# Florida Forever Work Plan

# 2016 Annual Update

February 17,2016

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**Suwannee River Water Management District**
9225 CR 49, Live Oak, FL 32060
386.362.1001
www.mysuwanneeriver.com

**February 17, 2016**

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## Table of Contents

**1.0 Introduction ..... 1**

**2.0 Water Resource Development Projects ..... 2**

Upper Suwannee River Springs Enhancement (Eagle Lake) Project ..... 2
Oakmont Recharge Wetland ..... 2
Falling Creek Aquifer Recharge Project ..... 3
Ichetucknee Trace-Cannon Creek Project ..... 3
Santa Fe Basin Flood Mitigation and Aquifer Recharge Projects ..... 4
Dispersed Water Storage Initiative ..... 4

**3.0 Restoration Projects ..... 5**

Hornsby Springs Water Quality Improvement Project ..... 5
Guaranto Springs Restoration ..... 5
Ginnie & Gilchrist Blue Springs Enhancement - Newberry Reuse Project ..... 6
Archer Wastewater Collection and Advanced Treatment Phase I Project ..... 6
Middle Suwannee River and Springs Restoration and Aquifer Recharge Project ..... 7
Middle Suwannee River and Springs Restoration Project: Phase II ..... 7
Ichetucknee Springshed Water Quality Improvement Project ..... 8
Cannon Creek Sink Septic Tank Removal ..... 8
Holly Factory Denitrification Bioreactor ..... 8
Alligator Creek Project ..... 8
Otter Springs Restoration Project ..... 9
Fanning Springs Water Quality Improvement Project ..... 9
Pot Spring Restoration Project ..... 10
Little River Spring Restoration Project ..... 10
Northern Waccasassa Flats Conservation Easement Project ..... 10
Springshed Protection Using Low Impact Agricultural Practices ..... 10
Spring Creek Restoration Project ..... 10

**4.0 Land Acquisition ..... 11**

Acquisition Project Design and Evaluation Criteria ..... 12
Acquisition Projects ..... 13
Surplus Lands ..... 14
Land Management ..... 15

### List of Tables

Table 1. Actual and Projected Florida Forever Expenditures ..... 1
Table 2. Water Resource Development Projects ..... 5
Table 3. Restoration Projects ..... 11
Table 4. Completed Restoration Projects by Basin ..... 11
Table 5. Protected Lands and Potential Acquisitions by Basins ..... 12
Table 6. Water Resource Objectives ..... 13
Table 7. Acquisition Projects Approved for Detailed Assessment ..... 14
Table 8. Acquisitions Completed: FY 2015 ..... 14
Table 9. Disposition of Surplus Lands in FY 2015 ..... 14

### Map

2016 Florida Forever Work Plan Map ..... 17

# 1.0 INTRODUCTION

This report is the annual update of the original 2001 Florida Forever Work Plan as required by Section 373.199(7), Florida Statutes (F.S.). Section 373.036(7), F.S., requires this annual update be presented as a separate chapter in the Consolidated Annual Report. The purpose of the annual update is to present projects eligible for funding under the Florida Forever Act, Section 259.105, F.S., and to report on progress and changes since the 2001 submittal.

The 2016 Florida Forever Work Plan update reports land and water resource protection projects at the Suwannee River Water Management District (SRWMD, District) using Florida Forever funding. This update emphasizes the District's strategies to implement water resource development and restoration projects and acquire and manage land interests to achieve the District's water resource objectives.

In order to implement the District's strategic priorities of sustainable water supply, minimum flows and levels (MFLs), the Heartland Springs Initiative, and water management lands projects, the District intends to utilize $8,218,019 of prior years' unspent Florida Forever balance during the Fiscal Year 2016 through Fiscal Year 2020 planning period. In addition, the District will implement these strategic priorities through the use of District fund balance, consisting of Florida Forever and Preservation 2000 funds, and proceeds from the sale of surplus lands, for water resource development, restoration, and priority land acquisition projects.

Florida Forever funding has provided for the fee purchase of 43,866 acres and 25,292 acres of conservation easements. Florida Forever Funding has also been used for completion of five restoration projects and three water resource development projects. Since inception of the Florida Forever Act, the District has expended $69.1 million for land acquisition, $0.52 million for restoration projects and $0.44 million for water resource development projects.

The following provides summaries of water resource development and restoration projects, lands purchased, land acquisition strategies, surplus lands disposition and land management activities.

**Table 1. Actual and Projected Florida Forever Expenditures**

| Fiscal Year | Fee Acquisition Expenditures | Fee Acres Acquired | Conservation Easement Expenditures | Conservation Easement Acres Acquired | Water Resource Development | Restoration |
|---|---|---|---|---|---|---|
| 2000-2001 | - | - | - | - | - | - |
| 2001-2002 | $ 4,117,869 | 30,477 | $ 5,643,127 | 12,960 | - | - |
| 2002-2003 | $ 1,158,661 | 564 | $ 3,382,632 | 5,026 | - | - |
| 2003-2004 | $ 3,565,225 | 1,761 | $ 1,517,048 | 2,023 | - | - |
| 2004-2005 | $ 3,792,645 | 2,661 | - | - | - | - |
| 2005-2006 | $ 648,440 | 123 | - | - | - | - |
| 2006-2007 | $13,082,288 | 4246 | - | - | - | - |
| 2007-2008 | $ 4,041,930 | 493 | $ 6,379,514 | 3,294 | - | $ 210,510 |
| 2008-2009 | $ 10,965,200 | 2,171 | - | - | - | - |
| 2009-2010 | $ 494,000 | 84 | $ 1,789,725 | 786 | $ 23,500 | $ 309,080 |
| 2010-2011 | $ 5,426,437 | 1,201 | $ 1,557,593 | 682 | $ 400,000 | - |
| 2011-2012 | - | - | $ 250,710 | 167 | - | - |
| 2012-2013 | - | - | - | - | $ 20,825 | - |
| 2013-2014 | - | - | - | - | - | - |
| 2014-2015 | $565,000 | 85.15 | $707,850 | 353.66 | | |
| TOTAL | $47,857,695 | 43,866 | $21,228,199 | 25,292 | $444,325 | $519,590 |
| Projected | | | | | | |
| 2016-2020 | - | - | - | - | $2,083,454 * | - |

*Resolution 2013-01, the SRWMD Governing Board encumbered $2,083,454 of remaining Florida Forever fund balance.

# 2.0 WATER RESOURCE DEVELOPMENT PROJECTS

This section provides a brief summary of the current and projected water resource development projects that the SRWMD is pursuing. These projects focus on enhancing the water resources of the District to ensure that sufficient quantities of water are available to meet current and future needs of natural systems and water users. Some projects are proposed for Florida Forever funding, while other projects may be funded through a variety of sources.

By Resolution Number 2013-01, the SRWMD Governing Board encumbered the remaining unspent Florida Forever appropriation of $2,083,454 for water resource development projects. The District is proposing the following projects for implementation:

## Upper Suwannee River Springs Enhancement (Eagle Lake) Project

### Hamilton County

The Upper Suwannee River Springs Enhancement Project (previously the Eagle Lake Project) is a Private-Public Partnership with PotashCorp and the District. The goals of the Project are to: 1) reduce the nutrient loading to the Upper Suwannee River, and 2) reduce withdrawals from the Upper Floridan aquifer (UFA) by up to 20 million gallons per day (mgd), thereby benefitting spring flows. The Project will facilitate the recovery of a portion of the water from Eagle Lake that would otherwise be discharged to Swift Creek and the Upper Suwannee River. This reduction in flow from Eagle Lake will reduce total nutrient loading to the river reach between the White Springs and Ellaville gages. The recovered water will be redirected to either the PotashCorp Suwannee River Mine or Swift Creek Mine operations and therefore reduce the amount of makeup-water required for mining operations (the makeup water would otherwise be pumped from the UFA). Total project cost is estimated at $3,600,000, and the project is being funded through a state springs restoration grant, SRWMD funding, and cooperator match.

## Oakmont Recharge Wetland

### Alachua County

The Oakmont Recharge Wetland project will be to construct a recharge wetland within an existing storm water retention basin in the Oakmont Subdivision in Alachua County. The subdivision is located within the Poe Springs springshed. This project will provide recharge to the UFA with reclaimed water at very low nutrient levels using a recharge wetland. Aquifer recharge is beneficial in supporting spring flows. Recharge wetlands are constructed wetlands that are designed to biologically reduce nutrients to low levels using natural wetland processes while simultaneously recharging the aquifer.

The project will include extension of reclaimed water piping to the wetland basin. This piping will be connected to existing reclaimed water piping system installed by the City of Gainesville doing business as Gainesville Regional Utilities. The project will also include a control valve, level sensor and other instrumentation and controls. The basin will be planted with wetland vegetation. The project may include additional excavation and grading of the existing basin if needed. The estimated project cost range is $1,000,000 - $1,500,000.

## Falling Creek Aquifer Recharge Project

Columbia County

In September 2013, the District completed a regional study (Study) of potential regionally-beneficial aquifer recharge concepts in a cooperative effort with the St. Johns River Water Management District (SJRWMD). The Falling Creek Aquifer Recharge Project (Project) is a concept that was developed from that Study. The Project involves pumping up to a maximum daily capacity of 40 mgd from the Upper Suwannee River to District-owned land in Falling Creek Falls Park, where it will discharge to Falling Creek, eventually recharging the UFA through Falling Creek Sink (Sink). During high stages in the Upper Suwannee River, water will be diverted to an intake structure and pump station (consisting of intake screens, intake piping, and a pump station) and pumped to Falling Creek through an approximate 48-inch diameter, 11-mile pipeline. The pipeline will be constructed in existing roadway easements. Falling Creek naturally recharges the UFA via the Sink without treatment; therefore, it is anticipated that the surface water from the Upper Suwannee River will also not require treatment due to the high water quality at the intake location near White Springs, Florida. The preliminary design will include surface-water quality testing and analysis. Groundwater modeling analysis conducted during the Study indicated that the Project will benefit aquifer levels and spring flows in the Lower Santa Fe River. The estimated capital cost is $48,000,000.

## Ichetucknee Trace-Cannon Creek Project

Columbia County

The Ichetucknee Trace-Cannon Creek project will improve the quality of the water recharging the aquifer and increase aquifer recharge. The project includes a series of stormwater improvements and recharge wells in the Cannon Creek Basin of Columbia County, Florida. The Cannon Creek Basin is part the Ichetucknee Trace and proven to be directly connected to Ichetucknee Springs.

The goal of this project is to retrofit and reroute existing stormwater infrastructure in the Cannon Creek Basin to improve stormwater treatment, improve recharge to the Floridan aquifer via natural features and the replacement of historical drainage wells. Key components of this project include the construction of stormwater treatment wetlands, construction of new stormwater detention ponds, retrofitting poorly functioning stormwater ponds, and the replacement of historical drainage wells.

The Ichetucknee River and Associated Priority Springs are not currently meeting their adopted MFLs, and a recovery strategy has been established. Although this project was not yet developed at the time of publication of the Recovery Strategy, its goals of improving aquifer recharge in the Ichetucknee Basin support the primary aim of the adopted Recovery Strategy, and will support improved springflows on the Ichetucknee River.

This project is a partnership with the Department of Environmental Protection (DEP), SRWMD and Columbia County. This project will benefit spring flows and water quality for springs along the Ichetucknee River. It is estimated the project will recharge the aquifer from 2.24 to 3.81 mgd, which will benefit spring flows and improve water quality by removing approximately 10,000 pounds of nutrients annually. The estimated capital cost is $3,000,000 - $4,000,000, and the project is being funded through a state springs restoration grant, SRWMD funding, and cooperator match.

## Santa Fe Basin Flood Mitigation and Aquifer Recharge Projects

### WEST RIDGE WATER RESOURCE DEVELOPMENT AREA

#### Bradford County

The West Ridge Water Resource Development Project (Project) is located in eastern Bradford County and provides an excellent opportunity to: 1) provide flood protection, 2) natural resource enhancement and restoration (particularly wetlands), 3) augment flows to the Upper Santa Fe River, and 4) potentially provide aquifer recharge to the Upper Floridan aquifer. A portion of the Project was previously mined. The District is working closely with the mining business in order to develop a project that will benefit the water resources of the District while allowing the mining business to optimize their mining reclamation plan. The Project includes nearly 667 acres of District-owned land adjacent to the Florida National Guard's (Guard) Camp Blanding. The purchase was funded by a grant from the Guard through the Department of Defense as part of a program designed to secure buffers around military installations. The Project is currently in the conceptual engineering phase. The objective of this phase is to evaluate potential project concepts and eventually identify a concept that maximizes water resource development benefits based on flexibility and technical, environmental, and economic feasibility. This project is in the conceptual design phase, and the project cost is being determined.

### DOUBLE RUN CREEK WATER RESOURCE DEVELOPMENT AREA

#### Bradford County

The Double Run Creek Water Resource Development Project (Project) is located in eastern Bradford County and provides an excellent opportunity to: 1) provide flood protection, 2) natural resource enhancement and restoration (particularly wetlands), 3) augment flows to the Upper Santa Fe River, and 4) potentially provide aquifer recharge to the UFA. The Project includes over 1,910 acres of District-owned land adjacent to the Florida National Guard's (Guard) Camp Blanding. The purchase was funded by a grant from the Guard through the Department of Defense as part of a program designed to secure buffers around military installations

### INTER-DISTRICT WATER RESOURCE DEVELOPMENT PROJECT

#### Bradford County

This Inter-district Water Resource Development Project (Project) is located in southeastern Bradford County and provides an excellent opportunity to: 1) provide natural resource enhancement and restoration (particularly wetlands), 2) augment flows to the Upper Santa Fe River, and 3) provide aquifer recharge to the UFA. The Project includes utilization of lands adjacent to the Florida National Guard's Camp Blanding. The Project is in the initial phases of feasibility and is dependent upon successful acquisition of property by the District. This potential Project is of particular value since the potential for aquifer recharge will have regional cross-boundary benefits for stressed water resources in both the SRWMD and SJRWMD due to its proximity to the Keystone Heights potentiometric high, which is a regional recharge area for the UFA. The project cost is still being determined.

## Dispersed Water Storage Initiative

Several decades ago, industrial land owners excavated ditches to drain land for pine tree production. While draining the land may have increased pine production, it had several detrimental impacts to the environment including:

- Increased risk of downstream flooding due to an increase in peak stormwater discharge,
- Loss of natural wetland systems and reduced aquifer discharge due to lowering the water table and shortening the wetland hydro-period, and

- Adverse impacts to the fishery resources due to an increase in freshwater discharge to estuaries.

The District proposes to enhance water resources and restore natural systems by installing ditch blocks and low water crossings on District lands. These structures will allow water to overflow ditch banks and disperse over wetland areas. In order to expand this concept, the District plans to partner with private land owners to gain additional water resource benefits. The District will establish project budgets as individual projects are identified and developed.

**Table 2. Water Resource Development Projects**

| Project Name | Cost Estimate |
|---|---|
| Upper Suwannee River Springs Enhancement (Eagle Lake) Project | $3,600,000 |
| Oakmont Recharge Wetland | $1,156,700 |
| Falling Creek Aquifer Recharge Project | $48,000,000 |
| Ichetucknee Trace-Cannon Creek Project | $3,000,000 - $4,000,000 |
| West Ridge Water Resource Development Area | In Development |
| Double Run Creek Water Resource Development Area | In Development |
| Inter-District Water Resource Development Project | In Development |
| Dispersed Water Storage Initiative | In Development |

# 3.0 RESTORATION PROJECTS

This section provides a brief summary of the current and projected environmental restoration projects that the SRWMD is pursuing. These projects focus on restoring or enhancing the water resources of the District to protect natural systems, especially springs, streams, rivers, and wetlands. Some projects are proposed for Florida Forever funding, while other projects may be funded through a variety of sources.

## Hornsby Springs Water Quality Improvement Project

### Alachua County

Nutrient loads to Hornsby Spring will be reduced by decommissioning Camp Kulaqua's package wastewater treatment plant (WWTP) and transferring effluent to the City of High Springs wastewater treatment plant. High Springs has plans to expand its municipal wastewater service area, to connect portions of the town, and to reduce the loading from septic tanks. In addition, High Springs would like to expand its WWTP, and increase its treatment effectiveness, perhaps by replacing its sprayfield with a constructed treatment wetland. The High Springs plans will potentially reduce loading to Poe Springs over the long-term. Portions of High Springs are also within the Rum Island Springshed so the expansion of municipal wastewater service and removal of septic tanks has the potential to benefit Rum Island Spring. The installation of a pump station and waste water lines to connect to High Springs has an estimated project cost of $500,000.

## Guaranto Springs Restoration

### Dixie County

Guaranto Springs is located in eastern Dixie County along the Suwannee River. The spring has been used by local residents for swimming for decades. Dixie County owns and maintains a recreational park around the spring. Erosion of the banks surrounding the spring and spring run cause a continuous influx of sediment into the springhead as well as the spring run to the Suwannee River. This will continue unabated unless improvements are made to stabilize the banks around the spring. The Guaranto Springs Restoration Project (Project) includes the construction of approximately 300 feet

of retaining wall, removal of sediment within the spring run, and removal of a man-made earthen dam and culvert. The Project will achieve multiple core mission values of the District, including water quality improvement and natural systems restoration and enhancement. The Project will be cooperatively-funded by the SRWMD through the Regional Initiative Valuing Environmental Resources (RIVER) Grant Program. The estimated project cost is $110,000. The project will begin in the first quarter of 2016.

## Ginnie and Gilchrist Blue Springs Enhancement - Newberry Reuse Project

### Alachua County

The City of Newberry is located within the springshed for Ginnie and Gilchrist Blue Springs, along the Lower Santa Fe River. Ginnie Springs is a complex of springs which are part of the privately-owned Ginnie Springs Resort. The springs are heavily used for swimming and for cave diving. Gilchrist Blue Spring is located within Blue Springs Park and Campground, also a privately run facility.

For Newberry, this project will begin the process of converting municipal wastewater from effluent to reclaimed water and initiate beneficial reuse. To produce public access reclaimed water, DEP requires the addition of tertiary treatment and high-level disinfection. The proposed wastewater improvements needed for the initial phase of this project to produce public access reclaimed water are expected to include adding a 0.5 million gallon ground storage tank, a filtration system, a side stream pump station, a transfer pump station, and a high-service pump station. The project also includes the installation of reclaimed water lines to school ball fields, the Newberry Sports Complex and a cement batch plant. All of these facilities currently utilize Newberry's municipal potable water supply.

The Lower Santa Fe River and Associated Priority Springs are not currently meeting their adopted MFL and a Recovery Strategy has been established. The Santa Fe River was also identified as impaired by the DEP in 2008 for nitrate, therefore actions are needed to reduce nutrient loading within their springsheds. Specifically, the Ginnie and Gilchrist Blue springshed was designated in 2013 by DEP as a spring restoration focus area (RFA) within the Department's Basin Management Action Plan (BMAP). This project supports the DEP, Department of Agriculture and Consumer Sciences (DACS) and SRWMD efforts to reduce nitrate loadings to these springs, as well as providing an alternative water source in support of the MFL Recovery Strategy.

The estimated reuse volume for this project ranges from 0.052 to 0.163 MGD and would represent a reduction in groundwater withdrawals that would support recovery of spring and river flows. In addition, by reducing the use of fertilizers on ball fields and the sports complex, a nitrogen reduction ranging from 2,197 to 6,888 pounds N/year and a phosphorus reduction of 476 to 1,491 pounds per year is anticipated. This reduction should be expressed as a reduction in Ginnie and Gilchrist Blue springs; both impaired by excess nitrate and support the ongoing efforts in the RFA and BMAP in general. The estimated project cost is $3,000,000 to $4,000,000.

## Archer Wastewater Collection and Advanced Treatment Phase I Project

### Alachua County

This project will serve the City of Archer which is located in Alachua County, Florida. This project consists of multiple phases with the first phase including the construction of a centralized 0.1 MGD wastewater treatment plant (WWTP) and a sewer collection system in the center of the City of Archer. Advanced Water Treatment (AWT) is anticipated to reduce nutrient loading to Floridan aquifer. The benefits of the project include the pollutant load reductions described on the attachment, public safety improvements, and increased economic growth.

The City of Archer resides on the border of the estimated springshed for Ginnie and Gilchrist Blue springs. District ground water models estimate a significant portion of recharge in the area reaches the Lower Santa Fe River. Ginnie Springs and Gilchrist Blue Spring are springs along the Lower Santa Fe River. The Santa Fe River was identified as impaired by the DEP in 2008 for nitrate. Ginnie Springs is a complex of springs which are part of the privately-owned Ginnie Springs Resort. The springs are heavily used for swimming and scuba diving and is a hotspot for cave diving. Gilchrist Blue Spring is located within Blue Springs Park and Campground, a privately run facility, but is being considered for purchase by the State. Both springs are enriched with nitrate and mean nitrate concentrations from 2000 to the present exceed the State's numeric nutrient criterion for nitrate in springs of 0.35 mg NOx- N/L. In recognition of the severity of the nitrate impairment and as a practical area for springshed management evaluation, the Ginnie and Gilchrist Blue springshed was designated in 2013 by DEP as a spring restoration focus area (RFA) within the Department's BMAP.

The river and associated springs have been designated as impaired and there is an adopted BMAP for these resources. In addition, the Ginnie and Gilchrist Blue springshed is the site of the basin's Restoration Focus Area (RFA) where multiple agencies are collaborating on increased nutrient loading reduction efforts to the Floridan aquifer and increased monitoring of effects. The estimated project cost is $3,000,000 - $4,000,000.

## Middle Suwannee River and Springs Restoration and Aquifer Recharge Project

### Dixie and Lafayette Counties

The ongoing Middle Suwannee River and Springs Restoration and Aquifer Recharge Project (Project) will rehydrate natural systems along and adjacent to the southeastern margin of Mallory Swamp; thereby optimizing available surface water for wetland hydration and groundwater recharge, which will enhance springs restoration. A primary objective of the Project is to increase groundwater discharge (as diffuse leakage and spring flows) to the middle Suwannee River, and augment groundwater supplies in Lafayette and Dixie Counties, which also benefits domestic and agricultural users. To achieve increased spring and diffuse groundwater flow, the District's approach includes reestablishment of natural drainage patterns by modifying and constructing hydraulic structures (such as ditch blocks, culverts, and flashboard risers) adjacent to Mallory Swamp, and using natural recharge features and an aquifer recharge well at strategic locations. The Project is in the final stages of construction. The project cost is $1,900,000, and is funded through a state springs grant, with contributions by Dixie County and the District.

## Middle Suwannee River and Springs Restoration Project: Phase II

### Lafayette County

This proposed Phase II element (Phase II Project) of the Middle Suwannee River and Springs Restoration and Aquifer Recharge Project (Middle Suwannee Project) is a Private-Public Partnership between a timber company and the District. The Phase II Project property is east and adjacent to Mallory Swamp and north and adjacent to the existing boundary of the Middle Suwannee Project. The property is in excess of 6,000 acres, and the District is investigating conservation easement acquisition opportunities in order to optimize the water resources development potential of the Middle Suwannee Project. The Phase II Project will rehydrate natural systems along and adjacent to the southeastern margin of Mallory Swamp; thereby optimizing available surface water for wetland hydration and groundwater recharge, which will enhance springs restoration. The District's approach includes reestablishment of natural drainage patterns by modifying and constructing hydraulic structures (such as ditch blocks, culverts, and flashboard risers) adjacent to Mallory Swamp, and using natural

recharge features and potentially one or more aquifer recharge wells at strategic locations. The Project is in the initial stages of investigation.

## Ichetucknee Springshed Water Quality Improvement Project

### Columbia County

The Ichetucknee Springshed Water Quality Improvement Project is a partnership between the District, City of Lake City, and Columbia County. The City's sprayfield is located on the Ichetucknee Trace, and water recharging the aquifer in this area has been shown to reach the springs in a matter of days. DEP has developed a BMAP to restore water quality in the Santa Fe River Basin, including the Ichetucknee River.

The Ichetucknee Springshed Water Quality Improvement Project will convert the City of Lake City's wastewater effluent disposal sprayfields into constructed treatment wetlands. This is projected to reduce the facility's nitrogen loading to 1 mg/L or less. The anticipated benefits of this project include improve water quality in the Ichetucknee Springs by reducing Lake City's wastewater nutrient loadings to the Ichetucknee River by an estimated 85 percent, and providing beneficial recharge to the UFA.

This project is funded by $3.9 million from the DEP; $805,715 from the District; $200,000 from the City of Lake City; and $100,000 from Columbia County.

## Cannon Creek Sink Septic Tank Removal

### Columbia County

This project will construct sewer lines to the I-75/SR 47 interchange to remove septic tanks around Cannon Creek Sink. Cannon Creek Sink has a direct connection to the Ichetucknee Springs. Project would remove 30 business septic tanks and 5 homes. The project will reduce nutrient loadings to the Ichetucknee Springs.

The project will construct sewer lines to the I-75/SR 47 interchange to remove all septic tanks within an approximate 422 acre area Cannon Creek Sink. Presently, there are 30 businesses, 5 homes and 194 acres of property that may have plans for future development. The project will construct 14,500 feet of force main sewer lines, 7,600 feet of gravity sewer lines, 5 directional bores, 4 lift stations, 29 manholes and 29 driveway and road crossings. The estimated project cost range is $2,700,000 - $3,500,000.

## Holly Factory Denitrification Bioreactor

### Alachua County

The District proposes to construct an extension to an existing denitrification bioreactor located at a container nursery in Alachua County. The original project was funded through a DEP 319 grant, which showed significant nitrate reduction. Nitrate reductions at the existing bioreactor reduced loading by 6,100 pounds per year. The extension of the bioreactor will help capture and treat any water that is by passing the existing bioreactor. This project is also located within the watershed for the Santa Fe River BMAP. The estimated project cost is $50,000 - $100,000.

## Alligator Creek Project

### Bradford County

The City of Starke depends upon Alligator Creek for drainage of most of its incorporated area. Alligator Creek drains into Lake Rowell and, ultimately, into the Santa Fe River via the Sampson River.

Over many decades, Alligator Creek was dredged several times prior to environmental regulation to improve the drainage within the City of Starke. These dredging events have caused hydrologic impacts to the floodplain wetlands and destabilized the stream in many locations, causing continued erosion and water quality problems. Stream restoration is needed to improve wetland functions within the Alligator Creek floodplain and to protect this system from continued erosion and degradation.

To improve hydrologic conditions within the floodplain and reduce the sediment load from going to Lake Rowell down Alligator Creek, the District, in cooperation with the Florida Fish and Wildlife Conservation Commission (FWC), plans to conduct a floodplain restoration project. This project will re-establish the flow connection from a portion of the altered creek to a 47-acre floodplain parcel, known as the Edwards Bottomlands. The restoration project will improve water quality, fish and wildlife habitat and the hydrology within the altered wetlands. The District is also evaluating the potential acquisition of a 14 acre tract of historic floodplain, adjacent to the 47 acre parcel, as part of this project.

The District has previously committed $363,000 in Florida Forever Funding to implement a restoration project on Alligator Creek. The project is undergoing a redesign to accommodate restoration and flood mitigation objectives and stakeholders needs. The current estimated project budget is now approximately $900,000. Current cooperating partners include the Florida Department of Transportation (DOT) and FWC.

## Otter Springs Restoration Project

### Gilchrist County

The Otter Springs Restoration Project is a partnership between the District and Gilchrist County. High volumes of sediment, sand, and debris have washed into the spring run and vents, altering the magnitude of flow from the springs. Over the years, the original head spring has become almost completely blocked with debris.

The goals of this restoration project are to replace or fix deteriorating retaining walls, stabilize the springs banks to control further erosion, and construct access points to the spring and spring run. Additionally, it is anticipated this project will benefit the spring by removing nutrients, sediments, and debris from the spring vents and spring runs, and restoring the flow of the original head spring to historic levels. The District is funding the $140,000 project. Gilchrist County will provide project management oversight.

## Fanning Springs Water Quality Improvement Project

### Gilchrist and Levy Counties

Fanning Springs is a popular tourist destination in the southwest corner of Gilchrist County on the Suwannee River. The City of Fanning Springs, the District, and DEP have partnered to address water quality in the Fanning Springs basin. Expanding the City's sewer service will prevent an estimated 1,300 pounds annually of nutrients from entering into the groundwater and discharging into Fanning Springs by eliminating septic tanks and connecting residents and businesses to the new system.

The master plan for the City's wastewater collection system is divided into ten service areas. The design, engineering and construction bid for service areas one through four are complete. The next phase of surveying is scheduled to begin in the spring of 2016. Five service areas will be complete by December of 2017. The two phases of the project have been funded by the District, the City of Fanning Springs, springs grants and Community Development Block Grant funds with an estimated total project cost of $3,500,000.

## Pot Spring Restoration Project

Hamilton County

The District is currently working to develop a project with the Florida Forest Service to restore Pot Spring in Hamilton County. The main goal of this project is to stabilize the shoreline along the spring run to prevent sediment from entering the Withlacoochee River. Current project plans also include the reconstruction of an existing boardwalk near the spring to improve public access and safety. The planning level cost estimate to complete construction is $400,000 - $500,000. This project is currently in the planning phase.

## Little River Spring Restoration Project

Suwannee County

The District is helping fund a project with Suwannee County to conduct additional restoration work at Little River Spring. This project will be in addition to the previous restoration work conducted with Suwannee County in 2003. The main goal of this project is to stabilize the shoreline along the spring run to prevent sediment from entering the Suwannee River. Suwannee County's Plan is to remove rocks and fabric from the spring run shoreline, stabilize the slope of the run with an engineered system of boulders and vegetation, and to replace existing boardwalk impacted by shoreline erosion. The District will be funding up to $90,000 of the total $104,587 project cost. This project is currently under construction.

## Northern Waccasassa Flats Conservation Easement Project

Gilchrist County

The purpose of this project is to protect surface and groundwater in a portion of the Lower Santa Fe River and associated springs by purchasing conservation easements on approximately 34,000 acres of the northern portion of the Waccasassa Flats. Fee interests may be pursued for sites with outstanding water resource values or small acreage parcels, that possess high water values, in which fee purchase would be considered more cost effective. Emphasis will be placed on purchasing less than fees interests from large parcels that would have a significant impact on water resources while reducing long-term complexities in monitoring multiple ownerships in the area. If present, artificial drainage features within the system that may be restored with dispersed water storage techniques to increase water holding capacity within onsite wetlands.

## Springshed Protection Using Low Impact Agricultural Practices

Levy, Gilchrist, Columbia and Suwannee Counties

The District and its partners propose to work with Natural Resource Conservation Service (NRCS) to provide incentives and easements to private agricultural operations/landowners to maintain and increase low impact agricultural and silvicultural practices. The focus areas will include vulnerable high recharge karst landscapes in the Ichetucknee, Fanning and Manatee springsheds.

## Spring Creek Restoration Project

Taylor County

The Spring Creek Restoration Project is a partnership project with the City of Perry under the District's RIVER grant program. The goals of the project are to improve water quality, provide flood protection, and improve natural systems including wetlands. These goals will be accomplished by removing the channelized banks and reshaping the Spring Creek from a channelized ditch into a meandering creek. The floodplain will be reconnected and wetlands will restored or created. Storm water

interceptors will be installed and a new retention pond constructed to clean the water before it enters the creek. The total cost of the project is estimated to be $589,000 with the District providing cost share assistance of $350,000.

**Table 3. Restoration Projects**

| Project Name | Cost Estimate | Status |
|---|---|---|
| Edwards Bottomlands - Alligator Creek Project | $900,000 | Design and Engineering |
| Ginnie and Gilchrist Blue Springs Enhancement - Newberry Reuse Project | $3,000,000-$4,000,000 | Planning |
| Guaranto Springs Restoration Project | $110,000 | Under Construction |
| Holly Factory Denitrification Bioreactor | $50,000 | Permitting |
| Hornsby Springs Water Quality Improvement Project | $500,000 | Contract Development |
| Ichetucknee Springshed Water Quality Improvement Project | $4,600,000 | Under Construction |
| Little River Spring Restoration Project | $90,000 | Under Construction |
| Middle Suwannee River and Springs Restoration and Aquifer Recharge Project | $1,900,000 | Under Construction |
| Middle Suwannee River and Springs Restoration Project: Phase II | In Development | Planning |
| Northern Waccasassa Flats Conservation Easement Project | In Development | Planning |
| Otter Springs Restoration Project | $140,000 | Under Construction |
| Pot Spring Restoration Project | $400,000 | Planning |
| Spring Creek Restoration Project | $589,000 | Design and Engineering |
| Springshed Protection using Low Impact Agricultural Practices | In Development | Planning |

**Table 4. Completed Restoration Projects by Basin**

| Project | County | Basin | Cooperators | Type | Total Project Cost |
|---|---|---|---|---|---|
| Brooks Sink – Aquifer Recharge Project | Bradford | Santa Fe River | Rayonier LLC | Water Management Lands / Aquifer Recharge | $234,000 |
| Charles Spring Restoration Project | Suwannee | Suwannee River | Suwannee County | Springs Restoration | $112,380 |
| Hart Springs Restoration | Gilchrist | Hart Springs | Gilchrist County | Springs Restoration | $76,700 |
| Levy Blue Springs Water Quality Improvement Project | Levy | Wacassassa River | City of Bronson | Water Quality Improvement | $3,100,000 |
| Columbia County Water Main and Conservation Project | Columbia | Upper Santa Fe River | Columbia County | Water Main Extension project | $450,808 |
| Wacissa Springs Restoration Project | Jefferson | Wacissa River | Jefferson County | Restoration | $ 3,382,632 |

# 4.0 LAND ACQUISITION

The acquisition and management of land interests is a tool used by the District to achieve water resource objectives. This section provides an overview of the District's land acquisition and management strategies and activities. Acquisitions under the Florida Forever program must satisfy Florida Forever Goals and Measures found in section 259.105 (4), F.S.

Public ownership of lands and conservation easements provides benefits including:

- Preserving and restoring springs and surrounding areas to protect and improve surface and groundwater;
- Preserving floodplain areas to maintain storage capacity, attenuate floodwaters, and mitigate flood risk;
- Preserving natural buffers along water bodies where adjacent uses have a high potential to degrade surface water quality;
- Protecting groundwater quality by maintaining low intensity land uses;
- Providing land for dispersed water storage, restoration, and water resource development projects; and
- Preserving and/or restoring natural communities to support or enhance populations of native species.

## Acquisition Project Design and Evaluation Criteria

The land acquisition program is strictly voluntary — all land acquisition projects are negotiated with willing sellers within the constraints of appraised market value. Lands offered for sale are evaluated by District staff, reviewed by the Governing Board Lands Committee, considered by the Governing Board, and included in the District's land acquisition process if approved by the Board.

The Save Our Rivers, Preservation 2000, and Florida Forever programs have protected over 352,096 acres and 386 miles of river corridor lands to protect the region's river systems and public water supply.

### Table 5. Protected Lands and Potential Acquisitions by Basins

| Planning Area | Fee Acres Acquired | Fee River Mileage Acquired | Less than Fee Acres Acquired | Less than Fee River Mileage Acquired | Total Miles of Frontage | Total River Mileage Acquired | Potential Acquisition Project Acreage |
|---|---|---|---|---|---|---|---|
| Alapaha | 2,989 | 15 | 1,503 | 4 | 46 | 19 | 2,889 |
| Aucilla | 14,985 | 47 | 11,264 | 154 | 118 | 61 | 6,738 |
| Coastal Creeks | 1,282 | 0 | 32,134 | 0 | 0 | 0 | 0 |
| Econfina | 8,490 | 40 | 0 | 0 | 70 | 40 | 2,492 |
| Fenholloway | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lower Suwannee(1) | 19,451 | 32 | 24,935 | 0 | 114 | 31 | 4,213 |
| Middle Suwannee | 17,599 | 31 | 1 | 200 | 32 | 7,694 | 15,196 |
| Santa Fe | 15,597 | 27 | 4,990 | 6 | 162 | 32 | 9,920 |
| Steinhatchee(2) | 59,331 | 38 | 46,852 | 0 | 56 | 38 | 152 |
| Upper Suwannee(4) | 34,582 | 73 | 19,128 | 12 | 112 | 85 | 4,507 |
| Waccasassa | 5,340 | 9 | 22,404 | 0 | 58 | 9 | 4,832 |
| Wacissa | 1,082 | 2 | 0 | 0 | 24 | 2 | 0 |
| Withlacoochee | 7,26 | 20 | 0 | 0 | 48 | 20 | 8,562 |
| Floodplain Lots(3) | 889 | 14 | 4 | 0 | 0 | 14 | 0 |
| **Total** | **188,881** | **348** | **163,215** | **38** | **1,008** | **386** | **59,501** |

(1) 11,716 acres were conveyed to the USFWS and are part of the Lower Suwannee National Wildlife Refuge.
(2) Mallory Swamp Fee Interest, principal watershed benefits to the Steinhatchee River Basin.
(3) River frontage is estimated.
(4) 11,743 acres in Sandlin Bay were conveyed to the USDA Forest Service.

A new focus of the FY 2016 plan is inclusion of areas to support potential water resource development projects for aquifer recharge and areas for water storage and management. These areas are located in two broad zones:

- Areas of high recharge adjacent to the Cody Escarpment: These areas provide the highest potential for identifying/locating natural recharge features in the vicinity of possible upgradient recharge water sources, with the intent of minimizing eventual water resource development project transmission and treatment costs.

- Areas of potentiometric high groundwater: These areas constitute the greatest relative benefit with respect to the duration of time that recharged or otherwise retained waters remain in the Floridan Aquifer, as well as maximizing groundwater gradients in District springsheds.

The District is also partnering with Florida Department of Military Affairs at Camp Blanding and DEP to acquire lands for a military base buffering program. These acquisitions provide lands to implement water resource development projects and buffer Camp Blanding from encroaching development. Acquisition of lands to support the District's monitor-well network expansion initiative is also proposed in FY 2016.

Potential acquisition project areas shown in this plan were developed with Geographic Information System (GIS) layers to fulfil the objectives listed below.

**Table 6. Water Resource Objectives**

| Water Resource Objectives | GIS Layer |
|---|---|
| Preserve floodplain to maintain storage capacity, attenuate floodwaters, and mitigate flood risk | Federal Emergency Management Agency 100-year (1% Annual Chance) Flood Zone |
| Protecting groundwater quality by maintaining low intensity land uses | Areas of High Recharge |
| Preserve natural buffers along water bodies where adjacent uses have a high potential to degrade surface water quality | Wetlands and 200' buffers on streams |
| Preserving and restoring springs and surrounding areas to protect and improve surface and groundwater | 1-mile, ½-mile, and ¼-mile buffers on springs with 1st, 2nd, 3rd magnitude respectively |
| Increasing recharge to the Floridan Aquifer via Water Resource Development Projects | Areas of High Recharge near and upgradient of the Cody Escarpment |
| Restoring natural hydrology in headwater swamps and increasing water retention for recharge enhancement | Presence of potentiometric high groundwater potentially with drainage structures |

## Acquisition Projects

Land acquisition projects in Fiscal Years 2016 through 2020 will use Florida Forever and Preservation 2000 resale funds and proceeds from the sale of surplus lands for funding.

For any given acquisition, the District will consider the use of alternative acquisition techniques as a cost-effective means of protection. Many project areas identified in this update are suited for less than fee purchase, and the District will pursue this option with willing landowners.

The projects listed below, which may use Florida Forever Funds or involve exchanges involving Florida Forever lands, have been approved for detailed assessment by the Governing Board.

**Table 7. Acquisition Projects Approved for Detailed Assessment**

| Seller | Project | Acres | County | Date Approved |
|---|---|---|---|---|
| George and Sharon Nyman | Suwannee River Oaks | 305 | Gilchrist | 4/10/2012 |
| Bridges/Azure Properties | McAlpin Landing | 200 | Hamilton | 4/10/2012 |
| Milton C. Hitson | Holton Creek In-holding | 10 | Hamilton | 5/16/2013 |
| Michael and Freda Shaw | Shaw Conservation Easement Exchange | 1,027 | Lafayette | 12/10/2013 |
| Rock Bluff Spring Co., LLC | Rock Bluff Springs | 173 | Gilchrist | 3/11/2014 |
| River Error Farms | Hardee Springs | 304.5 | Hamilton | 10/16/2014 |
| Virginia and John Coker | Lumber Camp Springs | 37.32 | Gilchrist | 11/12/2015 |
| Ware Forest, LLC | Ware Forest | 160 | Jefferson | 12/8/2015 |

**Table 8. Acquisitions Completed: FY 2015**

| Seller | Acres | County | Date | Transaction |
|---|---|---|---|---|
| El Trigal Farms LLC and Susan Kempton Floyd | 349.61 | Jefferson | 10/31/2014 | Exchanged |
| Chris and Deanna Mericle to SRWMD | 4.05 | Hamilton | 6/23/2015 | Exchanged |
| Rayonier Atlantic Timber Company f/k/a/ Timberlands Holding Company Atlantic, Inc. | 321.95 | Bradford | 12/8/2014 | Purchased |
| Winston Lovelace / Turtle Spring | 85.15 | Lafayette | 5/13/2015 | Purchased |
| John Steffen | 14 | Bradford | 9/17/2015 | Purchased |
| Rayonier Atlantic Timber Company | 2007.27 | Bradford | 9/21/2015 | Purchased |

## Surplus Lands

In order to maximize the water resource benefits of its lands holdings, the District has reviewed its holdings to identify any areas that may not be critical. Such lands are declared surplus and either sold or exchanged on the private market or conveyed to other units of government. The proceeds of any sales and exchanges are dedicated to the acquisition of lands with higher water resource and conservation values.

The District Governing Board adopted Program Directive 2015-01 to provide updated guidelines and procedures for consistency in identification and disposition of surplus lands. Table 10 list activities in selling surplus lands.

**Table 9. Disposition of Surplus Lands in FY 2015**

| Surplus Parcels | Acres | County | Disposition Date | Transaction | Proceeds |
|---|---|---|---|---|---|
| SRWMD to Chris and Deanna Mericle | 0.86 | Hamilton | 6/23/2015 | Exchange | $0.00 |
| SRWMD to City of Starke | 14 | Bradford | 11/242015 | Conveyed to Municipality | $0.00 |
| Total | 14.86 | | | | $0.00 |

## Land Management

Management of District lands ensures that these public lands continue to provide important water resource functions to maintain natural systems and for the benefit of the public. The 2015 Land Management Review Team scored the District land management at 1.53 out of possible 2, indicating that the District is meeting and exceeding its goals for managing the land according to the plan and purpose for which it was acquired.

The following summarizes significant projects implementing the District Land Management Plan on fee simple lands owned by the District. A complete listing of activities and accomplishments is found in the 2015 Land Management Report at: www.mysuwanneeriver.com, under the Land Management tab.

- *Middle Suwannee River and Springs Restoration and Aquifer Recharge Project*
  In support of the project, staff removed debris, applied herbicide and maintained approximately 210 culverts in the Mallory Swamp tract that provide surface waters to the project.

- *Otter Springs Restoration Project*
  Work in FY 2015 included the removal of 700 cubic yards of sediment from the main vent and spring pool. Efforts continue into FY 2016 to complete erosion control measures and other public use improvements to protect the spring.

- *Silviculture Water Yield Research Project*
  This project is part of a statewide effort to advance the understanding of the impact of forest management practices on water yield, and whether this water is held in surficial systems or makes it way to the aquifer. This project will run through 2019.

- *Natural Resource Management Projects*
  The Little River Tract Restoration Project, in cooperation with FWC and National Wild Turkey Federation, continued with prescribed burning and herbicide application for tree planting.

  Project metrics in FY 2015 include prescribed burning on 8,919 acres; timber sales on 1,071 acres; and the reforestation 151 acres.

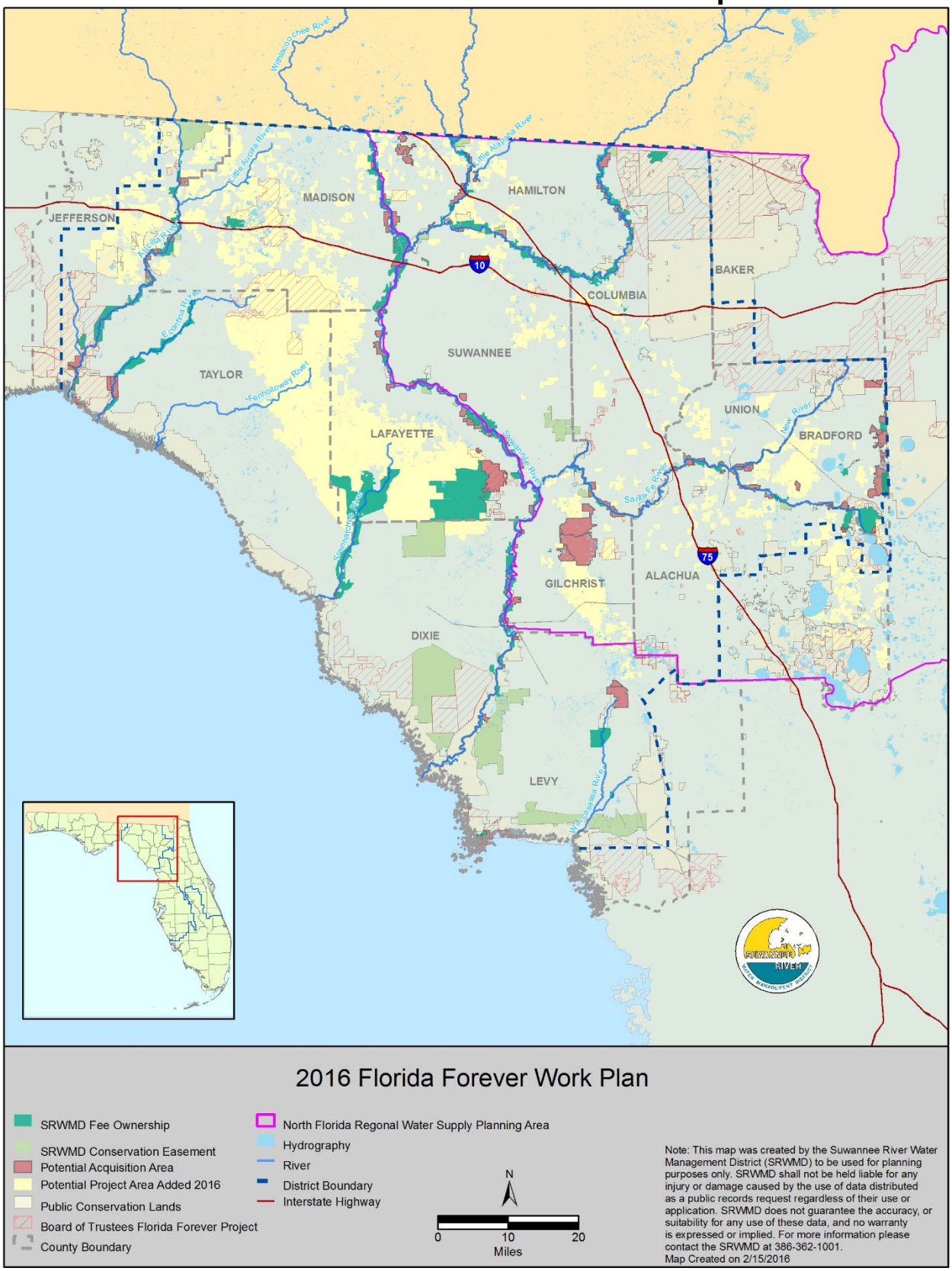
- *Non-native, Invasive Plant Control Project*
  During FY 2015, 54 infestations of invasive plants were monitored and 115 infestations were treated with herbicides.

- *Public Use Project*
  The District "Recreation Guide" revision and update, including both static and dynamic maps on the website, was completed in FY 2015. The District cooperates with FWC and US Fish and Wildlife Service to provide public hunting opportunities on almost 105,000 acres. During FY 2015573 Special Use Authorizations were issued for use of District lands.

- *Facilities Maintenance Project*
  During FY 2015 96 miles of roads and 142 miles of property boundaries were maintained.

Annually the District provides an annual overview of management objectives and activities conducted on fee-simple title lands held by the Governing Board of the District. The results are published in the Land Management Report. It provides details and accomplishments on natural community resource projects which are designed to maintain or improve natural communities, forest resources, rare species, cultural and historical resources, and aesthetic and visual resources. It addresses social and economic management goals and activities which are key components of the land management program and include public use, communications and fiscal responsibility.

# 2016 Florida Forever Work Plan Map



*Suwannee River Water Management District*

*Florida Forever Work Plan*

*2016 Annual Update*

*Water for People*

*Water for Nature*

*February 17, 2016*