## Consolidated Annual Report

March 1, 2015



9225 CR 49 Live Oak, Florida 32060 386-362-1001

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VIRGINIA SANCHEZ Old Town, Florida

GUY N. WILLIAMS Lake City, Florida

ANN B. SHORTELLE, Ph.D. Executive Director Gainesville, Florida

#### SUWANNEE RIVER WATER MANAGEMENT DISTRICT

February 25, 2015

The Honorable Rick Scott, Governor State of Florida The Capitol 400 S. Monroe Street Tallahassee, FL 32399-0001

Subject: 2015 Consolidated Annual Report

Dear Governor Scott:

In accordance with Section 373.036 (7), Florida Statutes, please find enclosed a copy of the Suwannee River Water Management District's 2015 Consolidated Annual Report. The report is also available for viewing on our website at <a href="https://www.mysuwanneeriver.com">www.mysuwanneeriver.com</a> in the Business & Financial section.

This year's report emphasizes the following:

- Continuing emphasis on solution-oriented projects;
- Continuing strategic focus on water supply, water conservation, and springs projects; and
- Continuing fiscal accountability and efficiency in all areas of responsibility.

Please contact me at 800.226.1066 should you have any questions or like additional information.

Sincerely,

Ann B. Shortelle, Ph.D. Executive Director

Excount bire

ABS/bmp Enclosure

cc: SRWMD Governing Board

Jonathan P. Steverson, Secretary, DEP

Recipients of the District's Fiscal Year 2015-2016 Standard Format Consolidated Annual Report:

The Honorable Andy Gardiner, President Florida Senate 404 S. Monroe Street Tallahassee, FL 32399-1100

The Honorable Tom Lee, Chair Senate Committee on Appropriations and Joint Legislative Budget Commission, Alternating Chair 404 S. Monroe Street Tallahassee, FL 32399-1100

The Honorable Alan Hays, Chair Senate Appropriations Subcommittee on General Government 404 S. Monroe Street Tallahassee, FL 32399-1100

The Honorable Charlie Dean, Chair Senate Committee on Environmental Preservation and Conservation 404 S. Monroe Street Tallahassee, FL 32399-1100

The Honorable Ben Albritton, Chair House Agriculture & Natural Resources Subcommittee 402 South Monroe Street Tallahassee, FL 32399-1300

The Honorable Matt Gaetz, Chair House Finance and Tax Committee 402 S. Monroe Street Tallahassee, FL 32399-1300

Ms. Jamie DeLoach, Staff Director Senate Appropriations Subcommittee on General Government 404 S. Monroe Street Tallahassee, FL 32399-1100

Ms. JoAnne Leznoff, Staff Director House Appropriations Committee 402 South Monroe Street Tallahassee, FL 32399-1300 The Honorable Steve Crisafulli, Speaker Florida House of Representatives 420 The Capitol 402 South Monroe Street Tallahassee, FL 32399-1300

The Honorable Richard Corcoran, Chair House Appropriations Committee and Joint Legislative Budget Commission, Alternating Chair 402 South Monroe Street Tallahassee, FL 32399-1300

The Honorable Anitere Flores, Chair Senate Committee on Fiscal Policy 404 S. Monroe Street Tallahassee, FL 32399-1100

The Honorable Matthew Caldwell, Chair State Affairs Committee 402 South Monroe Street Tallahassee, FL 32399-1300

The Honorable Tom Goodson, Chair House Agriculture & Natural Resources Subcommittee 402 South Monroe Street Tallahassee, FL 32399-1300

Mr. Adam Blalock, Policy Chief Agriculture & Natural Resources Subcommittee 402 South Monroe Street Tallahassee, FL 32399-1300

Ms. Jennifer Hrdlicka, Staff Director Senate Committee on Fiscal Policy 404 S. Monroe Street Tallahassee, FL 32399-1100

Mr. Don Langston, Senior Staff Director House Finance and Tax Committee 402 S. Monroe Street Tallahassee, FL 32399-1300 Ms. Stephanie Massengale, Budget Chief House Agriculture & Natural Resources Subcommittee 402 South Monroe Street Tallahassee, FL 32399-1300

Mr. Noah Valenstein, Policy Coordinator Office of Policy & Budget, Environmental Unit The Capitol 400 S Monroe Street Room

Mr. Mike Atchley, Budget Chief Office of Policy & Budget, Environmental Unit The Capitol 400 S Monroe Street Room 1801 Tallahassee, FL 32399

Ms. Janet Llewellyn, Policy Administrator Office of Water Policy Department of Environmental Protection 3900 Commonwealth Blvd. MS 46 Tallahassee, FL 32399 Ms. Cindy Kynoch, Staff Director Senate Committee on Appropriations 404 S. Monroe Street Tallahassee, FL 32399-1100

Ms. Karen Camechis, Staff Director House State Affairs Committee 402 South Monroe Street Tallahassee, FL 32399-1300

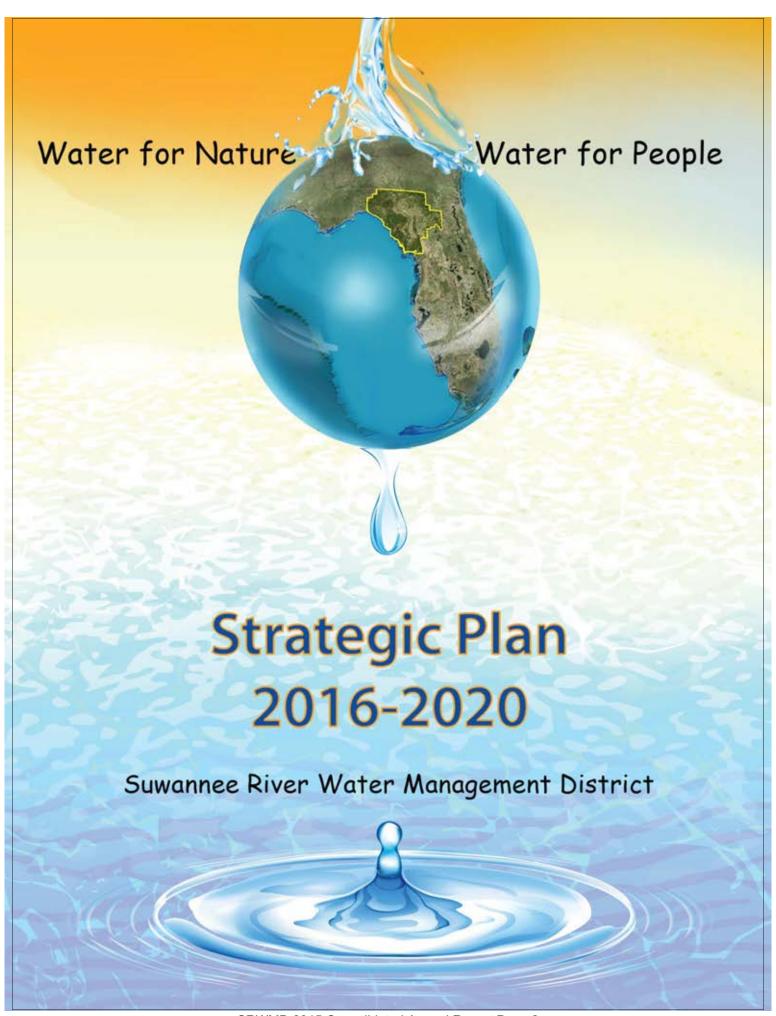
Mr. Pepper Uchino, Staff Director Senate Committee on Environmental Preservation and Conservation 404 S. Monroe Street Tallahassee, FL 32399-1100

Mr. Craig Varn, Special Counsel on Water Policy and Legal Affairs Office of Water Policy Department of Environmental Protection 3900 Commonwealth Blvd. MS 46 Tallahassee, FL 32399

### Five-Year Strategic Plan

(District Water Management Plan)

In accordance with Subsection 373.036(2)(e), Florida Statutes



#### SRWMD STRATEGIC PLAN



#### A message from the Chairman

During Fiscal Year 2014-2015 the District made significant strides in refining its foundation of science-based decisions by introducing critical projects to achieve strategic initiatives and establishing partnerships to accomplish core mission objectives.

The Governing Board took a progressive step forward to enhance the District's groundwater monitoring network. The monitoring well network improvement plan will eliminate the monitoring data "gaps" in areas throughout the District. Closing these gaps is essential for groundwater modeling improvements and long-term trend monitoring assessments.

The District has reached agreements with the four major electrical cooperatives providing service primarily to agriculture. These agreements enable the District to gather essential water

use monitoring data necessary for water supply planning, water use demand projections and environmental modeling.

The District's efforts in collecting continuous real-time first magnitude spring water quality data is another technological enhancement that provides the public with access to improved data. This new data collection effort involves a collaborative partnership between the District, the Florida Department of Environmental Protection, and the US Geological Survey. As a result of the enhanced tools and partnership, water quality measurements are taken several times an hour.

The District will present the data on its website employing a springs dashboard that provides an at-a-glance view of water quality and flow, contributing factors affecting the first magnitude springs, and interactive maps. Manatee Springs is the District's first dashboard to launch. Additional first magnitude springs will be added to the dashboard throughout the coming year.

More comprehensive monitoring of springs will allow a better understanding of how activities in a springshed and regional aquifer conditions affect springs. The enhanced data will help implement effective strategies to reduce nutrient loading and meet minimum flows and levels. Efforts to reduce nutrient concentrations and ensure

adequate flows support healthy spring ecosystems. The District is enhancing its structural foundation to ensure comprehensive science-based decisions are made to protect and restore our water resources.

We count the prior year a success and optimistically look forward to new opportunities to serve our communities.



#### **Governing Board**

Donald J. Quincey Jr. -Chairman, Lower Suwannee Basin Alphonas Alexander - Vice Chairman. Upper Suwannee River Basin Donald R. "Ray" Curtis III -Secretary/Treasurer, Coastal Rivers Basin Kevin W. Brown, Santa Fe, Waccasassa Basins George M. Cole, Aucilla River Basin Virginia H. Johns, At Large Gary F. Jones, At Large Virginia Sanchez, At Large Guy N. Williams, At Large

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#### **Vital Statistics**

- District Population: approx. 320,000
- Counties in District Boundaries: all or part\* of 15 counties in north-central Florida.
  - Alachua,\* Baker,\* Bradford,\* Columbia, Dixie, Gilchrist, Hamilton, Jefferson,\* Lafayette, Levy, Madison, Putnam, Suwannee, Taylor and Union
- Contributing River Basins:13
  - o Suwannee, Santa Fe, Withlacoochee, Aucilla, Alapaha, Ichetucknee, Fenholloway,
  - Steinhatchee, Econfina, Waccasassa, and Wacissa. (Over 50% of the Aucilla, Alapaha, Withlacoochee, and Suwannee river basins are located in Georgia)
- Springs: Over 300 documented springs, 19 first magnitude springs in the District
- Square miles: 7,640 square miles (12% of the State's land area)

#### **SRWMD BOUNDARY MAP**



#### Mission

The Suwannee River Water Management District (District) works to protect and manage water resources to support natural systems and the needs of the public.



#### **Governance Structure**

A Governing Board of nine members, appointed by the Governor and confirmed by the Florida Senate, sets policy and direction for the District. Board members serve four-year terms. The Board holds monthly meetings and workshops, usually at the headquarters in Live Oak.

Under the direction of its Governing Board, the District's organization is structured by the Executive Office, Administration and Operation Division, Water Supply Division, Water Resources Division, and Resource Management Division.

#### **Attributes**

The region includes the highest concentration of first magnitude freshwater springs in the United States and the highest concentration of freshwater springs in the State. Additionally, some of State's most scenic and least- developed rivers, streams, lakes, and landscapes are located in the District.

#### **Focal Points**

The District has projected future water supply challenges in the Alapaha, Upper and Lower

Santa Fe and Upper Suwannee river basins. Additionally, in both the northeastern and northwestern portions of the District, there is a regional declining trend in water levels within the Upper Floridan Aquifer water levels.

Water quality problems related to nutrient enrichment are an additional resource management issue. The District employs voluntary, locally based, incentive programs like the Suwannee River Partnership to conserve water and improve nutrient management to reduce loadings. Additionally, the District partners with the Florida Department of Environmental Protection (FDEP) to help implement Basin Action Management Plans.

The District faces challenges in managing the water and related resources as the region continues to grow and develop. Groundwater withdrawals both inside and outside of its boundaries may affect the District's water resources. Increasing water use efficiently, water storage and aquifer replenishment are key strategies to ensuring adequate water supplies

The District's core mission is to implement the programs described in Chapter 373, Florida Statutes, in order to manage water and related natural resources for the present and future residents of the region and the state. The guiding principles of the mission are:

- •To provide for the availability of water of sufficient quantity and quality to maintain natural systems and meet the full range of water needs.
- •To develop and implement regulatory programs that will ensure conservation and reasonable uses of water and related natural resources.
- •To ensure District priority water bodies are protected for current and future generations.
- •To encourage nonstructural surface water management techniques to manage flooding risks.

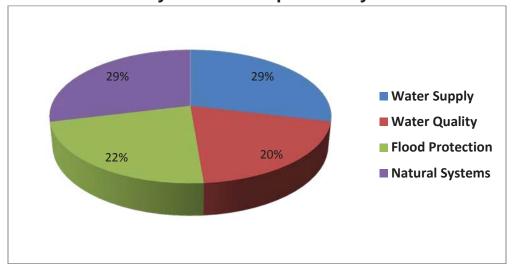
- •To use public funds in an efficient and effective manner and operate without debt.
- •To provide a land acquisition and management program that provides conservation and water resource management.

#### **Budget**

To carry out the mission and vision, the financial tools utilized by the District include a combination of local property tax revenues, state appropriations and grants, and federal grants. Due to the tax base, funding from the state legislature is necessary to achieve statutory requirements. Federal, state, and other sources of our funding are essential to assisting the District accomplishing its mission.

The District has limited financial and staff resources and relies on State and Federal assistance to help it implement core mission programs and projects. Federal, state, and other sources make up approximately 57% of our current funding.

## FY 2014-2015 District Budget by Area of Responsibility



The District Strategic Plan addresses our four areas of responsibility in accordance with-Chapter 373, Florida Statutes (F.S.): water supply, flood protection, water quality and natural systems.

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#### Strategic priorities for 2016 – 2020

Water Supply

#### Sustainable Water Supply

 Goal: Ensure an adequate and sustainable water supply for all reasonable and beneficial uses while protecting springs and natural systems.

#### Water Conservation

• Goal: Maximize water conservation and use efficiently for all water uses.

Natural Systems and Water Quality

#### Minimum Flows and Levels

- Goal: Ensure District priority water bodies are protected for current and future generations.
  - Heartland Springs Initiative
- Goal: Ensure springs have adequate flow, maintain good water quality, and sustain healthy biological communities.
  - Water Management Lands
- Goal: Manage land and real estate interests to provide non-structural flood control, to protect surface and ground water quality, and to enhance water resources related to natural systems.

Flood Protection

#### Non-Structural Flood Protection

• Goal: Enhance flood risk information to protect life and property against flood hazards.

#### **Accomplishments of 2014**

#### **Water Supply**

- District, FDACS, and DEP along with its cost-shared program has resulted in 460 agricultural irrigation efficiency systems for an estimated offset of 13.5 million gallons per day (mgd) of groundwater use
- Continued the joint Regional Water Supply Plan with St Johns River Water Management District (SJRWMD)
- Completed an update to the District's regional groundwater flow model (North Florida Model version 2.0)
- Continued the North Florida Regional Water Supply Partnership with the Florida Department of Environmental Protection (FDEP), Florida Department of Agriculture and Consumer Science (FDACS), and the SJRWMD
- Continued water resource coordination with the State of Georgia
- Continued Project Planet and Water Conservation Hotel and Motel Program (CHAMP)
- Continued development of the North Florida Southeast Georgia Regional Groundwater Flow Model
- Completed the consumptive use permitting consistency process
- Expanded agricultural water use monitoring to over 300 systems, some in partnership with electric cooperatives, saving the District over \$1,000 per monitoring site
- Initiated Regional Initiative Valuing Environmental Resources (RIVER) programs conserving an estimated 0.156 mgd, of which 0.120 mgd is in water resource caution areas.

- Initiated RIVER programs that improved water supply services for 8,938 customers and several businesses
- Initiated the Middle Suwannee River and Springs Restoration and Aquifer Recharge Project
- Initiated the Brooks Sink dispersed water storage project
- Initiated the ground water well monitoring improvement plan

#### **Water Quality**

- Continued Agricultural cost-share partnership reducing nitrates use by 1.4 million pounds annually
- Initiated the Ichetucknee River Springshed Water Quality Improvement to convert the City of Lake City's spray field to a wetland treatment system that will reduce nitrogen loadings by up to 85%
- RIVER program funded the removal of 64 septic tanks resulting in reduced nutrient loading (approximately 1 ton of nitrates per year) to natural water resources
- RIVER program funded two public supply wells to provide adequate capacity to customers and reduce lead in drinking water for customers
- RIVER program funded a project to prevent 17 tons of suspended solids from entering surface waterbodies by providing stream bank stabilization
- RIVER program funded a project to prevent sediment discharge from discharging into the aquifer and Outstanding Florida Waters
- RIVER program funded a project which repairs a public storage tank which improves that water quality to its customers

#### ACCOMPLISHMENTS

#### **Natural Systems**

- Rule adoption pending for the Lower Santa Fe and Ichetucknee Rivers and Priority Springs MFLs
- Continued development of MFLs for the Upper Suwannee River, Middle Suwannee River, Lake Alto
- Initiated development of MFLs for Lake Hampton and Santa Fe Lake
- Conducted prescribed burning on 11,908 acres
- Completed reforestation of 274 acres of slash pine and 745 acres of longleaf pine
- Completed selective timber harvests at Buck Bay, Steinhatchee Springs, Steinhatchee Rise and harvested on 473 acres of Little River Tract with additional 199 acres of timber sold
- Treated 52 active exotic invasive plant infestations and monitored 41 active exotic invasive plant infestations
- Completed a tract by tract assessment of District Roads to ensure long-term sustainable maintenance
- Acquired National Wild Turkey Federation and Florida Fish and Wildlife Conservation Commission (FWC) Grant for an Upland Pine Restoration project
- Initiated the Silviculture Water Yield research project at Little River Tract
- Coordinated the herbicide treatment of 388 acres to meet the District vegetative goals for upland restoration
- Acquired FWC Grant for exotic invasive species control on Lake Rowell and Withlacoochee Quail Farms Tracts

- Coordinated and participated in the re-route of the Florida National Scenic Trail through the Town of White Springs, Bell Springs Tract, and Big Shoals Tract
- Participated with Florida State Parks, Florida Forest Service, and FWC to update Big Shoals Public Lands Management Plan
- Issued 470 Special Use Authorizations (SUAs) for public recreation and 20 commercial SUAs

#### **Flood Protection**

- Continued the Risk Map discovery process for the Santa Fe River, Upper Suwannee River, Coastal Rivers and Withlacoochee river basins
- Completed 550 square miles of Light Detection and Ranging (LiDAR) mapping bringing District-wide coverage to approximately 90%
- Completed Digital Flood Insurance Rate Map (DFIRM) updates for the City of Live Oak and Suwannee County; DFIRMs now exist for all counties within the District boundaries
- RIVER program funded flood protection for 55 homes in Bradford County and 5 homes and several public facilities in the City of Perry while providing 130 acre feet of flood storage
- Received grants from Florida Department of Emergency Management (FDEM) to support purchase of backup generator for District headquarters and conduct a public information campaign on upgrading the District's flood risk communications
- Initiated feasibility analysis of flood mitigation projects in Bradford County
- Acquisition of West Ridge Water Development Area including buffer zone for Camp Blanding

## Strategic Priority — Water Supply Sustainable Water Supply

Goal: Ensure an adequate and sustainable water supply for all reasonable and beneficial uses while protecting springs and natural systems

Fast Facts: Eagle Lake/ Upper Suwannee River Springs Enhancement Project Middle Suwannee River and Springs Restoration and Aquifer Recharge Project: Phase II **Progress**  Falling Creek Aguifer Recharge Project West Ridge Water Resource Development Area Brooks Sink Aguifer Recharge Project Cost Share Projects Complete North Florida Regional Sustainable Water **Plans** Supply Plan Update Water Supply Assessment Plan State appropriations **Program**  Federal grants **Funding**  Permit fees Ad valorem taxes

#### **Partnerships**

The delicate balance of sustainable water supply and demand in north Florida is approached and addressed using partnerships. State agencies neighboring water management districts, counties, municipalities, universities, water authorities and public sector. Population, agriculture commercial entities and other users both within and outside district boundaries influence this delicate balance. For example, the District's partnership with Florida Department of Agriculture and Consumer Services (FDACS) will improve agricultural water use efficiency and reduce nutrient loading with water-saving equipment through cost-sharing agreements with farmers. The District also partners with farmers

to collect water use data, which is vital information for the water supply planning process.

Three years ago, as a strategic result of a mutual desire to ensure sustainable supply the North Florida Regional Water Supply partnership (NFRWSP) was created. Suwannee River and St. Johns water management districts along with the FDEP applied a cooperative approach to protect natural resources in a cost-effective manner, maintain sustainable water supplies in both districts through collaborative planning, scientific-tool development and other partnership efforts.

Overall, these partnerships are instrumental in the development of water supplies protecting water resources, aquifer recharge and implementing alternative water supply projects.

#### **Progress**

Since its inception in 2011 the NFRWSP has reviewed and made substantial recommend-dations on the joint regional water supply planning area, on the methodologies for the projecting water use, and the Lower Santa Fe and Ichetucknee minimum flows and levels (MFLs) and recovery strategies.

The interconnectivity of water bodies and natural systems with the regional aquifer is evident through the fluctuations of levels of rivers, springs and the groundwater. The development of minimum flows and levels is critical to the work of the District and protection of resources. Science-based data employed by the will allow for proper planning recharge the

## STRATEGIC PRIORITY – Water Supply Sustainable Water Supply continued



North Florida Regional Water Supply Partnership
Planning Region

aquifer, employ alternative water supplies, and develop regional solutions.

Developing alternative water supplies that offset groundwater withdrawals encourage water conservation and regional water supply developments are critical components to ensure adequate water supply. Alternative water supplies offset dependency on groundwater and water resource development projects expand available sources to assist in maintaining sustainable resources and help make water sources more drought resistant.

#### **Projects**

Projects slated for 2015 include the Middle Suwannee River and Springs Restoration, Aquifer Recharge project, Eagle Lake Project and Brooks Sink Aquifer Recharge Project.

The Middle Suwannee River and Springs Restoration and Aquifer Recharge project began in 2013 and is in the final stages of permitting. Construction is scheduled to begin in early 2015. The project will increase groundwater discharge to the Middle Suwannee River, and augment groundwater supplies in Lafayette and Dixie Counties, which also benefits springs and agricultural users. This project is made possible through funding from the State of Florida, Dixie County and the District.

The Eagle Lake / Upper Suwannee River Springs Enhancement Project (Project) is a public-private partnership with Potash Corp and the District. The project will reduce the nutrient loading to the Upper Suwannee River and reduce withdrawals from the Upper Floridan aquifer (UFA) by up to 20 million gallons per day, thereby benefitting spring flows. The project will facilitate the recovery of a portion of the water from Eagle Lake that would otherwise discharge into Swift Creek and the Upper Suwannee River. This reduction in flow from Eagle Lake will reduce total nutrient loading to the river between the White Springs and Ellaville.

#### **Focus Points**

The District is pursuing enhancements to its groundwater monitoring program through a Monitor Well Improvement Plan approved by the Governing Board at its November 2014 meeting. The current groundwater monitoring program will be enhanced through the location of properties and installation of additional monitoring wells to be used for filling of gaps in the water level and water quality monitoring networks that will be used for long-term groundwater trend analysis and calibration of groundwater models.

The District's water use permitting program also helps ensure that adverse impacts to our water supplies and natural systems do not occur and existing legal users are protected.

## Strategic Priority — Water Supply Water Conservation

Goal: Maximize water conservation for all water uses.

#### **Fast Facts**

# Progress -Local Government Cost Share -Agricultural Water Conservation and Cost Share -Water Champ -Columbia County Water Conservation Initiative -Complete the Suwannee and Santa Fe Ag BMAP Cost-Share -State grants -Federal grants -Ad valorem taxes

Committed to increasing water conservation efforts, the District and its partners surpassed several milestones. Conservation measures are encouraged through management incentives and regulatory mechanisms.

#### **Partnerships**

The City of Lake City, Columbia County and the District are moving with a water conservation project that will save an estimated 32 million gallons per year (mgy) benefiting Ichetucknee Springs. The project engages local businesses through a cost-share rebate to replace existing toilet and faucet fixtures with high efficiency units.

An effective program the District continued in 2014 was the Regional Initiative Valuing Environmental Resource (RIVER). RIVER provides funding assistance to governmental entities for projects that further the District's core mission. During 2014, five conservation projects were funded with an estimated water savings of 0.156 mgd or 56.9 mgy and one reclaimed water project was funded, yielding an

estimated groundwater savings of more than 0.08 mgd or 29 mgy.

The Suwannee River Partnership (SRP) has been instrumental in implementing conservation partnerships with the agriculture community in the Suwannee River Basin. During 2014. SRP coordinated with the District and agricultural water users to bring Mobile Irrigation Lab (MIL) services to area farmers. The MILs in SRWMD performed 156 evaluations to determine irrigation system efficiency and uniformity for agricultural producers on 11,490 acres of irrigated land. The MILs identified approximately 3.5 million gallons per day (mgd) of actual water savings, which have been achieved via irrigation efficiency improvements, as well as 4.3 mgd of future potential water savings.

The District initiated an agricultural cost-share program to agricultural producers to implement irrigation efficiencies to reduce ground-water pumpage. Since initiation of the program, the District and it funded 460 irrigation efficiency projects that are estimated to have a water savings of 13.5 mgd. These projects include irrigation system retrofits, soil moisture sensors, remote access for irrigation system control, as well as other Best Management Practices (BMPs) that provide cost-effective water savings.

Participants in the District's agricultural costshare program are required to implement best management practices and voluntarily participate in the District's water use monitoring program. Other agricultural cost-share projects include: aquiculture reuse, denitrification reactors pilot projects, precision irrigation/fertigation, dairy The District's Ag Team provides assistance to

## STRATEGIC PRIORITY — Water Supply: Water Conservation

wastewater and tailwater recovery projects. agricultural operations for conserving optimal irrigation conservation measures are implemented in the permitting process. The District encourages implementation of urban conservation practices such Florida-Friendly Landscaping<sup>™</sup> and Water CHAMP<sup>SM</sup> (Water Conservation Hotel and Motel Program).

The District is partnering in the Florida Water Star<sup>SM</sup> and EPA's WaterSense programs. The Florida Water Star<sup>SM</sup> provides water efficiency audits for residential, business, and commercial enterprises. The WaterSense program provides simple ways for consumers to use less water with water-efficient products, new homes and services.

Conservation is an efficient and effective means to reduce demands on our water supplies. It is estimated that over half of residential water use is for lawn and landscape irrigation. Installation of Florida-Friendly Landscaping™ will result in significant savings to our water sources.

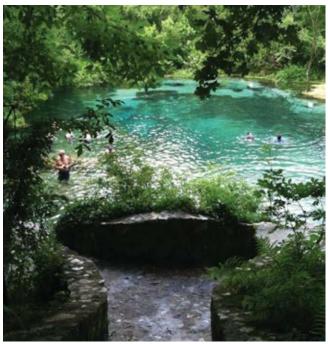
Year-round lawn and landscaping irrigation measures are in effect throughout the District. These measures apply to residential landscaping, public or commercial recreation areas, and businesses that are not regulated by a District water use permit. The District has made available for our local governments a model year-round irrigation and water shortage ordinance. To date 20 local governments throughout the District have adopted some form of the model ordinance.



Suwannee County Nursery uses water conservation through drip irrigation September 2014

## Strategic Priority — Natural Systems and Water Quality Minimum Flows and Levels

Goal: Ensure District priority water bodies are protected for current and future generations.



Ichetucknee Springs, Columbia County, FL, June 2014

#### **Fast Facts:**

 Adopted and implemented MFLs for the Lower Suwannee River, Upper Santa Fe River, Waccasassa River, Little Fanning Spring, Fanning Spring, Madison Blue Spring, Manatee Spring, and Levy Blue Spring.

•Rule Adoption for Lower Santa Fe and Ichetucknee and priority springs MFLs underway

 Implementing projects to reduce water use, offset groundwater withdrawals and beneficial recharge

Program Funding

**Progress** 

State appropriationsAd valorem taxes

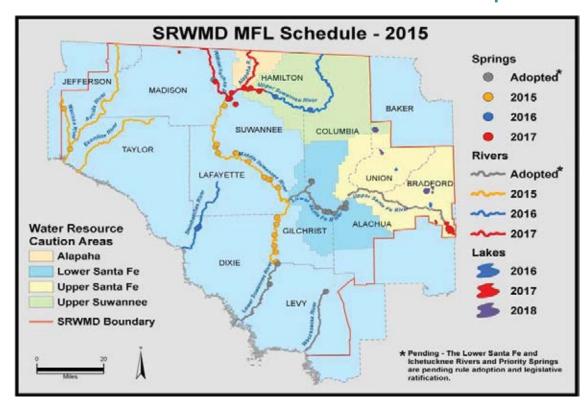
Minimum flows and levels for priority rivers, springs, and lakes are vital metrics for determining health of the District's water resources and the availability of water to supply reasonable, beneficial uses. Existing and proposed minimum flows and levels for our rivers and springs verify that our water supplies are limited. Thus, management efforts must be adaptive and focus on protecting existing legal uses, water resources and related natural systems.

The District Governing Board establishes minimum water levels (MFLs) and/or flows as necessary to prevent significant harm from water withdrawals to the water resources or ecology of an area.

The District's MFLs program is a science-based process that uses the best available information to determine the recommended MFLs. Information sources includes meteorlogical, hydrological and ecological data, reflecting a historical range of drought and flood conditions. The science supporting MFLs is voluntarily subjected to an independent peer review process initiated by the District.

The District develops recovery strategies in those cases where a water body currently does not meet its MFL and prevention strategies in those cases where a water body is projected to fall below its MFL. The prevention and recovery strategies are adopted concurrently with the MFLs.

Annually, the District publishes a priority list of MFL water bodies with an anticipated completion schedule. This list is reviewed and submitted to the FDEP for approval.



#### **2015 Minimum Flows and Levels Priorities Map**

The District has also identified priority water bodies that are potentially affected by withdrawals in an adjacent water management district known as cross boundary affect. For these water bodies, the District can engage a statutory process, to request that the FDEP adopt the MFLs and any associated prevention and recovery strategies, with the District providing technical support during adoption.

#### **Partnerships**

Development and adoption of MFLs and a recovery strategy for the Lower Santa Fe and Ichetucknee Rivers and priority springs that have cross boundary affects present a new paradigm for Florida. FDEP's adoption of the MFLs and recovery strategy will mean that existing and future water users in each water management district will need to work with the districts in the consumptive use permitting process to ensure the recovery strategy is effective. To be effective, it is necessary that regulatory strategies be consistent and

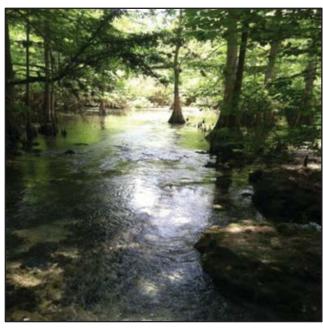
equitable across water management district boundaries.

#### **Progress**

To date, the District has adopted and implemented MFLs for the Lower Suwannee River, Upper Santa Fe River, Waccasassa River, Little Fanning Spring, Fanning Spring, Madison Blue Spring, Levy Blue Spring and Manatee Spring. Based on the proposed 2015 MFL Priority List, the District is proposing to set MFLs on its priority water bodies by 2018.

## Strategic Priority — Water Quality and Natural Systems Heartland Springs Initiatives

Goal: Ensure springs have adequate flow, maintain good water quality, and sustain healthy biological communities.



Little Fanning Spring, Fanning Springs State Park, Gilchrist County, July 2014

#### **Fast Facts**

Projects

- Water Quality Improvement Projects
- Identify long-term trends
- Springshed Delineation
- Increase Flow and Water Quality Real Time Monitoring

Program Funding

- State appropriations
- State grants
- Permit fees
- Ad valorem taxes

Springs are among the most visible and prized natural and recreational water resources of the District.

The District has the highest concentration of first magnitude springs in the United States and the highest concentration of springs in Florida is within the District. There are more than 300 known springs within the District. During low

flow periods the Suwannee River, Santa Fe River and Withlacoochee River essentially become spring runs due to substantial groundwater inputs. Other rivers such as the Ichetucknee and Wacissa are primarily springfed year round.

This unique environmental condition truly makes the District the springs heartland of Florida. The Heartland Springs Initiative is a comprehensive, multi-faceted approach involving every aspect of the District's management and regulatory programs.

The highly interactive character of ground and surface water in the District makes springs much like the proverbial "canary in the coal mine." If the aquifer can't support sufficient flow of good quality water it becomes less likely our springs' biological communities will be healthy. In addition, spring health is also promoted when the harmful effects of invasive species and disturbance are minimized.

Springs provide a vast array of recreational opportunities and are important economic drivers that create jobs for the region. Therefore, preserving the flows, water quality and biological health of our springs will best reflect our ultimate success in protecting the water resources of the region and the State.

#### **Partnerships**

A model for springshed management is establishing and working via partnerships. Within the District there are several successful partnership examples. Monitoring is a fundamental element of the District's Heartland Springs Initiative. Hydrologic, water quality and biological monitoring of water resources linked to springs provides the assessment tools available to gauge springs' health and the effectiveness of restoration efforts. Data are used to identify long-term trends and

## Strategic Priority — Water Quality and Natural Systems Heartland Springs Initiative

identify management challenges. The District monitors 38 priority springs to assess their condition and plans to increase its monitoring. of key biological features. Working with the FDEP and U.S. Geological Survey, the District has begun continuous monitoring, including nitrate, at five priority springs, Fanning, Manatee, Ichetucknee Blue Hole, Troy and Madison Blue Springs. These data are available via the District's website <a href="https://www.myswuanneeriver.com">www.myswuanneeriver.com</a>.

Other partnership examples include and SRP and the Ichetucknee Partnership (TIP). The District supports TIP and SRP by planning, funding, and implementing Best Management Practices; initiating projects; providing water quality and quantity data; and administering outreach and educational programs.

SRP brings landowners and agencies together to implement BMPs to reduce nutrient inputs and implement water conservation measures. SRP farmer participation is significant and involves 90% of dairy, 100% of poultry, and 76% of crop farmers throughout the District. The SRP now has more than 277,000 acres within the District enrolled in one or more FDACS BMP programs. Estimated nitrogen reduction is 3,250 tons per year. Estimated water saving is one billion of gallons of water per year.

#### **Progress**

In 2014, the legislature again provided support for additional springs restoration projects within the District. This year's project will support better nutrient and water management on agricultural operations, assist water conservation efforts in Lake City and Columbia County, help Bronson and Fanning Springs expand central sewer service and in the process reduce nutrient loading associated with septic tanks, and work with cooperators to become more water efficient and in the process significantly reduce both their

groundwater use and nutrient loading throughout the District.

It is anticipated that a BMAP will be adopted for the Middle and Lower Suwannee River. The BMAP for the Santa Fe River has been adopted.

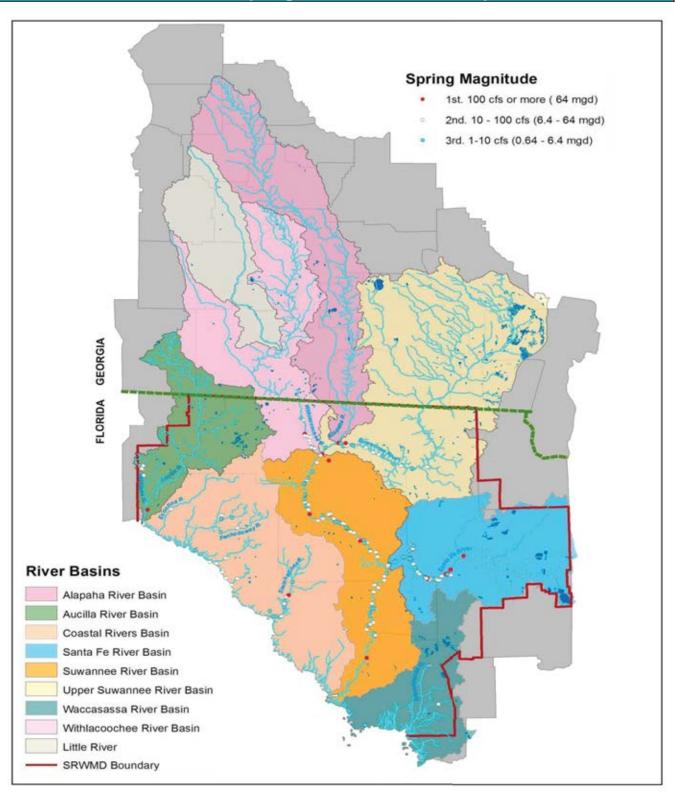
Stormwater, water quality restoration, and reuse projects have been developed and implemented in priority springshed basins to reduce groundwater declines, projects to improve water quality and offset exiting groundwater withdrawals.

The District and FDEP have joined efforts on delineating springsheds and several springs restoration projects. The first is an expansion of the Mallory Swamp recharge project that will benefit a variety of springs along the Middle Suwannee River. The second project involves the conversion of Lake City's wastewater sprayfield into a constructed treatment wetland that will reduce nitrogen concentrations before the water recharges the aquifer through a system of sinks along the Ichetucknee Trace and to springs along the Ichetucknee River. Both projects should be under construction by January 2015.



Manatee Springs, Manatee Springs State Park, Levy County Florida, July 2014

#### General Springs and River Basin Map



#### Strategic Priority — Natural Systems

#### **Water Management Lands**

Goal: Manage land interests to protect springs, provide non-structural flood control, protect surface and groundwater quality, and enhance water-resource related natural systems.



West Ridge Water Development Area buffer zone

#### Fast Facts:

Progress

- •West Ridge Water Development Area
- Prescribed burns
- Partnerships establishd to accomplish the Middle Suwannee River and Springs Restoration and Aquifer Recharge Project

Program Funding

- Surplus lands sales
- National Guard Bureau for base buffering
- Timber sales
- State appropriations
- Reserves

The acquisition and management of land interests incorporates a set of tools to achieve the District's water resource objectives. The majority of District-owned fee and conservation easement lands are located along rivers and streams, headwaters and water recharge areas. Public ownership of these lands and conservation easements provides a host of benefits including:

- Preserving and restoring springs and surrounding areas to protect and improve surface and groundwater quality,
- 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, water resource development projects and
- Preserving and/or restoring natural communities to support or enhance populations of native species.

#### **Partnerships**

Under the Save Our Rivers, Preservation 2000, and Florida Forever programs, the District has protected through acquisition over 158,365 acres. 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. In addition to acquiring lands for conservation, the District is partnering with Camp Blanding and the FDEP to acquire lands for military base buffering. These acquisitions provide a dual benefit of expanding military base buffering while allowing the District to implement flood protection and water resource development project.

## Strategic Priority — Natural Systems Water Management Lands

Partnerships are often established to address the water management on non-district owned lands. Through public-private partnerships strategies are implemented to protect natural resources.

An example of an effective ongoing partnership is the Middle Suwannee River and Springs Restoration and Aquifer Recharge Project. This project will rehydrate natural systems along and adjacent to the southeastern margin of Mallory Swamp. This project will restore wetlands and sandy bottom lakes, increase springs flows and augment water supplies for domestic and agricultural uses in Lafayette and Dixie Counties. This effort also benefits springs and agricultural users. To achieve the objective the District's approach includes reestablishment of natural drainage patterns adjacent to Mallory Swamp, and using natural recharge features and an aquifer recharge well at strategic locations. Construction is scheduled to begin in early 2015.

Acquisition of land interests will play a key role in supporting the District's initiative of monitor well network expansion. Many of the new monitor wells will need permanent access to enable drilling of wells and operation and maintenance of monitoring equipment.

Ensuring the optimal public and water resource benefit, the District evaluates all holdings and identifies lands that may not be needed for conservation purposes. 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

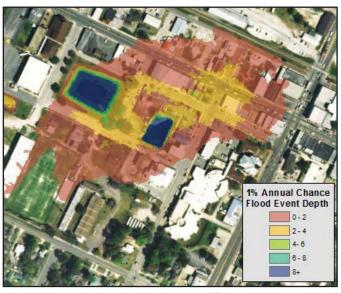
lands with higher water resource and conservation value.

A primary role of the District's land management effort is to restore or enhance the natural systems that provide water resource benefits. This is accomplished first by restoring the historic hydrologic regime. The District is reversing past drainage practices to rehydrate wetlands and store water on the landscape. This water can then recharge the aquifer or help to maintain stream flow during times of drought. Next, District staff works to restore and maintain the natural plant communities on the property. Where past land uses have degraded wetlands, the District may plant wetland species or in some other way manage the mix of species occurring on the site. The District's timber management activities are aimed at restoring the multi-aged stands of pine on their appropriate sites. Since many natural communities, particularly those dominated by pine, are adapted to fire, the District makes extensive use of prescribed burning. All District operations follow best management practices to ensure that there are no offsite impacts.

Increasingly, all of Florida's natural areas are under threat from invasive exotic plants. These plants have the potential to displace native species and disrupt sensitive ecosystems. The District monitors and treats infestations in order to keep the invaders under control. District lands are a valuable recreational resource for the region. Besides providing public access to the Suwannee and other rivers in the District, these lands offer opportunities for hunting, camping, and trail use. Recreational improvements on District lands are designed to improve the user experience without degrading the water resource benefits for which the land was acquired.

## Strategic Priority — Flood Protection Non-Structural Flood Protection

Goal: Enhance flood risk information to protect life and property against flood hazards.



Aerial map shows depth of flooding

## Projects •Enhance regulatory flood maps • Provide Risk MAP products for the Waccasassa and Withlacoochee River basins •Ad valorem • Permit fees • Federal grants

Rain and flooding are naturally occurring events throughout the State of Florida. The District applies a non-structural approach to address flood issues. Technological advances allow the District to apply both conventional methods as well as new methodologies to assist and empower residents to prevent flooding.

The District's non-structural approaches consist of educating the public, assisting communities with the best available data, making data electronically available, acquiring floodplains and having more stringent regulations for developments in floodplains.

#### **Partnerships**

District and US Geological Study are partnering to provide light detection and ranging (LiDAR) data over approximately 670 square miles in portions of Gilchrist, Levy, Madison and Taylor counties by March 2015.

LiDAR data is applied across several of research and practical applications including setting minimum flows and levels, floodplain mapping and modeling, water supply planning and natural systems management.

The District is continuing its partnership with the Federal Emergency Management Agency (FEMA) as a Cooperating Technical Partner for FEMA's Risk Mapping, Assessment and Planning (Risk MAP) program.

The vision for Risk MAP is to deliver quality data that increases public awareness which will lead to actions that reduce risks to life and property. Risk MAP builds on flood hazard data and maps produced during the Flood Map Modernization (Map Mod) program.

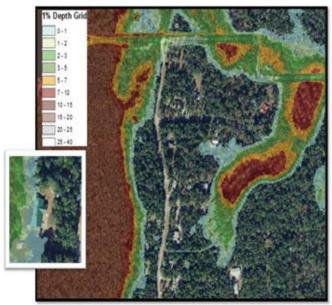
The District will continue its partnership with local communities to develop accessible and accurate floodplain data through the FEMA partnership. The District's webpage provides current FEMA floodplain elevations through the Flood Information Portal.

In addition to floodplain mapping, the District implements an environmental resource permitting program (ERP) to help ensure that development does not increase flooding. Permit reviews are performed to ensure that there is no net loss of the 100-year floodplain and no increase in flood levels. Also, permit evaluations consider specific storm design conditions and any associated impacts to upstream and downstream properties.

#### Strategic Priority — Flood Protection Non-Structural Flood Protection

Groundwater and surface water levels and rainfall data are collected at numerous sites around the District. River levels and rainfall data are provided to the National Weather Service for use in flood forecasting. During flood events, the District is the primary source of flooding information for other agencies and the public. The public also uses the District's real-time river level webpage as a source of information.

Land acquisition within the 100-year riverine floodplain also helps protect against the destructive effects of flooding. One of the District's land acquisition criteria is to protect areas that have flood storage and conveyance system.



Inundation map shows the depth of flooding



Convergence of the Suwannee River and Withlacoochee River, September 2014

	Performan	ce Measures	
Strategic Priority	Success Indicators	Milestones	Deliverables
Sustainable Water Supply	Water made available Percentage increase of demand met	Total amount of water available  Quantity created	Regional Water Supply 2015 Number of projects
Water Conservation	Groundwater offsets  Percentage using Conserve Florida  Gross per capita	Amount of water conserved per capita demand less than 150 gallons	implemented Implemented Project Per Capita Demand Number of retrofits MGD conserved
Minimum Flows and Levels	Number of irrigation retrofits  Cumulative number of MFLs adopted	Middle Suwannee 2015 MFLs for Wacissa, Aucilla and Econfina	MFL priority schedule  Number of water bodies meeting MFLs
Heartland Springs Initiative	Percentage of springs meeting MFLs  Percentage of springs meeting numeric nutrient criterion for nitrate	Percentage of springs with sufficient flow and good water quality to support healthy biota and provide recreational opportunities	100% Springs meeting adopted MFLs and numeric nutrient criterion
Water Management Lands	Managed cost per acre  Percentage of lands evaluated for surplus	Less than \$10 per acre 100% evaluated	Assessment Number of surplus parcels sold
Non-Structural Flood Protection	Percentage of communities with Risk MAPS completed	Number of communities with Risk MAPS	Communities with Completed Risk MAPS

Milestones and Deliverables									
Priorities	Responsibility								
Sustainable Water Supply	Adequate water supply, Water resource development, natural system protection, regulatory compliance, water quality protection, local assistance, monitoring and analysis								
Water Conservation	Implement retrofit water conservation program, regulatory strategies, agriculture conservation, residential conservation and community assistance								
Minimum Flows and Levels	Establish and adopt MFLs on priority list and protect water resources from significant harm								
Heartland Springs Initiative	Ensure springs flows meet adopted MFLs and water quality is not impaired. Improve springshed delineation and gather more frequent data to focus management actions. Gather sufficient data to assess conditions on priority springs and make available via website and dashboards.								
Water Management Lands	Protect groundwater and surface water sources, recharge areas, water quality, flood water storage and protect natural habitats.								
Non-Structural Flood Protection	Monitoring and analysis, regulatory compliance, flood hazard mapping and data accessibility								



Sunrise at Cedar Key, October 2014

#### **Appendix**

#### **Performance Measures**

#### Natural System Primary Goal: To restore the hydrology of natural systems and improve water quality of natural systems.

NS Objective 1: Maintain the integrity and functions of water resources and related natural systems								
Annual Measures	Fiscal Year 20	13-2014						
Number of MFLs and Reservations, by water body type, established annually (fiscal year) and cumulatively	Annual	Cumulative						
Aquifer	0	0						
Estuary	0	0						
Lake	О	0						
River	0	3						
Spring	О	5						
Wetland	О	0						
Number and percentage of water bodies meeting their adopted MFLs	Annual	Percent						
Number of water bodies meeting MFLs	9	100.00%						
Number of water bodies with adopted MFLs	9							

NS Objective 2: Restore or improve degraded water resources and related natural systems to a naturally functioning condition.								
Annual Measures	Fiscal Year20	13-2014						
For water bodies not meeting their adopted MFLs, the number and percentage of those water bodies with an adopted recovery or prevention strategy.	Annual	Percent						
Number of water bodies with an adopted recovery or prevention strategy	0	0.00%						
Number of water bodies supposed to have an adopted recovery or prevention strategy	0							

NS Objective 3: To evaluate district owned lands to ensure that lands owned are necessary for the protection and restoration of water resources											
Quarterly Measures	Quar	ter 1	Quarter 2		Quarter 3		Quarter 4		Annualized Performance		
Number of acres and percentage of District lands evaluated for surplus.	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Fiscal Year 2012-2013	
Number of acres evaluated for surplus	0.00	#DIV/0!	0.00	#DIV/0!	0.00	#DIV/0!	0.00	0.00%	0.00	#DIV/0!	
Total acres of District lands held at the beginning of the fiscal year	0.00		0.00		0.00		158,283.26		0.00		
Number of acres and % of surplus lands sold, exchanged, or leased.	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Annualized Average	
Number of acres of surplus lands sold, exchanged, or leased	0.00	#DIV/0!	0.00	#DIV/0!	0.00	#DIV/0!	537.11	61.81%	537.11	#DIV/0!	
Total acres of land approved for sale, trade or lease by the Governing Board during the quarter	0.00		0.00		0.00		868.90		0.00		

Quarterly Measures	Quar	ter 1	Quarter 2		Quarter 3		Quar	ter 4	Annualized Cost per Acre	
Cost/acre for lands managed by the District (not total).	Number	Cost/Acre	Number	Cost/Acre	Number	Cost/Acre	Number	Cost/Acre	Number	Fiscal Year 2012-2013
Dollars expended in land management where the District serves as the lead manager	\$124,284.26	\$0.81	\$395,249.31	\$2.59	\$700,182.42	\$4.58	\$489,435.80	\$3.20	\$1,709,151.79	\$11.18
Number of acres where the District serves as the lead manager	152,841.33		152,841.33		152,841.33		152,841.33		152,841.33	
Cost/acre prescribed fire.	Number	Cost/Acre	Number	Cost/Acre	Number	Cost/Acre	Number	Cost/Acre	Number	Annualized Average
Dollars expended for prescribed burning	\$5,831.34	\$2.34	\$195,162.46	\$49.95	\$126,641.90	\$52.40	\$42,082.53	\$183.85	\$369,718.23	\$40.87
Number of acres burned	2,493.00		3,907.00		2,417.00		228.90		9,045.90	
Cost/acre for invasive plant control.	Number	Cost/Acre	Number	Cost/Acre	Number	Cost/Acre	Number	Cost/Acre	Number	Annualized Average
Dollars expended controlling invasive plants	\$8,305.64	#DIV/0!	\$2,110.00	\$0.00	\$5,780.65	\$635.24	\$8,678.96	\$997.58	\$24,875.25	\$1,397.49
Number of acres treated	0.00		0.00		9.10		8.70		17.80	

#### Flood Control Primary Goal: Prevent or minimize loss of life and property from flood events

FC Objective 1: Minimize damage from flooding								
Annual Measure	Annualize	ed Average						
Percentage of Maintenance Activities Completed on Schedule	Number	Percent						
Number of maintenance activities completed	0.00	0.00%						
Number of maintenance activities planned	0.00	0.00						

#### Water Quality Primary Goal: To achieve and maintain surface water quality standards

VQ Objective 1: Identify the efficiency of permit review, issuance and relative cost of permit processing.										
Quarterly Measures	Quar	ter 1	Quarter 2		Quarter 3		Quarter 4		Annualized Performance	
For closed applications, the median time to process ERP by permit type and total.	Median		Median		Median		Median		Median	
Exemptions and noticed general permits		12		28		29		28	28.00	
Individually processed permits		92		51		40		50	51.00	
All authorizations combined		21		28		36		30	29.00	
For ERPs, cost to issue permit for all permit types	Number	Cost/Permit	Number	Cost/Permit	Number		Number	Cost/Permit	Number	Cost/Permit
Total cost	\$15,414.84	\$169.39	\$14,970.60	\$191.93	\$17,927.87	\$320.14	\$27,318.89	\$390.27		
Number of permits	91		78		56		70			
For ERP, In-House Application to Staff Ratio for All Permit Types	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Total number of open applications	91	22.75	78	19.50	56	14.00	70	17.50		
Number of staff for the permit area	4.00		4.00		4.00		4.00			

#### Water Supply Primary Goal: To ensure a safe and adequate source of water for all users

WS Objective 1: Increase available water supplies and maximize overall water use efficiency to meet identified existing and future needs.							
Annual Measure	Fiscal Year 2014-2015						
District-wide, the estimated amount of water (mgd) made available through projects that the District has constructed or contributed funding to, excluding conservation projects.	M	GD					
	0.	.00					
Uniform residential per capita water use (Public Supply) by District	1	19					
Percentage of domestic wastewater reused							
Quantity (mgd) of domestic reused wastewater	10.36	91.28%					
*Quantity (mgd) domestic wastewater produced	11.35						
*Based on the 2012 DEP Reuse Inventory Report							

VS Objective 2: To identify the efficiency of permit review and issuance and relative cost of permit processing.											
Quarterly Measures	Quarter 1		Quarter 1 Quarter 2		rter 2	Quarter 3		Quarter 4		Annualized Performance	
For closed applications, the median time to process CUP by permit type and total.	Median		Median		Median		Median		Median		
Individually processed permits	36.00		19.00		24.00		28.00		26.00		
All authorizations combined	40.00		19.00		24.00		41.00		31.00		
For CUPs, cost to issue permit for all permit types (BPM and Metric - Report Quarterly Measures)	Number	Cost	Number	Cost	Number	Cost	Number	Cost	0.00	Cost	
Total cost	\$35,485.75	\$695.80	\$37,934.92	\$592.73	\$29,963.27	\$535.06	\$26,719.06	\$954.25			
Number of permits	51		64		56		28				
For CUP, In-House application to staff ratio for all permit types (Metric - Report Quarterly Measures)	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	
Total number of open applications	2	10.00%	2	8.33%	0	0.00	1	4.55%			
Number of staff for the permit area	20.00		24.00		18.00		22.00				

WS Objective 3: To identify the efficiency of developing water resources and water supply.								
Annual Measures	Fiscal Year 2014-2015							
Water Supply planning cost per capita.	Number	Cost						
Water Supply Planning Cost	771,183.58	\$2.41						
FY2012 District Population	320,000.00							
Cost per million gallons a day for Water Resource Development.	Number	Cost						
Water Resource Development Cost	358,558.13	NA						
Quantity (mgd) produced	0.00							
Cost per million gallons a day for Water Supply Development	Number	Cost						
Water Supply Development Cost	0.00	NA						
Quantity (mgd) produced	0.00							

#### Mission Support Primary Goal: Support District core programs both effectively and efficiently.

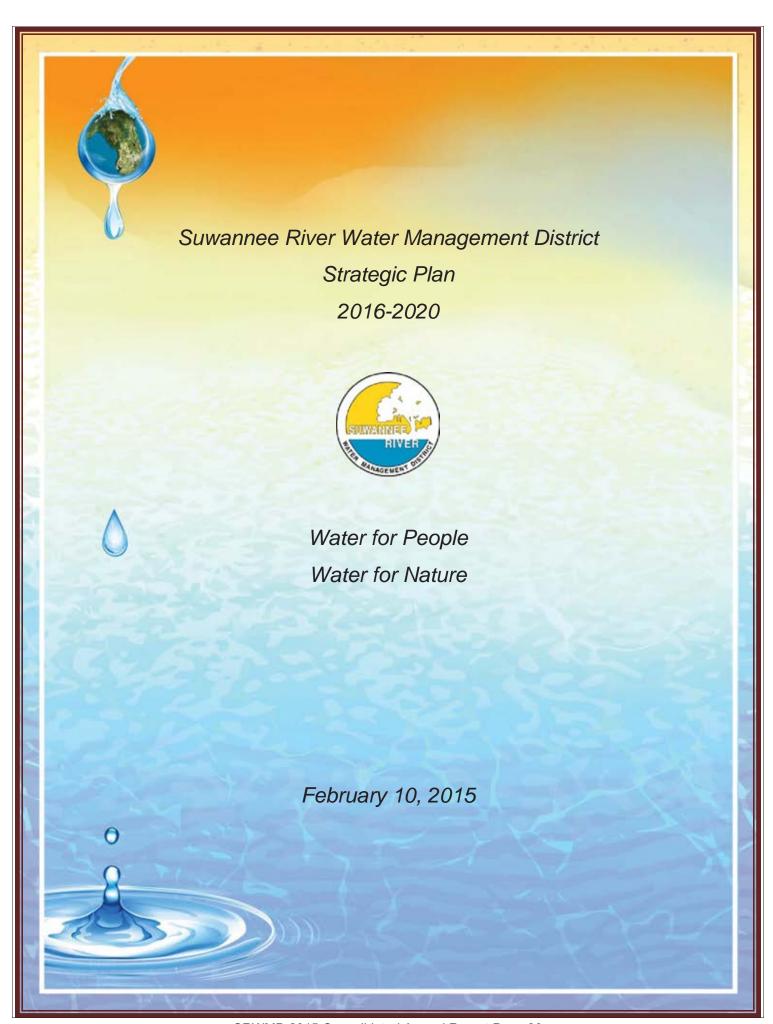
#### MS Objective 1: To assess the ongoing costs of administrative and support operations in order to achieve optimal efficiency to minimize costs.

• •				•	•					
Quarterly Measures	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Annualized Performance	
Administrative Costs as a Percentage of Total Expenditures (report cumulative totals for each quarter during a fiscal year)	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Administrative costs	303,445.11	16.23%	653,413.26	12.85%	985,353.50	10.99%	1,459,915.16	10.98%	\$1,459,915.16	10.98%
Total expenditures	1,869,311.96		5,083,019.69		8,963,055.81		13,298,069.21		\$13,298,069.21	

#### Water Quality Primary Goal: To achieve and maintain surface water quality standards

#### WQ Objective 1: Identify the efficiency of permit review, issuance and relative cost of permit processing.

Quarterly Measures	Quarter 1		Quarter 2		Quarter 3		Quarter 4		Annualized Performance	
For closed applications, the median time to process ERP by permit type and total.	Median		Median		Median		Median		Median	
Exemptions and noticed general permits	20.00		13.00		9.00		9.00		12.75	
Individually processed permits	29.00		18.00		31.00		44.00		30.50	
All authorizations combined	22.00		17.00		11.00		15.00		16.25	
For ERPs, cost to issue permit for all permit types	Number	Cost/Permit	Number	Cost/Permit	Number	Cost/Permit	Number	Cost/Permit	Number	Cost/Permit
Total cost	\$74,429.62	\$1,094.55	\$99,101.00	\$1,801.84	\$105,832.00	\$1,392.53	\$83,307.83	\$743.82	\$362,670.45	\$1,166.14
Number of permits	68		55		76		112		311	
For ERP, In-House Application to Staff Ratio for All Permit Types	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio	Number	Ratio
Total number of open applications	68	17.89	55	9.87	76	11.09	112	32.18	311	15.79
Number of staff for the permit area	3.80		5.57		6.85		3.48		19.70	



## **Minimum Flows and Levels**

#### MINIMUM FLOWS AND LEVELS

Pursuant to Section 373.042, Florida Statutes, the District is required to identify priority water bodies for the establishment of minimum flows and levels (MFLs).

In much of the Suwannee River Water Management District, the springs, rivers, lakes and aquifer are highly interconnected. Due to this connection, groundwater, via springs, provides a significant portion of river flow. In all but a few cases, the setting of a spring MFL is linked to setting the MFL for the receiving body of water—usually a river.

The attached table and figure provide the District's 2015 priority list and schedule for the establishment of minimum flows and levels (MFLs). The District Governing Board approved the MFL priority list and schedule on December 9, 2014.

Establishment of MFLs is a District strategic priority for the protection of our springs, rivers and lakes. For MFLs that are affected by cross-boundary withdrawals, the District is coordinating its work through the North Florida Regional Water Supply Partnership which also includes the St. Johns River Water Management District and the Department. Most recently, a coordination effort has been initiated with the Northwest Florida Water Management District for Minimum Flows and Levels work in potential cross-boundary areas.

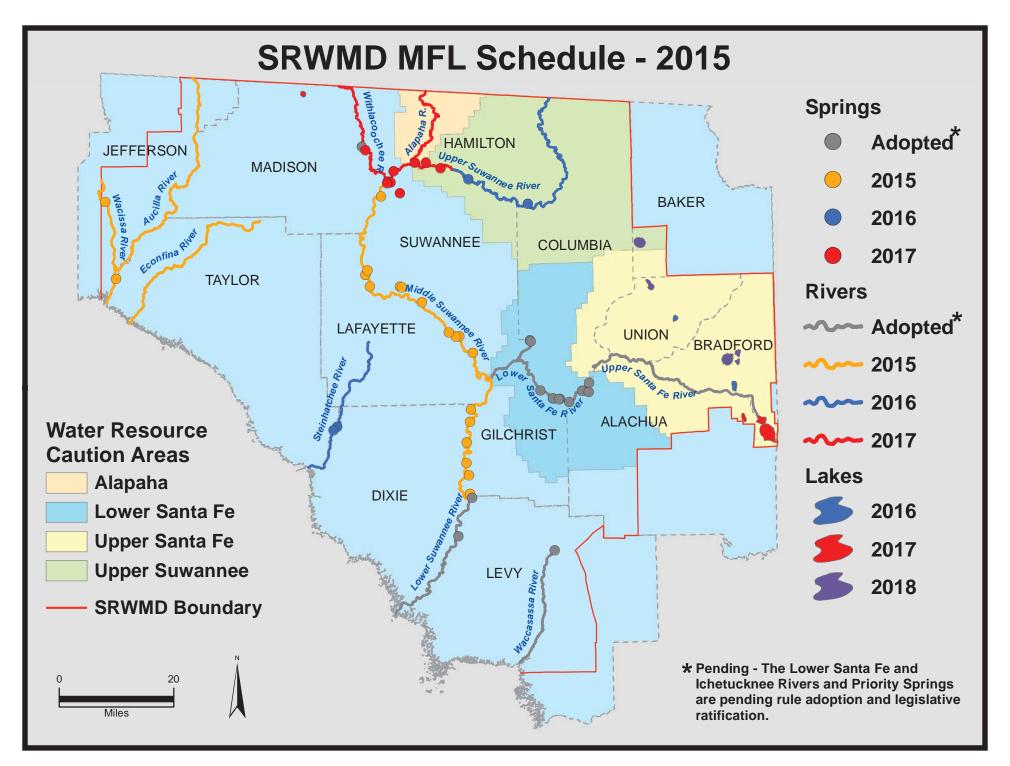
#### SRWMD 2015-2017 MFL PRIORITY LIST

Spring Magnitude	Basin	Water Body Name	Schedule	Water Body Type	Voluntary Peer Review	Potential Cross- boundary MFLs
n/a	Santa Fe	Lake Altho	2017	Lake	Yes	Doulidary Wil LS
n/a	Santa Fe	Lake Butler	2016	Lake	Yes	
n/a	Santa Fe	Ocean Pond	2018	Lake	Yes	
n/a	Santa Fe	Lake Crosby	2018	Lake	Yes	
n/a	Santa Fe	Lake Hampton	2016	Lake	Yes	
n/a	Santa Fe	Lake Palestine	2018	Lake	Yes	
n/a	Santa Fe	Lake Sampson	2018	Lake	Yes	
n/a	Santa Fe	Lake Santa Fe	2017	Lake	Yes	
n/a	Santa Fe	Lake Rowell	2018	Lake	Yes	
n/a	Withlacoochee	Cherry Lake	2016	Lake	Yes	
n/a	Aucilla	Aucilla River	2015	River	Yes	Yes
n/a	Aucilla	Wacissa River	2015	River	Yes	Yes
n/a	Steinhatchee	Steinhatchee River	2016	River	Yes	
n/a	Econfina	Econfina River	2015	River	Yes	
n/a	Waccasassa	Waccasassa River	Adopted	River	Yes	
n/a	Santa Fe	Lower Santa Fe River	Pending*	River	Yes	Yes
n/a	Santa Fe	Upper Santa Fe River	Adopted	River	Yes	Yes
n/a	Santa Fe	Ichetucknee River	Pending*	River	Yes	Yes
n/a	Suwannee	Lower Suwannee River	Adopted	River	Yes	
n/a	Suwannee	Middle Suwannee River	2015	River	Yes	
n/a	Suwannee	Upper Suwannee River	2016	River	Yes	Yes
n/a	Suwannee	Withlacoochee River	2017	River	Yes	100
n/a	Suwannee	Alapaha River	2017	River	Yes	
1//4	Aucilla	Nutall Rise	2017	Spring	Yes	Yes
1	Aucilla	Wacissa group	2015	Spring	Yes	Yes
1	Steinhatchee	Steinhatchee Rise	2016	Spring	Yes	163
2	Steinhatchee	TAY76992 - Unnamed	2016		Yes	
1	Santa Fe	Blue Hole	Pending*	Spring	Yes	Yes
				Spring	+	<b>.</b>
1	Santa Fe	GIL1012973 (Siphon Creek Rise)	Pending*	Spring	Yes	Yes
1	Santa Fe	Ichetucknee group	Pending*	Spring	Yes	Yes
1	Santa Fe	July	Pending*	Spring	Yes	Yes
1	Santa Fe	Devil's Ear (Ginnie group)	Pending*	Spring	Yes	Yes
2	Santa Fe	Rum Island	Pending*	Spring	Yes	Yes
2	Santa Fe	COL101974 - Unnamed	Pending*	Spring	Yes	Yes
2	Santa Fe	Poe	Pending*	Spring	Yes	Yes
1	Santa Fe	Columbia	Pending*	Spring	Yes	Yes
1	Santa Fe	ALA112971 (Treehouse)	Pending*	Spring	Yes	Yes
1	Santa Fe	Hornsby	Pending*	Spring	Yes	Yes
1	Santa Fe	Santa Fe Rise	Pending*	Spring	Yes	Yes
2	Upper Suwannee	White	2016	Spring	Yes	Yes
3	Middle Suwannee	Bell	2015	Spring	Yes	
2	Middle Suwannee	Otter	2015	Spring	Yes	
2	Middle Suwannee	Hart	2015	Spring	Yes	
2	Middle Suwannee	Rock Sink	2015	Spring	Yes	
2	Middle Suwannee	Guaranto	2015	Spring	Yes	
2	Middle Suwannee	Pothole	2015	Spring	Yes	
2	Middle Suwannee	Branford	2015	Spring	Yes	
2	Middle Suwannee	Little River	2015	Spring	Yes	
2	Middle Suwannee	Ruth/Little Sulfur	2015	Spring	Yes	
1	Middle Suwannee	Troy	2015	Spring	Yes	
3	Middle Suwannee	Royal	2015	Spring	Yes	
2	Middle Suwannee	Peacock	2015	Spring	Yes	
2	Middle Suwannee	Bonnet	2015	Spring	Yes	

#### **SRWMD 2015-2017 MFL PRIORITY LIST**

Spring Magnitude	Basin	Water Body Name	Schedule	Water Body Type	Voluntary Peer Review	Potential Cross- boundary MFLs
1	Middle Suwannee	Lafayette Blue	2015	Spring	Yes	
2	Middle Suwannee	Allen Mill Pond	2015	Spring	Yes	
2	Middle Suwannee	Charles	2015	Spring	Yes	
2	Middle Suwannee	Anderson	2015	Spring	Yes	
1	Middle Suwannee	Falmouth	2015	Spring	Yes	
1	Upper Suwannee	Lime Run Sink	2015	Spring	Yes	
1	Lower Suwannee	Fanning	Adopted	Spring	Yes	
1	Lower Suwannee	Manatee	Adopted	Spring	Yes	
2	Upper Suwannee	Lime	2016	Spring	Yes	
2	Upper Suwannee	SUW923973 (Stevenson)	2016	Spring	Yes	
1	Upper Suwannee	Alapaha Rise	2016	Spring	Yes	
1	Upper Suwannee	Holton Creek Rise	2016	Spring	Yes	
2	Upper Suwannee	SUW1017972 - Unnamed	2016	Spring	Yes	
2	Upper Suwannee	Suwannee	2016	Spring	Yes	Yes
3	Waccasassa	Levy (Bronson) Blue	Adopted	Spring	Yes	
2	Withlacoochee	Suwanacoochee	2017	Spring	Yes	
1	Withlacoochee	Madison Blue	Adopted	Spring	Yes	
2	Withlacoochee	Pot	2017	Spring	Yes	

<sup>\*</sup> Pending - The Lower Santa Fe and Ichetucknee Rivers and Priority Springs are pending rule adoption and legislative ratification.





### FIVE-YEAR CAPITAL IMPROVEMENTS PLAN

As required by Section 373.536(6)(a)3, Florida Statutes

#### I. INTRODUCTION

The Suwannee River Water Management District's (District's) Five-Year Capital Improvements Plan (CIP) is submitted in compliance with the reporting requirements of Section 373.536(6)(a)3, Florida Statutes (F.S). The format for this report has been developed jointly by the Executive Office of the Governor, the Department of Environmental Protection (DEP), and the water management districts (WMDs). The CIP includes projected revenues and expenditures for capital improvements from Fiscal Years 2014-2015 through 2018-2019. 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. Those two programs and their activities and sub-activities are:

#### 2.0 Acquisition, Restoration and Public Works

- 2.1 Land Acquisition
- 2.2 Water Source Development
  - 2.2.1 Water Resource Development Projects
  - 2.2.2 Water Supply Development Assistance
  - 2.2.3 Other Water Source Development Activities
- 2.3 Surface Water Projects
- 2.4 Other Cooperative 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
- 3.4 Invasive Plant Control
- 3.5 Other Operation and Maintenance Activities

The activities and sub-activities under program 2.0 Acquisition, Restoration and Public Works that may include capital improvement projects are:

- 2.1 Land Acquisition,
- 2.2.1 Water Resource Development Projects, and
- 2.3 Surface Water Projects.

The activities under program 3.0 Operation and Maintenance of Lands and Works that may include capital improvement projects are:

- 3.1 Land Management, and
- 3.3 Facilities.

The purpose of the CIP is to project future needs and anticipated future funding requirements to meet those needs. The District uses a pay-as-you-go approach and does not incur bonded debt. The CIP contains only those projects that will be owned and capitalized as fixed assets by the District.

The CIP includes expenditures for basic construction costs (permits, inspections, site development, etc.) and other related capital project costs (land, survey, existing facility acquisition, professional services, etc.). The CIP does not include expenditures for changes in program costs (including salaries and benefits), changes in maintenance costs, or changes in utility costs.

Standard definitions for these programs and activities used by the water management districts are:

#### 2.0 Acquisition, Restoration, and Public Works

This program includes the development and construction of all capital projects (except those contained in Program 3.0), including water resource development projects/water supply development assistance, water control projects, and support and administrative facilities construction; cooperative projects; land acquisition (including Save Our Rivers/Preservation 2000/Florida Forever); and the restoration of lands and water bodies.

#### 2.1 Land Acquisition

This activity includes District acquisition of lands for flood protection; water storage; water management, conservation and protection of water resources; aquifer recharge; and preservation of wetlands, streams and lakes. Funds from the Florida Forever program are used for land acquisitions.

#### 2.2 Water Source Development

Water resource development projects and regional or local water supply development assistance projects designed to increase the availability of water supplies for consumptive use; also, other water resource development activities not necessarily contained in regional water supply plans but which provide water supply benefits.

#### 2.2.1 Water Resource Development Projects

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

#### 2.2.2 Water Supply Development Assistance

This activity includes financial assistance for regional or local water-supply development projects. Such projects may include the construction of facilities included in the term "water supply development" as defined in subsection 373.019(21), F.S.

#### 2.3 Surface Water Projects

Projects that restore or protect surface water quality, related resources, or provide flood protection through the acquisition and improvement of land, construction of public works, and other activities.

#### 3.0 Operation and Maintenance of Lands and Works

This program 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, Preservation 2000, Florida Forever or other land acquisition programs.

#### 3.3 Facilities

This activity includes the operation and maintenance of district support and administrative facilities.

#### II. FIVE-YEAR CAPITAL IMPROVEMENTS PLAN

The Suwannee River Water Management District's capital improvements involve the District headquarters facility and lands acquired for water management purposes. District Governing Board policy has historically been to use nonstructural water management means. This policy recognizes both the environmental benefits of a nonstructural approach and the fiscal reality of the District's limited funding ability.

This report describes anticipated revenues and expenditures for capital improvements needed to implement District programs to fulfill the requirements of Chapter 373, F.S. Related documents provide additional detail and information as follows:

- The District's Florida Forever Work Plan describes the District's Land Acquisition and Management efforts.
- The annual Preliminary Budget and Tentative Budget Report provide the proposed revenues and expenditures for each fiscal year.
- The Annual Budget, adopted by the Governing Board in September of each year, provides the strategies and budgets of each District program.
- The District Water Management Plan included in Section 1 provides the long-range water resource management issues and strategies for water quality, water supply, flood protection, and natural systems management.

## SUWANNEE RIVER WATER MANAGEMENT DISTRICT FIVE-YEAR CAPITAL IMPROVEMENTS PLAN FISCAL YEAR 2014-2015 THROUGH FISCAL YEAR 2018-2019

#### 2.0 ACQUISITION, RESTORATION AND PUBLIC WORKS

#### 2.1 LAND ACQUISITION

-					
REVENUES	FY14-15	FY15-16	FY16-17	FY17-18	FY18-19
Fund Balance	3,000,000	3,193,354	-	-	1
Total	3,000,000	3,193,354	-	-	-

EXPENDITURES	FY14-15	FY15-16	FY16-17	FY17-18	FY18-19
Land Acquisition	3,000,000	3,193,354	-	-	-
Total	3,000,000	3,193,354	-	-	-

#### 2.2.1 WATER RESOURCE DEVELOPMENT PROJECTS

REVENUES	FY14-15	FY15-16	FY16-17	FY17-18	FY18-19
State Appropriations	507,000	-	-	-	-
Fund Balance	130,000	650,000	2,400,000	580,000	500,000
FDEP Grant	1,071,832	476,168	-	-	-
Total	1,708,832	1,126,168	2,400,000	580,000	500,000

EXPENDITURES	FY14-15	FY15-16	FY16-17	FY17-18	FY18-19
Aquifer Recharge	507,000	-	-	-	-
Water Resource Development Projects	130,000	650,000	2,400,000	580,000	500,000
Middle Suwannee River Restoration and					
Recharge	1,071,832	476,168	-	-	-
Total	1,708,832	1,126,168	2,400,000	580,000	500,000

#### 2.3 SURFACE WATER PROJECTS

REVENUES	FY14-15	FY15-16	FY16-17	FY17-18	FY18-19
State Appropriations	251,000	-	1	ı	-
Total	251,000	-	-	-	-

EXPENDITURES	FY14-15	FY15-16	FY16-17	FY17-18	FY18-19
Otter Springs					
Restoration	140,000	-	-	-	-
Hydrologic and Water					
Quality Improvements	111,000	-	-	-	-
	054.000				
Total	251,000	-	-	-	-

#### 3.0 OPERATION AND MAINTENANCE OF LANDS AND WORKS

#### 3.1 LAND MANAGEMENT

REVENUES	FY14-15	FY15-16	FY16-17	FY17-18	FY18-19
State Appropriations	-	-	969,400	969,400	969,400
Fund Balance	963,900	958,400	-	-	-
Total	963,900	958,400	969,400	969,400	969,400

EXPENDITURES	FY14-15	FY15-16	FY16-17	FY17-18	FY18-19
Prescribed Burning	363,000	413,000	413,000	413,000	413,000
Reforestation	98,500	39,000	50,000	50,000	50,000
Road and Boundary Maintenance	129,000	133,000	133,000	133,000	133,000
Natural Community	·	·	,	•	·
Management	373,400	373,400	373,400	373,400	373,400
Total	963,900	958,400	969,400	969,400	969,400

#### 3.3 FACILITIES

REVENUES	FY14-15	FY15-16	FY16-17	FY17-18	FY18-19
Fund Balance	296,500	90,000	90,000	90,000	90,000
State Appropriation	184,500	-	-	-	-
Total	481,000	90,000	90,000	90,000	90,000

EXPENDITURES	FY14-15	FY15-16	FY16-17	FY17-18	FY18-19
Field Maintenance and Supplies	85,000	90,000	90,000	90,000	90,000
District-wide Backup	33,000	20,000	20,000	20,000	33,300
Generator for Business Continuity	246,000	-	-	-	-
Headquarters Flood Mitigation/Aquifer					
Recharge Project	150,000	-	-	-	-
Total	481,000	90,000	90,000	90,000	90,000

#### **III. PROJECT DESCRIPTIONS**

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS

ACTIVITY: 2.1 Land Acquisition

Project Title: Water Management Lands Acquisition

<u>Type</u>: Fee title purchase of lands within the Land Acquisition and Management Plan and/or the SRWMD Florida Forever Work Plan.

<u>Physical Location</u>: Activities are conducted at District headquarters near Live Oak. Acquisitions are located within the District boundaries as identified in the Florida Forever Work Plan 2015.

Square Footage/Physical Description: N/A

**Expected Completion Date:** Ongoing.

<u>Historical Background/Need for Project</u>: Land acquisition is a key mechanism for the District to achieve its statutory responsibilities. The District's land acquisition program implements provisions of Chapter 373.139, F.S.

The implementation of this program, along with the cumulative efforts under the Save Our Rivers, Preservation 2000, and Florida Forever programs, have resulted in the protection of over 284,000 acres of water resource lands and more than 325 miles of river frontage along the Suwannee and other rivers of the District. Approximately 158,000 acres of river floodplains, freshwater springs, headwater wetlands, pristine bottomland hardwood and buffering upland forests are protected in full-fee ownership. Conservation easements and less-than fee purchases have protected nearly 126,000 acres of water resource lands. These lands are managed primarily for nonstructural flood protection including floodwater conveyance, storage, and attenuating floodwaters. Ancillary benefits include water quality and habitat protection, and passive public recreation areas.

The District has recently partnered with the Department of Defense, National Guard, and DEP to acquire lands that help achieve the District's core mission while securing needed military buffers. The acquisitions are eligible for funding through the Department of Defense and National Guard Bureau to secure military base buffers.

<u>Plan Linkages</u>: Florida Forever Work Plan 2015, Five-Year Strategic Plan 2016-2020, FY 2015 Budget, FY 2016 Preliminary Budget.

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

<u>Alternative(s)</u>: Planned acquisitions could be deferred to future year(s), but acquisition opportunities may be lost.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): For FY 2015, \$2,000,000 is projected to be used from District reserves to purchase core mission lands. DEP administers the funds from the Department of Defense and National Guard Bureau Compatible Use Buffer Program. The District intends to participate in future opportunities land acquisition partnerships with the

Department of Defense as they become available. The District has also budgeted \$200,000 to acquire well network sites to close the groundwater monitoring gaps.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): Pre-acquisition costs are estimated for FY2015 to be \$76,000 and include legal services, surveying, appraisals, environmental audits, title insurance, and baseline surveys. The District currently has committed reserves of \$2,427,836 from surplus land sales that are available for potential land acquisition(s) that have unique, high-water resource environmental values.

<u>Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses)</u>: For FY2015, \$61,865 is budgeted for salaries and benefits.

Anticipated Additional Operating Costs/Continuing: None.

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS

<u>ACTIVITY</u>: 2.2.1 Water Resource Development Projects

Project Title: Springs Protection and Restoration

<u>Type:</u> Aquifer recharge, dispersed water storage, and springs protection and restoration.

Physical Location: Activities are conducted within the District boundaries.

Square Footage/Physical Description: N/A

Expected Completion Date: Ongoing.

<u>Historical Background/Need for Project</u>: Implements District water resource project assistance provisions of Chapter 373, F.S.

These projects facilitate the implementation of the District's Heartland Springs and Sustainable Water Supply Strategic Initiatives to ensure springs have adequate flow, maintain good water quality, maintain healthy biological communities, and to ensure an adequate water supply for all reasonable and beneficial uses while protecting springs and nature systems.

The District has \$6,193,354 in assigned reserves for water resource development projects/land acquisition and relies on State appropriations to help fund these project initiatives. During FY 2014, the District received \$7,906,800.50 in State appropriations. The District budgeted \$1,708,832 in FY 2015 to fund these projects under this sub-activity.

<u>Plan Linkages</u>: Five-Year Strategic Plan 2016-2020, FY 2015 Budget, FY 2016 Preliminary Budget

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

<u>Alternative(s)</u>: Projects could be eliminated or deferred, but would have significant water resource consequences.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): For FY 2015, the District has budgeted \$1,708,832 for water resource development projects. Future-year water resource development project amounts are: FY 2016 - \$1,126,168; FY 2017 - \$2,400,000; FY 2018 - \$580,000; and FY 2019 - \$500,000.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): Well drilling and acquisition costs for expansion of the monitoring program are estimated around \$2,650,000. Costs will be based on data collection necessary to determine project design and associated contractual services. Funding will be from the total project budgeted amount.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): Projected salaries and benefit costs for FY 2015 are \$197,476 and are funded from the total project budgeted amount.

<u>Anticipated Additional Operating Costs/Continuing</u>: Continuing operating cost is anticipated to be funded from the District's ad valorem revenue.

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS

ACTIVITY: 2.3 Surfacewater Projects

Project Title: Hydrological Restoration

<u>Type</u>: Hydrological restoration to improve flow and water quality.

Physical Location: Activities are conducted on District-owned property.

<u>Square Footage/Physical Description</u>: District-owned lands - 636 acres. Otter Springs is classified as a second magnitude spring.

Expected Completion Date: 2015.

<u>Historical Background/Need for Project</u>: Implements District water resource project assistance provisions of Chapter 373, F.S.

Otter Springs is a second-magnitude spring and is the cornerstone recreational feature of the Otter Springs Park and Campground. Years of public use has taken its toll on the spring. Sediment from erosion has almost closed the main spring vent and is significantly reducing flow. Because of the decreased flow, the brown algae are able to attach to the substrate and choke out the other native species. The District plans to restore the spring by dredging the spring vent and stabilizing the shoreline. In addition, the District is presently evaluating potential locations on various properties that will optimize and provide hydrological restoration for sustaining water supplies.

For FY 2014, the District received \$7,906,800.50 in State appropriations. The District budgeted \$251,000 in FY 2014 to fund this project. This project is expected to be completed in 2015.

<u>Plan Linkages</u>: Florida Forever Work Plan 2015, Five-Year Strategic Plan 2016-2020, FY 2015 Budget, FY 2016 Preliminary Budget.

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

<u>Alternative(s)</u>: Project could be eliminated or deferred, but would have adverse public recreational opportunities.

<u>Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other)</u>: For FY 2015, the District has budgeted \$251,000 for the hydrological restoration.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): These costs are presently being determined and will be based upon project bids and will be funded from the total project budget amount.

<u>Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses)</u>: These costs are to be determined and will be funded from the total project budget amount.

Anticipated Additional Operating Costs/Continuing: None.

PROGRAM: 3.0 OPERATION AND MAINTENANCE OF LANDS AND WORKS

ACTIVITY: 3.1 Land Management

Project Title: Land Management

<u>Type</u>: Construction, reconstruction, or development of capital improvements and/or facilities necessary for managing water resource lands.

Physical Location: Various locations on District-owned lands.

Square Footage/Physical Description: 158,283 acres.

**Expected Completion Date: Ongoing.** 

<u>Historical Background/Need for Project</u>: Lands acquired for water resource management purposes often require capital improvements associated with hydrologic or other restoration to eliminate or reduce adverse water resource impacts, allow for public use, and for ongoing District land-management activities.

<u>Plan Linkages</u>: Florida Forever Work Plan 2015, Five-Year Strategic Plan 2016-2020, FY 2015 District Budget, FY 2016 Preliminary Budget.

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

<u>Alternative(s)</u>: Land management capital improvements could be deferred to future year(s) or foregone, but would result in increased future costs and/or adverse water resource impacts resulting from decreased land management capabilities.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities, outside building, site development, other): For FY 2015, the District has budgeted \$963,900 for land-management activities associated with prescribed burning, reforestation, road and boundary maintenance, and natural community management activities. The District anticipates maintaining basic construction costs at the same level for future years.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): For FY 2015, survey expenditures are estimated at \$3,000.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): For FY 2015, salaries and benefits are projected to be \$586,782.

<u>Anticipated Additional Operating Costs/Continuing</u>: Operating costs are incorporated into the District's Land Management program.

PROGRAM: 3.0 OPERATION AND MAINTENANCE OF LANDS AND WORKS

ACTIVITY: 3.3 Facilities

Project Title: Facility Management

Type: Operation and maintenance of administrative facilities.

Physical Location: District headquarters.

Square Footage/Physical Description: 29,600 square feet.

**Expected Completion Date:** Ongoing.

<u>Historical Background/Need for Project</u>: The District facilities consist of a 23,000 square-foot headquarter building, a laboratory/storage building, a garage/storage facility, and a parking lot on 12 acres.

<u>Plan Linkages</u>: FY 2015 District Budget, FY 2016 Preliminary Budget.

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

<u>Alternative(s)</u>: Facility management improvements could be deferred to future year(s) or foregone, but would result in increased future costs and potentially have adverse effects on District operations.

<u>Basic Construction Costs (includes permits, inspections, communications requirements, utilities, outside building, site development, other)</u>: For FY 2015, the District has budgeted \$85,000 for field maintenance and supplies. The District anticipates maintaining field maintenance and supplies cost at the same level for future years. In FY 2014, the District was awarded a Florida Division of Emergency Management grant for an emergency backup generator with a 75/25 cost share. The District plans to complete the project in 2015.

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.

<u>Anticipated Additional Operating Costs/Continuing</u>: Operating costs are incorporated into the District's Land Management program.

# Alternative Water Supply Report 2015

#### Introduction:

The Suwannee River Water Management District (District) continues to assess alternative water supply needs and opportunities throughout the District and its communities.

Initially, funding for the District's alternative water supply program was provided from the Water Protection and Sustainability Trust Fund (WPSTF), created by the State Legislature in 2005.

#### WPSTF FUNDING DISTRIBUTION

Fiscal Year	Distribution Amount
2005-2006	\$10,000,000
2006-2007	\$6,000,000
2007-2008	\$5,200,000
2008-2009	\$270,000

During the four years of the Water Protection and Sustainability program, the District formed collaborative partnerships with the cities of Lake City, Live Oak, Monticello, and Alachua to provide funding assistance for establishing reclaimed water programs.

#### WPSTF PROJECTS

-		0020.0		
_	ear unded	Reclaimed Water Program	Amount Funded	Alternative Water Supply Capacity
2	2006	City of Lake City	\$3,000,000	1.0 mgd
2	2006	City of Monticello	\$1,500,000	0.5 mgd
2	2007	City of Alachua	\$1,000,000	3.0 mgd
2	2007	City of Live Oak	\$3,000,000	1.5 mgd

Consistent with subsection 373.707(8)(c), the District has also used funding from the WPSTF for water resource development projects, consisting of implementing its Minimum Flows and Levels program, springs restoration projects, and to address water quality issues.

The District continues to provide funding for alternative water supply and water conservation projects through various programs. In 2013 and 2014, the District budgeted \$1.5 million for its Regional Initiative Valuing Environmental Resources (RIVER) program and \$1.5 million for its Agricultural Cost-Share program.

#### **Alternative Water Supply Development:**

The District is committed to developing alternative water supply programs with both public and private partners. Project development focus will balance the needs of our communities and natural systems. Alternative water supply funding is directed to partnerships that foster collaborative efforts in addressing resource issues.

Cost-share funding is made available to communities and other water users that have identified needs and have provided appropriate assurances the project will be implemented where fiscally practicable. In 2014, the District's RIVER and Agricultural Cost-Share programs executed cost-share contracts for development or expansion of reclaimed water systems, surface water irrigation, and water conservation projects.

Description and funding information for alternative water supply projects during 2013 and 2014 are as follows:

#### City of Live Oak Golf Course Reuse Connection Project:

The City of Live Oak reclaimed water projec t is to connect a golf course to the City's reclaimed water system. This project is projected to offset groundwater withdrawals of 0.10 MGD.

#### City of Archer Wastewater Collection, Treatment, and Reuse Project:

The City of Archer reclaimed water project will eliminate 500 septic tanks and remove 15 tons of nitrate. It is anticipated to offset groundwater usage of approximately 0.14 MGD through reuse water.

#### City of Starke Public Access Reclaimed Water Project:

The City of Starke reclaimed water project is to improve the wastewater treatment plant which will treat reclaimed water to public access quality, and add 6,200 lineal feet of four- and eight-inch diameter reuse piping for immediate irrigation use. This project is projected to conserve approximately 0.80 MGD of potable water.

#### Suwannee Valley Ag Extension Center Surface Water Project:

The Suwannee Valley Ag Extens ion Center Surface Water Pr oject is to improve an irrigation system and connect to a new surface water system to reduce reliance on groundwater. This project is projected to offset approximate 0.05 MGD of groundwater withdrawals.

#### Bass Farms Alternative Water Supply Project:

The Bass Farms Alternative Water Supply Project is to integrate tilapia far m water into center pivot irrigation to r educe reliance on groundwater. The is project is projected to offset approximate 0.13 MGD of groundwater withdrawals.

#### **ALTERNATIVE WATER SUPPLY PROJECTS**

Year Funded	Project	Total Project Cost	District Match	Local Match	Capacity (mgd)
2013	City of Live Oak Reclaimed Water Project	\$24,464	\$19,571	\$4,893	0.10
2013	City of Archer Reclaimed Water Project	\$14,400,000	\$350,000	\$14,050,000	0.14
2014	City of Starke Reclaimed Water Project	\$380,000	\$190,000	\$190,000	0.80
2014	Suwannee Valley Ag Extension Center Surface Water Project	\$125,000	\$40,200	\$84,800	0.05
2014	Bass Farms Alternative Water Supply Project	\$70,000	\$60,000	\$10,000	0.13

Description and funding information for water conservation projects during 2013 and 2014 are as follows:

#### City of Alachua Water Conservation Project:

The City of Alachua water conservation project will reduce leakage in a water resource caution area, conserving 0.05 MGD of unaccounted water.

#### City of Waldo Meter Replacement Project:

The City of Waldo water conservation project will replace 543 meters. The new meters will be able to keep an accurate account of water usage and potential leakage, reducing 0.01 MGD in lost water.

#### City of High Springs Water Conservation Project:

The City of High Springs water conservation project will reduce leakage in a water resource caution area, conserving 0.02 MGD of unaccounted water.

#### City of Newberry Water Conservation Project:

The City of Newberry water conservation project will reduce leakage in a water resource caution area, conserving 0.04 MGD of unaccounted water.

#### City of Jasper Fire Hydrant Replacement Project:

The City of Jasper water conservation project is to replace 26 leaking fire hy drants in a water resource caution area. This project is expected to conserve approximately 0.04 MGD.

#### Hamilton County Water System Project:

The Hamilton County water conservation projec t is to install variable frequency drive controllers at the water treat ment plant which will reduce the flushing required by 0.04 MGD.

#### Town of Hampton Water Tank Revitalization Project:

The Town of Hampton water conservation project is to repair the 64,000 gallon ground storage tank which supplies clean water to its 179 residents. This project is expected to conserve 0.01 MGD through reduced flushing.

#### Columbia County October Road Water Main Extension Project:

The Columbia County water conservation project is to construct a water main extension which will reduce the flushing required at the Ellisville water treatment plant by 0.03 MGD.

#### City of High Springs CDBG Water Main Replacement Project:

The City of High Springs water conservation project is to replace old leaking water mains in various parts of the City which will conserve 0.10 MGD of potable water.

#### City of Madison Barrsfield Check Valve Project:

The City of Madison (Barrsfield) water conservation project is to replace a 12-inch check valve which will reduce Madison's water loss by 0.03 MGD.

#### City of Madison Solenoid Valves and Control Project:

The City of Madison (Solenoid) water conserva tion project is to install two solenoid valves which will reduce Madison's water loss by 0.01 MGD.

#### WATER CONSERVATION PROJECTS

Year Funded	Project	Total Project Cost	District Match	Local Match	Conservation (mgd)
2013	City of Alachua	\$62,440	\$31,220	\$31,220	0.05
2013	City of Waldo	\$153,672	\$76,836	\$76,836	0.01
2013	City of High Springs	\$57,256	\$28,628	\$28,628	0.02
2013	City of Newberry	\$57,100	\$28,550	\$28,550	0.04
2013	City of Jasper	\$107,200	\$97,200	\$10,000	0.04
2013	Hamilton County	\$49,480	\$37,480	\$12,000	0.04
2014	Town of Hampton	\$30,000	\$25,000	\$5,000	0.01
2014	Columbia County	\$450,808	\$201,256	\$249,552	0.03
2014	City of High Springs	\$824,800	\$50,000	\$774,800	0.10
2014	City of Madison (Barrsfield)	\$5,619	\$5,175	\$444	0.03
2014	City of Madison (Solenoid)	\$2,500	\$2,500	\$0	0.01

The intent of the District's Agricultural Cost-Share program is to offer funding assistance to agricultural producers to implement projects that increase irrigation efficiency and water conservation, and assist with nutrient management technology.

The following is a summary of anticipated results from previously approved cost-share funds:

### Fiscal Year 2012-2013 Anticipated Resulted Funded by the District Ag Cost-Share Funds:

Funds: \$1,200,550 obligated

Estimated Water Savings 5.2 MGD

Irrigation System Retrofits 70

Advanced Irrigation Scheduling Tools 211

Special Projects 8

### Fiscal Year 2013-2014 Anticipated Resulted Funded by the District Ag Cost-Share Funds:

Funds: \$837,575 obligated

Estimated Water Savings 3.87 MGD

Irrigation System Retrofits 67

Advanced Irrigation Scheduling Tools 100

Over the last two years, the District has devoted significant funding for projects to provide water quantity and quality benefits to springs within the District. About 45 percent of Fiscal Year 2013-14 budget and about 57 percent of Fiscal Year 2014-15 preliminary budget are devoted to springs protection and restoration activities. Landmark State appropriations for springs projects have helped make this commitment a reality.

The District is putting these funds to work by partnering with various agencies, local governments, landowners, and organizations through cost-share programs and projects to conduct restoration activities at numerous springs. Many of these projects are designed to restore groundwater levels and to reduce nutrient loading within priority water bodies and springsheds throughout the District.

Description and funding information for springs restoration projects during 2013 and 2014 are as follows:

#### Ichetucknee Springshed Water Quality Improvement Project:

The Ichetucknee Springshed Water Quality Improvement Project is a partnership between the District, the City of Lake City, and Columbia County to improve water quality by reducing Lake City's wastewater nutrient loadings to the Ichetucknee River by an estimated 85 percent, to convert Lake City's wastewater effluent disposal sprayfields into constructed treatment wetlands to reduce nitrogen loading to 1 mg/L or less, and to provide beneficial recharge to the Upper Floridan aquifer.

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

The Middle Suwannee River and Springs Restoration and Aquifer Recharge Project is a partnership between the District, the Florida Department of Environmental Protection, and Dixie County to provide hydrologic restoration activities in Dixie and Lafayette counties The project benefits are to restore natural hydrology, rehydrate ponds and wetlands within the vicinity of Mallory Swamp, recharge the aquifer with an estimated 10 MGD, augment domestic and agricultural groundwater supplies in Lafayette and Dixie counties, and improve spring flows along the Middle Suwannee River region.

#### Otter Springs Restoration Project:

The Otter Springs Restoration Project is a partnership between the District and Gilchrist County to remove nutrients, sediments, and debris from the spring vents and spring runs. The project benefits are to stabilize the springs banks to control further erosion, replace or fix deteriorating retaining walls, construct access points to the spring and spring run, restore the flow of the original head spring to historic levels, and improve water quality within springs.

#### Hart Springs Restoration Project:

The Hart Springs Restoration Project is a partnership between the District and Gilchrist County. Over the last few years, Gilchrist County has replaced deteriorating retaining walls, constructed access points to the spring and spring run, and stabilized erosion issues around the springs. The current project will build upon these efforts. The project benefits are to remove nutrients, sediments, and debris from the spring vents and spring runs and to improve spring flows and water quality.

#### Eagle Lake/Upper Suwannee River Springs Enhancement Project:

The Eagle Lake/Upper Suwannee River Springs Enhancement Project is a Private-Public Partnership with PotashCorp that will reduce groundwater withdrawals by 20 MGD and reduce the nutrient loading to the Upper Suwannee River, Blue Sink Spring, Mattair Springs, and Suwannee Springs.

#### Dairy Wastewater Water Conservation & Nutrient Optimization Project:

The Dairy Wastewater Water Conservation & Nutrient Optimization Project will reduce nutrient loadings by 62,000 pounds annually and increase irrigation efficiency by saving an estimated 0.3 MGD, benefitting springs within Upper and Lower Santa Fe Basins and Middle and Lower Suwannee. The project will improve the management of dairy wastewater to achieve greater nutrient uptake and irrigation efficiencies.

#### Santa Fe Springs Nursery Water Conservation Project:

The Santa Fe Springs Nursery Water Conservation Project will assist nurserymen in upgrading from overhead irrigation methods to micro-spray or drip irrigation. This initiative will reduce nutrient loadings by 45,000 pounds annually and increase irrigation efficiency by saving an estimated 0.3 MGD, benefitting springs in the Upper and Lower Santa Fe River Basins. This will benefit approximately 45 nurseries or roughly 300 acres of production nursery land.

#### Ichetucknee Springs/Columbia County Water Conservation Project:

The Ichetucknee Springs/Columbia County Water Conservation Project will provide cost-share rebates to local businesses to replace an estimated 600 existing toilet fixtures and faucets with high efficiency units. The project is estimated to save 0.09 MGD, benefitting the Ichetucknee Springs Group as well as other springs in the Lower Santa Fe River. Local cooperators are the Lake City/Columbia County Chamber of Commerce, the Ichetucknee Partnership, the City of Lake City, and participating businesses.

#### Suwannee BMAP Center Pivot Retrofits Water Conservation Project:

The Suwannee BMAP Center Pivot Retrofits Water Conservation Project will assist agricultural operations in retrofitting approximately 120 center pivot irrigation systems to make them more efficient. Increasing the efficiency of center pivots allows agriculture operations to use less water when irrigating crops. A 5.26 MGD reduction is estimated in the withdrawal from center pivot irrigation use due to cost share retrofits along the Middle and Lower Suwannee River on the groundwater discharge to rivers and springs in the District.

#### Levy Blue Springs Water Quality Improvement Project:

The Levy Blue Springs Water Quality Improvement Project will expand the Town of Bronson's existing wastewater collection and transmission system and eliminate the use of approximately 60 septic and holding tanks at no cost to the homeowners. The improved wastewater treatment by the Town's treatment plant will reduce nutrient loading to groundwater, benefitting nearby Levy Blue Spring. The current project is part of an ongoing effort by Bronson to expand central sewer service and protect groundwater quality in Levy County. The project is estimated to reduce the nitrogen load to groundwater by 1,848 pounds per year.

#### Fanning Springs Water Quality Improvement Project:

The Fanning Springs Water Quality Improvement Project will reduce nutrient loading by removing 65 existing septic tanks at no cost to homeowners. This will prevent loading to groundwater of approximately 1,300 pounds of nitrogen per year. This will benefit nearby Fanning Springs as well as other local springs. The project will expand the City of Fanning Springs' existing wastewater collection and transmission system and eliminate the use of many older septic systems near Fanning Springs State Park.

#### City of Starke Reuse Project:

This City of Starke Reuse Project involves the City initiating a reclaimed water service network and reuse for public access irrigation at local schools, parks, and an industrial park. The installation of reclaimed water lines and utilization of reuse will offset existing potable water demand. The volumes offset are 0.08, 0.22 and 0.19 MGD for Phases 1, 2 and 3, for a total reduction in withdrawal of 0.49 MGD. The nutrient load reduction benefits of the project come from reduced disposal of wastewater effluent on the City's sprayfield and directly into Alligator Creek. The project should reduce total nitrogen by 10,673 pounds per year and total phosphorous by 2,667 pounds per year for the Santa Fe watershed.

#### SPRINGS PROTECTION AND RESTORATION PROJECTS

Year Funded	Project	Total Project Cost	District Match	DEP Match	Local Match	Benefit
2013	Ichetucknee Springshed Water Quality Improvement Project	\$4,600,000	\$400,000	\$3,900,000	\$300,000	Water Quality
2013	Middle Suwannee River and Springs Restoration & Aquifer Recharge	\$1,852,000	\$277,000	\$1,500,000	\$75,000	10 mgd
2013	Otter Springs Restoration Project	\$140,000	\$140,000	\$0	In-kind Services	Water Quality
2013	Hart Springs Restoration Project	\$76,700	\$76,000	\$0	In-Kind Service	Water Quality
2014	Eagle Lake/Upper Suwannee River Springs Enhancement Project	\$3,600,000	\$300,000	\$3,070,000	\$230,000	20 mgd
2014	Dairy Wastewater Conservation & Nutrient Optimization	\$1,081,150	\$39,325	\$920,000	\$121,825	0.30 mgd
2014	Santa Fe Springs Nursery Water Conservation Project	\$1,321,150	\$39,325	\$940,000	\$341,825	0.30 mgd
2014	Ichetucknee Springs/Columbia County Water Conservation Project	\$350,000	\$30,000	\$250,000	\$70,000	0.09 mgd
2014	Suwannee Center Pivot Retrofits Water Conservation Project	\$2,428,975	\$1,235,000	\$885,000	\$308,975	5.26 mgd
2014	Levy Blue Springs Water Quality Improvement Project	\$3,110,600	\$50,000	\$195,000	\$2,865,600	Water Quality
2014	Fanning Springs Water Quality Improvement Project	\$1,276,400	\$121,440	\$492,960	\$662,000	Water Quality
2014	City of Starke Reuse Project	\$835,700	\$190,000	\$455,700	\$190,000	0.49 mgd

# Five-Year Water Resource Development Work Program

## Five-Year Water Resource Development Work Program

Pursuant to Section 373.536(6)(a)4, Florida Statutes, the Water Management Districts are required to submit the following:

"A 5-year water resource development work program to be furnished within 30 days after the adoption of the final budget. The program must describe the district's implementation strategy for the water resource development component of each approved regional water supply plan developed or revised under s. 373.709."

The Suwannee River Water Management District (District) currently does not have an approved regional water supply plan.

In 2010, the District completed a District-wide water supply assessment to evaluate the availability of water supplies over the next 20 years. Members of the District's Governing Board accepted the 2010 Water Supply Assessment report at the District's December 2010 Governing Board meeting.

Regional water supply plans are being developed for areas where the assessment determined supplies will not be sufficient within the 20-year planning period (2010 to 2030). The District concluded in the 2010 Water Supply Assessment that Upper Floridan aquifer groundwater levels in the northeastern portion of the district are in decline. Declines in the Upper Floridan aquifer are predicted to impact river and spring flows in certain areas during the 2010 to 2030 planning period. In response to the water resources impacts identified and predicted in the assessment, the District designated four water supply planning regions. These planning regions, listed below, were subsequently designated water resource caution areas by the District's Governing Board on October 11, 2011.

- Upper Santa Fe River Basin,
- Lower Santa Fe River Basin.
- Upper Suwannee River, and
- Alapaha River Basin.

Water supply plans identify programs and projects to meet future water needs, such as water conservation strategies and alternative water supply projects. All

five of Florida's water management districts are statutorily required to complete water supply plans for areas where water supplies are not sufficient to meet future demands without causing unacceptable impacts to the water resources and related natural systems.

Currently, the District is developing a joint regional water supply plan with the St. Johns River Water Management District for the north Florida region, including the four water-resource caution areas identified above. A draft regional water supply plan report covering the 2015-2035 planning period is scheduled for completion in late 2015. The District-wide water supply assessment and subsequent water supply plans are being re-evaluated every five years or sooner if needed.

# Florida Forever Water Management District Work Plan



### Florida Forever Work Plan 2015 Annual Update



January 2015

## Florida Forever Work Plan 2015 Annual Update



#### Suwannee River Water Management District

9225 CR 49, Live Oak, FL 32060 386.362.1001 www.mysuwanneeriver.com

January 2015

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#### **Executive Director**

Ann B. Shortelle, Ph.D.

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#### 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, Florida Statutes (F.S.), and to report on progress and changes since the original 2001 submittal.

The 2015 Florida Forever Work Plan update marks 13 years of land and water resource protection at the Suwannee River Water Management District (SRWMD, the District) using Florida Forever funding. This has culminated in the fee purchase of 43,781 acres and 24,938 acres of conservation easements. Florida Forever funding has also been used for completion of three water resource development projects and five restoration projects.

Since inception of the Florida Forever Act, the District has expended \$67.8 million for land acquisition (98.6% of total expenditure) and \$0.52 million for restoration projects and \$0.44 million for water resource development projects (1.4% of total expenditure).

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. This update provides a summary overview of water resource development and restoration projects, a summary of lands purchased, land acquisition strategies, a summary of surplus lands disposition and land management activities as well as expenditure information for Florida Forever and Water Management Lands Trust funds on District lands.

In order to implement the District's strategic priorities of sustainable water supply, minimum flows and levels, Heartland Springs Initiative, and water management lands, the District intends to use up to \$2,062,630 of prior years' unspent Florida Forever appropriated balance during the Fiscal Year 2015 through Fiscal Year 2019 planning period towards water resource development projects. 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.

**Table 1** illustrates actual Florida Forever expenditures and projected expenditure of unspent appropriated balance.

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	- Lxpcriatures	Aoquirea -		Aoquirea	- Bevelopinient	- Trestoration
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	-	-	-	-	-	-
TOTAL	\$ 47,292,695	43,781	\$ 20,520,348	24,938	\$ 444,325	\$ 519,590
		_	Projected		_	
2015-2019	-	-	-	-	\$ 2,062,630	-

#### 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, potentially including Florida Forever funds.

#### 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 Suwannee River Water Management 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, 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 makeupwater 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.

## Santa Fe River Rise Water Quality Enhancement - Starke Reuse Project

#### **Bradford County**

The Santa Fe River Rise Water Quality Enhancement Project (Starke Reuse Project) involves the City of Starke initiating a reclaimed water service network and reuse for public access irrigation at local schools, parks, and an industrial park. Each of these locations currently irrigates with potable water supplied by the City and therefore reuse will offset potable demand and withdrawals by a similar volume. The nutrient load reduction benefits of the project come from reduced disposal of wastewater effluent on the City's sprayfield and disposal directly into Alligator Creek. Both of these disposal routes result in nutrient loading to Lake Rowell, Lake Sampson, the Sampson River and the Santa Fe River and ultimately to Santa Fe River Rise Spring. In addition, there will be a nutrient load reduction associated with the offset of fertilizer usage on the areas to be irrigated with reclaimed water. This reduced fertilizer usage will result in less nutrient runoff to the environment. The project involves three phases, each involving a different reclaimed water line route and reuse destination area. Phase I will supply reuse to the Edwards Recreation Area Park. Phase 2 will provide reclaimed water to three public schools and the Vocational Technology Center and Phase 3 will supply reclaimed water to the Enterprise Industrial Park. The installation of these reclaimed water lines will facilitate further reuse expansion along their routes. The total estimated project cost is \$835,700. This planning level cost estimate is currently being reevaluated.

#### Oakmont Recharge Wetland

#### Alachua County

The project will be to construct a recharge wetland in an existing storm water retention basin in the Oakmont Subdivision in Alachua County. The subdivision lies in western Alachua County and is

located within the Poe Springs springshed. This project will provide recharge to the Upper Floridan Aquifer (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 is \$1,156,700.

#### Bass Farms- Conjunctive Water Use Project

#### Gilchrist County

The District proposes to construct an aquaculture reuse project to offset groundwater withdrawals within the lower Santa Fe River basin. The site is located within the Santa Fe River Basin Management Action Plan (BMAP) area and within the Resource Focus Area (RFA) of the Ginnie and Gilchrist Blue springsheds. Funds for this project will be used to integrate the excess water into the farm's existing irrigation system. This will allow Bass Farms to move the water within the farming operation and offset existing groundwater demands. It is estimated that this project will offset approximately 47 million gallons of groundwater pumpage annually, or approximately 0.13 mgd. The estimated project cost is \$60,000.

#### Falling Creek Aquifer Recharge Project

#### Columbia County

In September 2013, the District completed a regional study (Study) of potential regionally-beneficial aguifer 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 million gallons per day from the Upper Suwannee River to District-owned land in Falling Creek Falls Park, where it will discharge to Falling Creek, eventually recharging the Upper Floridan aquifer (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). However, the preliminary design will include surface-water quality testing and analysis. Groundwater modeling analysis conducted during the Study indicated that the Project will benefit aguifer levels and spring flows in the Lower Santa Fe River. The estimated capital cost is \$48,000,000 (construction and engineering).

#### Santa Fe Basin Flood Mitigation and Aquifer Recharge Projects

By resolution number 2013-01, the SRWMD Governing Board encumbered the remaining unspent Florida Forever appropriation of \$2,083,454 for this initiative. The District is proposing the following projects for implementation:

#### 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 early conceptual design phase, and the project cost is still being determined.

#### INTER-DISTRICT WATER RESOURCE DEVELOPMENT PROJECT

#### **Bradford County**

The Interdistrict 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 Upper Floridan aquifer (UFA). The Project includes utilization of lands adjacent to the Florida National Guard's Camp Blanding. The Project is currently 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)	\$3,600,000
Project	
Santa Fe River Rise Water Quality Enhancement - Starke	\$835,700
Reuse Project	
Oakmont Recharge Wetland	\$1,156,700
Bass Farms- Conjunctive Use Project	\$60,000
Falling Creek Aquifer Recharge Project	\$48,000,000
Santa Fe Basin Flood Mitigation and Aquifer Recharge	In Development
Projects- West Ridge Water Resource Development Area	
Santa Fe Basin Flood Mitigation and Aquifer Recharge	In Development
Projects- Inter-District Water Resource Development Project	,
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 the springs, streams, rivers, and wetlands. Some projects are proposed for Florida Forever funding, while other projects may be funded through a variety of sources, potentially including Florida Forever funds.

#### 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 (although there may be some temporary increases in nitrate loading as infrastructure is brought online). 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 estimated project cost is \$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 a swimming for decades and 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.

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

#### Alachua County

The City of Newberry is located within the springshed for Ginnie and Gilchrist Blue Springs, located on 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 scuba diving and is a hotspot for cave diving. Gilchrist Blue Spring is located within Blue Springs Park and Campground, 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, Florida Department of Environmental Protection (FDEP) 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-MG 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 its associated springs are the focus of efforts by the SRWMD and FDEP to set minimum flows and levels (MFLs). The proposed MFLs determined the system was not meeting the proposed minimum flows and a Recovery Plan for the Lower Santa Fe Basin has been proposed. The Santa Fe River was also identified as impaired by the FDEP in 2008 for nitrate, therefore actions are needed to reduce nutrient loading within their springsheds. Specifically, the Ginnie-Gilchrist Blue springshed was designated in 2013 by FDEP as a spring restoration focus area (RFA) within the Department's Basin Management Action Plan (BMAP). This project supports the FDEP, FDACS and SRWMD efforts to reduce nitrate loadings to these springs, as well as providing an alternative water source in support of the SRWMD's proposed 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 P/ 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.

## 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 springs and agricultural users. To achieve the objective of 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 permitting, and construction is scheduled to begin in early 2015. The estimated 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. The Florida Department of Environmental Protection (DEP) has developed a Basin Management Action Plan (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 Upper Floridan aquifer.

This project is funded by a \$3.9 million springs grant from the FDEP; \$400,000 from the SRWMD; \$200,000 from the City of Lake City; and \$100,000 from Columbia County.

#### 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.

#### Edwards Bottomlands- 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 protect this system from continued erosion and degradation, but the funding of such a restoration has been cost prohibitive.

In order to improve hydrologic conditions within the floodplain and reduce some of the sediment load from going to Lake Rowell down Alligator Creek, the District, in cooperation with the Florida Fish & Wildlife Conservation Commission (FWC), plans to conduct a floodplain restoration project which will re-establish the flow connection from the 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 the project's 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 (FDOT) and FWC.

#### **Brooks Sink Hydrologic Restoration**

#### **Bradford County**

The District has identified a partnership opportunity with a timber company to recharge the Upper Floridan Aquifer by restoring a natural hydrologic connection to Brooks Sink. Brooks Sink, located in Bradford County, is known as one of the largest cover collapse sink holes in the state of Florida and is directly connected to the Upper Floridan Aquifer. In the 1970's, the previous landowners excavated a series of ditches to drain the wetlands and divert the natural flow of water away from Brooks Sink. A flashboard riser will be installed in the main ditch to divert the water back to the sinkhole for a total cost of approximately \$37,000. The project has the potential to yield 220 million gallons of recharge per year. The District may also consider acquisition of land around the sink and a portion of its contributing watershed.

#### **Hart Springs Restoration**

#### **Gilchrist County**

The Hart Springs Restoration Project is a partnership between the District and Gilchrist County. Sediments, sand, and broken portions of the retaining wall have washed into the spring vents for years, altering the magnitude of flow from the springs. Over the last few years, Gilchrist County has replaced deteriorating retaining walls, constructed access points to the spring and spring run, and stabilized erosion issues around the springs. The current project will build upon these efforts.

The anticipated benefits of the project include the removal of sediments, and debris from the spring vents and spring runs, as well as improvement of spring flows and water quality. The anticipated budget for the project is \$76,700 of SRWMD funds; Gilchrist County will provide in-kind services for the project.

#### Otter Springs Restoration

#### 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, construct access points to the spring and spring run.

Additionally it is anticipated that 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 be providing project management oversight.

#### Pot Spring Restoration

#### **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 goals of this project are 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. This project is currently in the planning phase.

#### Levy Blue Spring Water Quality Improvement Project

#### **Levy County**

This project will expand Bronson's existing wastewater collection and transmission system. The Town currently has a very limited gravity sewer collection system. Within the Town's core commercial corridor, the majority of the county buildings, businesses and churches are currently without municipal sewer service and must utilize either holding tanks or septic tanks. Many of the existing septic tanks are aged and were installed in the 1970s and 1980s. The Town has developed a multi-phase plan to expand municipal sewer service throughout the Town and reduce nitrogen loading to groundwater as septic tanks are removed from service and wastewater is routed for treatment at the Town's wastewater treatment plant (WWTP). The Town currently has Phase I, a \$2,400,000 sewer extension project, under construction. This grant funding will allow the Town to provide service to an existing park (Bronson Park) that serves multiple functions for the Town. There are no connection fees associated with extension of the sewer transmission line to the existing Town Park, and the existing septic tank will be properly abandoned.

Total project costs are shared between the Town of Bronson, a grant from the U.S. Department of Agriculture – Rural Development Assistance (USDA-RD), the District and a springs project appropriation through FDEP.

#### **Wacissa Springs Restoration**

#### Jefferson County

The District is helping fund a project with Jefferson County to restore the Wacissa Springs Park. The main goals of this project are to improve bank stabilization and increase the safety of the park. Jefferson County's plan will improve the spring banks and spring run by: removing concrete rubble and debris; removing sediments and algae from the spring bed and spring run; removing exotic vegetation; reshape, stabilize and vegetate the banks of spring bed and spring run; installing fencing and other measures to control human traffic; and installing stairs into springs to stabilize pedestrian access to the swimming area. The District will be funding \$140,000 of the total \$234,000 project cost. This project is currently in the permitting and design phase.

#### **Charles Spring Restoration**

#### Suwannee County

The District is helping to fund a project with Suwannee County to restore the Charles Spring Park. The main goal of this project is to improve bank stabilization and to control sediment entering the spring. Suwannee County's Plan will remove the existing retaining wall and stairs, replace them with a vinyl sheet pile wall, and stabilize the toe of the wall with rock and vegetation. A new stormwater facility will be created as well as a new swim access area. The District will be funding up to \$105,000 of the total \$112,378 project cost. This project is currently in the pre-permitting phase.

#### Little River Spring Restoration

#### 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 goals of this project are 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 in the pre-permitting phase.

#### 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 Waccasassa Flats. Fee interests may be pursued for sites with outstanding water resource values or small acreage parcels, that possess high water values, and 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 in these portions of Levy, Gilchrist, Columbia and Suwannee Counties.

#### **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. The project will accomplish these goals 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
Hornsby Springs Water Quality Improvement Project	\$500,000
Guaranto Springs Restoration	\$110,000
Ginnie & Gilchrist Blue Springs Enhancement - Newberry	\$3,000,000-
Reuse Project	\$4,000,000
Middle Suwannee River and Springs Restoration and Aquifer	\$1,900,000
Recharge Project	
Middle Suwannee River and Springs Restoration Project:	In Development
Phase II	
Ichetucknee Springshed Water Quality Improvement Project	\$4,600,000
Holly Factory Denitrification Bioreactor	\$50,000
Edwards Bottomlands- Alligator Creek Project	\$900,000
Brooks Sink Hydrologic Restoration	\$37,000
Hart Springs Restoration	\$76,700
Otter Springs Restoration	\$140,000
Pot Spring Restoration	\$400,000
Levy Blue Spring Water Quality Improvement Project	\$2,400,000
Wacissa Springs Restoration	\$234,000
Charles Spring Restoration	\$105,000
Little River Spring Restoration	\$90,000
Northern Waccasassa Flats Conservation Easement Project	In Development
Springshed Protection using Low Impact Agricultural	In Development
Practices	
Spring Creek Restoration Project	\$589,000

#### 4.0 LAND ACQUISITION

The acquisition and management of land interests encompasses a set of tools to achieve the District's water resource objectives. This section provides an overview of the District's land acquisition strategies and activities.

#### 4.1 GOALS AND PERFORMANCE MEASURES SUMMARY

Acquisitions under the Florida Forever program must satisfy Florida Forever Goals & Measures found in F.S. 259.105 (4). There were no Florida Forever acquisitions during 2014.

The majority of District-owned fee and conservation easement lands are located along rivers and streams, headwaters, and water recharge areas. Public ownership of these lands and conservation easements provides a host of 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.

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.

#### 4.2 LAND ACQUISITION STRATEGIES

#### Project Design and Evaluation Criteria

The Save Our Rivers, Preservation 2000 and Florida Forever programs have protected over 349,000 acres and 384 miles of river corridor lands protect the region's river systems and public water supply. Potential acquisition project areas shown in this plan were developed with Geographic Information System (GIS) modeling to complement the region's base of protected natural resources. Available geographic databases were correlated as to their relative importance to these water resource protection benefits. Resulting lands with area within two or more themes are classified as highest acquisition candidates. The model essentially predicts parcels with high water resource, groundwater protection and surface water protection features.

The four major water resource objectives in the water resources protection model are consistent with the District's Strategic Plan, and are shown below:

Table 4. Water Resource Objectives Acquisition Program

Water Resource Objectives	Criteria
Preserve floodplain to maintain storage	Federal Emergency Management Agency
capacity, attenuate floodwaters, and	100-year (1% Annual Chance) Flood Zone
mitigate flood risk	
Protecting groundwater quality by	Areas of High Recharge
maintaining low intensity land uses	
Preserve natural buffers along water	Wetlands and 200' buffers on streams
bodies where adjacent uses have a high	
potential to degrade surface water quality	
Preserving and restoring springs and	1-mile, ½-mile, and ¼-mile buffers on
surrounding areas to protect and improve	magnitude 1, 2, and 3 springs respectively
surface and groundwater	

The District will enhance the criteria and modify the water resources protection model as better data becomes available.

District-wide water resources were evaluated to complete a project design for 13 river basin planning areas. Discrete potential acquisition projects were developed by filtering high-scoring candidate lands identified by the model with data on property ownership, management considerations and connection to public lands.

In addition to acquiring lands for conservation, the District is partnering with Camp Blanding and FDEP to acquire lands for military base buffering. These acquisitions provide a dual benefit of expanding military base buffering while allowing the District to implement water resource development projects, and are included as potential acquisition areas.

Acquisition of land interests will play a key role in supporting the District's initiative of monitor well network expansion. Many of the new monitor wells will need permanent access to enable drilling of wells and operation and maintenance of monitoring equipment.

#### 4.3 PROGRAM IMPLEMENTATION

The District will target the use of fund balance, consisting of Florida Forever and Preservation 2000 funds, and proceeds from the sale of surplus lands, for priority land acquisition projects in Fiscal Year 2015 through 2019.

For any given acquisition, the District will consider the use of alternative acquisition techniques as a cost-effective means of protection. Alternatives to fee simple acquisition include but are not limited to: purchase of development rights; conservation easements; flowage easements; purchase of timber rights, mineral rights or hunting rights; purchase of agricultural or silvicultural interests; land-protection agreements; fee simple acquisitions with reservations and other techniques. 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 Florida Forever Work Plan 2015 Acquisition Plan map is illustrated in Appendix B.

**Table 5** summarizes protected lands and potential project areas by basin planning area. This is compiled with all acquisition activity to date under the Save Our Rivers (SOR), Preservation 2000 (P2000), Military Base Buffering, and Florida Forever programs to portray the SRWMD's protected resource base.

Table 5. Protected Lands and Potential Acquisition Project Areas

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	10,914	14	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	31	24,935	0	114	31	4,213
Middle Suwannee	17,514	31	1	200	32	7,694	15,196
Santa Fe	13,254	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	7,264	20	0	0	48	20	8,562
Floodplain Lots(3)	889	14	0	0	0	14	0
Total	186,453	347	162,860	37	1,008	384	59,501

<sup>(1) 11,716</sup> acres were conveyed to the USFWS and are part of the Lower Suwannee National Wildlife Refuge.

<sup>(2)</sup> Mallory Swamp Fee Interest, principal watershed benefits to the Steinhatchee River Basin.

<sup>(3)</sup> River frontage is estimated.

<sup>(4) 11,743</sup> acres in Sandlin Bay were conveyed to the USDA Forest Service.

#### 4.4 LAND ACQUISITION PRIORITY PROJECTS

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 6. Acquisition Projects Approved for Detailed Assessment

Seller	Project	Acres	County	Date Approved
George & 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
Rock Bluff Spring Co., LLC	Rock Bluff Springs	173	Gilchrist	3/11/2014
Winston Lovelace	Turtle Spring	91	Lafayette	7/8/2014
River Error Farms	Hardee Springs	304.5	Hamilton	10/16/2014
John and Deborah Steffen	Steffen Property	14	Bradford	11/11/2014
Michael and Freda Shaw	Shaw Conservation Easement Exchange	1,027	Lafayette	12/10/2013
Rayonier Forest Resources, L. P.	Camp Blanding Buffers	1,920	Bradford	11/12/2013
SRWMD	Sandlin Bay Sale/Exchange to U.S. Forest Service	2,023	Columbia	5/13/2014
Chris Mericle	Mericle Property/Holly Point Subdivision Exchange	3.917	Hamilton	10/16/2014

Table 7. Acquisitions Completed: October 2013-December 2014

Tuble 1. Additions completed. Cotober 2010 Becomber 2014					
Seller	Acres	County	Date	ate Transaction	
Bradford Timberlands	344.58	Bradford	4/9/2014	Purchase- Fee	\$364,936.22
Aucilla Land Partners	189.00	Madison and Jefferson	11/5/2013	Exchange (Conservation Easement)	\$268,700.00
Doug and Lisa Anderson	206.49	206.49 Dixie 7/8/2014 Exchange (Conservation Easement)		Exchange (Conservation Easement)	\$194,000.00
El Trigal Farms	349.00	Jefferson	10/31/2014	Exchange (Conservation Easement)	\$668,850
Rayonier Atlantic Timber Company	321.95	Bradford	12/8/2014	Purchase Fee	\$586,914.85
Total	1,411.02				\$2,083,401.07

#### 4.5 SURPLUS LANDS

In order to increase the water resource benefits of its lands holdings, the District has reviewed its holdings to identify any areas that may not be needed for conservation purposes. 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 value.

In May 2011, the District Governing Board adopted Program Directive 2011-03 to provide updated guidelines and procedures for consistency in identification and disposition of surplus lands. District-owned lands were analyzed to determine which areas that did not have significant water resource values and would not negatively impact land management strategies if sold.

**Table 8** lists the parcels that have been designated as surplus by the District Governing Board.

Table 8. Surplus Lands

Tract Name	Acres	County	Acquired Date	_	Surplus Date
				Source	
Bay Creek North	24	Columbia	2/1988	WMLTF	7/14/2009
Bay Creek South	46	Columbia	9/1990	WMLTF	7/14/2009
Blue Sink	79	Suwannee	12/1988	WMLTF	7/14/2009
Ellaville	670	Madison	12/1998	WMLTF	10/12/2012
Levings	69	Columbia	2/1988	WMLTF	7/14/2009
Owens Spring	77	Lafayette	3/1999	WMLTF	7/14/2009
Adams South	60	Lafayette	5/1990	WMLTF	5/13/2010
Jennings Bluff	70	Hamilton	2/1989	WMLTF	5/13/2010
Falmouth North (8 tracts)	6	Suwannee	4/1998	WMLTF	6/8/2010
Hunter Creek	120	Hamilton	9/2002	P2000	6/8/2010
Steinhatchee Rise	42	Dixie	2/1996	P2000	6/8/2010
Timber River	1	Madison	3/1998	WMLTF	6/8/2010
Wolf Creek	30	Jefferson	5/2009	FFTF	5/19/2011
Woods Ferry	29	Suwannee	12/1988	WMLTF	5/19/2011
Withlacoochee Quail Farm	65	Madison	9/2006	FFTF	5/19/2011
Cuba Bay	22	Madison	2/1996	P2000	6/14/2011
Chitty Bend East	20	Hamilton	12/1988	WMLTF	7/12/2011
Chitty Bend West	121	Madison	12/1988	WMLTF	7/12/2011
Perry Sprayfield	248	Taylor	9/2001	WMLTF	7/12/2011
Cabbage Grove	30	Taylor	2/1996	P2000	3/13/2012
Buck Bay	60	Alachua	12/1999	P2000	3/6/2013
Jasper Wellfield	30	Hamilton	04/2005	FFTF	5/20/2013
Hunter Creek	0.4	Hamilton	09/2002	P2000	9/24/2013
Florida Gateway College	16.25	Columbia	5/2001	P2000	9/9/2014
Barnett Surplus Tract	102	Hamilton	6/2001	P2000	8/12/2014
White Springs Wellfield	76	Hamilton	2/2000	P2000	8/12/2014

WMLTF = Water Management Lands Trust Fund; FFTF = Florida Forever; P2000 = Preservation 2000 Funds

Any recommendation for the disposition of land is presented for Governing Board consideration in accordance with Sections 373.056 and 373.089, Florida Statutes. **Table 9** lists the surplus lands that have been sold or conveyed to units of local government since the surplus lands program was initiated in 2009.

Table 9. Disposition of Surplus Lands

	labie	9. Dispo		urplus Lands	T
Surplus Parcels	Acres	County	Disposition Date	Transaction	Proceeds
Chiefland Wellfield	9	Levy	10/11/2011	Conveyed to Local Government	\$0.00
Cross City Wellfield	67	Dixie	10/11/2011	Conveyed to Local Government	\$0.00
Cross City Sprayfield	443	Dixie	1/12/2011	Conveyed to Local Government	\$0.00
Westwood West Surplus.	316	Madison	4/8/2011	Sold	\$636,777.00
Poe Springs	37	Alachua	10/11/2011	Conveyed to Local Government	\$0.00
Suwannee Sprayfield	285	Dixie	10/11/2011	Conveyed to Local Government	\$0.00
Otter Springs Access Easement	4	Gilchrist	10/17/2011	Conveyed to Legal Covernment	\$0.00
Bay Creek South	46	Columbia	3/16/2012	Conveyed to Local Government Sold	\$91,940.00
USDA F.S. Sandlin Bay *	712	Columbia	3/22/2012		\$0.00*
Withlacoochee Quail Farm	65	Madison	3/29/2012	Conveyed to USDA F.S. Sold	\$142,524.80
Brantley Exchange	3	Suwannee	6/15/2012	Exchange Covernment	\$0.00
Taylor Coastal Wellfield	44	Taylor	6/15/2012	Conveyed to Local Government	\$0.00
Black Tract Surplus	50	Madison	6/19/2012	Sold	\$88,907.00
Wolf Creek Surplus	32	Jefferson	7/6/2012	Sold	\$63,340.00
Adams South Surplus	61	Lafayette	8/3/2012	Sold	\$85,540.00
Owens Spring Surplus	76	Lafayette	8/3/2012	Sold	\$136,368.00
Woods Ferry	29	Suwannee	12/12/2012	Sold	\$69,840.00
Bay Creek North	24	Columbia	3/6/2013	Sold	\$55,258.00
Cabbage Grove	29	Taylor	11/6/2013	Sold	\$56,614.25
Blue Sink Surplus East Tract Steinhatchee Rise Surplus	40.67	Suwannee	5/12/2014	Sold	\$83,519.99
tract	43	Dixie	12/27/2013	Sold	\$117,552.00
Hunter Creek Bridge Road			9/24/2013		
Conveyance	0.41	Hamilton		Conveyed to Local Government	\$0.00
Levings Surplus Tract	64.84	Columbia	5/12/2014	Sold	\$111,919.46
Anderson Exchange	122	Dixie	9/9/2014	Exchange	\$0.00
Otter Springs Conveyance	122.6	Gilchrist	4/8/2014	Conveyed to Local Government	\$0.00
Cuba Bay Surplus Parcel Chitty Bend West Surplus	22	Madison	10/31/2014	Exchange	\$0.00
Parcel	121	Madison	10/31/2014	Exchange	\$0.00
Chitty Bend East Surplus					
Parcel	20	Hamilton	10/31/2014	Exchange	\$0.00
Jennings Bluff Surplus Parcel Hunter Creek Surplus Parcel	23.35	Hamilton	10/31/2014	Exchange	\$0.00
1	36	Hamilton	10/31/2014	Exchange	\$0.00
Hunter Creek Surplus Parcel			10/01/00/14		Φο οο
2 Hunter Creek Surplus Parcel	60	Hamilton	10/31/2014	Exchange	\$0.00
3	23	Hamilton	10/31/2014	Exchange	\$0.00
Blue Sink West Surplus	39	Suwannaa	10/31/2014	Evehange	\$0.00
Parcel		Suwannee		Exchange  Capyayad to Fla. Cataway Callage	1
Lake City Wellfield Hampton Springs/Perry	16.25	Columbia	11/8/2014	Conveyed to Fla. Gateway College	\$0.00
Sprayfield Surplus Parcel	248.5	Taylor	11/26/2014	Conveyed to Local Government	\$0.00
Total	3,334.25			nito Springe Agricultural Chamical Contribut	\$1,740,100.50

<sup>\*</sup> Sale resulted in a transfer of \$498,092.00 within SRWMD accounts from the White Springs Agricultural Chemical Contribution Account.

#### 5.0 DISTRICT LAND MANAGEMENT PROGRAM

Proper 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 following information summarizes implementation of the District Land Management Plan (DLMP) on fee simple lands owned by the District during FY 2013. District activities implemented to achieve the four goals of the DLMP, Resource Protection, Public Use, Communications, and Fiscal Responsibility are addressed.

#### 5.1 RESOURCE PROTECTION

Goal – to protect, enhance and/or restore natural, archaeological, and historical resources on lands owned by the District.

#### 5.1.1 Water Resource Management

District lands provide unique opportunities because of their proximity to major rivers and their tributaries. At the site level, many facilities such as river access points and roads require additional review and construction standards to withstand flood impacts. The objective of facilities design is to make them transparent to high-flow and low-flow conditions within the floodplain. At the tract level, there are opportunities to impact altered water flows and water retention capacities to allow more natural buffering characteristics of the floodplain, such as flood attenuation, to be enhanced and provide protection to the receiving water body.

Land management natural community projects are implemented using silviculture BMPs as a minimum standard for implementation. Silvicultural practices and road maintenance operations are planned to protect or enhance water resources. Road improvements and culvert maintenance activities occurred on four tracts in FY 2013. These consisted of installation of one new culvert in Jones Mill Creek tract, replacement of two culverts in RO Ranch and Lamont tracts, and clean out of three culverts in the Steinhatchee Springs tract and one culvert in the Santa Fe River Ranch tract.

#### **Water Projects**

Water Projects completed in FY 2013 include:

- Lukens Tract Water Access Project. A plastic erosion control mat was permitted and constructed in an existing scar on a tidal creek. The area is under a management agreement with USFWS to be managed as part of Cedar Keys National Wildlife Refuge.
- Steinhatchee Rise Dispersed Water Storage Project. This project placed rock barriers in an existing canal that flows into the Steinhatchee River. The intent is twofold: first, to slow down the water in the canal and allow it to percolate into the surficial aquifer; and second, to rehydrate wetlands to create conditions more similar to their natural hydroperiod.
- Bell Springs Restoration Project. This project removed earthen berms and dewatered
  the associated ponds that were constructed in the spring run of Bell Springs. This is a
  cooperative project with the Florida Fish and Wildlife Conservation Commission, which
  provided funding for construction. The project was permitted and contracts were awarded.
  Construction activities are complete. Planting natural tree and herbaceous species was
  completed summer 2014.

Water Projects in Planning and Design include:

- Middle Suwannee River and Springs Restoration and Aquifer Recharge Project. This
  project is occurring on District and private lands near Mallory Swamp. The objectives are to
  rehydrate wetlands and ponds and encourage recharge to the aquifer.
- Otter Springs Restoration. Work is being planned to remove some of the sediment in the spring and reduce erosion by installing access stairs and other public use improvements to protect the spring.
- **Pot Springs Restoration.** Plans are focusing on stabilizing the public use facilities and preventing further bank erosion.
- Silviculture Water Yield Research Project. This project is part of a statewide effort to advance the understanding of the impact of forest management activities on water yield and aquifer recharge rates.

#### 5.1.2 Land Resource Management

The District plans and implements land management operations in order to protect and/or enhance natural resources. Plant and animal distribution and abundance are dictated by the availability of resources. A set of desired future conditions (DFC) detail plant community structure, representative plant species, average hydrological regime, and the frequency that fire is required to maintain the plant community.

The District uses the DFC to determine if management activities are needed to "restore or maintain the natural condition" as directed by statute. District lands that meet the DFC structural standards are maintained by activities that mimic natural processes (fire and natural flooding events) or "passive" management. Communities that do not meet standards, however, may receive more "active" management to move the community towards the community standards.

#### 5.1.2.1 REFORESTATION

#### **Site Preparation**

Site preparation activities were completed to facilitate tree planting in FY 2013. One thousand three hundred seventy-one acres were planted in FY 2013. Four hundred sixty-five acres were augmented with additional seedlings due to survival problems from past reforestation operations. A large portion of this planting failure was attributed to flooding by Tropical Storm Debbie.

Table 10. Site Preparation Operations.

Management Objective	Management Action	Tract	Acres
Reforestation - Site Preparation	Chop	Lake City Wellfield	61
Reforestation - Site Preparation	Scalp	Branford Bend	100
Total			161

#### **Tree Planting**

Reforestation of cutover lands was conducted on 1,371 acres during FY 2013 (Table 3). Both slash and longleaf pine were planted by hand or using a Whitfield type planter pulled behind a V-blade mounted on a bulldozer or farm tractor. All the pine seedlings were planted in 12-foot rows. Planting was monitored to ensure that seedlings were planted to District standards and that the seedlings per acre were within 10% of the prescribed rate. Prescribed rates are 605 trees per acre for slash pine and 726 trees per acre for longleaf pine.

Table 11. Reforestation of Pine Seedlings (December 2012 – January 2013)

Tract	Dominant Natural Communities Planted	Pine Seedlings	Compliance Seedlings /acre	Acres
Shady Grove	Mesic flatwoods		613	31
Steinhatchee Springs	Mania 9 wat flatura da		719	123
Steinhatchee Springs	Mesic & wet flatwoods	Bare Root Slash	667	39
Bay Creek	Wet flatwoods	Jiasii	692	20
Lake City Well Field	Wet flatwoods		710	61
			TOTAL	626
Cabbage Creek	Mesic flatwoods		691	185
Holton Creek	Sandhill & upland mixed forest		650	28
Mattair Springs	Sandhill		685	71
Shady Grove	Wet flatwoods	Container &	538	30
Mallory Swamp	Mesic & wet flatwoods	Bare Root	743	83
Mount Gilead	Mesic flatwoods	Longleaf	728	48
Mallory Swamp	Mesic flatwoods		728	81
Branford Bend	Upland pine forest & mesic flatwoods		719	101
Steinhatchee Springs	Mesic & wet flatwoods		720	118
			TOTAL	745

#### **Timber Harvest**

The District harvests timber resources to promote forest health and alter the tree density. Last year, the District indicated they had begun a formal process of tracking management decisions in the form of operational prescriptions. Currently, the prescriptions are not being used due to time constraints. Instead, management activities are being thoroughly reviewed through memorandums and meetings with the Executive Office and during Land Resources meetings. Timber sale objectives were to reduce overstocked conditions and remove undesirable species. Tracking is being completed using GIS. A summary of District timber sales is provided in **Table 12**.

Table 12. Acres of Timber Sales and Revenue

	2013	2012	2011	2010	2009
# Acres Timber Sold for DFC	267	1,074	1,096	1,314	1,079
Total Value as a Percent of Published Regional Market Rate	117%	114%	98%	102%	104%

<sup>\*</sup>Values given as a percent of reported sources.

#### 5.1.2.2 NATURAL COMMUNITY MANAGEMENT USING HERBICIDES

Herbicides are applied to create conditions consistent with the natural community standards.

#### **Site Preparation**

No herbicides were applied for site preparation.

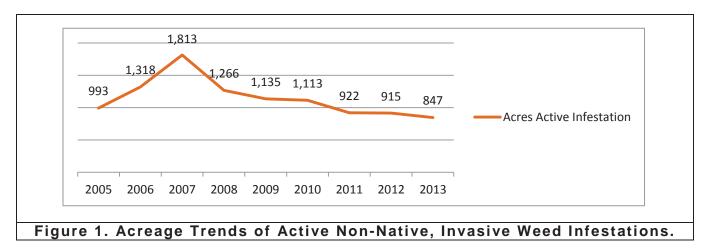
#### **Pine Seedling Release**

No herbicides were applied for pine seedling release.

#### **Non-native, Invasive Weed Control**

A total of 440 weed infestations were monitored during FY 2013. Of those active infestations, 21 were treated with herbicides or pulled by hand; no living weed material was observed at 118 of the monitored infestations.

Efforts to control non-native, invasive weeds are showing a reduction of the total acreage of infestations (Figure 1). A total of 79 infestations were reclassified as "Inactive." Active infestations are reclassified Inactive when no weed material is observed at or within close proximity of the infestation for 3 consecutive years.



#### 5.1.2.3 NATURAL COMMUNITY MANAGEMENT USING PRESCRIBED FIRE

Many of Florida's natural communities were historically influenced by lightning-ignited fires. Of those fire-adapted natural communities, the District's prescribed fire program targets the following six community types for maintenance and restoration purposes: sandhills, upland pine, scrubby, mesic, wet flatwoods and shrub bogs. Combined, these targeted communities make up approximately 76% of the total acres that were historically influenced by fire. Within these targeted natural communities, the District focuses most of its efforts on designated core areas. Factors that distinguish many of these core areas include: 1) areas often contain acreage that has a consistent burn history, 2) vegetation within these areas can easily be burned without other inputs such as mechanical or chemical pre-treatments, and 3) areas may contain acreage that has undergone other management activities that requires the use of prescribed fire for continued maintenance or restoration (Table 5).

The remaining 24% of fire influenced communities on District land consists of wetland natural communities such as basin, depression, and tidal marshes and dome and basin swamps. These

communities are not actively targeted for prescribed burning. Instead, fire is allowed to carry into these areas from adjacent communities that are prescribed burned. Fire is allowed to carry into these areas only when the risk is minimal for issues such as smoke management, mortality to wetland trees and prolonged organic soil consumption. Containment fire lines are installed in such a way as to avoid impacts to wetlands and water resources.

Table 13. Acres of Fire Maintained Natural Communities by Classification.

SRWMD Fire Maintained Communities	Acres
Targeted Communities	76,508
Targeted Community Core Areas	50,002
Non-Targeted Communities	23,989

The District uses information from the Florida Natural Areas Inventory (FNAI) to establish the Natural Fire Return Interval (NFRI) for each natural community. The District's goal is to increase the acres of Targeted Community Core Areas within their NFRI (**Table 14**).

Table 14. Natural Fire Return Interval and Burn Acreages on District lands

	2013	2012	2011	2010	2009
% Targeted Community Core Areas within Natural Fire Return Interval	66%	47%	36%	26%	15%
Acres Prescribed Burned	12,136	7,670	11,742	15,765	7,659
Acres Burned That Met Objective	11,715	6,976	11,692	13,189	7,229
Wildfire Acres	11	457	5,535	2	1

#### 5.1.3 Resource Monitoring

#### **Groundcover Resource**

No groundcover data plots were collected in FY 2013.

#### **Timber Resource Monitoring**

The DFC specifies tree species stocking and species goals. Data were collected on 1,276 timber plots in FY 2013. The data from these plots quantify the acres that achieve the community goals and also provide for data for areas that may be improved using timber sales. Staff is developing an ongoing inventory plan to keep this data current.

#### **Rare Species Monitoring**

The District has procedures for identifying and avoiding detrimental impacts to imperiled species on its lands. Rare species are documented on District lands by surveys and opportunistic observations. Species locations and rare species BMP information are maintained within a geodatabase. To lower the potential for negative impacts on existing species occurrences, District staff consults the rare species GIS layer file and rare species BMPs before planning and conducting management activities. If potential impacts are identified, staff will delineate occurrence areas or adjust management activities to avoid potential conflicts.

In FY 2013, staff conducted gopher tortoise surveys on approximately 670 acres of the Ellaville Tract in Madison County. Within the sample area, over 700 transects were surveyed yielding a density estimate of approximately 2.8 tortoises/acre.

#### **Cultural and Historical Resource Monitoring**

District lands have been reviewed for historical resources and 169 known sites were found in the Florida Master Site Files; 26 sites have been classified as significant cultural sites. In addition to these sites, the most likely areas, based on the known sites, are classified "High Probability Zones" (HPZ) and the District follows the "Protocol for Managing Cultural and Historical Resources on Suwannee River Water Management District Lands 2011" to avoid damaging these resources.

The District inspects the significant cultural resource sites, while working on other projects in the vicinity, in order to document whether they are being impacted.

Table 15. Status of Significant Cultural Resources Sites.

Measures	2013
No. sites monitored for significant cultural resources	0
Number and percent known previously damaged	2 and 8%
cultural sites	

#### 5.1.4 Land Resource Projects

#### **Completed Land Resource Projects:**

**Withlacoochee Quail Farm Tract:** The District entered into cost-share agreement with U.S. Fish and Wildlife Service (USFWS) in July 2011 to restore the native upland pine community at the Withlacoochee Quail Farm Tract. Of the 620 acres of upland pine forest on this tract, only 57% contains groundcover resources and fine fuels sufficient to manage the community with prescribed fire. The site was previously an old field, thus explaining the lack of native groundcover.

This project is expected to benefit the natural community by reestablishing native groundcovers, which are vital components to biodiversity and natural community management, and reintroducing fire to the community. As part of that agreement, the District monitored groundcover restoration, paid for by the USFWS, on approximately 145 acres.

In FY 2013, the cooperative sowed 12 lbs. of native, upland groundcover seed per acre. This activity was funded by the USFWS. The next planned restoration actions for FY2014 include planting containerized longleaf pine at 726 trees per acre (completed). Planned in-kind services include continued monitoring and control of invasive weeds and the continued use of prescribed fire. The project will be completed in 2015.

#### Land Resource Projects in Planning and Design:

**Little River Tract Upland Pine Restoration Project.** This is a joint project with the FWC and the National Wild Turkey Federation. The District received multi-year grant funding to reduce mesic oak proliferation on about 470 acres of upland pines. The first operation will be a timber sale to reduce the number of oaks present on the property. This area will also be used for the silviculture water yield project. Soil moisture probes will be set to determine water use by various densities of trees and species.

#### 5.2 PUBLIC USE

### Goal – to provide opportunities for high quality, compatible resource-based recreation and education programs to meet the public's needs.

District lands provide an extensive set of resource-based recreational opportunities. Of the approximately 158,000 acres owned by the District, over 99% are open to the public for recreation. The District's Public Use Guide lists allowable recreational uses approved by the Governing Board by tract, including uses that require a Special Use Authorization (SUA).

Planning for public uses takes into account the sensitivity of the site, the proximity of similar recreational opportunities, the time and financial requirements to provide the use, and public demand for the particular use.

#### 5.2.1 Facility Management

The District facility standards detail recreational facility, road and trail, sign and kiosk, and fence construction and maintenance procedures. These standards ensure that facilities provide a safe, aesthetically pleasing, outdoor environment for the public that can be effectively maintained. District staff inspects public use facilities and schedules any maintenance required to ensure the longevity and continued safe use.

District public use facilities data remained nearly constant in FY 2013 with one exception, as shown in **Table 16**. The existing trails in Twin Rivers State Forest were updated.

Facility	2013	2012	2011	2010	2009
# Trailheads	30	26	26	22	18
# Docks & Boat Ramps	11	10	10	8	10
# Hand & Canoe Launch Sites*	19	27	27	26	70
# Picnic Areas	17	16	16	16	15
# Interpretive Sites	11	9	9	8	6
# Restrooms	18	18	18	14	14
# Miles Trails	242	203	190	183	183
# Miles Driving Trails	310	310	345	302	302

Table 16. Public Use Facilities.

#### 5.2.2 Facility Construction

A plastic mat launch for kayaks and canoes was designed, permitted and constructed for the Lukens Tract near Cedar Key. The area was previously used to launch small boats but lacked any erosion control. This parcel is now managed by USFWS as part of the Cedar Keys National Wildlife Refuge at no cost to the District.

<sup>\*</sup>Large fluctuations in the number of hand and canoe launch sites are due to the reclassification of certain facilities. Prior to 2010, river access was classified as a launch site; river access points are now classified as river access, hand and canoe launch sites, or boat ramps.

#### 5.2.3 Special Use Authorizations

In order to protect sensitive resources, it is necessary to restrict some uses of District lands. Members of the public may apply for a Special Use Authorization (SUA) to engage in those recreational opportunities requiring special authorization as listed in the public use guide. Examples include ATV use and night-time access. An SUA may also be issued for opportunities not listed in the Public Use Guide; examples include research and data collection, placement of bee hives, and nuisance hog removal.

An SUA serves as an agreement between the District and a user; it details terms, conditions, liability protection and time frame of the proposed use. The District issues SUAs and reserves the right to refuse anyone an SUA if the proposed use threatens water resources, public safety or other natural resources on District lands. A total of 497 SUAs were issued in FY 2013 (**Table 17**).

Table 17. Special Use Authorizations Issued

Recreation	Temporary Ingress and Egress	Mallory Swamp ATV Trail	Commercial*	Goose Pasture Camping	Total
349	54	NA	7	87	497

<sup>\*</sup>Commercial SUAs issued during the fiscal year include research and data collection, cemetery restoration, cattle lease and an apiary lease on 5 sites.

#### 5.2.4 Hunting and Fishing

The District's goal for public hunting is to provide high-quality hunting opportunities. Public hunting on District lands is offered through management agreements with the FWC and the USFWS. Fishing is allowed on District tracts subject to FWC fishing regulations.

Table 18. SRWMD Hunting and Fishing Access

	2013	2012	2011	2010	2009
Areas open to public hunting (acres)	105,131	105,016	96,444*	97,160	97,160
Total fishing access locations	101	130	102	99	94

<sup>\*</sup>The number of acres of land open to hunting decreased due to the District conveying a portion of the Sandlin Bay Tract to the U.S. Forest Service. These acres remain open to hunting as part of the Osceola National Forest WMA, but the District no longer holds title to the land.

#### 5.2.5 Emergency Closings

Tracts were closed due to partial flooding on the following dates: March 4, 2013, 6 tracts; March 7, 2013, 2 tracts; July 22, 2013, 1 tract; July 31, 2013, 2 tracts; August 21, 2013, 1 tract; and August 23, 2013, 1 tract. All tracts were reopened as soon as conditions warranted.

#### 5.3 COMMUNICATIONS

#### Goal – to coordinate with public and private stakeholders in the management of District lands.

The District must seek and include participation from outside agencies, organizations and private citizens when developing management plans for the lands under its stewardship. However, District lands and facilities and other communication opportunities likely provide greater visibility of land management activities to the general public. Public inquiries are addressed by visiting the District or contacting District staff by phone, mail, email, or the website. All boundary and informational signs include District phone numbers and email addresses for this purpose.

#### 5.3.1 District Land Management Plan

The DLMP articulates the Governing Board goals and objectives that guide the management of all fee lands held by the District. The Board approved the DLMP in May 2011.

No revisions were made to the DLMP in 2013.

#### 5.3.2 Land Management Review Team

The Land Management Review Team (LMRT) scores District land management and their report is provided to the Board for its review. Statutorily, the LMRT must evaluate:

- 1. Whether District lands are being managed for the purposes for which they were acquired and:
- 2. If the management practices, including public access, are in compliance with the management plan.

On May 30, 2013, staff led a field tour of lands in the Alapaha River basin and a portion of the Upper Suwannee River basin around the Holton Creek Tract. This review area totals about 5,900 acres of fee and 1,800 acres of Conservation Easement lands. The main area of emphasis on the tour was protection of the extensive surfacewater/groundwater interface in this region and how District management activities protected these resources. Ten individuals representing private landowners, interests groups and agencies participated in the tour. The LMRT found the District to be in compliance or exceeding compliance with the DLMP and in managing lands for the purpose for which they were required.

Table 19. LMRT Meeting Questionnaire Responses

Question 1: No. of Responses	Are District lands being managed in a manner consistent with the purpose for which they were acquired, including public access?
0	The SRWMD is not in compliance.
3	SRWMD compliance is adequate and acceptable.
5	SRWMD exceeds compliance regularly.
Question 2: No. of Responses	Does SRWMD land management implement the goals identified in the District Land Management Plan?
0	The SRWMD is not in compliance.
4	SRWMD compliance is adequate and acceptable.
4	SRWMD exceeds compliance regularly.

#### 5.3.3 Regional Resource Groups

District staff participates in regional groups such as:

- North Florida Prescribed Fire Council
- San Pedro Bay Landowners Association
- 1<sup>st</sup> Coast Invasive Species Working Group
- North Central Florida Cooperative Invasive Species Management Area
- FWC, Invasive Plant Management Section's Weed Control Project
- Suwannee River Wilderness Trail
- Florida Trail Association
- Suwannee Bicycle Association
- Florida Greenways and Trails Council
- Conserved Forest Ecosystem: Outreach and Research Cooperative
- FWC Wildlife Management Areas Annual meeting to review hunting opportunities

This participation is key to facilitating communication and coordination among stakeholders.

#### 5.4 FISCAL RESPONSIBILITY

### Goal – to protect resources and manage District lands in an efficient manner within the District's annual budget.

District staff minimizes the costs associated with land management by contracting with the private sector, partnering with other land management agencies and organizations, and submitting proposals for additional land management grant funding.

#### 5.4.1 Revenues and Expenditures

The District has opportunities to generate revenues while implementing its management activities. Timber sales generate the most revenue. In FY 2013, the District sold an estimated 16,507 tons of timber in 2 sales on 267 acres. These sales were thinnings of pine plantations. Total gross revenues are estimated to be \$222,910.

A cattle grazing authorization and apiary authorization generated an additional \$2,250.

Expenditures in the land management program are divided into categories for budgeting as follows:

- **Prescribed Fire** includes FFS and private contractor costs for prescribed burning and fire line establishment and maintenance.
- Administration and Planning includes expenses for planning, GIS, training, real estate activities, management plans and reviews, interagency coordination and Payment in Lieu of Taxes
- Facility Management includes costs for maintaining roads, boundaries and gates.
- Natural Resource Management includes water resource projects, reforestation, timber sales, exotic plant control, and protected species management.
- **Public Use** includes expenses for maintaining site-based and dispersed recreation activities, developing new sites, signs, maps, brochures, and sanitation.

Table 20. Land Resources Expenditures

Category	FY 2013
Prescribed Fire	\$421,876
Administration and Planning*	\$644,448
Facility Mgt.	\$215,044
Natural Resource Mgt.	\$657,539
Public Use	\$190,258
Total	\$2,129,165

<sup>\*</sup>Payments in Lieu of Taxes in the amount of \$342,909 were paid to eligible counties.

#### 5.4.2 Cooperative Agreements

The District enters into cooperative management agreements and/or leases with government agencies to reduce the cost of management to the District (Table 13).

Table 21. Agencies Managing District Lands

Managing Agency	Tracts	Acres
Alachua County	1	120
Columbia County	2	139
Department of Environmental Protection	9	1,980
Fish and Wildlife Conservation Commission	2	869
Hamilton County	3	16
Jefferson County	1	22
University of Florida	2	738
US Fish and Wildlife Service	4	1,655
Sub-Total: Acres Without Cost Sharing Agreements		5,539
Managing Agency	Tracts	Acres
Florida Forest Service	13	12,963
Gilchrist County	1	634
Sub-Total: Acres with Shared Revenue Agreements		13,597
Total		19,136

The Twin Rivers State Forest is managed by the Florida Forest Service (FFS). In FY 2013, there were state expenses of \$150,900 and there were no contracts.

Public use and recreational services at the Otter Springs Park and Campground are managed by Gilchrist County under a lease signed in 2008. Operational costs and public use revenues are shared by the County and the District equally. The expense to the District was \$13,977 in FY 2013.

The non-profit R.O. Ranch, Inc. is responsible for all recreational uses on the District's R.O Ranch Tract and all the facilities that support those activities; this includes an equestrian oriented park and campground. The Management Agreement was updated in FY 2012 and the endowment funds were transferred to RO Ranch Inc. Trustees allow RO Ranch to function more as a separate financial and management entity.

The District also has a Cooperative Agreement with the Florida Forest Service for lands not under lease. This agreement is used primarily to allow the FFS to manage and conduct fire line installation and prescribe fires on District lands. This agreement should save money since the FFS rate is less than the private contractor burn rates. During FY 2013, no acres were burned under this agreement.

The District also has agreements with the USFS for the Florida National Scenic Trail, the Florida Trail Association and the Suwannee Bicycle Association to manage trails on District lands. These trails are maintained at no cost to the District and available for use by the general public.

## Appendix A: Florida Forever Acquisition Summary

## Florida Forever Work Plan 2015 Annual Update



#### Suwannee River Water Management District

9225 CR 49, Live Oak, FL 32060 386.362.1001 www.mysuwanneeriver.com

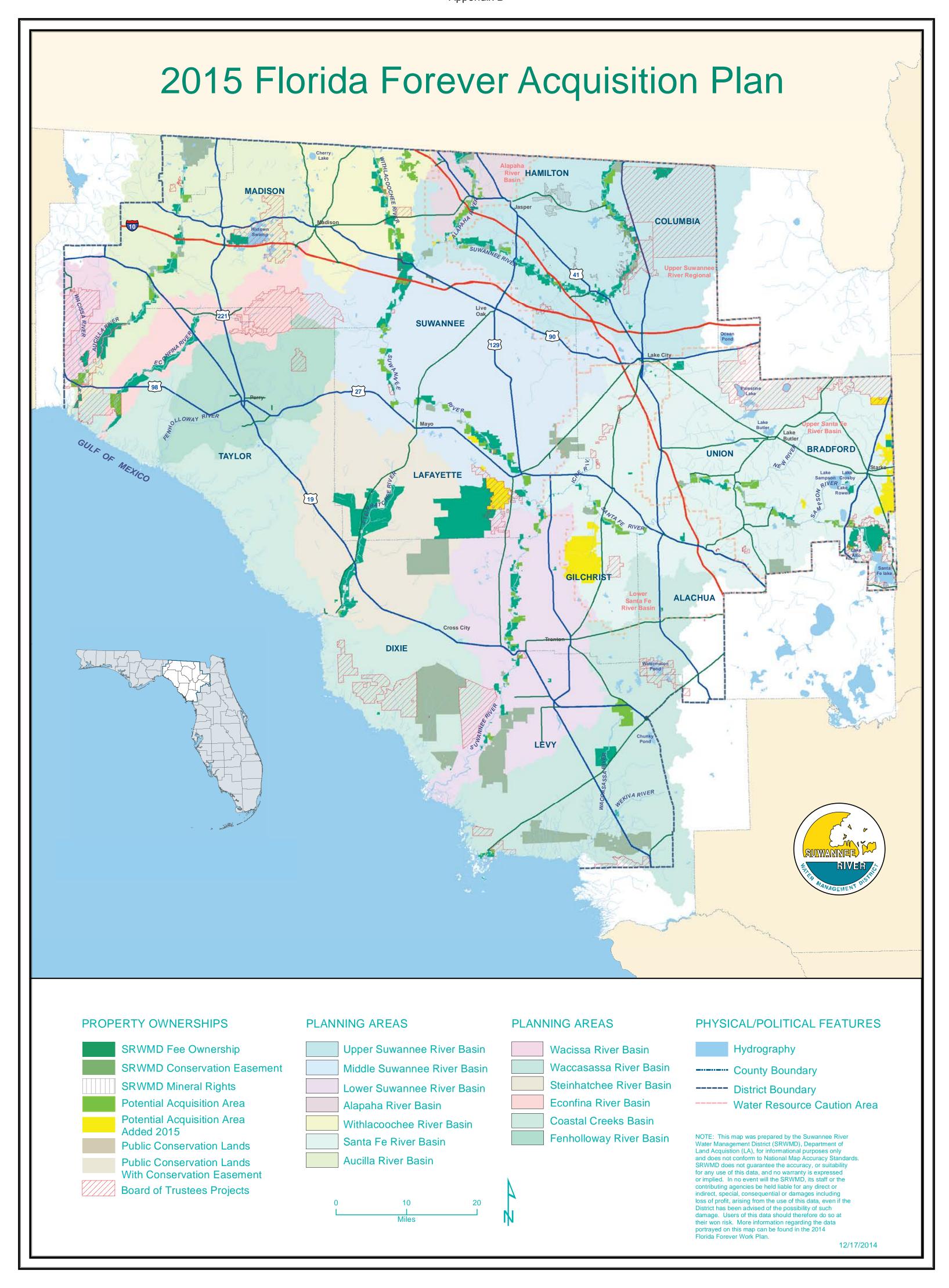
January 2015

Seller	Project	Conservation Area	County	Interest	Acreage	Price	Closing Date
Williams, Fred M. Jr.	Walker/Aucilla Tract	Middle Aucilla	Jefferson	Fee	112	\$220,318	11/8/2001
Ward, Cleatus	Lake Butler Wellfield	New River	Union	Fee	148	\$310,023	12/28/2001
Levy Wade Inc.	Peacock Slough Levy Wade	Peacock Springs	Suwannee	Fee	569	\$625,768	12/31/2001
Van Hook, C.A.	Falmouth Addition	Falmouth	Suwannee	Fee	18	\$40,000	1/8/2002
Chesson, Maywood	Waldron's Landing	Deep Creek	Columbia	Fee	124	\$329,016	1/9/2002
Red Hills Land Company	Foster CE	Middle Aucilla	Jefferson	Conservation Easement	163	\$140,000	3/25/2002
Plum Creek Timberlands	Manatee Springs Addn. Suwannee Swamp	Fowlers Bluff	Levy	Conservation Easement	12,797	\$5,503,127	3/28/2002
Sam Shine Foundation, Inc.	Mallory Swamp	Upper Steinhatchee	Lafayette	Fee	29,463	\$2,592,744	4/30/2002
Florida Depart. of Trans.	Santa Fe River FDOT Mitigation	Ichetucknee	Gilchrist	Fee	42	\$0	5/15/2002
Mura, Michael	Suw. River Campsites Lots 260, 261, 302, 303	State Park	Hamilton	Fee	1	\$0	6/30/2002
Crevassee Alton & Charlotte	Atsena Otie Key Inholding	Lower Waccasassa	Levy	Fee	1	\$48,000	7/30/2002
Plum Creek Timberlands	Manatee Springs Addn. Oak Hammock	Fowlers Bluff	Levy	Conservation Easement	4,588	\$3,005,225	8/31/2002
Evans, Barbara & Donald	Fanning Springs Greenway	Wannee	Gilchrist	Fee	46	\$115,700	11/27/2002
Gause, Thomas & Patricia	Fanning Springs Greenway	Wannee	Gilchrist	Fee	64	\$160,325	11/27/2002
Skinner Development Co.	Bell Springs Addn.	Wannee	Gilchrist	Fee	25	\$0	12/19/2002
Moore, Madeline	Moore CE	Middle Aucilla	Jefferson	Conservation Easement	115	\$54,000	12/23/2002
The Conservation Fund	Fletchers Landing	Fowlers Bluff	Levy	Fee	178	\$436,000	4/12/2003
Drummond, Graham Luther	Manatee Springs Addn.	Fowlers Bluff	Levy	Conservation Easement	323	\$323,406	5/29/2003
Sigvartsen Trust, Marty Royo, Trustee	Lot 12 Suwannee Bluff Ranchettes	Wannee	Gilchrist	Fee	10	\$34,500	6/20/2003
Maxwell Foods, Inc.	Horseshoe Beach Wellhead Protection Area	Coastal Creeks	Dixie	Fee	100	\$200,000	6/30/2003
Union Land & Timber Corp.	Allen Mill Pond Addition	Allen Mill Pond	Lafayette	Fee	140	\$164,136	6/30/2003
Davis M.C.	Withlacoochee East Addn.	Withlacoochee East	Hamilton	Fee	57	\$0	10/1/2003
Curtis John M. Sr.	Withlacoochee East Addn.	Withlacoochee East	Hamilton	Fee	89	\$208,868	10/1/2003
Rayonier Forest Resources L.P.	Lake Rowell/Alligator Creek	Graham	Bradford	Fee	593	\$1,060,000	5/5/2004
Beckerleg, William	Charles Spring River Estates Unit 1, Lot 40	Charles Spring	Suwannee	Fee	2	\$13,000	5/7/2004

Seller	Project	Conservation Area	County	Interest	Acreage	Price	Closing Date
Faris, William & Sophia	Faris Ranch	Little River	Suwannee	Fee	1,020	\$2,283,357	6/30/2004
Usher, E.T. ind. and as trustee of Usher Family trust	Manatee Springs Addn.	Fowlers Bluff	Levy	Conservation Easement	2,023	\$1,517,047	8/17/2004
Land, Jack & Todd	Land Tract	Yellow Jacket	Dixie	Fee	536	\$964,674	10/15/2004
Dugger, Edward & Green, Donald	Mud Swamp	Monteocha	Alachua	Fee	326	\$485,190	12/13/2004
Dugger, Edward & Green, Donald	Mud Swamp	Graham	Bradford	Fee	510	\$757,873	12/13/2004
Luther Drummond Investments, Ltd.	Chiefland Wellfield	Fowlers Bluff	Levy	Fee	155	\$621,640	2/21/2005
Young, Paul & Frances	Lot 10 Suwannee Bluff Ranchettes	Wannee	Gilchrist	Fee	10	\$34,000	2/25/2005
Bem, Jan & Yana	Yana Springs	Allen Mill Pond	Lafayette	Fee	14	\$154,000	3/15/2005
DeVaney, Robert & Deborah	Mallory Swamp Devaney Addition	Lower Steinhatchee	Lafayette	Fee	1,038	\$448,381	4/8/2005
Tanner, Hillard	City of Jasper Wellhead Protection	Upper Alapaha	Hamilton	Fee	30	\$72,240	4/28/2005
McEwen, Donald	Wacissa Head Spring	Wacissa	Jefferson	Fee	22	\$225,000	4/28/2005
Torode, John A. Revocable Living Trust	Lake Rowell Addition	Graham	Bradford	Fee	20	\$29,646	6/17/2005
Lamb, et al.	Allen Mill Pond Addition	Allen Mill Pond	Lafayette	Fee	29	\$60,040	3/1/2006
Pepper Land Company Inc.	Suwannee River Wilderness Camp @ Dowling Park	Allen Mill Pond	Lafayette	Fee	9	\$84,000	3/30/2006
Nunez, Luis M	Anderson Springs Addition	Anderson Springs	Suwannee	Fee	10	\$80,000	5/19/2006
Hutchings, William & Patricia	Branford Bend Addition	Little River	Suwannee	Fee	28	\$300,000	5/30/2006
Roland, Charles & Joann	Greenville Wellfield Properties	Upper Aucilla	Madison	Fee	13	\$34,398	6/10/2006
Roland, Shane & Lisa	Greenville Wellfield Properties	Upper Aucilla	Madison	Fee	33	\$78,000	6/10/2006
Hatch, Leon	Devil's Elbow Addition	Stuart's Landing	Lafayette	Fee	1	\$12,000	6/30/2006
R. O. Ranch Inc. and Schulte, Frank E. & Olive	R. O. Ranch	Upper Steinhatchee	Lafayette	Fee	2,485	\$6,500,000	7/27/2006
Herndon, Walter & Helen	Withlacoochee Quail Farms	Withlacoochee West	Madison	Fee	408	\$1,835,130	9/29/2006
Johnson, Jack & Dorothy	Withlacoochee Quail Farms	Withlacoochee West	Madison	Fee	353	\$1,589,310	10/13/2006
Riggs, Joseph & Jennie	Purvis Landing Addition	Log Landing	Dixie	Fee	77	\$267,123	10/31/2006
Hauber, Marty & Peggy	Suwannee Forest Lot 7	Stuart's Landing	Suwannee	Fee	10	\$98,000	2/28/2007

Seller	Project	Conservation Area	County	Interest	Acreage	Price	Closing Date
Land Timber & Cattle L.L.C.	Mallory Swamp Addition	Grady	Lafayette	Fee	820	\$1,312,224	3/20/2007
Advent Christian Village, Inc.	Suwannee River Wilderness Camp @ Dowling Park	Allen Mill Pond	Lafayette	Fee	39	\$385,500	4/5/2007
White, Diane Bishop	Bell Springs Riverfront	Deep Creek	Columbia	Fee	8	\$310,000	5/18/2007
Morrell, Monroe	Bell Springs	Deep Creek	Columbia	Fee	46	\$785,000	5/18/2007
Feagin, Robert & Marjorie	Middle Aucilla Addition	Middle Aucilla	Taylor	Fee	80	\$339,000	7/20/2007
Hale, Martha C. and McDaniel, Virginia Gail	Russell Carter CE	Benton	Columbia	Conservation Easement	1,232	\$3,566,987	9/28/2007
Jones, Mike & Kim	Jasper Stormwater	Holton Creek	Hamilton	Fee	1	\$16,700	10/5/2007
Sganga, Brian	Little Shoals Addition	Deep Creek	Columbia	Fee	1	\$60,000	11/15/2007
McEnany, Michael & Leanne	McEnany CE	Lower Waccasassa	Levy	Conservation Easement	1,104	\$1,490,224	11/16/2007
Tisdale, Robert	Manatee Springs Addition	Fowlers Bluff	Levy	Conservation Easement	83	\$141,925	11/16/2007
Smith, B. Larry & Christine M.	Suwannee Gardens Addition	Yellow Jacket	Dixie	Fee	49	\$462,460	11/21/2007
Levings, Albert	Town of Fort White Wellfield	Santa Fe Springs	Columbia	Fee	102	\$1,536,546	12/15/2007
Ragans, Hoyt & Betty Jo	Ragans CE	Middle Aucilla	Madison	Conservation Easement	586	\$748,614	12/28/2007
Ragans, Hoyt & Betty Jo	Ragans CE	Middle Aucilla	Jefferson	Conservation Easement	169	\$216,826	12/28/2007
Moses Investments, L.L.C.	Troy Springs Addition	Troy Springs	Lafayette	Fee	106	\$1,014,054	1/30/2008
Lake Alto LLC	Lake Alto Addition	Santa Fe Swamp	Alachua	Fee	120	\$210,209	2/7/2008
Sheppard, Derwood & Susan	Manatee Springs Addition	Fowlers Bluff	Levy	Conservation Easement	120	\$214,938	2/8/2008
Mozak, Deborah & Danny and Vasko, Victor & Betty	Swift Creek Addition	Swift Creek	Hamilton	Fee	5	\$250,000	3/14/2008
Gullett, David & Michele	Lake Alto Swamp Addition	Santa Fe Swamp	Alachua	Fee	29	\$152,961	5/15/2008
Adams, John Anthony	Adams on Alapaha	Lower Alapaha	Hamilton	Fee	267	\$1,068,800	7/11/2008
Big Otter L.P., Faith, Hope, Charity Place, Inc.	Otter Springs	Wannee	Gilchrist	Fee	636	\$6,800,000	9/30/2008
Suwannee Land & Timber Inc.	Willow Bend Subdivision Lot 21	Withlacoochee West	Madison	Fee	1	\$17,000	11/17/2008
Suwannee Land & Timber Inc.	Willow Bend Subdivision	Withlacoochee West	Madison	Fee	1	\$0	11/17/2008
Carter, Gerald & Diane	Suwannee Woods Subdiv. Lot 48	Camp Branch	Hamilton	Fee	1	\$0	12/26/2008

Seller	Project	Conservation Area	County	Interest	Acreage	Price	Closing Date
Fairweather, Celia and							
Parchment, Evelyn	Lake Alto Addition	Santa Fe Swamp	Alachua	Fee	41	\$30,000	2/16/2009
Madison/Taylor Timberlands							
LLC	Aucilla Corridor Addition	Upper Aucilla	Madison	Fee	172	\$429,916	5/12/2009
Madison/Taylor Timberlands							
LLC	Aucilla Corridor Addition	Upper Aucilla	Jefferson	Fee	1,056	\$2,619,484	5/12/2009
Wooten, Albert W. Jr. & Jessie	Lower Alapaha Addition	Lower Alapaha	Hamilton	Fee	63	\$380,000	7/1/2009
				Conservation			
Champion, Roger & Donna	Mount Gilead CE	Middle Aucilla	Madison	Easement	181	\$361,940	8/19/2009
				Conservation			
Feagle, Ronald A. & Dorothy	Bonnet Lake CE	Olustee Creek	Columbia	Easement	434	\$1,083,925	1/27/2010
Dixie County Board of County							
Commissioners	Guaranto Addition	Log Landing	Dixie	Fee	1	\$14,000	4/22/2010
Dixie County Board of County							
Commissioners	Log Landing Inholding	Log Landing	Dixie	Fee	20	\$100,000	4/22/2010
				Conservation			
Jackson, Kevin & Patrice	Jackson CE	Troy Springs	Lafayette	Easement	172	\$343,860	6/23/2010
	Santa Fe River Ranch						
Osceola Land & Timber, Corp.	Addition	Pareners Branch	Alachua	Fee	463	\$1,873,048	8/5/2010
N.G. Wade Investment							
Company	Gilchrist Regional Wellfield	Wannee	Gilchrist	Fee	106	\$395,000	8/12/2010
Suwannee River Development				Conservation			
LLC	Ace Ranch	Peacock Springs	Lafayette	Easement	682	\$1,557,593	9/16/2010
		l		_			2//2/22/
Andrews, Dennis & Roberta	Cedar Key Addition	Lower Waccasassa	Levy	Fee	242	\$1,208,650	6/16/2011
Andrews, Dennis, Kelby, Miles	Andrews Cedar Key	Lower Waccasassa	Levy	Fee	390	\$1,949,738	9/1/2011
				Conservation			
Layman Law Firm, P.I.	Walker Springs CE	Middle Aucilla	Jefferson	Easement	167	\$250,710	12/30/2011
Total					68,719	\$67,813,043	



# Florida Department of Transportation Mitigation Plan

<u>2015 - 2019</u>

Suwannee River Water Management District

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# **EXECUTIVE SUMMARY**

In accordance with 373.4137, Florida Statutes, the Suwannee River Water Management District (District) must develop and implement regional, long-range mitigation planning for wetland impacts associated with Florida Department of Transportation (FDOT) projects.

The FDOT has no new projects in 2015.

A total of 14 wetland mitigation projects have been initiated since 1996, 12 of which have been completed. The District has received a sum total of \$3,080,856 from FDOT for wetland mitigation activities.

### **BACKGROUND INFORMATION**

Section 373.4137, Florida Statutes, states that environmental mitigation for the impact of transportation projects proposed by the FDOT can be more effectively achieved by regional, long-range mitigation planning rather than on a project-by-project basis. The statute sets forth specific language designed to provide funding to the Florida Department of Environmental Protection (FDEP) and the water management districts (WMDs) to develop mitigation to offset wetland impacts from FDOT road projects. The FDOT must submit to the WMDs an environmental impact inventory containing a list of projects with proposed wetland impacts. The list is published at least three years prior to planned construction. Based on the yearly inventory, WMD staff develops a mitigation plan capable of securing all local, regional, state, and federal permits for the proposed impacts.

The statute requires each WMD in consultation with the FDEP, the United States Army Corps of Engineers, and other appropriate federal, state, and local governments, to develop a mitigation plan for presentation to the Governing Boards of the WMD's for approval before March 1<sup>st</sup> each year. Once the mitigation plan is approved, the WMDs issue permits for the work, apply for Army Corps of Engineers permits, and implement mitigation projects as outlined in the mitigation plan.

FDOT wetland impacts in the District have or will occur in the river basins of the Santa Fe, Withlacoochee, Waccasassa, Steinhatchee, Fenholloway, Econfina, and Suwannee Rivers (Figure 1). This mitigation plan is designed to provide in-kind mitigation for impacted wetlands within the same basin the impacts occur. The plan consists of one or more mitigation alternatives for each FDOT project (Figure 2). In some cases, alternatives include more than one mitigation project that, when taken together, yield an alternative that will offset the FDOT impacts and secure the appropriate permits.

Mitigation planning projects undertaken since February of 2004 have used the Uniform Mitigation Assessment Method, in accordance with chapter 62-345, F.A.C., to calculate the gain for each mitigation proposal. For these projects, the Relative Functional Gain of the proposed mitigation is used in place of wetland mitigation ratios.

### **NEW MITIGATION PROJECTS**

There are no new projects on the environmental inventory at this time.

# **ONGOING MITIGATION PROJECTS**

1) <u>FDOT Project: Starke By-Pass Project (SR 223)</u> Mitigation Project: In Planning.

New roadway corridor which will bypass around the City of Starke in Bradford County. Project was determined to impact 58.47 acres of wetlands with 47.0 UMAM credits required. A Wetland Mitigation Project to offset these impacts was advertised under a Low Bid Design-Build procedure. The District has reviewed the Price and Technical Proposals from the two shortlisted design-build firms. The Selection Committee has recommended Alligator Creek Mitigation Bank, LLC as the selected Design-Build Firm. The Governing Board will make a decision on entering into a contract with the recommended Design-Build Firm at their January 13, 2015 meeting.

2) <u>FDOT Project</u>: CR 241 Bridge Replacement over Olustee Creek <u>Mitigation Project</u>: In Planning.

Replacement of CR 241 bridge over Olustee Creek in Columbia County. Project was originally determined to impact approximately 2.0 acres of wetlands. As of December, 2014, FDOT has not determined the actual wetland impact on this project, but it appears that the impacts may be less than 0.5 acres which may qualify the project for a General Permit. If the project does not qualify for a General Permit, mitigation will most likely take place on public lands within the Santa Fe Basin.

### **COMPLETED MITIGATION PROJECTS**

# **AUCILLA RIVER BASIN**

1) <u>FDOT Project</u>: US 98 Aucilla Bridge Replacement <u>Mitigation Project</u>: San Pedro Bay Mitigation Bank

Replacement of US 98 bridge across Aucilla River impacted 5.7 acres of wetlands. Mitigation included purchase of mitigation credits from San Pedro Bay Mitigation Bank, and water quality improvements for District owned Cabbage Grove and Mt. Gilead tracts. Mitigation credits (0.87 units) were purchased in November 2010, by the District using a total of \$43,500 in funding received from the FDOT.

### **UPPER SUWANNEE RIVER BASIN**

1) <u>FDOT Project</u>: CR 143 Road Widening <u>Mitigation Project</u>: Woods Ferry Hydrologic Enhancements

Widening of CR 143 in Hamilton County from CR 146 to I-75 impacted approximately 1.23 acres of wetlands. District contracted with consultants to identify, evaluate, and construct mitigation activities within District-owned Woods Ferry Tract in Suwannee County. Mitigation involved hydrologic enhancement of seven wetland sites by improving drainage features to restore natural water flow. Mitigation activities were completed in November 2006. District received \$110,970 from FDOT. Evaluation of mitigation success was conducted by Jones, Edmunds and Associates in 2010 and shown to have met mitigation requirements.

### WACCASSASSA RIVER BASIN

1) <u>FDOT Project</u>: SR 24 Widening from U.S. 19 to Rosewood <u>Mitigation Project</u>: Devil's Hammock Hydrological Enhancement and Preservation

Widening of SR 24 in Levy County impacted 9.95 acres of wetlands. The District contracted with consultants to identify, evaluate, and construct mitigation activities within District-owned Devils Hammock in Levy County. Mitigation provided hydrologic enhancement of multiple wetland sites by improving drainage features to restore natural water flow. Mitigation activities were completed in January 2007. District received \$180,913 from FDOT. Evaluation of mitigation success was conducted by Jones, Edmunds and Associates in 2010 and shown to have met mitigation requirements.

- 2) FDOT Project: US 27/SR 500 Widening
  - Mitigation: 1. Cedar Key Water Quality Restoration Project
    - 2. Cow Creek Road Restoration
    - 3. Wetland Preservation

Widening of US 27/SR 500 from Chiefland to Bronson impacted 23.0 acres of wetlands. Mitigation involved improvements to the Cedar Key storm water system to prevent discharge of sediments, nutrients, bacteria, and heavy metals into the Gulf of Mexico. In addition natural water flow into wetlands was restored within the Goethe State Park, and approximately 1,000 acres of wetlands in Levy County were preserved by conservation easements to the District. Mitigation activities were completed in May 2007. District received \$1,713,490 from FDOT. Mitigation success will be evaluated in 2015.

### SANTA FE BASIN

1) <u>FDOT Project</u>: US 441 Santa Fe River Bridge Replacement <u>FDOT Project</u>: SR 121 Santa Fe River Bridge Replacement <u>Mitigation Project</u>: Alligator Lake Surface Water Improvement and Management (SWIM) Program

Replacement of the bridges impacted 2.3 acres of wetlands. Mitigation restored natural water flow between wetlands adjacent to Alligator Lake and Price Creek (both in Columbia County). Mitigation activities were completed in March 2001. District received \$60,000 from FDOT. Mitigation success will be evaluated in 2015.

2) <u>FDOT Project</u>: CR 231 Road Widening
<u>Mitigation Project</u>: Floodplain Restoration at San Felasco Hammock State
Preserve

Widening of CR 231 in Union County between SR 100 and the Baker County line impacted 1.96 acres of wetlands. Mitigation restored natural water flow, and removal of exotic plant species within wetlands in San Felasco Hammock State Preserve (Alachua County). Construction activities were completed in August 2004, and exotic plant removal was completed in June, 2011. The District received a total of \$166,476 from FDOT for wetland mitigation and a final report from FDEP in January, 2011. Mitigation activities were evaluated in 2013 and deemed to be a success.

3) <u>FDOT Project</u>: CR 229 New River Bridge Replacement Mitigation: Lake Rowell Tract Restoration/Enhancement

Replacement of CR 229 Bridge over the New River between Union and Bradford counties impacted 2.44 acres of wetlands. Mitigation restored natural water connections between Alligator Creek and Lake Rowell (both in Bradford County). District received \$180,214 from FDOT. Mitigation activities were completed in 2006. Mitigation success was evaluated in 2012. Mitigation activities conducted at the CR 229 Bridge and the Lake Rowell project area were evaluated in 2013 and deemed to be a success.

### STEINHATCHEE RIVER BASIN

1) <u>FDOT Project</u>: SR 51 Road Widening Taylor County <u>Mitigation Project</u>: Steinhatchee River Basin Hydrological Improvements

Widening of SR 51 impacted 3.5 acres of wetlands in 2002. Mitigation restored natural water connections for wetlands in District owned Steinhatchee Springs Tract. District received \$279,174 from FDOT. Mitigation success will be evaluated in 2015.

2) <u>FDOT Project</u>: SR 51 Road Widening Taylor and Dixie Counties <u>Mitigation Project</u>: San Pedro Bay Mitigation Bank

Widening of SR 51 in Dixie and Taylor Counties from the town of Steinhatchee to the Dixie/Lafayette County line impacted 1.27 acres of wetlands. Mitigation was by purchase of mitigation credits from San Pedro Bay Mitigation Bank. District received \$10,200 from FDOT for mitigation. District purchased 0.6 mitigation credits from San Pedro Mitigation Bank in 2006.

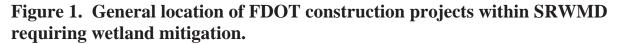
## WITHLACOOCHEE RIVER BASIN

FDOT Project: CR 53 Road Widening
 Mitigation: West Farm Storm Water Pond Project

Widening of SR 53 impacted 1.6 acres of wetlands. Mitigation created wetland and lake habitat at the West Farm Storm Water Facility in Madison County. Mitigation activities were completed in March 2001. District received \$260,325 from FDOT. Mitigation success will be evaluated in 2015.

2) <u>FDOT Project</u>: SR 14 Widening <u>Mitigation Project</u>: Cabbage Grove Wetland Enhancement

Widening of SR 14 between Interstate 10 and the Madison city limits impacted 0.89 acres of wetlands. Mitigation restored natural water flow in wetlands within District owned Cabbage Grove Tract in Taylor County. District received \$75,594 from FDOT. Project was completed in 2006. District conducted operation and maintenance improvements at this site in December 2011. Mitigation success will be evaluated in 2015.



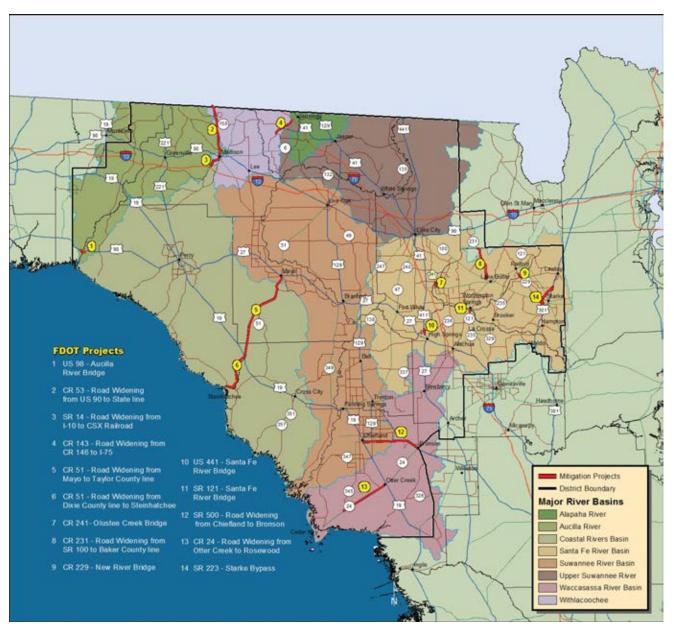


Figure 2. General location of wetland mitigation sites within SRWMD for FDOT construction projects.

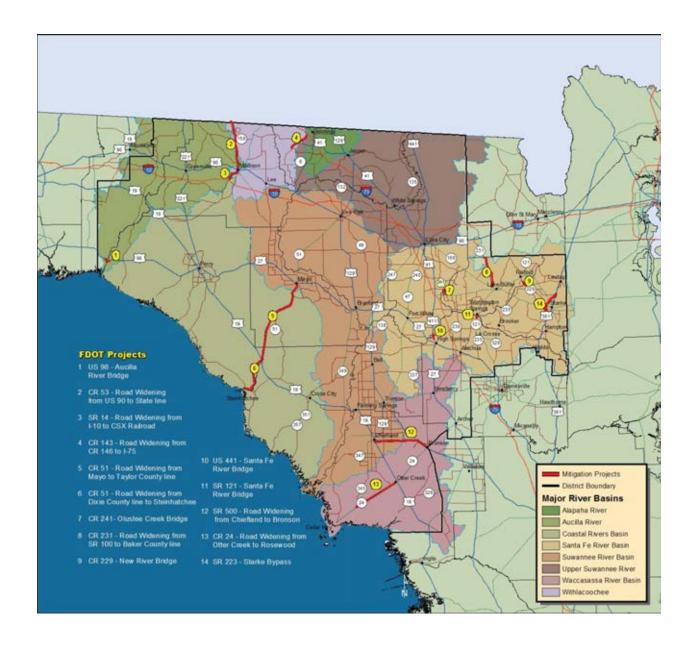


TABLE 1. FDOT CONSTRUCTION PROJECTS WITH WETLAND IMPACTS AND ASSOCIATED MITIGATION PROJECTS.									
River Basin	FDOT Project Location	FDOT Work Number	ERP Number	Impact Acres	Wetland Type	Mitigation Project	Revenue from FDOT	Total Funds Expended	
Aucilla	US 98 Aucilla River Bridge	2108732	10-0057	5.70	Forested	San Pedro Bay Mitigation Bank	\$43,500	\$43,500	
Santa Fe	US 441/Santa Fe River     Bridge and SR 121 Santa Fe     River Bridge	2110486 2110344	00-0067 99-0069	1.00	Forested Forested	Alligator Lake Surface Water Improvement and Management Program (SWIM)	\$60,000	\$60,000	
	2. CR.231 Road Widening from S. R. 100 to the Baker County Line	2128801	02-0497	1.96	Forested	Cellon Creek Floodplain Restoration at San Felasco Hammock State Preserve	\$166,476	\$72,180	
	3. CR. 229 New River Bridge	2128761	03-0089	2.44	Forested	Lake Rowell Tract Restoration/Enhancement	\$180,214	\$180,214	
	4.CR 241 Over Olustee Creek Bridge Replacement	2116631	TBD	2.00	Forested	TBD	TBD	TBD	
	5. SR 223 Starke Bypass	2080014,5,6	TBD	58.47	Forested	TBD	TBD	TBD	
Steinhatchee	SR 51 Widening from Mayo     to Taylor County Line	2100751 2100851	06-0600	3.50	Herbaceous	Restoration of areas impacted by silviculture activities on District property (Steinhatchee Falls)	\$279,174	\$279,174	
	2. SR 51 Widening Steinhatchee to Dixie/Taylor County Line	2108502 2084662	05-0597	1.27	Herbaceous	San Pedro Bay Mitigation Bank credits	\$10,200	\$10,200	
Upper Suwannee	CR 143 Widening from CR 146 to I-75	2122181	05-0081	1.23	Herbaceous and Forested	Woods Ferry Hydrologic Enhancements	\$110,970	\$53,848	
Waccasassa	US 27 Widening from     Chiefland to Bronson	2117089	96-0039	23.00	Forested	A. Upgrade of storm water management system to improve water quality in Cedar Key	\$1,713,490	\$1,713,490	
						B. Cow Creek restoration in Goethe State Forest			
						C. Wetland preservation in Levy County			
	2. SR 24 Widening from Otter Creek to Rosewood	210384	04-0477	9.95	Forested	Devil's Hammock/47 Runs Enhancement/ Restoration	\$180,913	\$190,694	
Withlacoochee	1. CR 53 Road Widening from US 90 to State Line	2117565	98-0041	1.60	Forested and Herbaceous	West Farm Storm water Project	\$260,325	\$260,325	
	2. SR 14 Road Widening from I-10 to CSX Railroad	2105281	02-0528	0.90	Forested and Herbaceous	Cabbage Grove Wetland Enhancement	\$75,594	\$46,459	
							\$3,080,856	\$2,910,084	

For additional information, please contact:
Steven Minnis
Director of Governmental Affairs and Communications
9225 CR 49
Live Oak, FL 32060
386-362-1001
386-362-1056 Fax

www.mysuwanneeriver.com www.facebook.com/srwmd

