Program Trust Fund, FY 2005-2006 to FY 2019-2020

Table 5-1: Summary of Expenditures for AWS projects funded through the WPSPTF, FY 2005-2006 to FY 2019-2020

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	Fiscal Year	WPSP Amount	SJRWMD Amount	Local Sponsor Amount	Total Cost
Alafaya Utilities Reclaimed Water Line Installation	Reclaimed Water	Alafaya Utilities (Seminole County)	Complete	0.000	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	0.410	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	1.000	2005–2006	125,176	125,176	1,209,649	1,460,001
CCUA CR 209 RW Transmission Main	Reclaimed Water	Clay County Utility Authority	Complete	0.050	2016-2017	22,388	22,388	385,244	574,990
CCUA Old Jennings RWSP GST	Reclaimed Water	Clay County Utility Authority	Complete	0.750	2016-2017	69,230	69,230	281,119	419,579
Chuluota RCW Storage Tank	Reclaimed Water	Florida Government Utility Authority	Complete	0.150	2017-2018	195,068	195,068	792,095	1,182,231
City of Daytona Beach Williamson Boulevard Reuse	Reclaimed Water	City of Daytona Beach	In Progress	0.013	2018-2019	3,092	3,092	24,736	30,920
City of Ocoee Windermere Groves Reclaimed Water Retrofit	Reclaimed Water	City of Ocoee	Complete	0.037	2018-2019	66,550	66,550	277,112	413,600
City of Palatka Reclaimed Water Main Extension	Reclaimed Water	City of Palatka	Complete	1.100	2017-2018	31,050	31,050	248,400	310,500
City of Sanford Reclaimed Water Orlando-Sanford International Airport Area Expansion Phase	Reclaimed Water	City of Sanford	Complete	0.103	2017-2018	60,493	60,493	245,641	366,627
Clermont East Side WRF Improvements	Reclaimed Water	City of Clermont	Complete	4.000	2006–2007	300,000	300,000	2,400,000	3,000,000
Clermont Reclaimed and Stormwater System Expansion	Reclaimed Water	City of Clermont	Complete	0.800	2006–2007	203,618	203,618	2,992,762	3,400,000
Clermont — South Lake Water Initiative Clermont Sunburst Wells 1 and 2	Brackish Groundwater	City of Clermont	Complete	4.400	2015-2016	326,287	326,287	3,960,000	5,940,000
Cocoa and Rockledge Reclaimed Water Line Connection	Reclaimed Water	City of Cocoa	Complete	0.250	2007–2008	87,838	87,838	1,354,322	1,530,000
Daytona Beach Reclaimed Water System	Reclaimed Water	City of Daytona Beach	Complete	0.200	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	2.500	2016-2017	675,986	675,986	2,981,500	4,450,000
Deland Reclaimed Water Storage and Recovery	Reclaimed Water	City of Deland	Complete	0.164	2014-2015	169,125	169,125	686,750	1,025,000

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	Fiscal Year	WPSP Amount	SJRWMD Amount	Local Sponsor Amount	Total Cost
Dunes Community Development District Brackish Groundwater Project	Brackish Groundwater	Dunes CDD (Flagler County)	Complete	0.650	2005–2006	1,342,853	1,342,853	4,314,294	7,000,000
East Putnam Regional Water System	Brackish Groundwater	Putnam County	Complete	0.634	2005–2006	3,140,000	3,140,000	15,520,000	21,800,000
Eastern Orange and Seminole Counties Regional Reuse Project	Reclaimed Water	City of Orlando	Complete	20.000	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	1.100	2005–2006	40,000	40,000	320,000	400,000
Flagler County Plantation Bay WWTF Modifications	Reclaimed Water	Flagler County	In Progress	0.200	2019-2020	147,416	147,416	1,179,328	1,474,160
Green Cove Springs North Grid RCW System Phase 2 and 3	Reclaimed Water	City of Green Cove Springs	Complete	0.140	2016-2017	307,476	307,476	1,340,000	2,000,000
Greenwood Lakes Reclaimed Water System Improvements	Reclaimed Water	Seminole County	Complete	1.000	2005–2006	116,000	116,000	1,398,000	1,630,000
Groveland Eagle Ridge Water Distribution Facility Phase 3	Reclaimed Water	City of Groveland	Complete	0.750	2015-2016	428,519	428,519	2,384,530	3,559,000
Groveland Silver Eagle RCW Storage Tank	Reclaimed Water	City of Groveland	Complete	1.500	2015-2016	134,676	134,676	420,000	700,000
Holly Hill and Ormond Beach Reclaimed Water System Expansion	Reclaimed Water	City of Holly Hill	Complete	0.600	2006–2007	21,249	21,249	169,992	212,490
International Corporate Park Reuse Transmission System	Reclaimed Water	Orange County	Complete	4.000	2005–2006	227,631	227,631	3,744,738	4,200,000
JEA Bartram Park Reclaimed Water Storage Tank Expansion	Reclaimed Water	JEA	Complete	0.530	2016-2017	131,686	131,686	1,273,000	1,900,000
JEA Gate Parkway Shiloh Mill Boulevard to Town Center Parkway Reclaimed Water	Reclaimed Water	JEA	Complete	1.100	2017-2018	60,612	60,612	246,120	367,344
JEA Hidden Hills Reclaimed Water	Reclaimed Water	JEA	Complete	2.500	2017-2018	118,456	118,456	530,271	791,450
JEA Mandarin WWTP Upgrades	Reclaimed Water	JEA	Complete	3.050	2016-2017	593,881	593,881	2,674,999	3,991,000
JEA Nocatee North RW Storage Tank	Reclaimed Water	JEA	Complete	1.800	2015-2016	256,735	256,735	1,340,000	2,000,000
JEA Nocatee Pkwy RW Transmission	Reclaimed Water	JEA	Complete	1.650	2015-2016	56,100	56,100	227,800	340,000
JEA RG Skinner Parkway RW Trans	Reclaimed Water	JEA	Complete	0.470	2016-2017	242,105	242,105	1,340,000	2,000,000
JEA William Burgess Road	Reclaimed Water	JEA	Complete	0.460	2016-2017	166,330	166,330	1,340,000	2,000,000
Lady Lake Reclaimed Water System, Phase 2	Reclaimed Water	Town of Lady Lake	Complete	0.500	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	5.000	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	1.000	2005–2006	490,000	490,000	3,920,000	4,900,000
Leesburg Reclaimed Water Project	Reclaimed Water	City of Leesburg	Complete	7.050	2005–2006	1,331,421	1,331,421	23,937,159	26,600,001

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	Fiscal Year	WPSP Amount	SJRWMD Amount	Local Sponsor Amount	Total Cost
Melbourne Reclaimed Water System Expansion	Reclaimed Water	City of Melbourne	Complete	1.500	2005–2006	530,651	530,651	5,538,698	6,600,000
Minneola Reclaimed Water Project	Reclaimed Water	City of Minneola	Complete	1.000	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	0.490	2005–2006	290,000	290,000	2,320,000	2,900,000
North Seminole Regional Reclaimed Water and Surface Water Optimization System Expansion Project	Reclaimed Water	City of Sanford	Complete	4.000	2005–2006	655,000	655,000	2,890,000	4,200,000
Ocoee Reuse System Expansion	Reclaimed Water	City of Ocoee	Complete	0.600	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	1.600	2005–2006	340,000	340,000	2,720,000	3,400,000
Orange County Utilities Malcom Road Minimized Impact Project LFA	Brackish Groundwater	Orange County Utilities	Complete	4.000	2014-2015	247,500	247,500	1,005,000	1,500,000
Orange County Utilities Malcom Road Minimized Impact Project LFW Phase 2	Brackish Groundwater	Orange County Utilities	Complete	3.000	2015-2016	183,766	183,766	804,000	1,200,000
Ormond Beach Breakaway Trails RCW	Reclaimed Water	City of Ormond Beach	In Progress	0.022	2019-2020	25,203	25,203	201,624	252,030
Ormond Beach South Peninsula Reclaimed Water Expansion	Reclaimed Water	City of Ormond Beach	Complete	0.560	2016-2017	415,454	415,454	2,954,452	4,409,630
Ormond Beach Water Treatment Plant Expansion	Brackish Groundwater	City of Ormond Beach	Complete	4.000	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	0.560	2015-2016	99,795	99,795	405,230	604,820
Palm Coast RW Irrigation Along U.S. 1 and Palm Coast Park	Reclaimed Water	City of Palm Coast	Complete	1.000	2016-2017	83,579	83,579	339,383	506,541
Palm Coast Reclaimed Water System Expansion	Reclaimed Water	City of Palm Coast	Complete	6.086	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	2.520	2015-2016	466,125	466,125	2,049,693	2,981,943
Port Orange Reclaimed Water Reservoir and Recharge Basin Project	Reclaimed Water	City of Port Orange	Complete	2.700	2005–2006	130,000	130,000	1,116,000	1,350,000
Rockledge Reclaimed Water Storage	Reclaimed Water	City of Rockledge	Complete	0.160	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	0.550	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	10.000	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	4.000	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	1.000	2015-2016	158,031	158,031	837,500	1,250,000
St. Johns County St. Augustine Beach Reclaimed Water Transmission Main	Reclaimed Water	St. Johns County	Complete	0.040	2016-2017	56,639	56,639	277,862	414,720

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	Fiscal Year	WPSP Amount	SJRWMD Amount	Local Sponsor Amount	Total Cost
St. Johns County Water Supply Project	Brackish Groundwater	St. Johns County	Complete	8.000	2005–2006	3,270,000	3,270,000	9,810,000	16,350,000
Tater Farms Palatka Ranch Reclaimed Water	Reclaimed Water	Tater Farms	Complete	0.051	2017-2018	32,678	32,678	98,034	163,390
Tavares Reclaimed Water System Expansion	Reclaimed Water	City of Tavares	Complete	3.500	2006–2007	570,000	570,000	4,560,000	5,700,000
Town of Baldwin Brandy Branch Reuse	Reclaimed Water	Town of Baldwin	Complete	0.126	2017-2018	271,136	271,136	813,408	1,355,680
Volusia County Southwest Reclaimed Water System	Reclaimed Water	Volusia County	Complete	0.250	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	2.480	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	4.000	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	2.230	2008–2009	620,168	620,168	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:				**141.851**		**$ 38,200,000**	**$ 38,200,000**	**$ 240,893,513**	**$ 321,211,171**

Project Narratives

Alafaya Utilities Reclaimed Water Line Installation
Installation of a 20-inch diameter reclaimed water (RCW) 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 CR 220 and CR 209/Henley Road.

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.

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 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.

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

City of Palatka Reclaimed Water Main Extension
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.

City of Sanford Reclaimed Water Orlando-Sanford International Airport Area Expansion
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.

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 U.S. Highway (U.S.) 1 corridor south of Cocoa city limits.

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

Daytona Beach 2.5 mg Reuse Tank
Construction of a 2.5 mg reclaimed water storage tank.

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.

Flagler County Plantation Bay WWTF Modifications
This project includes modifications to the WRF to improve process and effluent reliability to provide additional 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 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 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 Gate Parkway Shiloh Mill Boulevard to Town Center Parkway Reclaimed Water
Expansion of 2,400 feet of 8-inch reclaimed water pipe to serve planned developments.

JEA Hidden Hills Reclaimed Water
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 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.

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 Malcolm Road Water Supply Facility to provide potable water to the Horizon West development area.

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.

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.

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.

City of Palm Coast Grand Landings RW Transmission Main
Extension of the city's reclaimed water system to the southeast section of the city.

Palm Coast Reclaimed Water Irrigation along U.S. 1 and Palm Coast Park
Construction of a reclaimed water line along U.S. 1 in Palm Coast.

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.

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 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.

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.

Tater Farms Palatka Ranch RCW
Construction of the infrastructure necessary to receive treated wastewater from the city of Palatka to use for irrigating sod.

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.

Town of Baldwin Brandy Branch Reuse
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 an approximately 0.25 mgd of groundwater withdrawal. This project also eliminates discharge into a ditch that discharges into Deep Creek.

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 projects funded through programs other than Water Protection and Sustainability Program Trust Fund, FY 2005-2006 to FY 2019-2020

Table 5-2: AWS projects funded through programs other than Water Protection and Sustainability Program Trust Fund, FY 2005-2006 to FY 2019-2020

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 and Reclaimed Water Project Phases 1 and 2	Stormwater	City of Altamonte Springs	Complete	4.500	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	0.330	2005–2006	AWSCCP	34,770	34,770	69,540
Apopka Cost Share Golden Gem Road RCW Ext.	Reclaimed Water	City of Apopka	Complete	5.000	2017-2018	CCSP	308,626	308,624	617,250
Baldwin — Brandy Branch Reuse	Reclaimed Water	City of Baldwin	Complete	0.124	2017-2018	CCSP	347,078	992,242	1,339,320
Big Oaks and Twin River Reclaimed Water Expansion, Phase 1	Reclaimed Water	City of Oviedo	Complete	0.090	2011–2012	MFLs AWS	371,054	921,318	1,292,372
Black Creek Water Resource Development	Groundwater Recharge	Multiple	In Progress	7.000	2016-2021	MFLs AWS	5,000,000	41,000,000	46,000,000
Blend Reverse Osmosis Concentrate with Brackish Groundwater	Brackish Groundwater	Indian River County	Complete	2.250	2006–2007	AWSCCP	50,000	2,687,575	2,737,575
Blend Reverse Osmosis Concentrate with Stormwater	Stormwater	Indian River County	Complete	1.500	2006–2007	AWSCCP	125,000	4,224,070	4,349,070
Bunnell Reclaimed Water Main Extension	Reclaimed Water	City of Bunnell	Complete	1.140	2017-2018	CCSP	495,000	-	495,000
Bunnell SR 100 West RCW Extension	Reclaimed Water	City of Bunnell	Not Started	0.290	2019-2020	CCSP	493,176	-	493,176
Bunnell State Street Median RCW Irrigation System	Reclaimed Water	City of Bunnell	Complete	0.100	2015-2016	CCSP	45,000	5,000	50,000
Caldwell — Gorgeous Groves RW project	Reclaimed Water	Caldwell Citrus Groves Management	Complete	0.130	2014-2015	CCSP	14,736	29,917	44,653
Canaveral Port Authority Reclaimed Water Aquifer Storage and Recovery	Reclaimed Water	Canaveral Port Authority	Complete	2.500	2005–2006	AWSCCP	100,000	530,000	630,000
Cape Canaveral Reuse Lines Expansion	Reclaimed Water	City of Cape Canaveral	Complete	0.120	2005–2006	AWSCCP	75,000	295,920	370,920

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	Funding Fiscal Year	Program*	SJRWMD Amount	Local Sponsor Amount	Total Cost
CCUA Mid-Clay Water Storage Project	Reclaimed Water	Clay County Utility Authority	Complete	1.090	2013-2014	CCSP	1,129,000	1,304,000	2,433,000
CCUA Stormwater Harvesting Project	Stormwater	Clay County Utility Authority	Not Started	0.700	2019-2020	CCSP	304,590	304,590	609,180
CCUA Tynes Reclaimed Water Storage	Reclaimed Water	Clay County Utility Authority	In Progress	0.100	2019–2020	CCSP	1,485,000	3,015,000	4,800,000
Chuluota RCW Storage Tank	Reclaimed Water	City of Chuluota	Complete	0.150	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	10.400	2013–2014	CCSP	1,401,408	2,102,112	3,503,520
City of Apopka Kelly Park Rd and Ponkan Road RW Main	Reclaimed Water	City of Apopka	Complete	5.500	2014–2015	CCSP	713,925	713,925	1,427,850
City of Apopka Reclaimed Water Main Extensions	Reclaimed Water	City of Apopka	Complete	12.150	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	0.880	2013–2014	CCSP	442,000	663,000	1,105,000
City of Cape Canaveral Reclaimed Water Tank Project	Reclaimed Water	City of Cape Canaveral	Complete	0.070	2014–2015	CCSP	741,428	1,833,106	2,574,534
City of DeLand Reclaimed Water Retrofit, Part B and Wiley Nash WRF Upgrades	Reclaimed Water	City of Deland	Complete	2.000	2013–2014	CCSP	1,516,050	2,274,075	3,790,125
City of DeLand RW Retrofit — Phase 1	Reclaimed Water	City of Deland	Complete	0.120	2016–2017	CCSP	606,000	606,000	1,212,000
City of DeLand RW Retrofit — Phase 2B	Reclaimed Water	City of Deland	Complete	0.170	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	0.750	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	2.000	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	0.210	2013–2014	CCSP	280,000	420,000	700,000
City of Jacksonville Naval Air Station Reclaimed Water Project	Reclaimed Water	City of Jacksonville	Complete	0.100	2011–2012	AWSCCP	1,474,824	2,558,000	4,032,824
City of Ocala Lower Floridan Aquifer Conversion	Brackish Groundwater	City of Ocala	In progress	7.500	2018-2022	MFLs AWS	1,445,625	1,445,625	2,891,250
City of Ocala Reuse Main	Reclaimed Water	City of Ocala	Complete	0.500	2013–2014	CCSP	392,000	589,000	981,000

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	Funding Fiscal Year	Program*	SJRWMD Amount	Local Sponsor Amount	Total Cost
City of Ormond Beach Breakaway Trails Reclaimed Water Storage Tank and Pump Station	Reclaimed Water	City of Ormond Beach	In Progress	0.328	2018-2019	CCSP	741,594	1,406,376	2,147,970
City of Oviedo Reclaimed Water Infill Initiative	Reclaimed Water	City of Oviedo	Complete	0.250	2013–2014	CCSP	39,444	59,166	98,610
City of Palm Coast Matanzas Woods Reclaimed Pipeline	Reclaimed Water	City of Palm Coast	Complete	2.270	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	0.050	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	0.750	2013–2014	CCSP	494,800	742,320	1,237,120
City of Sanford Enhancement to Aquifer Storage and Recovery System	Reclaimed Water	City of Sanford	Complete	0.660	2014–2015	CCSP	234,062	475,217	709,279
City of Sanford and Volusia County Reclaimed Interconnect	Reclaimed Water	City of Sanford and Volusia County	Complete	1.500	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	0.280	2014–2015	CCSP	225,406	457,642	683,048
City of Winter Garden SW RCW	Reclaimed Water	City of Winter Garden	Complete	0.150	2013–2014	CCSP	479,040	718,560	1,197,600
Cocoa Beach Reclaimed Water Control Valves	Reclaimed Water	City of Cocoa Beach	Complete	0.300	2005–2006	AWSCCP	34,040	135,960	170,000
Crane Creek M-1 Canal Flow Restoration	Surface Water	Brevard County; DEP	In Progress	7.000	2017-2021	AWSCCP	6,080,127	4,483,944	10,564,071
Daytona Beach Williamson Blvd. Reuse	Reclaimed Water	City of Daytona Beach	In Progress	0.637	2018–2019	CCSP	510,195	1,023,669	1,533,864
D.B. Lee WWTP Reclaimed Water System Expansion	Reclaimed Water	City of Melbourne	Complete	1.790	2005–2006	AWSCCP	75,000	697,000	772,000
Deland RCW Main Extension Phase 3 & 3A	Reclaimed Water	City of Deland	Complete	0.140	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	1.500	2017–2018	CCSP	600,000	600,000	1,200,000
Deltona Reclaimed Water Retrofits	Reclaimed Water	City of Deltona	In Progress	0.160	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	0.230	2018–2019	CCSP	365,677	742,436	1,108,113

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	Funding Fiscal Year	Program*	SJRWMD Amount	Local Sponsor Amount	Total Cost
Deltona — West Volusia Water Suppliers Project 4A Deltona Storage and Treatment System Improvements	Reclaimed Water	City of Deltona	Complete	4.000	2016-2017	CCSP	3,750,000	3,750,000	7,500,000
Dispersed Water Storage / Nutrient Reduction Pilot Project with Fellsmere Joint Venture	Stormwater	Private landowner	In Progress	18.000	2016-2029	DWS	16,155,000	-	16,155,000
Dispersed Water Storage / Nutrient Reduction Pilot Project with Graves Brothers	Stormwater	Private landowner	In Progress	5.000	2016-2028	DWS	5,655,000	-	5,655,000
Drain Well Maintenance Project	Reclaimed Water	Orange County	Complete	0.720	2005–2006	CFARE	210,000	548,286	758,286
Drain Well Maintenance Project	Reclaimed Water	City of Orlando	Complete	0.450	2005–2006	CFARE	70,000	398,559	468,559
Dunes Community Development District Brackish GW Development	Brackish Groundwater	Dunes Community Development District	Complete	0.720	2013–2014	CCSP	902,000	1,353,000	2,255,000
Edgewater Reclaimed Water Quality Reservoir	Reclaimed Water	City of Edgewater	In Progress	0.200	2018–2019	CCSP	1,417,680	2,878,320	4,296,000
Eustis Eastern WWTP Upgrade	Reclaimed Water	City of Eustis	Complete	1.000	2016–2017	CCSP	2,475,000	5,025,000	7,500,000
Fellsmere Water Management Area	Surface Water	Multiple	In Progress	12.000	2007-2020	AWSCCP	38,803,834	16,982,802	55,786,636
Flagler County Plantation Bay WWTF Modifications	Reclaimed Water	Flagler County	In Progress	0.300	2017-2018	CCSP	205,168	2,083,372	2,288,540
Gainesville Regional Utilities — Reclaimed Water Extension to Innovation District	Reclaimed Water	GRU	Complete	0.110	2013–2014	CCSP	157,000	235,000	392,000
Greenwood Lakes Reclaimed Water System Improvement	Reclaimed Water	Seminole County	Complete	0.010	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	0.140	2005–2006	AWSCCP	100,000	320,000	420,000
JEA 9B Reclaimed Water Main	Reclaimed Water	JEA	Complete	13.000	2013–2014	CCSP	181,200	271,800	453,000
JEA Arlington East Water Reclamation Facility Expansion	Reclaimed Water	JEA	Complete	2.000	2014–2015	CCSP	371,580	754,420	1,126,000
JEA Gate Pkwy. Kernan to T-Line RCW Main	Reclaimed Water	JEA	In Progress	1.020	2018–2019	CCSP	1,500,000	3,924,091	5,424,091

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	Funding Fiscal Year	Program*	SJRWMD Amount	Local Sponsor Amount	Total Cost
JEA Gate Pkwy — Shiloh Mill Blvd. to Town Ctr. Pkwy. — RCW	Reclaimed Water	JEA	Complete	0.030	2017–2018	CCSP	121,224	246,120	367,344
JEA Hidden Hills — RCW	Reclaimed Water	JEA	Complete	0.360	2017–2018	CCSP	261,179	530,272	791,450
JEA Nocatee Coastal Oaks Phase 4	Reclaimed Water	JEA	Complete	2.000	2014–2015	CCSP	264,000	536,000	800,000
JEA Nocatee Riverwood RW Transmission	Reclaimed Water	JEA	Complete	0.850	2015–2016	CCSP	30,500	62,000	92,500
JEA Queens Harbor Reclaimed Water Main Extension	Reclaimed Water	JEA	Complete	0.300	2013–2014	CCSP	84,658	126,988	211,646
JEA Twin Creeks RCW Storage and Delivery	Reclaimed Water	JEA	Not Started	1.880	2019–2020	CCSP	1,425,000	5,580,753	8,951,079
Little Creek Reclaimed Water Expansion	Reclaimed Water	City of Oviedo	Complete	0.180	2011–2012	MFLs AWS	25,110	37,666	62,776
Little Orange Creek Recharge Well	Surface Water	City of Hawthorne	In Progress	0.500	2018-2020	AWSCCP	751,586	-	751,586
Longwood Septic Tank Abatement Program Transmission Main	Reclaimed Water	City of Longwood	In Progress	0.700	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	Complete	0.360	2017–2018	CCSP	32,175	65,325	97,500
Marion County Silver Springs Shores Regional Capacity Improvements	Reclaimed Water	Marion County	In Progress	0.010	2019–2020	CCSP	1,500,000	2,742,962	6,230,000
Marion County Silver Springs Shores Reuse to Spruce Creek G and CC	Reclaimed Water	Marion County	Complete	1.200	2013–2014	CCSP	3,192,000	6,627,738	9,819,738
Marion County US.441 Water Main Interconnect	Reclaimed Water	Marion County	Complete	0.120	2017–2018	CCSP	706,496	706,496	1,412,992
Mill Creek Reclaimed Water Storage Pond	Reclaimed Water	City of Sanford	Complete	0.280	2005–2006	CFARE	480,000	1,251,038	1,731,038
Minneola Septic-to-Sewer	Reclaimed Water	City of Minneola	In Progress	0.400	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	3.000	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	0.090	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	0.400	2005–2006	CFARE	265,000	692,000	957,000
Ocala Wetland Recharge – Pine Oaks	Stormwater	City of Ocala	In Progress	5.000	2017–2018	CCSP	4,000,000	4,362,766	8,362,766

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	Funding Fiscal Year	Program*	SJRWMD Amount	Local Sponsor Amount	Total Cost
Ocoee Windermere Groves RCW Retrofit	Reclaimed Water	City of Ocoee	Complete	0.020	2018–2019	CCSP	136,488	277,112	413,600
Old Winter Garden Road Rapid Infiltration Basin Project	Reclaimed Water	Orange County	Complete	0.520	2005–2006	CFARE	305,000	795,000	1,100,000
Old Winter Garden Road Reclaimed Water Transmission Line	Reclaimed Water	Orange County	Complete	0.500	2005–2006	AWSCCP	100,000	150,020	250,020
Orange City Reclaimed Water Main and Water Meters	Reclaimed Water	Orange City	Complete	0.250	2014-2015	CCSP	161,700	328,300	490,000
Orange County Wekiwa Springshed Alternative Water Supply Expansion Phase 1	Reclaimed Water	Orange County	Complete	3.000	2014–2015	CCSP	700,000	950,000	1,650,000
Orange County Utilities Wekiva Springshed AWS Expansion Phase 2	Reclaimed Water	Orange County	Complete	3.000	2015–2016	CCSP	198,000	402,000	600,000
Orange County Reuse System Expansion	Reclaimed Water	Orange County	Complete	3.060	2005–2006	AWSCCP	100,000	265,000	365,000
Palatka RCW Extension — REDI	Reclaimed Water	City of Palatka	Complete	1.090	2017–2018	CCSP	798,720	-	798,720
Queens Harbor Residential and Golf Course Reclaimed Water System Expansion	Reclaimed Water	Queens Harbor	Complete	0.300	2013–2014	CCSP	80,026	120,040	200,066
Reclaimed Water Augmentation Vertical Well	Reclaimed Water	City of Cocoa	Complete	0.300	2006–2007	AWSCCP	73,462	125,238	198,700
Rockledge Reuse Supplementation	Reclaimed Water	City of Rockledge	Complete	0.140	2006–2007	AWSCCP	22,500	22,500	45,000
Sanford RCW Orlando-Sanford Airport Phase 2	Reclaimed Water	City of Sanford	Complete	0.100	2017–2018	CCSP	133,827	271,710	405,537
Saxon Woods Reclaimed Waterline Extension	Reclaimed Water	Volusia County	Complete	0.200	2005–2006	AWSCCP	125,000	372,000	497,000
Southwest Reclaimed Water Service Area	Reclaimed Water	City of Winter Garden	Complete	2.000	2011–2012	MFLs AWS	954,384	1,431,575	2,385,959
Spring Glen Reclaimed Water Expansion	Reclaimed Water	Volusia County	Complete	0.100	2007–2008	AWSCCP	50,000	250,000	300,000
St. Johns County Bannon Lakes RCW Pump Station	Reclaimed Water	St. Johns County	Complete	0.090	2016–2017	CCSP	574,200	1,165,800	1,740,000
St. Johns County Marsh Landing RCW Main	Reclaimed Water	St. Johns County Utilities	Not Started	0.060	2019–2020	CCSP	542,685	1,101,815	1,898,950
St. Johns County RCW Storage Tank at Anastasia Island WWTF	Reclaimed Water	St. Johns County	Complete	2.000	2015–2016	CCSP	552,750	1,122,250	1,675,000

Project Name	Project Type	Local Sponsor	Status	Water Produced (mgd)	Funding Fiscal Year	Program*	SJRWMD Amount	Local Sponsor Amount	Total Cost
Tater Farms Palatka Ranch RCW	Reclaimed Water	Tater Farms	Complete	0.019	2017–2018	CCSP	8,894	52,716	61,610
Timucuan Golf Course Reclaimed Water Storage Pond	Reclaimed Water	City of Lake Mary	Complete	2.300	2005–2006	AWSCCP	100,000	153,987	253,987
Titusville Reclaimed Water Control System	Reclaimed Water	City of Titusville	Complete	0.230	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	0.500	2006–2007	AWSCCP	200,000	257,000	457,000
Vero Beach Reverse Osmosis WWTF Expansion	Reclaimed Water	City of Vero Beach	Complete	2.600	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	0.100	2016–2017	CCSP	202,785	411,715	614,500
Wekiva-Apopka Reuse Transmission Main	Reclaimed Water	Sanlando Utilities (Orange County)	Complete	1.000	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	2.000	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	2.500	2013–2014	CCSP	2,230,632	3,345,948	5,576,580
Western Reclaimed Water Distribution	Reclaimed Water	City of Ormond Beach	Complete	2.000	2011–2012	MFLs AWS	1,313,578	1,967,367	3,280,945
Winter Garden Reuse Distribution Retrofit	Reclaimed Water	City of Winter Garden	Complete	0.060	2017–2018	CCSP	625,000	625,000	1,250,000
Yothers Road Reclaimed Water Main	Reclaimed Water	City of Apopka	Complete	1.320	2005–2006	AWSCCP	75,000	188,200	263,200
Total:				**195.148**			**$ 143,591,123**	**$ 191,845,032**	**$ 339,922,968**

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
DWS = Dispersed Water Storage

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 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 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.

Black Creek Water Resource Development (WRD)
Design and construct an intake structure on the South Fork section of Black Creek to capture water during periods of higher flows. The water will then be pumped through a transmission system and discharged to an Upper Floridan aquifer recharge system, including discharging into Alligator Creek, in the Keystone Heights area. The project is expected to contribute to regional MFLs recovery and may help improve water levels in lakes in the Alligator Creek system, including drought-stressed lakes Brooklyn and Geneva.

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 SR 100 West RCW Extension
Extension of reclaimed distribution main from Grand Reserve Boulevard west along SR 100 to North Palmetto Street (approximately 1.1 miles).

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

Caldwell — Gorgeous Groves Reclaimed Water project
The project will enable the Caldwell Citrus Grove Management, LLC, to meter and distribute reclaimed water from the city of Tavares from an existing distribution line to irrigate large plots of citrus groves. The quantity of reclaimed water expected to be used for this project is 40 million gallons per year 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).

CCUA Stormwater Harvesting Project
Installation of approximately 1,000 to 1,200 linear feet of horizontal well and a wet well with a submersible pump adjacent to FDOT's wet detention stormwater ponds.

CCUA Tynes Reclaimed Water Storage
Construction of two 750,000 gallon reclaimed water storage tanks and a distribution facility to provide reclaimed water to more than 772 new customers within the Two Creeks, Pine Ridge, Linda Lakes, and Azalea Ridge subdivisions.

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 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 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 Lower Floridan Aquifer Conversion
Construction of three, 24-inch diameter production wells and high-speed service pumps, each with a five million gallon per day capacity for peaking, at the City of Ocala's Water Treatment Plant no. 2. Subsequent phases include construction of the water treatment plant to treat the Lower Floridan aquifer water to potable standards. Treated water capacity will be 7.5 for these initial phases.

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 Ormond Beach Breakaway Trails Reclaimed Water Storage Tank and Pump Station
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.

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 Parkway Reclaimed Water Transmission Pipeline
Construction of a reclaimed water transmission main extension along Matanzas Woods Parkway between Old Kings Road and U.S. 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.

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.

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 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.

Fellsmere Joint Venture Dispersed Water Storage Pilot Project
Pilot project to evaluate use of private lands for public projects. Construction of a 1600 acre reservoir for nutrient reduction and freshwater retention to reduce impacts on Indian River Lagoon.

Graves Brothers Company Dispersed Water Storage Pilot Project
Pilot project to evaluate use of private lands for public projects. Construction of a 185 acre reservoir for nutrient reduction and freshwater retention to reduce impacts on Indian River Lagoon.

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.

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.

Flagler County Plantation Bay WWTF Modifications
This project includes modifications to the WRF to improve process and effluent reliability to provide additional 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 RIBs, 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.

JEA Twin Creeks RCW Storage and Delivery
Construction of two 1.5-million-gallon storage tanks, five pumps, pump house, and connector pipes from the existing reclaimed water system to the tanks. The upgrades will serve the Twin Creeks 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.

Little Orange Creek Recharge Well
Construction of one aquifer recharge well situated near Little Orange Creek. Water will be diverted from the creek towards the recharge well and flow passively (i.e., under gravity) into the UFA only when there is sufficient water available to maintain the environmental needs of natural systems in the creek.

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 Regional Capacity Improvements
The project consists of improvements to the Silver Springs Shores (SSS) WWTF to meet advanced wastewater treatment standards and to expand the capacity by 0.5 mgd for future package plant and septic-to-sewer connections. The project also includes the construction of infrastructure to connect two package WWTFs and one church septic system to the SSS WWTF. This includes construction of three new lift stations, rebuilding two existing lift stations and installation of three new force mains. The two package plants will also be decommissioned and demolished.

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 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 (NW) WRF RIB Expansion
Expansion of Orange County's NW WRF 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 – Pine Oaks
Construction of a 33-acre groundwater recharge wetland that will receive advanced treated wastewater from the city's water reclamation facilities #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.

Palatka RCW Extension
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 Marsh Landing RCW Main
This project includes the construction of a pump station and approximately 7,200 linear feet of reclaimed water main from the Marsh Landing WWTF to the Oak Bridge Golf Course.

St. Johns County RCW Storage Tank at Anastasia Island WWTF
Construction of a 1 mg ground storage tank.

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 contributed more than $181.7 million in funding on 183 AWS projects that will or have resulted in the production of more than 3 mgd of alternative water supplies.

Table 5-3 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	222.16
Surface water	26.00
Brackish groundwater	42.00
Stormwater	34.70
Rainwater	0.14
Total	325.00

Table 5-3: Funding by AWS Source, FY 2005–2006 to FY 2019–2020

AWS Source	FY 2005–2006						
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	DWS	CCSP
Brackish Groundwater	$ 2,338,311	$ 2,338,311	$ 34,770	$ -	$ -	$ -	$ -
Reclaimed Water	1,347,608	1,347,608	834,040	2,267,000	-	-	-
Surface Water	-	-	-	-	-	-	-
Seawater	-	-	-	-	-	-	-
Rainwater	-	-	100,000	-	-	-	-
Stormwater	-	-	-	-	-	-	-
Total:	$ 3,685,919	$ 3,685,919	$ 968,810	$ 2,267,000	$ -	$ -	$ -

AWS Source	FY 2006–2007						
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	DWS	CCSP
Brackish Groundwater	$ 5,852,185	$ 5,852,185	$ 50,000	$ -	$ -	$ -	$ -
Reclaimed Water	3,956,937	3,956,937	295,962	-	-	-	-
Surface Water	-	-	-	-	-	-	-
Seawater	-	-	-	-	-	-	-
Rainwater	-	-	-	-	-	-	-
Stormwater	-	-	125,000	-	-	-	-
Total:	$ 9,809,122	$ 9,809,122	$ 470,962	$ -	$ -	$ -	$ -

AWS Source	FY 2007–2008						
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	DWS	CCSP
Brackish Groundwater	$ 2,609,096	$ 2,609,096	$ -	$ -	$ -	$ -	$ -
Reclaimed Water	3,408,168	3,408,168	50,000	-	-	-	-
Surface Water	-	-	38,803,834	-	-	-	-
Seawater	-	-	-	-	-	-	-
Rainwater	-	-	-	-	-	-	-
Stormwater	-	-	-	-	-	-	-
Total:	$ 6,017,264	$ 6,017,264	$ 38,853,834	$ -	$ -	$ -	$ -

AWS Source	FY 2008–2009						
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	DWS	CCSP
Brackish Groundwater	$ 1,637,940	$ 1,637,940	$ -	$ -	$ -	$ -	$ -
Reclaimed Water	1,051,176	1,051,176	-	-	-	-	-
Surface Water	-	-	-	-	-	-	-
Seawater	-	-	-	-	-	-	-
Rainwater	-	-	-	-	-	-	-
Stormwater	-	-	-	-	-	-	-
Total:	$ 2,689,116	$ 2,689,116	$ -	$ -	$ -	$ -	$ -

AWS Source	FY 2009–2010						
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	DWS	CCSP
Brackish Groundwater	$ 564,848	$ 564,848	$ -	$ -	$ -	$ -	$ -
Reclaimed Water	1,316,214	1,316,214	-	-	-	-	-
Surface Water	2,921,408	2,921,408	-	-	-	-	-
Seawater	-	-	-	-	-	-	-
Rainwater	-	-	-	-	-	-	-
Stormwater	-	-	-	-	-	-	-
Total:	$ 4,802,470	$ 4,802,470	$ -	$ -	$ -	$ -	$ -

AWS Source	FY 2010–2011						
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	DWS	CCSP
Brackish Groundwater	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reclaimed Water	1,230,072	1,230,072	-	-	-	-	-
Surface Water	843,592	843,592	-	-	-	-	-
Seawater	-	-	-	-	-	-	-
Rainwater	-	-	-	-	-	-	-
Stormwater	-	-	-	-	-	-	-
Total:	$ 2,073,664	$ 2,073,664	$ -	$ -	$ -	$ -	$ -

AWS Source	FY 2011–2012						
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	DWS	CCSP
Brackish Groundwater	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reclaimed Water	495,426	495,426	1,474,824	-	4,132,126	-	-
Surface Water	-	-	-	-	-	-	-
Seawater	-	-	-	-	-	-	-
Rainwater	-	-	-	-	-	-	-
Stormwater	-	-	-	-	-	-	-
Total:	$ 495,426	$ 495,426	$ 1,474,824	$ -	$ 4,132,126	$ -	$ -

AWS Source	FY 2012–2013						
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	DWS	CCSP
Brackish Groundwater	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reclaimed Water	315,257	315,257	-	-	-	-	-
Surface Water	-	-	-	-	-	-	-
Seawater	-	-	-	-	-	-	-
Rainwater	-	-	-	-	-	-	-
Stormwater	-	-	-	-	-	-	-
Total:	$ 315,257	$ 315,257	$ -	$ -	$ -	$ -	$ -

AWS Source	FY 2013–2014						
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	DWS	CCSP
Brackish Groundwater	$ -	$ -	$ -	$ -	$ -	$ -	$ 902,000
Reclaimed Water	170,596	170,596	-	-	-	-	16,791,258
Surface Water	-	-	-	-	-	-	3,500,000
Seawater	-	-	-	-	-	-	
Rainwater	-	-	-	-	-	-	
Stormwater	-	-	-	-	-	-	
Total:	$ 170,596	$ 170,596	$ -	$ -	$ -	$ -	$ 21,193,258

AWS Source	FY 2014–2015						
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	DWS	CCSP
Brackish Groundwater	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reclaimed Water	1,649,161	1,649,161	-	-	-	-	4,284,837
Surface Water	-	-	-	-	-	-	-
Seawater	-	-	-	-	-	-	-
Rainwater	-	-	-	-	-	-	-
Stormwater	-	-	-	-	-	-	-
Total:	$ 1,649,161	$ 1,649,161	$ -	$ -	$ -	$ -	$ 4,284,837

AWS Source	FY 2015–2016						
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	DWS	CCSP
Brackish Groundwater	$ 198,195	$ 198,195	$ -	$ -	$ -	$ -	$ -
Reclaimed Water	621,565	621,565	-	-	-	-	2,561,750
Surface Water	-	-	-	-	-	-	-
Seawater	-	-	-	-	-	-	-
Rainwater	-	-	-	-	-	-	-
Stormwater	-	-	-	-	-	-	-
Total:	$ 819,760	$ 819,760	$ -	$ -	$ -	$ -	$ 2,561,750

AWS Source	FY 2016–2017						
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	DWS	CCSP
Brackish Groundwater	$ 773,349	$ 773,349	$ -	$ -	$ -	$ -	$ -
Reclaimed Water	2,055,208	2,055,208	-	-	-	-	8,367,360
Surface Water	-	-	-	-	5,000,000	-	-
Seawater	-	-	-	-	-	-	-
Rainwater	-	-	-	-	-	-	-
Stormwater	-	-	-	-	-	21,810,000	-
Total:	$ 2,828,557	$ 2,828,557	$ -	$ -	$ 5,000,000	$ 21,810,000	$ 8,367,360

AWS Source	FY 2017–2018						
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	DWS	CCSP
Brackish Groundwater	$ 252,134	$ 252,134	$ -	$ -	$ -	$ -	$ -
Reclaimed Water	1,784,112	1,784,112	-	-	-	-	8,333,029
Surface Water	-	-	6,080,127	-	-	-	600,000
Seawater	-	-	-	-	-	-	-
Rainwater	-	-	-	-	-	-	-
Stormwater	-	-	-	-	-	-	4,000,000
Total:	$ 2,036,246	$ 2,036,246	$ 6,080,127	$ -	$ -	$ -	$ 12,933,029

AWS Source	FY 2018–2019						
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	DWS	CCSP
Brackish Groundwater	$ -	$ -	$ -	$ -	$ 1,445,625	$ -	
Reclaimed Water	807,442	807,442	-	-	-	-	5,245,544
Surface Water	-	-	751,586	-	-	-	-
Seawater	-	-	-	-	-	-	
Rainwater	-	-	-	-	-	-	
Stormwater	-	-	-	-	-	-	
Total:	$ 807,442	$ 807,442	$ 751,586	$ -	$ 1,445,625	$ -	$ 5,245,544

AWS Source	FY 2019–2020						
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	DWS	CCSP
Brackish Groundwater	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Reclaimed Water	-	-	-	-	-	-	5,445,861
Surface Water	-	-	-	-	-	-	-
Seawater	-	-	-	-	-	-	-
Rainwater	-	-	-	-	-	-	-
Stormwater	-	-	-	-	-	-	304,590
Total:	$ -	$ -	$ -	$ -	$ -	$ -	$ 5,750,451

AWS Sources	ALL YEARS						
	WPSPTF	SJRWMD WPSPTF MATCH	AWSCCP	CFARE	MFLs AWS	DWS	CCSP
Brackish Groundwater	$ 14,226,058	$ 14,226,058	$ 84,770	$ -	$ 1,445,625	$ -	$ 902,000
Reclaimed Water	20,208,942	20,208,942	2,654,826	2,267,000	4,132,126	-	51,029,639
Surface Water	3,765,000	3,765,000	45,635,547	-	5,000,000	-	4,100,000
Seawater	-	-	-	-	-	-	-
Rainwater	-	-	100,000	-	-	-	-
Stormwater	-	-	125,000	-	-	21,810,000	4,304,590
Subtotal:	$ 38,200,000	$ 38,200,000	$ 48,600,143	$ 2,267,000	$ 10,577,751	$ 21,810,000	$ 60,336,229
Grand Total:						**$**	**219,991,123**

Florida Forever Work Plan
Annual Report

6. Florida Forever Work Plan Annual Report

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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 19th 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.

In addition to a summary of the proposed Florida Forever (FF) funding and projects during the planning period, fiscal year (FY) 2019–2020 to FY 2023–2024, the report presents project status, modifications, and additions to the 2001 plan and consists of water resource development, restoration, and land acquisition subsections. This report also includes land acquisitions and District lands surplused during FY 2018–2019.

II. Proposed Florida Forever Funding During the Planning Period

This annual update has been prepared with the assumption that there will be no new FF fund allocations through the planning period from FY 2019–2020 to FY 2023–2024.

Table 6-1 shows a summary of the past FF expenditures (FY 2000–2001 through FY 2012–2013), for additional details, see Appendix A. The District fully utilized its total allocation of $233.63 million of FF funding by the end of FY 2012–2013. Figure 6-1 shows the shares of lifetime expenditures are 15.8 percent for water resource development (WRD) projects, 12 percent for restoration projects, and 72.2 percent for land acquisitions.

Table 6-1. Past expenditures through FY 2012–2013 (in millions)

Expenditure Category	FY	Water Resource Development	Restoration	Land Acquisition	Combined Total	Cumulative Expenditure
Past 13-years Actual Expenditures	2000–2001	$ -	$ 0.63	$ -	$ 0.63	$ 0.63
	2001–2002	-	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	7.27	39.85
	2004–2005	6.50	0.39	13.84	20.73	60.58
	2005–2006	4.32	0.68	1.26	6.26	66.84
	2006–2007	9.66	4.43	49.11	63.20	130.04
	2007–2008	4.35	9.33	48.23	61.91	191.95
	2008–2009	7.54	4.07	17.56	29.17	221.12
	2009–2010	2.09	2.47	2.74	7.30	228.42
	2010–2011	0.42	0.23	4.42	5.07	233.49
	2011–2012	-	-	0.03	0.03	233.52
	2012–2013	-	0.11	-	0.11	233.63
Adopted Budget + Projection		-	-	-	-	
FF Lifetime Expenditure		**$ 36.99**	**$ 28.00**	**$ 168.64**	**$ 233.63**	

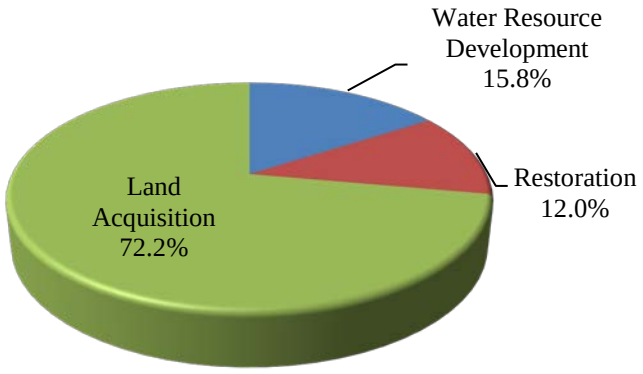


Figure 6-1. Florida Forever program lifetime expenditures by District program

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.

The District does not plan to use any new FF funds for WRD projects during the planning period from FY 2019–2020 to FY 2023–2024. The program's past expenditures total $36.99 million, accounting for 15.8 percent of the District's total FF expenditures.

Restoration Projects

The District does not plan to use any new FF funds for restoration projects during the planning period from FY 2019–2020 to FY 2023–2024. The program's past expenditures total $28 million, accounting for 12 percent of the District's total FF expenditures.

Land Acquisitions

The District does not plan to use any new FF funding for land acquisition-related expenses during the planning period from FY 2019–2020 to FY 2023–2024. The program's past expenditures total $168.64 million, accounting for 72.2 percent of the District's total FF expenditures.

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 as of June 2019 for the 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 6-2 shows the 40 projects that are within the District's boundaries, sorted by category, county, and rank.

Table 6-2. June 2019 FF acquisition priority list for projects within the District

Projects listed by Category ** New project since 2017*	**County**	**Rank within Category-Work Plan Group**
Critical Natural Lands (CNL)		**10 of 33 Total Projects**
Lake Wales Ridge Ecosystem	Lake, Osceola	CNL-2-High
Wekiva-Ocala Greenway	Lake, Orange, Seminole, Volusia	CNL-5-High
Strategic Managed Area Lands List*	Alachua, Clay, Marion, Orange, Putnam, St. Johns, Volusia, Washington	CNL-8-High
Etoniah Creek/Cross Florida Greenway	Clay, Marion, Putnam	CNL-11-High/Med
Longleaf Pine Ecosystem	Marion, Volusia	CNL-13-Med
Pine Island Slough Ecosystem	Indian River, Osceola	CNL-14-Med
Osceola Pine Savannas	Osceola	CNL-16-Med

Projects listed by Category ** New project since 2017*	County	Rank within Category- Work Plan Group
Camp Blanding to Raiford Greenway	Baker, Bradford, Clay	CNL-21-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-7-Low
Clay Ranch	Putnam	SC-9-Low
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-14-Low
Less-Than-Fee (LTF)		**8 of 33 Total Projects**
Adams Ranch*	Osceola	LTF-2-High
Kissimmee-St. Johns River Connector	Indian River, Okeechobee	LTF-7-Med
Matanzas to Ocala Conservation Corridor	Flagler, St. Johns, Putnam	LTF-11-Med/Low
Big Bend Swamp/Holopaw Ranch	Osceola	LTF-13-Low
Ranch Reserve	Brevard, Indian River, Osceola	LTF-15-Low
Raiford to Osceola Greenway	Baker, Union	LTF-16-Low
Maytown Flatwoods	Brevard	LTF-22-Low
Mill Creek	Marion	LTF-24-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-6-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
Flagler County Blueway	Flagler, Volusia	PR-12-Low
Lochloosa Forest	Alachua	PR-14-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 2018–2019

This section is a summary of land transactions for FY 2018–2019, details are included in Table 6-3. During this time, the District did not use any new FF funds for the completion of the 32 transactions that resulted in a net increase of 659.39 acres of land owned by the District and 2,653.83 acres deeded to other government entities. The types of transactions included fee simple acquisitions, including mitigation donations, and exchanges; easements for monitoring wells, utilities, and access; and assistance to other governmental programs. The District's total net purchase price was $191,808. Federal Department of Defense (DOD) pass-through transactions totaled $7,346,771. Mitigation donation values totaled $2,176,292. No conservation easements were acquired in FY 2018–2019.

Table 6-3. FY 2018–2019 Land Transactions

Transaction Date	Parcel Name	LA Number	Transaction Type	County	Total Net Fee or Less than Fee Acres	SJRWMD Portion of Purchase Price or Funds Received	Total Net Purchase Price or Funds Received	Funding Source	Surface Water Basins
10/09/2018	Fellsmere Joint Venture – Sun Ag	2001-058-PC	Fee	Indian River	-197.40	$ -	$ -	Exchange	Upper St. Johns River
10/09/2018	Fellsmere Perpetual Easement FJV to SJR Navigational	2001-058-PL	Less than Fee – Other	Indian River	5.89	-	-	Exchange	Upper St. Johns River
10/10/2018	City of Hathorne – Aquifer Recharge and Monitoring Easement	2018-029-P1	Less than Fee – Other	Alachua	14.89	-	-	Donation	Ocklawaha River
10/23/2018	Hickerson Flowers	1996-098-P1	Fee	Orange	-69.50	-	-	Exchange	Ocklawaha River
10/29/2018	Camp Blanding NFLT Pass-Through – 301 Land Investments LLC	2018-028-P5	Assistance to Other Govt	Clay	2,169.00	-	-	Federal DOD	Lower St. Johns River
10/31/2018	River Bend Golf Course-Bayard-FDOT-170E	2017-031-P1	Fee	Clay	75.31	-	-	Exchange	Lower St. Johns River
11/19/2018	Tisonia Fire Tower Monitoring Well Easement	2018-007-P1	Less than Fee – Other	Duval	0.03	-	-	Donation	Lower St. Johns River
12/18/2018	Doctors Lake Nelson Point	2018-023-P1	Assistance to Other Govt	Clay	7.83	-	-	2018 Legislative Session Specific App.	Lower St. Johns River

Transaction Date	Parcel Name	LA Number	Transaction Type	County	Total Net Fee or Less than Fee Acres	SJRWMD Portion of Purchase Price or Funds Received	Total Net Purchase Price or Funds Received	Funding Source	Surface Water Basins
12/28/2018	Camp Blanding NFLT Pass-Through – Gomie LTD et al.	2018-028-P3	Assistance to Other Govt	Clay	265.00	-	-	Federal DOD	Lower St. Johns River
12/28/2018	Camp Blanding NFLT Pass-Through – Carroll Hartman LLC et al.	2018-028-P4	Assistance to Other Govt	Clay	212.00	-	-	Federal DOD	Lower St. Johns River
4/01/2019	Wildwood Trail Mitigation Donation #1 – LJF	2018-003-P1	Fee	Seminole	27.02	-	-	Mitigation Donation of Property	Middle St. Johns River
4/01/2019	Wildwood Trail Mitigation Donation #2 – LJF	2018-004-P1	Fee	Seminole	5.17	-	-	Mitigation Donation of Property	Middle St. Johns River
4/01/2019	Wildwood Trail Mitigation Donation #3	2018-004-P1	Fee	Seminole	24.21	-	-	Mitigation-Donation of Property	Middle St. Johns River
4/16/2019	Relay Fire Tower Monitoring Well Easement	2018-024-P1	Less than Fee – Other	Flagler	0.02	-	-	Donation	Lower St. Johns River
5/07/2019	CFWI Monitoring Well Easement – Lake Brantley	2018-025-P1	Less than Fee – Other	Seminole	1.00	-	-	Donation	Middle St. Johns River
5/08/2019	Apopka Service Center (aka City of Apopka – Binion Road)	2018-019-P1	Fee	Orange	5.00	-	-	Exchange	Ocklawaha River
5/17/2019	Melbourne Tillman Water Control District	2015-003-P1	Fee	Brevard	96.00	-	-	Exchange	Upper St. Johns River
6/17/2019	Ordway-Swisher Monitoring Well Easement	2017-021-P1	Less than Fee – Other	Putnam	0.20	-	-	Donation	Ocklawaha River
6/19/2019	All Aboard Florida Mitigation Donation – Conley	2018-030-P3	Fee	Seminole	100.87	-	-	Mitigation Donation of Property	Middle St. Johns River

Transaction Date	Parcel Name	LA Number	Transaction Type	County	Total Net Fee or Less than Fee Acres	SJRWMD Portion of Purchase Price or Funds Received	Total Net Purchase Price or Funds Received	Funding Source	Surface Water Basins
6/20/2019	All Aboard Florida Mitigation Donation – Kemcho	2000-006-P3	Fee	Volusia	300.25	-	-	Mitigation Donation of Property	Middle St. Johns River
6/20/2019	All Aboard Florida Mitigation Donation – Southlake	2018-030-P4	Fee	Brevard	164.91	-	-	Mitigation Donation of Property	Upper St. Johns River
8/27/2019	Judith E. Vainik	2015-001-P1	Fee	Lake	9.39	40,000	40,000	Ad Valorem	Lake George
8/27/2019	Judith E. Vainik	2015-001-P1	Fee	Lake	-9.39	-	-	Exchange	Lake George
8/27/2019	Oklawaha Farms Refuge Road – SE 85th	1983-017-P2	Fee	Marion	6.14	-	-	Exchange	Ocklawaha River
8/28/2019	Jennifer Masters	2017-023-P1	Fee	Putnam and St. Johns	26.41	-	39,615	DOT Mitigation	Lower St. Johns River
8/28/2019	Leonard and Linda Freeman	2017-029-P1	Fee	Putnam and St. Johns	35.34	-	76,485	DOT Mitigation	Lower St. Johns River
8/28/2019	Leonard and Linda Freeman Access Easement	2017-029-P2	Less than Fee – Other	Putnam and St. Johns	4.90	-	26,784	DOT Mitigation	Lower St. Johns River
8/28/2019	Michael R. and Heather C. Styduhar	2017-030-P1	Fee	St. Johns	10.88	-	36,864	DOT Mitigation	Lower St. Johns River
8/28/2019	Michael R. and Heather C. Styduhar	2017-030-P2	Less than Fee – Other	St. Johns	2.01	-	12,060	DOT Mitigation	Lower St. Johns River
9/11/2019	Dupont Fire Tower Monitoring Well Easement	2018-026-P1	Less than Fee – Other	St. Johns	1.40	-	-	Donation	Northern Coastal
9/17/2019	Tomoka Fire Tower Monitoring Well Easement	2018-006-P1	Less than Fee – Other	Volusia	0.11	-	-	Donation	Northern Coastal
9/20/2019	Kemcho Orlando Gateway Mitigation	2000-006-P5	Fee	Volusia	18.28	-	-	Mitigation Donation	Middle St. Johns River
				Total – District Owned	**659.39**	**-**	**$191,808**		
				Total – Deeded to Other Governments	**2,653.83**	**$ 40,000**	**$ 40,000**		

V. Surplus Lands During FY 2018–2019

In 2012, the Governing Board approved a plan that evaluated every acre of land in the District's inventory and identified parcels where continued ownership no longer met District goals as well as whether the use of any of the properties should be altered. Since 2012, through a continuous internal review of the District's portfolio, or as requests for surplus property are received, parcels that may no longer support the District's mission may be identified as surplus.

During FY 2018–2019, the District disposed of 116.76 acres of land in three transactions and received $2.44 million in compensation. Table 6-4 provides transaction details.

Table 6-4. Surplus parcels during FY 2018–2019

Transaction Date	Parcel Name	LA Number	Transaction Type	County	Surface Water Basins	Total Net Fee or CE Acres	Compensation
1/15/2019	Edgefield – Dog Branch RST	2001-032-P1	Transfer out to Putnam County	Putnam	Lower St. Johns River	-203.48	$ -
3/27/2019	Bayard – Union Camp – Bumpy Bay	1994-066-P1	Transfer out to Clay County	Clay	Lower St. Johns River	-2.36	-
8/05/2019	Ocklawaha Farms/Refuge	1983-017-P1	Surplus	Marion	Ocklawaha River	-100.23	2,342,755
8/13/2019	Bayard – Union Camp – Bumpy Bay	1994-066-P1	Surplus	Clay	Lower St. Johns River	-10.39	101,111
8/28/2019	Ocklawaha Farms Refuge Road – SE 85th	1983-017-P2	Surplus	Marion	Ocklawaha River	-6.14	Surplus as part of Refuge (above)
Total						**-322.60**	**$ 2,443,866**

VI. District Land Management Activities

District Land Management Program

The District is the lead manager for more than 400,000 acres of the approximately 741,054 acres of land that were acquired to advance the District's core missions. Increasing demand for the use of these lands and an expansion of the District's responsibilities requires a uniform approach to land management decisions. The Governing Board-approved land management plan establishes the philosophy and direction for management and use for each property. Legislative directives guide the planning process from acquisition evaluations to the development of land. These plans identify resource needs and compatible uses which are included in Table 6-5.

Table 6-5. Land management status of District lands

Management Area	Land Management Activities	Cooperative Management Agreement	Public Recreational Opportunities					
			Fish	Hunt	Horse	Boat	Camp	Hike
Austin Cary Forest	This property is managed by Univ. of Florida. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / Univ. of Florida	✓	✓	✓	No	✓	✓
Bayard Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / FWC	✓	✓	✓	✓	✓	✓
Belmore State Forest	This property is managed by FFS. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	FFS / SJRWMD	No	✓	✓	No	No	✓
Black Creek Ravines Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / Clay Co.	✓	No	✓	✓	✓	✓
Blue Cypress Conservation Area	Land management activities include prescribed burning, mechanical fuels management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / FWC	✓	✓	No	✓	✓	✓
Buck Lake Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / FWC / Brevard Co.	✓	✓	✓	✓	✓	✓
Canaveral Marshes Conservation Area	Land management activities include prescribed burning, mechanical fuels management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / DEP / Great Outdoors	✓	No	✓	✓	No	✓
Caravelle Ranch Wildlife Management Area	This property is managed by FWC. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	FWC / SJRWMD	✓	✓	✓	Canoe/ kayak	✓	✓

Management Area	Land Management Activities	Cooperative Management Agreement	Public Recreational Opportunities					
			Fish	Hunt	Horse	Boat	Camp	Hike
Cary State Forest	This property is managed by FFS. Land management activities include prescribed burning, mechanical fuels management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	FFS / SJRWMD	No	✓	✓	No	✓	✓
Charles H. Bronson State Forest	This property is managed by FFS. Land management activities include prescribed burning, mechanical fuels management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	FFS / SJRWMD / Orange Co.	✓	✓	✓	Canoe/ kayak	✓	✓
Clark Bay Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	Volusia Co. / SJRWMD	✓	✓	✓	No	No	✓
Crescent Lake Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD	No	No	✓	No	✓	✓
Deep Creek Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / DEP	✓	No	✓	✓	No	✓
Deep Creek Preserve	This property is managed by Volusia Co. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / Volusia Co.	✓	No	✓	✓	No	✓
Dunns Creek Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / FWC	✓	✓	✓	✓	✓	✓
Econlockhatchee Sandhills Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD	✓	No	✓	No	No	✓
Emeralda Marsh Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / FWC	✓	✓	✓	✓	✓	✓
Faver-Dykes State Park	This property is managed by DEP. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	DEP / SJRWMD	✓	No	✓	✓	✓	✓
Fort Drum Marsh Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / FWC	✓	✓	✓	✓	✓	✓

Management Area	Land Management Activities	Cooperative Management Agreement	Public Recreational Opportunities					
			Fish	Hunt	Horse	Boat	Camp	Hike
Four Creeks State Forest	This property is managed by FFS. Land management activities include prescribed burning, mechanical fuels management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	FFS / SJRWMD	✓	✓	✓	✓	No	✓
Gemini Springs Addition	This property is managed by Volusia Co. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD	No	No	✓	No	No	✓
Gemini Springs County Park	This property is managed by Volusia Co. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	Volusia Co. / SJRWMD	✓	No	No	No	No	✓
Gourd Island Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD	No	No	✓	No	No	✓
Hal Scott Regional Preserve and Park	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / Orange Co.	✓	No	✓	Canoe/ Kayak	✓	✓
Haw Creek Preserve	This property is managed by Flagler Co. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	Flagler Co. / SJRWMD / FFS	✓	No	✓	✓	✓	✓
Heart Island Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / FWC	✓	✓	✓	No	✓	✓
Herky Huffman / Bull Creek Wildlife Management Area	This property is managed by FWC. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	FWC / SJRWMD	✓	✓	✓	Canoe/ kayak	✓	✓
Hull Swamp Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD	✓	✓	✓	No	✓	✓
Jennings State Forest	This property is managed by FFS. Land management activities include prescribed burning, mechanical fuels management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	FFS / SJRWMD / FWC	✓	✓	✓	✓	✓	✓
John Bethea State Forest	This property is managed by FFS. Land management activities include prescribed burning, mechanical fuels management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	FFS / SJRWMD	✓	✓	✓	No	✓	✓

Management Area	Land Management Activities	Cooperative Management Agreement	Public Recreational Opportunities					
			Fish	Hunt	Horse	Boat	Camp	Hike
Julington-Durbin Preserve	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / DEP / COJ	✓	No	✓	✓	No	✓
Lake Apopka North Shore	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / NRCS	✓	No	✓	✓	No	✓
Lake George Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / FWC / Volusia Co.	✓	✓	✓	✓	✓	✓
Lake George Forest	This property is managed by Volusia Co. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	Volusia Co. / FWC / SJRWMD	✓	✓	✓	✓	✓	✓
Lake Jesup Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD	✓	No	✓	✓	✓	✓
Lake Monroe Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / Seminole Co. / FWC	✓	✓	✓	✓	✓	✓
Lake Norris Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / LCWA	✓	No	✓	Canoe/ kayak	✓	✓
Lake Woodruff National Wildlife Refuge	This property is managed by the USFWS. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	USFWS / SJRWMD	✓	✓	No	✓	No	✓
Little-Big Econ State Forest	This property is managed by FFS. Land management activities include prescribed burning, mechanical fuels management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	FFS / SJRWMD	✓	✓	✓	✓	✓	✓
Lochloosa Wildlife Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / FWC	✓	✓	✓	✓	✓	✓
Longleaf Flatwoods Reserve	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / Alachua Co.	No	No	✓	No	✓	✓
Longleaf Pine Preserve	This property is managed by Volusia Co. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	Volusia Co. / SJRWMD	✓	No	✓	No	✓	✓

Management Area	Land Management Activities	Cooperative Management Agreement	Public Recreational Opportunities					
			Fish	Hunt	Horse	Boat	Camp	Hike
Matanzas State Forest	This property is managed by FFS. Land management activities include prescribed burning, mechanical fuels management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	FFS / SJRWMD	✓	✓	✓	No	✓	✓
Micco Water Management Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD	No	No	✓	No	No	✓
Moses Creek Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD	✓	No	✓	✓	✓	✓
Murphy Creek Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD	✓	No	✓	✓	✓	✓
Neighborhood Lakes	This property is managed by Lake Co. Land management activities include exotic species control and land security.	Lake Co. / SJRWMD	No	No	✓	No	No	✓
Newnans Lake Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / Alachua Co.	✓	✓	✓	Canoe/ kayak	✓	✓
Ocklawaha Prairie Restoration Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / NRCS	✓	✓	✓	✓	✓	✓
Orange Creek Restoration Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / NRCS	✓	✓	✓	✓	✓	✓
Oslo Riverfront Conservation Area	This property is managed by Indian River Co. Land management activities include natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	Indian River Co. / SJRWMD	✓	No	No	✓	No	✓
Palm Bluff Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD	✓	No	✓	No	✓	✓
Paynes Prairie Preserve State Park	This property is managed by DEP. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	DEP / SJRWMD	✓	No	✓	✓	✓	✓
Pellicer Creek Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / FWC / Flagler Co.	✓	No	✓	✓	No	✓

Management Area	Land Management Activities	Cooperative Management Agreement	Public Recreational Opportunities					
			Fish	Hunt	Horse	Boat	Camp	Hike
Pine Island Conservation Area	This property is managed by Brevard Co. Land management activities include prescribed burning, mechanical fuels management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	Brevard Co / SJRWMD	✓	No	✓	✓	No	✓
Princess Place Preserve	This property is managed by Flagler Co. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	Flagler Co. / SJRWMD	✓	No	✓	✓	✓	✓
Pumpkin Hill Creek Preserve State Park	This property is managed by DEP. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	DEP / SJRWMD	✓	No	✓	✓	No	✓
Ralph E. Simmons Memorial State Forest	This property is managed by FFS. Land management activities include prescribed burning, mechanical fuels management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	FFS / SJRWMD / FWC	✓	✓	✓	✓	✓	✓
River Lakes Conservation Area	Land management activities include prescribed burning, mechanical fuels management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / FWC	✓	✓	✓	✓	✓	✓
Rock Springs Run State Reserve	This property is managed by DEP. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	DEP / SJRWMD / Orange Co.	✓	✓	✓	Canoe/ kayak	✓	✓
Salt Lake Wildlife Management Area	This property is managed by FWC. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	FWC / SJRWMD	✓	✓	✓	No	No	✓
Sand Lakes Conservation Area	Land management activities include prescribed burning, mechanical fuels management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD	No	No	✓	No	No	✓
Sebastian Stormwater Park		SJRWMD / City of Sebastian	No	No	No	No	No	✓
Seminole Ranch Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / FWC	✓	✓	✓	✓	✓	✓
Seminole State Forest	This property is managed by FFS. Land management activities include prescribed burning, mechanical fuels management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	DOF / SJRWMD	✓	✓	✓	✓	✓	✓

Management Area	Land Management Activities	Cooperative Management Agreement	Public Recreational Opportunities					
			Fish	Hunt	Horse	Boat	Camp	Hike
Silver Springs Forest Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD	✓	No	✓	No	No	✓
Spruce Creek Preserve	This property is managed by Volusia Co. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	Volusia Co. / SJRWMD	✓	No	No	✓	No	✓
St. Sebastian River Preserve State Park	This property is managed by DEP. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	DEP / SJRWMD / Indian River Co.	✓	No	✓	✓	✓	✓
Stokes Landing Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD	✓	No	✓	✓	✓	✓
Sunnyhill Restoration Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / NRCS	✓	No	✓	✓	✓	✓
T.M Goodwin Waterfowl Management Area	This property is managed by FWC. Land management activities include prescribed burning, mechanical fuels management, , exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	FWC / SJRWMD	✓	✓	No	✓	No	✓
Thomas Creek Conservation Area	Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / COJ / FWC	✓	✓	✓	✓	No	✓
Three Forks Conservation Area	This property is managed by FWC. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / FWC	✓	✓	✓	✓	✓	✓
Tiger Bay State Forest	This property is managed by FFS. Land management activities include prescribed burning, mechanical fuels management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	FFS / SJRWMD / FWC	✓	✓	✓	✓	✓	✓
Triple N Ranch Wildlife Management Area	This property is managed by FWC. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	FWC / SJRWMD	✓	✓	✓	No	✓	✓
Turnbull Hammock Conservation Area	Land management activities include exotic species control, and land security.	SJRWMD	✓	No	No	No	No	✓

Management Area	Land Management Activities	Cooperative Management Agreement	Public Recreational Opportunities					
			Fish	Hunt	Horse	Boat	Camp	Hike
Twelve Mile Swamp Conservation Area	Land management activities on the portion managed by Rayonier include timber management, exotic species control, land security, and road maintenance, and mowing. The land management activities on the parcel managed by SJRWMD include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD / DEP	No	✓	✓	No	No	✓
Wekiva River Buffer Conservation Area	This property is managed by DEP. Land management activities include prescribed burning, mechanical fuels management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	SJRWMD	✓	No	No	✓	No	✓
Wiregrass Prairie Preserve	This property is managed by Volusia Co. Land management activities include prescribed burning, mechanical fuels management, timber management, natural systems restoration, exotic species control, land security, public use and recreational development / maintenance, road maintenance, and mowing.	Volusia Co. / SJRWMD	✓	No	✓	✓	✓	✓

VII. Progress of Funding, Staffing, and Resource Management of Projects

This section provides information on FY 2018–2019 budget and expenditures for programs and projects that received funding from FF and WMLTF.

As of September 30, 2019, the District has expended all originally appropriated FF funds. Fund balance accumulated from the sale of surplus lands that were acquired utilizing legislative funding (P-2000, FF, WMLTF) are used within the same guidelines as the original funding source. The fund balance as of September 30, 2019, was $973,297.

In FY 2014–2015, $13.03 million was appropriated by the state from the WMLTF to pay off the District's debt service obligation. The District expended the appropriated funds for the debt service payment. The original reserve for debt service has a fund balance of $3.7 million. These funds are being used in our Land Acquisition program.

VIII. Appendix A — History of Florida Forever Expenditures

The District fully utilized its total allocation of $233.63 million of FF funding by the end of FY 2012–2013. Tables 6-6 and 6-7 provide the supporting details.

Table 6-6. 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	$ -	$ -	$ 21,481,880
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	**$ 34,481,059**	**$ 2,093,009**	**$ 420,105**	**$ -**	**$ -**	**$ 36,994,173**
Restoration						
Lower St. Johns River Basin						
Water Quality Best Management Practices	$ 108,694	$ -	$ -	$ -	$ -	$ 108,694
Mill Cove Improvements	122,649	-	-	-	-	122,649
Upper St. Johns River Basin						
BCWMA Water Quality Berm	21,190	-	-	-	-	21,190
Ocklawaha River Basin						
Lake Apopka						
NSRA Restoration	3,692,688	458,349	-	-	-	4,151,037
- Soil Amendment Application and Wetland Restoration	515,473	-	-	-	-	515,473
- Stormwater Management	75,337	-	-	-	-	75,337
Fish Landing Access	199,680	-	-	-	-	199,680
Upper Ocklawaha River Basin						
Emeralda Marsh Restoration	250,000	-	-	-	-	250,000
- Chemical Treatments to Bind Phosphorus	19,988	-	-	-	-	19,988
- Restoration at Emeralda Areas 1,2,3,4 5, 6	1,030,339	-	-	-	-	1,030,339
Harris Bayou	6,641,837	-	-	-	-	6,641,837
Sunnyhill Restoration	1,043,736	-	-	-	-	1,043,736
Indian River Lagoon						
Stormwater Management	-	-	-	-	-	-
- Town of Fellsmere	449,973	-	-	-	-	449,973
- Indian River Farm WCD	1,101,248	-	-	-	-	1,101,248
- 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	-	-	3,402,925
Sawgrass Water Management Area	2,112,087	-	-	-	-	2,112,087
Turkey Creek Dredging/BV 52 Site Cleanup	1,228,921	-	-	-	-	1,228,921
Fellsmere Water Management Area	2,075,365	195,981	14,350	-	110,564	2,396,260
Restoration Total	**$ 25,189,853**	**$ 2,469,340**	**$ 226,019**	**$ -**	**$ 110,564**	**$ 27,995,776**
Land Acquisition Total (minus fund balance)	**$ 161,449,349**	**$ 2,733,153**	**$ 4,418,030**	**$ 34,519**	**$ -**	**$ 168,635,051**
Grand Total	**$ 221,120,261**	**$ 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 6-7. 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	Fee	203.48
12/21/2001	2001-032-P2	Edgefield Life Estate	329,000	Life Estate	26.16
3/7/2002	2001-066-P1	Cassel Creek - City of Maitland Fee Reverter	361,600	Fee Reverter	-
3/21/2002	2001-061-P1	Plum Creek - Rice Creek	1,700,000	Fee	4,191.65
6/14/2002	2001-048-P1	Menard	756,357	Joint Fee	1,347.03
6/14/2002	2001-048-P1	Menard	(756,357)	Joint Fee	-
7/1/2002	2001-058-PA	Fellsmere - Sun Ag - former NRCS_WRP parcel	434,561	Fee	3,890.71
7/1/2002	2001-058-PA	Fellsmere - Sun Ag - former NRCS_WRP parcel	(8,000,000)	Fee	-
7/1/2002	2001-058-PA	Fellsmere - Sun Ag - former NRCS_WRP parcel	8,669,700	Fee	-
7/1/2002	2001-058-PB	Fellsmere Water Control District - Sun Ag	690,300	Fee	-
7/1/2002	2001-058-PB	Fellsmere Water Control District - Sun Ag	65,965	Fee	323.19
7/30/2002	1994-046-P7	Plum Creek Volusia (Parcel 5) Cell Tower Site	215	Fee	0.20
7/30/2002	1994-046-P6	Plum Creek Volusia (Parcels 5&6) and Zemel	(2,126,807)	Joint Fee	-
7/30/2002	1994-046-P6	Plum Creek Volusia (Parcels 5&6) and Zemel	8,281,200	Joint Fee	-
7/30/2002	1994-046-P6	Plum Creek Volusia (Parcels 5&6) and Zemel	(27,147)	Joint Fee	-
7/30/2002	1994-046-P6	Plum Creek Volusia (Parcels 5&6) and Zemel	(4,000,620)	Joint Fee	3,750.99
7/30/2002	1994-046-P6	Plum Creek Volusia (Parcels 5&6) and Zemel	(2,126,807)	Joint Fee	-
7/30/2002	1994-046-P4	Volusia-Pineland Conservation Easement-Plum Creek	7,664	Joint Less Than Fee	-
7/30/2002	1994-046-P4	Volusia-Pineland Conservation Easement-Plum Creek	(1,042,064)	Joint Less Than Fee	-
7/30/2002	1994-046-P4	Volusia-Pineland Conservation Easement-Plum Creek	2,068,800	Joint Less Than Fee	-
7/30/2002	1994-046-P4	Volusia-Pineland Conservation Easement-Plum Creek	(1,034,400)	Joint Less Than Fee	6,947.09
7/30/2002	2001-014-P1	Volusia-Hutton Conservation Easement-Plum Creek	2,347,070	Joint Less Than Fee	4,780.44
7/30/2002	2001-014-P1	Volusia-Hutton Conservation Easement-Plum Creek	(1,160,532)	Joint Less Than Fee	-
12/19/2002	1993-006-PB	Keen Ranch - B	171,312	Fee	49.69
2/17/2003	2001-040-PB	Bud Henry	900,000	Fee	584.54
2/28/2003	2001-051-P1	Fore - Marvin Kelley - Conservation Easement	1,202,064	Joint Less Than Fee	-
2/28/2003	2001-051-P1	Fore - Marvin Kelley - Conservation Easement	(17,947)	Joint Less Than Fee	741.92
2/28/2003	2001-049-P1	Fore-Donald Ray (now Double T Ranch FKA Hartford Ranch) Conservation Easement	779,439	Joint Less Than Fee	461.89
2/28/2003	2001-050-P1	WT Ranch - Conservation Easement	497,844	Joint Less Than Fee	-
4/22/2003	2002-012-P1	Redshirt Farms - Thomas Creek C.A.	984,879	Fee	1,205.93
5/16/2003	1997-032-P1	O'Neal	300,000	Fee	373.45
7/2/2003	2003-001-P1	Timberlands Consolidated	587,059	Joint Fee	1,043.66
7/16/2003	2003-004-P1	Smith, Phillip	26,400	Joint Fee	60.00

Original Close Date	LA Number	Parcel Name	Florida Forever Amount	Acquisition Type	Acres
7/31/2003	2001-024-P1	Wolf Creek Ranch Conservation Easement	2,287,429	Less Than Fee - Conservation Easement	3,812.38
10/31/2003	2003-007-PA	Fore-Norman - Conservation Easement	388,970	Joint Less Than Fee	691.50
10/31/2003	2003-007-PB	Fore-Norman Children Conservation Easement	70,069	Joint Less Than Fee	124.57
12/8/2003	2003-021-P1	Lindsey - Banjo Groves - Silver Springs	1,000,000	Fee	298.00
12/8/2003	2003-021-P1	Lindsey - Banjo Groves - Silver Springs	(443,235)	Fee	-
12/9/2003	1996-110-P1	Tashkede	22,000	Fee	24.47
4/15/2004	1986-004-PB	Far Reach Ranch-Tucker - Conservation Easement	206,971	Less Than Fee - Conservation Easement	311.92
4/15/2004	1986-004-PA	Far Reach Ranch-Tucker-Conservation. Easement-NRCS parcel	1,246,818	Less Than Fee - Conservation Easement	3,758.08
5/20/2004	2003-005-PA	LeFils Corporation - Conservation Easement A	534,708	Joint Less Than Fee	1,267.44
5/20/2004	2003-005-PC	LeFils Corporation - Conservation Easement C (SAZ)	305,319	Joint Less Than Fee	361.70
5/20/2004	2003-005-PB	LeFils, Donald and Mary - Conservation Easement B	34,447	Joint Less Than Fee	81.65
6/18/2004	2003-016-P1	Tennyson - Red Bug Road Project - Fee Reverter	600,000	Fee Reverter	-
7/28/2004	2004-001-P1	Rogers - Fee Reverter	2,000,000	Fee Reverter	-
1/12/2005	2004-004-P1	Minter - Solary Canal Project - Fee Reverter	1,820,000	Fee Reverter	-
1/25/2005	2003-030-P1	Relay Tract-South Conservation Easement	4,033,207	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	5,183,029	Less Than Fee - Conservation Easement	474.00
4/27/2005	2001-065-P1	Four Creeks Forest	2,667,080	Joint Fee	10,221.10
4/28/2005	1994-048-P1	Skinner, Bryant Conservation Easement	1,602,387	Less Than Fee - Conservation Easement	1,569.49
6/1/2005	2004-002-P1	Newnans Lake Addition - Rayonier/Alachua	1,619,563	Joint Fee	1,708.20
7/20/2005	2003-026-P1	Rayonier - Thomas Creek - Parcel A - West	728,278	Joint Fee	-
7/20/2005	2003-026-P1	Rayonier - Thomas Creek - Parcel A - West	1,572,132	Joint Fee	2,078.16
7/20/2005	2003-026-P2	Rayonier - Thomas Creek - Parcel B - East	-	Joint Fee	130.18
1/24/2006	2003-022-P1	Jacksonville Stormwater - Lenox Ave - Fee Reverter	209,274	Fee Reverter	-
3/10/2006	2005-009-P1	Jacksonville Stormwater - Wesconnett - Fee Reverter	82,275	Fee Reverter	-
3/10/2006	2005-008-P1	Jacksonville Stormwater - Grace Lane - Fee Reverter	170,500	Fee Reverter	-
3/10/2006	2004-019-P1	Snag Harbor - The Conservation Fund	32,000	Fee	14.63
6/28/2006	2005-010-P1	West Augustine Fee Reverter	260,403	Fee Reverter	-
6/28/2006	2005-010-P1	West Augustine Fee Reverter	714,597	Fee Reverter	-
7/26/2006	2006-012-P1	Holy Cross Evangelical Lutheran Church - Fee Reverter	86,250	Fee Reverter	-

Original Close Date	LA Number	Parcel Name	Florida Forever Amount	Acquisition Type	Acres
8/28/2006	2006-010-P1	City of Ocala - Ghannam - Fee Reverter	750,000	Fee Reverter	-
3/2/2007	2001-058-PC	Fellsmere - Sun Ag	31,592,195	Fee	6,020.00
3/2/2007	2007-011-P1	Neighborhood Lakes - Orange County parcel	3,606,100	Joint Fee	315.54
3/2/2007	2001-058-PC	Fellsmere - Sun Ag	3,657,805	Fee	-
3/2/2007	2007-011-P2	Neighborhood Lakes - Lake County parcel	5,000,000	Joint Fee	210.58
3/2/2007	2007-011-P2	Neighborhood Lakes - Lake County parcel	(5,000,000)	Joint Fee	-
3/2/2007	2007-011-P1	Neighborhood Lakes - Orange County parcel	125,000	Joint Fee	-
4/5/2007	2006-026-P1	Joshua Creek Conservation Area	(12,491,701)	Joint Fee	2,699.02
4/5/2007	2006-026-P1	Joshua Creek Conservation Area	24,983,401	Joint Fee	-
8/15/2007	2007-008-P1	Hollondel Road Property - Fee Reverter	935,000	Fee Reverter	-
8/24/2007	2007-006-P1	Evergreen Village/Engle/Melbourne - Fee Reverter	1,882,920	Fee Reverter	-
8/30/2007	2005-007-P1	Bull Creek - North (West)	3,291,452	Fee	-
8/30/2007	2005-007-P1	Bull Creek - North (West)	29,835	Fee	3,525.28
8/30/2007	2005-007-P1	Bull Creek - North (West)	468,855	Fee	-
9/14/2007	2005-030-P1	Longbranch Crossing, LLC - Conservation Easement	7,072	Less-Than-Fee - Conservation Easement	2,684.65
9/14/2007	2005-030-P1	Longbranch Crossing, LLC - Conservation Easement	2,919,141	Less-Than-Fee - Conservation Easement	-
9/14/2007	2005-030-P1	Longbranch Crossing, LLC - Conservation Easement	4,787,037	Less-Than-Fee - Conservation Easement	-
12/7/2007	2007-017-P1	Geiger	3,163,200	Fee	395.40
12/14/2007	2007-034-P1	Blue Villa - City of South Daytona - Fee Reverter	1,051,100	Fee Reverter	-
12/14/2007	2006-013-P1	Robert Berner - City of South Daytona Fee Reverter	50,000	Fee Reverter	-
2/4/2008	1991-020-PB	Turkey Creek/Lee Ranch - East/NRCS C.E. Parcel	(18,586,864)	Fee	-
2/4/2008	1991-020-PB	Turkey Creek/Lee Ranch - East/NRCS C.E. Parcel	28,650,700	Fee	2,892.45
2/4/2008	1991-020-PA	Turkey Creek/Lee Ranch - West Parcel	(2,079)	Joint Fee	1,620.58
2/4/2008	1991-020-PA	Turkey Creek/Lee Ranch - West Parcel	1,593,242	Joint Fee	-
2/13/2008	2007-027-P1	Rayonier - River Styx	1,276,703	Joint Fee	1,428.09
2/15/2008	1991-064-P1	Yarborough Ranch - North - Parcels 1 and 2	5,834,375	Fee	3,927.14
2/15/2008	1991-064-P1	Yarborough Ranch - North - Parcels 1 and 2	11,224,336	Fee	-
2/15/2008	1991-064-P4	Yarborough Ranch - South - Parcel 4 - Lamont Pasture	10,107,162	Fee	-
3/12/2008	2007-001-P1	Masters, Lawrence	(2,162,810)	Fee	112.88
3/12/2008	2007-001-P1	Masters, Lawrence	85,288	Fee	-
3/12/2008	2007-001-P1	Masters, Lawrence	3,340,432	Fee	-
3/12/2008	2007-001-P1	Masters, Lawrence	30,776	Fee	-
3/12/2008	2007-001-P1	Masters, Lawrence	214,857	Fee	-
3/14/2008	2006-019-P1	Chain of Lakes Expansion - Fee Reverter	876,034	Fee Reverter	-
8/15/2008	1994-098-P1	Kaufman - Lumbert	556,667	Joint Fee	30.46
8/15/2008	2007-022-P1	Young	100,000	Joint Fee	11.42
9/4/2008	2006-046-P1	ITERA - Putnam Timberland	448,058	Fee	189.18
9/26/2008	2006-007-P1	City of Ocala - Thompson Bowl - Fee Reverter	152,750	Fee Reverter	-

Original Close Date	LA Number	Parcel Name	Florida Forever Amount	Acquisition Type	Acres
9/26/2008	2006-008-P1	City of Ocala - Tuscawilla - Fee Reverter	173,740	Fee Reverter	-
9/29/2008	2007-036-P1	Bloom/Frank	152,418	Joint Fee	123.11
10/17/2008	2008-003-P1	Medlock	381,491	Fee	162.14
10/17/2008	2008-004-P1	Motes	739,745	Fee	215.02
12/10/2008	2008-012-P1	Econ Project Addition-Rybolt	(381)	Joint Fee	-
12/10/2008	2008-012-P1	Econ Project Addition-Rybolt	8,118,211	Joint Fee	-
12/10/2008	2008-012-P1	Econ Project Addition-Rybolt	3,129,659	Joint Fee	706.79
12/10/2008	2008-012-P1	Econ Project Addition-Rybolt	(1,000,000)	Joint Fee	-
12/19/2008	2005-033-P1	Arahatchee Conservation Easement	2,360,000	Less-Than-Fee - Conservation Easement	900.01
12/19/2008	2006-006-P1	David Strawn Lands, Inc.	1,247,785	Joint Fee	1,203.43
12/19/2008	2006-006-P1	David Strawn Lands, Inc.	(1,247,785)	Joint Fee	-
12/22/2008	2008-028-P1	Titus	77,520	Fee	8.16
1/21/2009	2008-025-P1	Plum Creek - Rice Creek Conservation Area Addition	411,703	Fee	152.13
5/27/2009	2009-011-P1	Golden Gem Road (City of Apopka) - Fee Reverter	4,490,175	Fee Reverter	-
7/9/2009	1998-006-P3	Gladstone Addition (Jonathan)	150,000	Joint Fee	36.00
7/31/2009	2008-015-P1	Edwards	493,653	Joint Fee	-
10/15/2009	2001-040-PA	Evans Conservation Easement	1,023,075	Joint Less Than Fee	680.20
10/15/2009	2001-040-PA	Evans Conservation Easement	182,156	Joint Less Than Fee	-
12/29/2009	2009-021-P1	Maytown Tract	1,557,693	Fee	-
12/29/2009	2009-021-P1	Maytown Tract	3,511	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	Less-Than-Fee - Conservation Easement	4,388.00
5/27/2011	2000-006-P1	Kemcho - formerly American Timberlands	1,600,405	Fee	3,200.00
5/27/2011	2000-006-P1	Kemcho - formerly American Timberlands	4,399,595	Fee	-
5/24/2012	2010-006-P2	Morrison Conservation Easement - 500-acre subdivision of BJ Bar Ranch (LA2010-006-P1)	-	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	-	Fee	3,108.26
Total			**$ 185,511,867**		

1) The cost to the District in Table 6-7 is different from the total expenditures for land acquisition in Table 6-6. While land acquisition expenditures in Table 6-6 are the total expenditures minus fund balance, the total expenditures for FF funded land acquisitions in Table 6-7 reflect all land acquisitions that have expended FF funds including 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.

IX. Appendix B — 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.

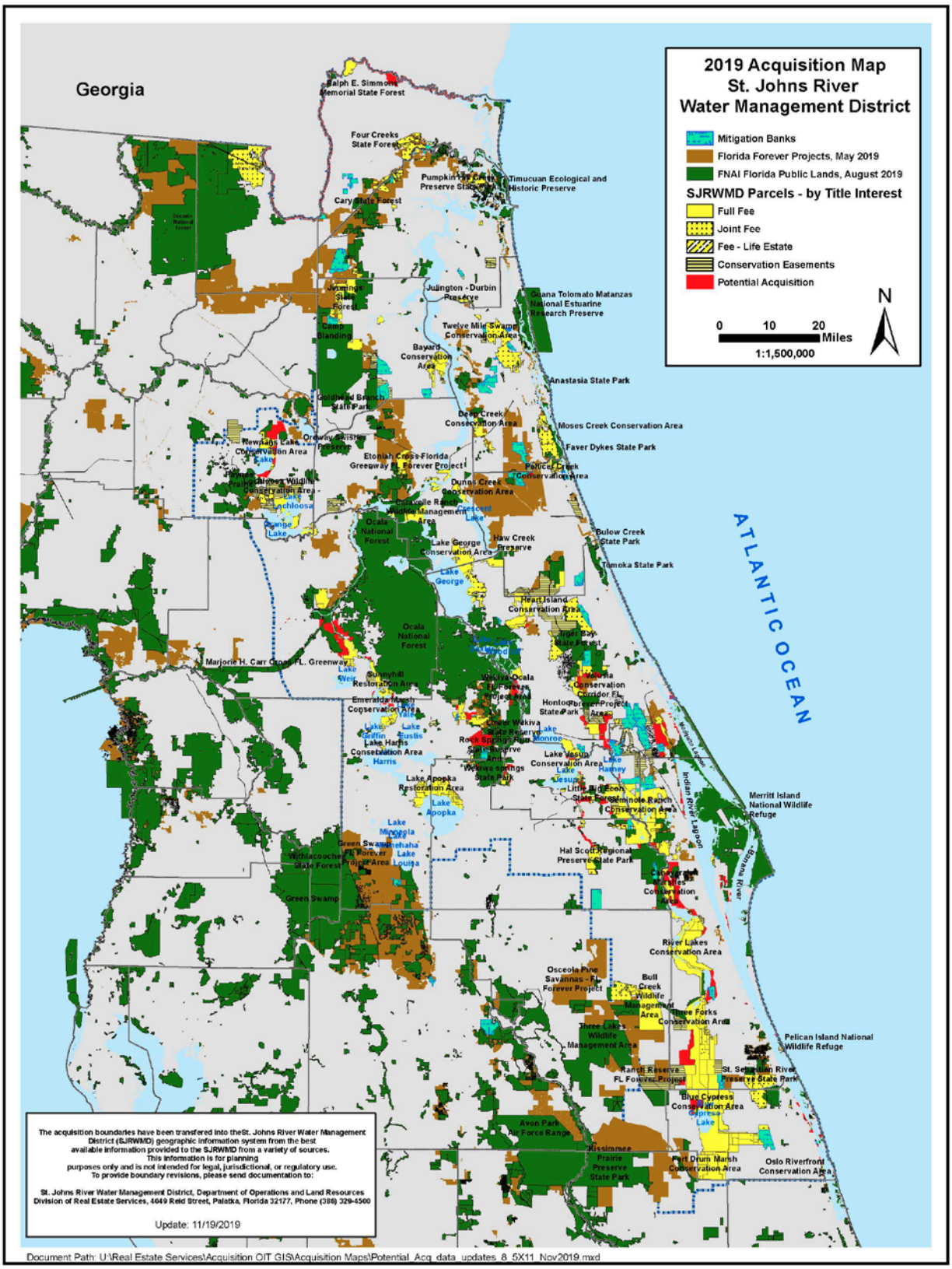
(4) The "Mitigation Banks" category indicates permitted mitigation banks on private property for which one or more conservation easements have been recorded in favor of the District through the regulatory or permitting process. Mitigation Banks are not included in any of the acreage totals for District-owned 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 most 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 have been no additions to the "Potential Acquisition" layer of the map since 2009 and the number of acres remains at 115,760 acres. Figure 6-2 shows the potential acquisition layer, current District interests, other public lands, and other Florida Forever projects.

Figure 6-2. 2019 Land Acquisition Map



Mitigation Donation Annual Report

7. Mitigation Donation Annual Report

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I. INTRODUCTION

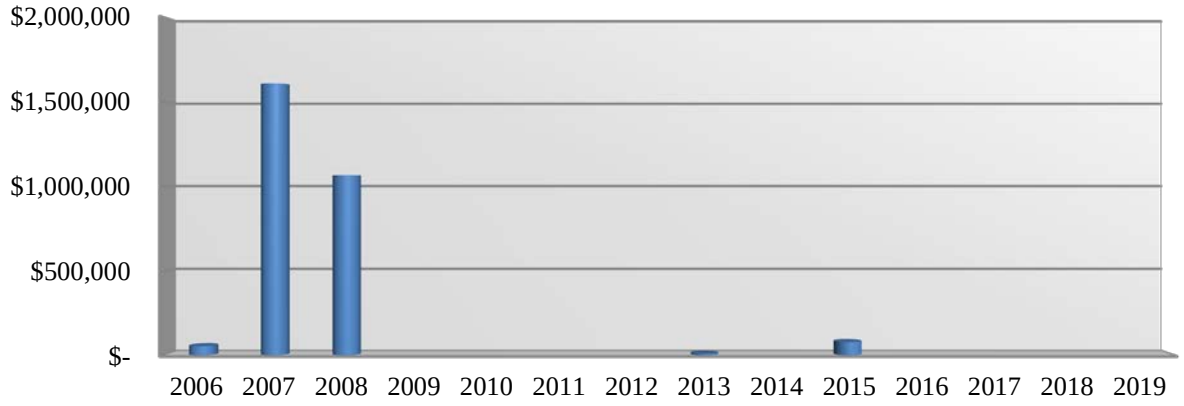
Subsection 373.414(1)(b)2, *Florida Statutes* (F.S.) requires that "…each water management district shall report by March 1 of each year, as part of the consolidated annual report required by s. 373.036(7), all cash donations accepted under subparagraph 1 during the preceding water management district 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 (DEP)-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 2018–2019

During FY 2018–2019, the District did not receive any cash donations for wetland mitigation purposes. The last time the District received cash donations for wetland mitigation was in 2015.



Water Quality and Water Quantity Grading Report

8. Water Quality and Water Quantity Grading Report

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Tables

I. Introduction

Section 373.036(7)(b)9., *Florida Statutes* (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 8-1 lists the projects contained within the 2020 Five-year Water Resource Development Work Program, 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 (DEP) 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 8-1 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 and conservation with the exception of the projects contained in Section V – Basin Management Action Plan (BMAP) Appendix.

The level of violation of adopted MFLs 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) WUCA within the District covers all or parts of Orange, Seminole, and Lake counties. Within the CFWI, there are 6 water bodies (four springs, one river segment, and one lake) that are not achieving or projected to not achieve their established MFL 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 8-1. Projects contained within the 2020 Five-year Water Resource Development Work Program, including grades for water quality, level of impairment, and the level of violation of MFLs

Contract Number	Water Resource Development Projects	Basin	Water body	WBID	Level of Water Quality Impairment	BMAP	Level of Violation of Adopted MFL
Water Resource Development Projects (Programmatic Code 2.2.1)							
30593	Black Creek Water Resource Development Project*	Lower St. Johns	Lakes Brooklyn and Geneva, Lower Santa Fe Ichetucknee	N/A	N/A	N/A	Level 1 - Lake Brooklyn; Level 2 – Lake Geneva
34152	City of Bunnell State Road 100 West Reclaimed Water Extension	Lower St. Johns	UFA – Flagler; Gore Lake Outlet	2622D	Impaired	Lower St. Johns River Mainstem	None*
34084	Clay County Utility Authority Stormwater Mining Project	Lower St. Johns	Keystone Heights Lakes, Floridan aquifer; Double Branch (South Prong)	2378	Impaired	Lower St. Johns Mainstem	Level 1 - Lake Brooklyn; Level 2 – Lake Geneva
34550	Clay County Utility Authority Tynes Reclaimed Water Storage	Lower St. Johns	Lower St. Johns River; Bid Branch	2388	Impaired	Lower St. Johns Mainstem	Level 1 - Lake Brooklyn; Level 2 – Lake Geneva
33294	City of Daytona Beach Williamson Boulevard Reuse	Upper East Coast	Halifax River, Indian Lake	2634	Impaired	Volusia Blue	Volusia PR* Level 0 – 3 water bodies Level 2 – 1 waterbody
32298	City of DeLand St. Johns River Intake and Surface Water Filtration System Upgrades	Middle St. Johns	Blue Springs	N/A	N/A	N/A	Volusia PR* Level 0 - 3 water bodies Level 2 - 1 water body
33771	City of Deltona Reclaimed Water Retrofits	Middle St. Johns	Blue Springs	N/A	N/A	Volusia Blue	Volusia PR* Level 0 - 3 water bodies Level 2 - 1 water body

Contract Number	Water Resource Development Projects	Basin	Water body	WBID	Level of Water Quality Impairment	BMAP	Level of Violation of Adopted MFL
28535	Dispersed Water Storage / Nutrient Reduction Pilot Project with Fellsmere Joint Venture*	Indian River Lagoon	Indian River Lagoon	3138A	Impaired	Indian River Lagoon	None*
28454	Dispersed Water Storage / Nutrient Reduction Pilot Project with Graves Brothers*	Indian River Lagoon	Indian River Lagoon	3129A	Impaired	Indian River Lagoon	None*
32653	Flagler County Plantation Bay Wastewater Treatment Facility Modifications	Northern Coastal	N/A	N/A	N/A	N/A	None*
33190	JEA Gate Parkway — Kernan to T-Line Reclaimed Water Main	Lower St. Johns	Lakes Brooklyn, Geneva; St. Johns River above Piney Point	2213F	Impaired — High	Lower St. Johns Mainstem	Level 1 - Lake Brooklyn Level 2 – Lake Geneva
35011	JEA Low Income Toilet Exchange	Lower St. Johns	N/A	N/A	N/A	N/A	None*
34742	JEA Twin Creeks Reclaimed Water Storage and Delivery	Lower St. Johns	N/A	N/A	N/A	N/A	None*
34122	Kenneth MacKay Silver Springs Agricultural Best Management Practices Weather Station / Precision Agricultural Equipment	Upper Ocklawaha	Silver Springs	Multiple	Impaired — High	Silver	Level 0 - Silver Springs
LAR	Lake Apopka Recharge*	Ocklawaha	Lake Apopka, Wekiwa and Rock Springs	N/A	N/A	N/A	CFWI WUCA* Level 0 – 4 water bodies Level 1 – 2 water bodies
33458	Little Orange Creek Recharge Well*	Ocklawaha	Silver Springs	N/A	N/A	Silver and Orange Creek	Level 0 - Silver Springs
34749	Marion County Silver Springs Shores Drainage Retention Area	Withlacoochee	N/A	N/A	N/A	Silver	Level 0 - Silver Springs
34187	City of Mascotte State Road (SR) 50 Water Main Replacement Phase 2	Withlacoochee	N/A	N/A	N/A	N/A	None*

Contract Number	Water Resource Development Projects	Basin	Water body	WBID	Level of Water Quality Impairment	BMAP	Level of Violation of Adopted MFL
31824	City of Minneola Septic to Sewer	Ocklawaha	Lakes Minneola, Louisa, Apshawa North and South, Rock and Wekiwa Springs	Multiple	Impaired — High	Upper Ocklawaha	None*
32449	City of Mount Dora Reclaimed Water Interconnect with Apopka	Middle St. Johns	N/A	N/A	N/A	N/A	CFWI WUCA* Level 0 - 4 water bodies Level 1 - 2 water bodies
FY20-14	City of Ocala Lower Floridian Aquifer Supply Wells Phase 2	Withlacoochee	N/A	N/A	N/A	Silver Springs	Level 0 - Silver Springs
32377	City of Ocala Wetland Recharge	Ocklawaha	Silver Springs	2772B	Impaired — High	Silver	Level 0 - Silver Springs
33951	Orange County Utilities Waterwise Neighbor Program Year 3	Middle St. Johns	N/A	N/A	N/A	N/A	CFWI WUCA* Level 0 - 4 water bodies Level 1 - 2 water bodies
33175	City of Ormond Beach Breakaway Trails Reclaimed Water Storage	Halifax river	Halifax River	2634	Impaired — High	N/A	Volusia PR*
32512	City of Orlando Utilities Commission Irrigation Conservation Phase 2	Middle St. Johns	Wekiva Springshed	N/A	N/A	N/A	CFWI WUCA* Level 0 - 4 water bodies Level 1 - 2 water bodies
33181	Seminole County Conservation Tool	Middle St. Johns	UFA - Seminole County	N/A	N/A	Lake Jesup	CFWI WUCA* Level 0 – 4 water bodies Level 1 – 2 water bodies

Contract Number	Water Resource Development Projects	Basin	Water body	WBID	Level of Water Quality Impairment	BMAP	Level of Violation of Adopted MFL
34559	St. Johns County Marsh Landing Reclaimed Water Main	Lower St. Johns	N/A	N/A	N/A	N/A	None*
30049	Taylor Creek Reservoir Improvement Project*	Lake Poinsett	Lake Poinsett	2893K	Not impaired	N/A	CFWI WUCA* Level 0 - 4 water bodies Level 1 - 2 water bodies
Surface Water Projects (Programmatic Code 2.3.0)							
33191	City of Atlantic Beach Septic to Sewer Conversion Project	Lower St. Johns	Marsh Preserves	2205C	Impaired	Lower St. Johns Mainstem	None*
28919; 30504	C-10 Water Management Area*	Upper St. Johns	Indian River Lagoon	3090	Impaired	N/A	None*
Multiple	Crane Creek M-1 Canal Flow Restoration*	Indian River Lagoon	UFA- Brevard County; SJR; Indian River Lagoon	3085A	Impaired	Indian River Lagoon	None*
33789	City of Deltona West Volusia Water Supply Aquifer Recharge Phase 1	Middle St. Johns	Blue Springs	N/A	N/A	Volusia Blue	Volusia PR*
33649	City of Edgewater Reclaimed Water Quality Reservoir	Indian River Lagoon	Indian River Lagoon - Mosquito Lagoon	2924B2	Impaired	N/A	None*
Multiple	Fellsmere Water Management Area*	Indian River Lagoon	UFA - Indian River County; SJR; Indian River Lagoon	3135A	Impaired	Central Indian River Lagoon	None*
34516	Indian River County Moorhen Marsh LEAPS	Indian River Lagoon	N/A	3147	Impaired	Central Indian River Lagoon	None*
32300	City of Longwood Septic Tank Abatement Program Transmission Main	Middle St. Johns	Wekiva River	2986	Impaired — High	N/A	CFWI WUCA* Level 0 – 4 water bodies Level 1 – 2 water bodies

Contract Number	Water Resource Development Projects	Basin	Water body	WBID	Level of Water Quality Impairment	BMAP	Level of Violation of Adopted MFL
33854	Marion County S.E.108 Water Main Interconnect	Ocklawaha	Silver Springs	N/A	N/A	N/A	Level 0 - Silver Springs
28731	City of Merritt Island Redevelopment Agency Septic Phase Out	Indian River Lagoon	Indian River Lagoon, Banana River	3044A	Impaired — High	Indian River Lagoon, Banana River	None*
33953	City of Ocala Lower Florid Aquifer Conversion Phase 1	Withlacoochee	Silver Springs	N/A	N/A	N/A	Level 0 - Silver Springs
34552	City of Rockledge Gus Hipp Ditch Denitrification Improvements	Upper St. Johns	North Indian River Lagoon	3060	Impaired	North Indian River Lagoon	None*
32694	City of Fellesmere South Regional Lake	Upper St. Johns	Sebastian River and Indian River Lagoon	3138A	Impaired	Indian River Lagoon	None*
FY20-01	Volusia County Wastewater Infrastructure for Protection of Blue Spring	Middle St. Johns	Volusia Blue Spring Run	28933A	Impaired	Volusia Blue	Volusia PR*

*Denotes non-cost share project

CFWI WUCA* — St. Johns River Water Management District (SJRWMD) projects within the CFWI WUCA are anticipated to benefit all SJRWMD water bodies included within the WUCA. There are two water bodies currently not meeting their MFLs and another four 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: Lake Prevatt, Wekiwa Springs, Rock Springs, and Wekiva River at State Road 46
Level 1: Palm Springs and Starbuck Spring

Volusia PR* — SJRWMD projects within the Volusia PR area are anticipated to impact all SJRWMD water bodies included within the Volusia PR. There is one water body not meeting its MFLs and another three 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: Indian Lake, Scoggin Lake, and Shaw Lake

Level 2: Blue Spring

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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