



CONSOLIDATED ANNUAL REPORT

Suwannee River Water
Management District

2019



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Consolidated Annual Report

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Section Six: Waterbody Grades	Amy Brown
Section Seven: Florida Forever Work Plan	Katelyn Potter
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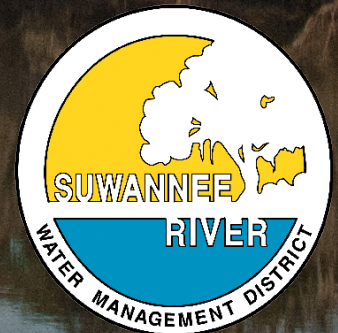
For More Information

For further information regarding this report, contact the Planning Section at 386.362.1001, or planning@srwmd.org. This report is also available on the District's website at: www.mysuwanneeriver.org.

ADA Statement

Americans with Disabilities Act: The District does not discriminate upon the basis of any individual's disability status. This nondiscrimination policy involves every aspect of the District's functions including one's access to, participation, employment, or treatment in its programs or activities. Anyone requiring reasonable accommodation as provided for in the Americans with Disabilities Act should contact the District at 386.362.1001 or 800.226.1066 (Florida only). The District's fax number is 386.362.1056.

2019-2023 STRATEGIC PLAN AND ANNUAL WORK PLAN REPORT



Water
for Nature

Water
for People

Strategic Plan

2019 - 2023

SUWANNEE RIVER

WATER MANAGEMENT DISTRICT

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Virginia Johns,
Chair

Governing Board Members

Virginia Johns,
Chair

Alphonas Alexander,
Vice-Chairman

Richard Schwab
Secretary/Treasurer

Kevin Brown

Gary Jones

Charles Keith

Donald Quincey, Jr.

Virginia Sanchez

Bradley Williams

Message from the Chair

North Florida is blessed with unique, abundant natural resources that not only enrich the landscape but are necessary to provide the special way of life we enjoy in the Suwannee Valley.

Uses such as agriculture, small business, recreation, tourism, drinking water, ecosystems, research, and construction all rely on a clean, plentiful water supply to meet our needs and the needs of future generations.

The challenge lies in accomplishing that effort while ensuring the sustainability of our finite water resources. The Suwannee River Water Management District (District) 2015 Water Supply Assessment analyzed the water supply needs of the Suwannee Valley region over the next 20 years. In that time period, the demand on our water resources is expected to increase by 71 million gallons of water per day.

To meet the increased demand while protecting our water resources requires innovative, strategic planning for projects that impact all water users. To support that effort, the Governing Board established the North Florida Water Resource Initiative to identify new funding sources for water supply projects. The initiative, championed in partnership with the Florida Department of Environmental Protection and St. Johns Water Management District, outlines projects for water conservation, improved efficiency, reuse, recharge, stormwater capture and water resource education. Most importantly, the initiative highlights the truth that we cannot solve our water supply challenges alone. A determined, collaborative and open-minded approach is needed to wisely usher the Suwannee Valley into the future.

As we continue to build on the foundation laid by water managers who have come before us, I am confident that District staff have the dedication, skill and expertise to tackle the challenges that will undoubtedly come our way. Our water resources are dynamic, complex and ever-changing, and our challenges reflect that same nature. However, I am confident that we will continue to conserve our resources while overcoming hurdles in our effort to steward the Springs Heartland.



Hugh Thomas,
Executive Director

Message from the Executive Director

Setting strategic vision and planning is a time for looking ahead and to reflect upon the past. Consideration of the successes and challenges must be understood to see the opportunities before us.

Over the last year, we have prioritized several major initiatives to improve the service of the District. Those initiatives included:

- Improving the District working environment for the public and staff by updating mobility-impaired access, enhancing air quality conditions, and other capital improvements.
- Standardizing and streamlining planning and project data through extensive database development and cross-reference documentation.
- Increased outreach and education through strategic communication with stakeholders and research to better understand the citizens of the Suwannee Valley.
- Continuing to support the needs of local communities and develop long-term, impactful projects through cooperative funding.
- Implementation of projects to save our water resources and improve water quality.

Each of these initiatives supports a larger District vision that unifies District program efforts and sets the path for service to our resources and the citizens of our area. These visionary ideas include:

INVEST IN OUR MOST VALUABLE ASSET - EMPLOYEES

CULTIVATE A CULTURE OF SERVICE

BALANCE THE NEEDS OF WATER FOR NATURE AND WATER FOR PEOPLE

IMPLEMENT LEGACY PROJECTS TO MEET WATER QUALITY AND WATER SUPPLY NEEDS

ESTABLISH THE DISTRICT AS THE EXPERTS IN WATER RESOURCE CONSERVATION AND MANAGEMENT

INNOVATE TO IMPROVE

As we continue to improve and protect the water resources of the Suwannee Valley, I look to these vision statements to guide our steps. Our legacy will be shaped by our service to our resources, our staff and our communities. May we serve them well.

Agency Overview

Vision

To be the leader in community-focused, sustainable water resource management in Florida.

Mission

To protect and manage water resources using science-based solutions to support natural systems and the needs of the public.

The District is a regional governmental agency responsible for protecting and managing water resources in north-central Florida. The District is one of five water management districts created by the Florida Legislature with the passage of the Water Resources Act in 1972. A governing board of nine members, each of whom live in the District, establishes District policies. Governing board members are unpaid volunteers appointed by the Governor and confirmed by the Florida Senate for four-year terms.

While the District is the smallest of the five water management districts in geographic area, population served, tax base, and agency staff, it holds many of the most unique and valuable natural resources in Florida. The District encompasses 7,640 square miles in north-central Florida. The District includes all of Columbia, Dixie, Gilchrist, Hamilton, Lafayette, Madison, Suwannee, Taylor, and Union counties, and parts of Alachua, Baker, Bradford, Jefferson, Levy, and Putnam counties. The District contains over 300 documented springs, including the highest concentration of freshwater springs in Florida, and the highest concentration of first magnitude springs in the United States. Major rivers in the District include the Suwannee, Santa Fe, Withlacoochee, Aucilla, Alapaha, Ichetucknee, Fenholloway, Steinhatchee, Econfina, Waccasassa, and the Wacissa.

The District is charged by the Legislature with the responsibilities of managing water supply, water quality, flood protection, and natural systems. To meet these responsibilities and its mission, the District has developed goals for the next five years and identified the strategies necessary to accomplish these goals. The District encompasses a unique area comprised of working and natural forests, farms, rivers, springs, and estuaries. Agriculture, silviculture, aquaculture, and springs-based tourism are major economic drivers in the region. Protecting water resources not only supports natural systems but also is necessary for future economic growth. For this reason, our strategic plan focuses on four core responsibilities and also on key environmental and economic connections.

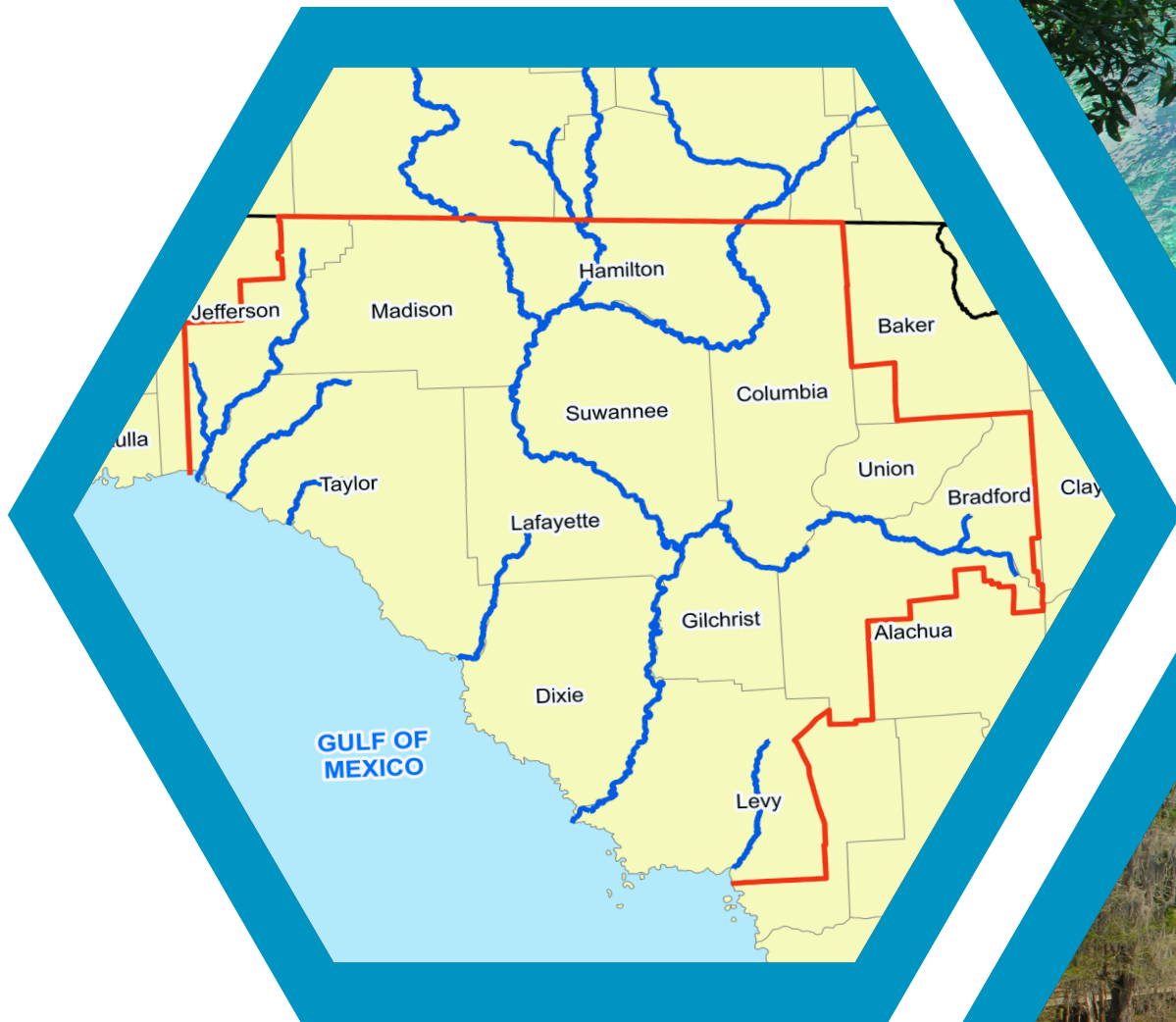
Funding

To carry out the mission and vision of this Strategic Plan, the District's budget is comprised of several funding sources. With the smallest tax base of the five water management districts, state legislative appropriations and state and federal grants are necessary to accomplish our goals and mission. Grants from state and federal agencies, including the Florida Department of Environmental Protection (FDEP), Florida Department of Agriculture and Consumer Services (FDACS), Florida Fish and Wildlife Conservation Commission (FWCC), the Florida Department of Transportation (FDOT), Federal Emergency Management Agency (FEMA), and the United States Army Corps of Engineers (USACE), support District programs and projects. Strong partnerships with local governments and stakeholders are also key to identifying funding opportunities. The District continues to work with its local, state, and federal partners to leverage the funding necessary to achieve the goals set out in this Strategic Plan.



Serving NORTH CENTRAL FLORIDA

Since 1972



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ENVIRONMENTAL AND ECONOMIC CONNECTIONS

The major economic drivers in the District are dependent on healthy, productive natural systems. Communities throughout the District recognize that protecting water resources which support natural systems is necessary for economic growth. Public feedback makes it clear that preserving these natural resource-based economies is a priority. Therefore, these environmental and economic connections serve as strategic priorities that will guide the implementation of the District's core responsibilities over the next five years.

PRESERVING OUR WORKING FORESTS TO PROTECT WATER SUPPLY AND WATER QUALITY

The District includes some of the most heavily forested areas in Florida. All four Big Bend counties - Jefferson, Taylor, Dixie, and Levy - have more than 60 percent forest cover; with Taylor County having nearly 90 percent forested. Silvicultural best management practices (BMPs) help protect water quality, supply, and natural systems. Forested lands serve as natural filters to surface water, benefiting receiving waters and downstream coastal estuaries. These lands provide important habitat, especially along the coast, allowing for adaptation to rising sea levels. Managed forested lands also help reduce evapotranspiration, increasing water yield to surface water bodies and the aquifer.

These forested lands are a critical part of the regional economy. In 2013, forestry and forest product manufacturing generated over \$2 billion in economic output for the region and directly supported over 12,000 jobs. Over 6,500 of those jobs are in Taylor County alone. It is important to note that these forest-related industries require a stable and sufficiently large source of timber in order to flourish and grow. Therefore, the District is committed to preserving sufficient managed forest lands in the region as population growth brings changes in land uses and increased development.

IMPROVING WATER QUALITY TO PROMOTE AQUACULTURE IN OUR COASTAL COMMUNITIES

The Big Bend coastal region of Florida is characterized by long stretches of undeveloped shoreline and extensive salt marshes punctuated by a few small coastal residential communities, including Cedar Key, Suwannee, Steinhatchee, Jena, Horseshoe Beach, and Keaton Beach. While these uniquely isolated communities have largely retained their rural character and maritime culture, they offer great potential for emerging aquaculture industries. The clam industry in Cedar Key supports over 550 jobs and represents roughly 80 percent of Florida's clam industry, which overall has a statewide impact of over \$50 million annually. Through projects ranging from wastewater infrastructure improvements and land acquisitions, to living shoreline and artificial reef projects, the District continues to improve water quality in the Big Bend coastal region benefiting the coastal industries.

PRESERVING OUR WILD AND SCENIC COASTAL RIVERS

The coastal rivers within the District are some of the most pristine natural and cultural resources in Florida. The Aucilla and Wacissa Rivers are both designated by the state as Outstanding Florida Waters, and with the majority of land along the rivers in public ownership, these rivers remain scenic and untouched. As true ecotourism destinations, coastal rivers are home to a vast array of wildlife and offer recreation opportunities for birding, canoeing, kayaking, and nature photography.

The coastal corridors are of historic and cultural importance as well. The Wacissa River, a tributary of the Aucilla, is where the historic slave canal is found. This canal was an attempt to join the two rivers to move cotton to the coast during antebellum times. Although the canal was not successful in transporting cotton, it now is a popular destination for experienced paddlers. The Aucilla River Basin contains archaeological treasures, including one of the only sites in the world for studying early human settlement in the Western Hemisphere. Located on the southern edge of Florida's Red Hills Region, the Page-Ladson archaeological dig has attracted exploration by scientists since the 1960s. Recent discoveries have confirmed this site to be the oldest known location of human life in the southeastern United States, with artifacts dating back over 14,500 years. Preserving these unique systems to protect their cultural significance continues to be a priority for the District.

INNOVATIVE AGRICULTURE PRACTICES FOR A SUSTAINABLE SUWANNEE

Agriculture is a major economic driver in the Suwannee River Basin and also an integral part of the heritage of the region. In 2013 alone, agriculture and related industries generated \$4.5 billion in economic output and supported over 20,000 jobs in the Suwannee River Basin. In addition, the 1,366,714 acres of agriculture in the region have created some of Florida's most productive green belts, yielding defined communities set within a rural landscape that continues to provide ecosystem services such as wildlife habitat, pollination, water storage and aquifer recharge. Maintaining these large open spaces is of added importance as the District contributes more than 30 percent of the state's total recharge to the Floridan aquifer system. Through the Suwannee River Partnership, the District works with state, federal, and regional agencies, local governments, stakeholder groups, and agricultural operations to reduce nutrient loading and conserve water use through implementation of best management practices. The District also works with agricultural producers through its cost-share program to assist producers in implementing projects that increase irrigation efficiency, water conservation, and improve nutrient management technology. Continuing research, and implementation of technologies and innovative agricultural practices is key to meeting the challenge of protecting water resources and sustaining the region's agricultural economy.

ENVIRONMENTAL AND ECONOMIC CONNECTIONS

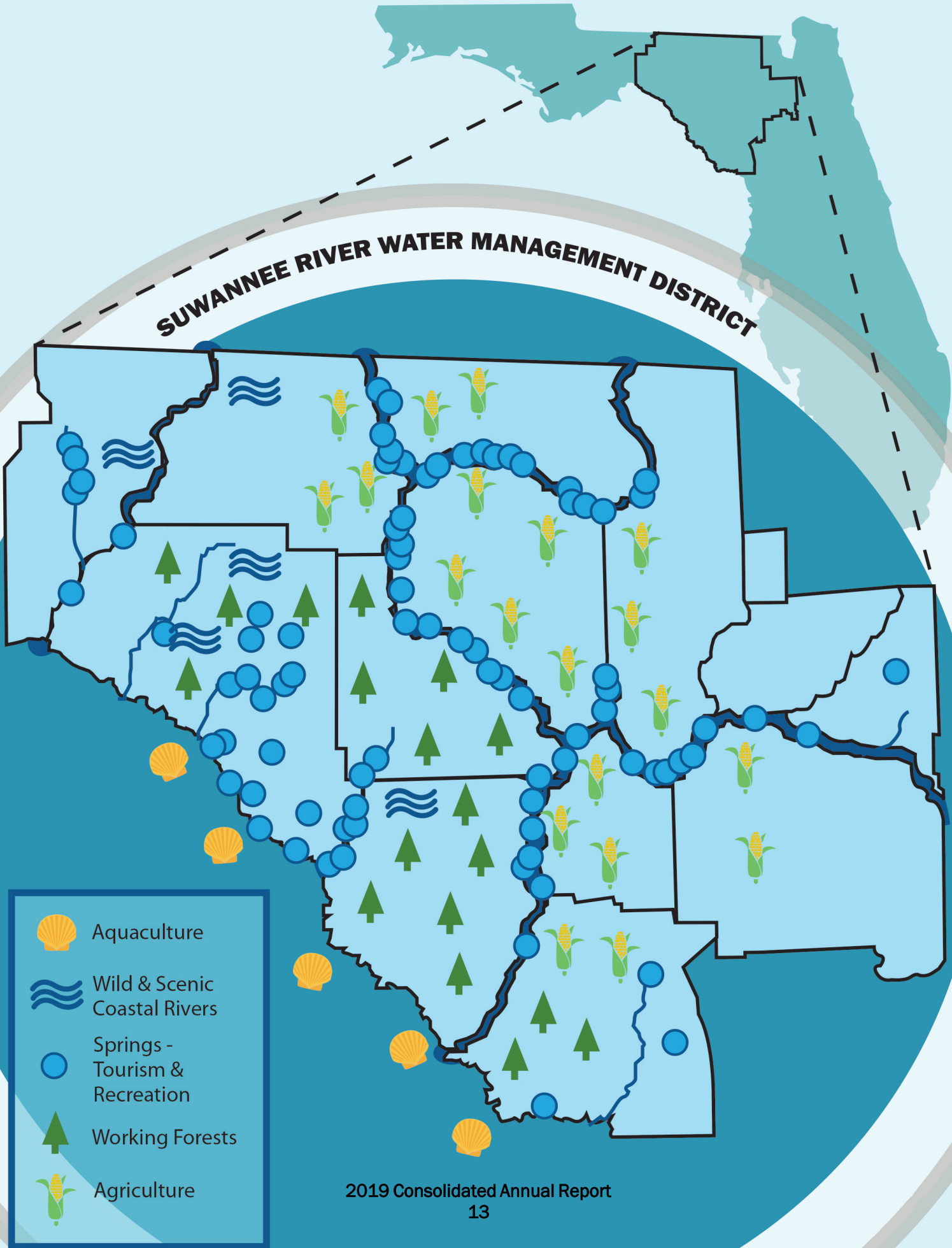
SPRINGS-BASED RECREATION AND TOURISM

The District is defined by world-renowned springs, including the highest concentration of springs in Florida and the highest concentration of first-magnitude springs in the United States. Springs provide habitat for wildlife and plant species, as well as natural, recreational, and economic value. Recreational use of springs supports ecotourism in the region providing opportunities for swimming, fishing, diving, kayaking and canoeing, and wildlife viewing. The estimated total economic benefits associated with recreational use (due to direct spending, supply chain activity and income re-spending) supported over 1,000 full and part-time jobs and generated \$94 million annually in economic output. Springs in the District are vulnerable to increased nutrient loading and declining flows. The long-term preservation of this international resource is a major priority for the District, and this objective has recently been underscored by the Legislature which designated 14 springs and springs groups within the District as Outstanding Florida Springs.

HYDROLOGIC RESTORATION AND AQUIFER RECHARGE

The Suwannee River Basin is unique in Florida with regard to the extent and degree of interaction between surface water and groundwater. In areas of the District where the Floridan aquifer system is unconfined, the aquifer is highly vulnerable to activities on the land surface. However, this also provides opportunity for more rapid recharge of groundwater from infiltration. Hydrologic restoration projects target historic floodplains, wetlands, and drainage patterns that had been altered to drain naturally wet areas prior to Florida's current environmental regulations. The District has a long-standing commitment to address issues through hydrologic restoration and continues to look for opportunities to restore natural hydrology, enhance and restore wetlands, improve both water quality and water supply, and provide flood protection and prevention.

ENVIRONMENTAL AND ECONOMIC CONNECTIONS MAP





FLOOD CONTROL & FLOOD PROTECTION

HARNESSING PEAK FLOWS OF WATER TO PROTECT OUR COMMUNITIES AND AUGMENT OUR AQUIFER

The District works with multiple cooperators including the FDOT, FDEM, local governments, and landowners to implement regional and local flood protection and flood control projects. Such projects assist local governments to manage, maintain, or expand stormwater infrastructure to better capture runoff, increase stormwater storage, and reduce peak discharge rates.

In addition to flood control projects, the District provides information to the public to reduce and mitigate flood risks. The District partners with FEMA to update floodplain maps to help the public make informed decisions that reduce risk to life and property. Further, the District is the primary source of current flooding information for other agencies and the public, including real-time river levels and rainfall amounts.

Through the Environmental Resource Permitting (ERP) Program, the District ensures that development does not result in flooding. Permit reviews are performed to prevent net loss of the 100-year floodplain and increases in flood levels. Permit evaluations also consider specific storm design conditions and any associated impacts to upstream and downstream properties.

GOAL ONE

REDUCE AND MITIGATE THE RISK OF FLOODING FOR DISTRICT COMMUNITIES



STRATEGIES

- In conjunction with local entities, identify areas through the FEMA discovery process as under significant risk of flooding and offer cost-share on flood abatement projects through the District's Regional Initiative Valuing Environmental Resources (RIVER) program, as funding is available.
- Partner with local governments, the state, and private industry to design multipurpose projects that reduce flooding, while increasing natural or augmented recharge to the aquifer, including identifying existing drainage wells within the Northern Highlands physiographic region for rehabilitation or replacement.
- Continue to assist in mitigating flood impacts by purchasing floodplain properties, when fiscally appropriate, and with a focus on simultaneously achieving additional core missions.
- To better maximize and quantify the benefits of restoration projects, establish a unified, comprehensive plan for monitoring, operating, and maintaining hydrologic restoration projects throughout Bradford, Lafayette and Dixie counties, as well as request an updated FEMA model of flooding in the that area.
- Address persistent and large-scale flooding issues in Bradford County by partnering with FEMA to revise flood plain maps for Bradford County and assist the USACE in developing a comprehensive flood management project list for the Santa Fe Basin area of Bradford County. In addition, partner with SJRWMD, Chemours Company, Bradford County and others to complete the design of, identify funding opportunities for, and begin construction of a regional surface water management system in eastern Bradford County.

GOAL TWO

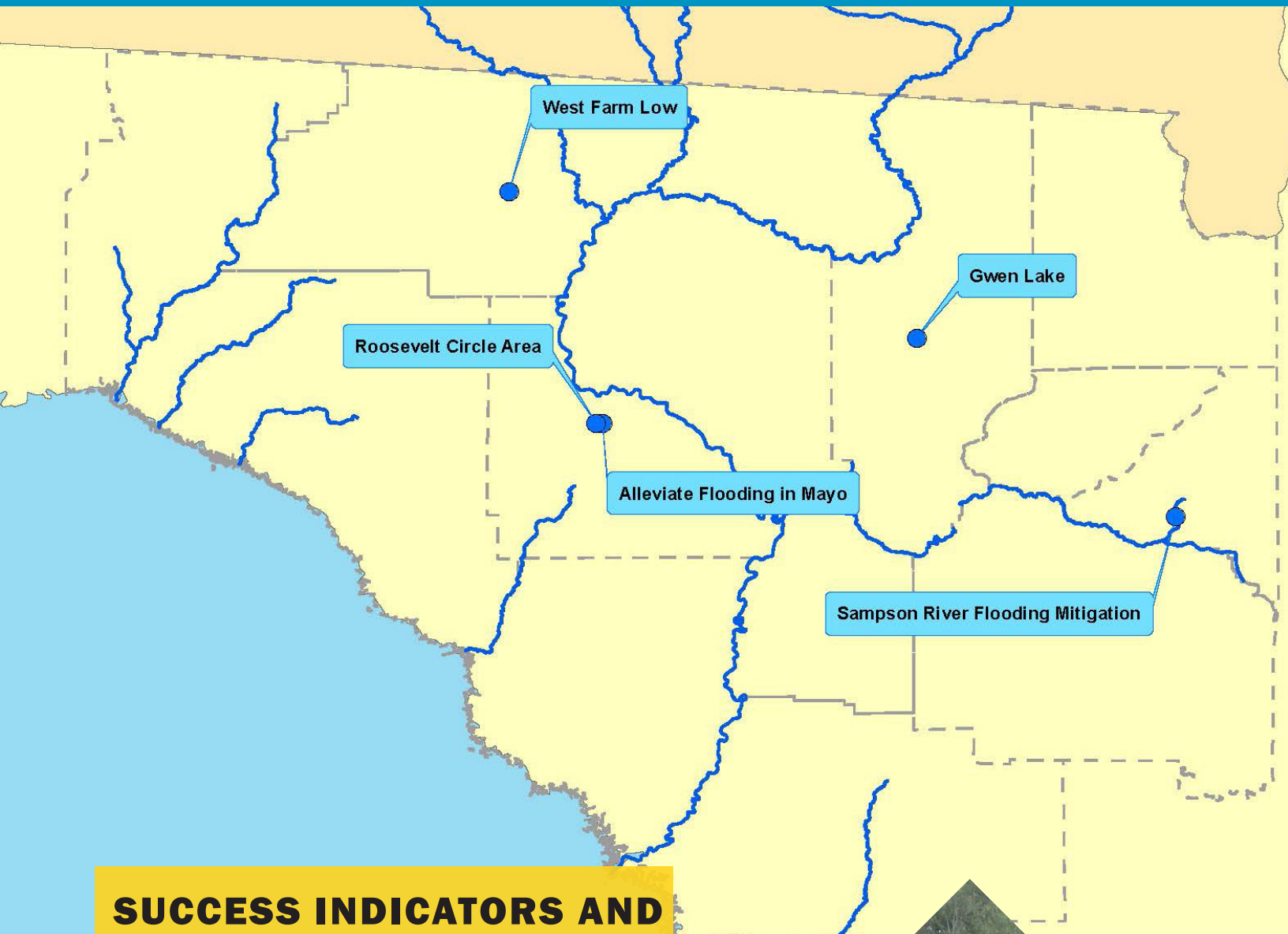
PROTECT LIFE AND PROPERTY FROM FLOODING THROUGH PUBLIC EDUCATION AND RESEARCH

STRATEGIES

- Improve public knowledge of and compliance with District regulations protecting natural surface water functions through web and social media outreach and providing template erosion control methods.
- Improve regional knowledge of the purpose of surface water and flood control regulations by providing training to consultants and realtors on an annual basis and hosting a regional seminar on a bi-annual basis.
- Assist local governments in better predicting changes in storm surge, due to changes in land use and sea level, by partnering with FEMA and research institutes to gather updated information about the District's coastal surface hydrology.
- Strengthen existing relationships with the Southeast River Forecast Center, National Weather Service, and United States Geological Survey to improve existing flood forecast and warning monitoring network and develop interactive riverine inundation mapping.



FLOOD CONTROL AND FLOOD PROTECTION PROJECT MAP



SUCCESS INDICATORS AND MILESTONES FOR FLOOD CONTROL

The District will measure progress towards the completion of individual tasks contained within the aforementioned goals and strategies by tracking the completion of the planning, funding, construction, or implementation phases of the tasks. In addition, success will be measured by the percentage of riverine floodplain under protection through the Environmental Resource regulatory program or through conservation; whether the District's cost-share programs have funded at least one flood control project each year; funding opportunities identified for specific flooding hotspots; the acres of hydrologic restoration implemented and maintained, as well as the associated recharge benefits; and the number of compliance cases addressed and trainings provided.





NATURAL SYSTEMS

MAINTAINING THE ECOSYSTEM SERVICES PROVIDED BY THE NATURAL RESOURCES OF THE DISTRICT

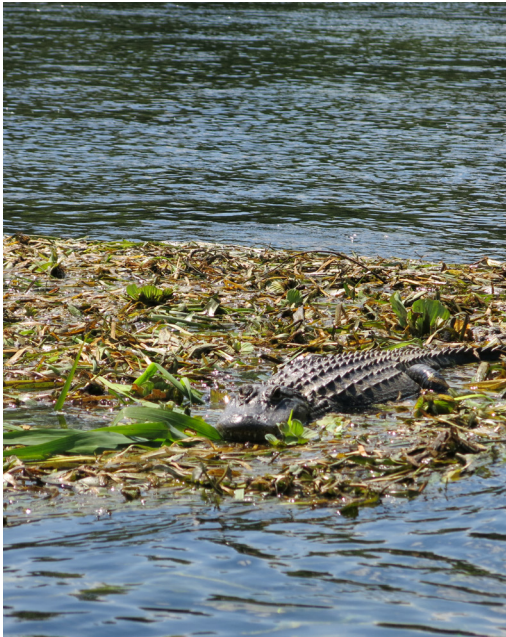
District projects, regulations, and land acquisition and management activities protect and restore the overall health of the ecological system. As discussed above, hydrologic restoration projects in the district re-establish and improve natural systems such as wetlands, floodplains, native ecological communities, and aquifer recharge areas, which provide valuable water resource functions, including water quality treatment, water supply, flood water conveyance and attenuation, fish and wildlife habitat, and recreation.

Through land acquisition and conservation easements, the District protects wetlands, floodplains, lakes, rivers, estuaries and related resources. Land management strategies include prescribed fire to restore and enhance habitat and natural communities; and, where appropriate, the promotion of sustainable forestry activities. Environmental Resource Permit evaluations consider avoidance and minimization of impacts to wetlands and other natural systems. Additionally, the permit review process addresses erosion and sedimentation control measures and BMPs, thereby protecting wetlands, Outstanding Florida Waters, and improving water quality to receiving water bodies.

The District establishes Minimum Flows and Minimum Water Levels (MFLs) for priority rivers, springs, and lakes to ensure there is an adequate supply of water to support natural systems. MFLs are established to prevent significant harm to the water resources and ecology of an area resulting from water withdrawals permitted by the District.

GOAL ONE

ESTABLISH MINIMUM FLOWS AND MINIMUM WATER LEVELS AND IMPROVE WATER QUALITY OF PRIORITY SPRINGS AND WATER BODIES



STRATEGIES

- Establish MFLs for all Outstanding Florida Springs and priority water bodies and reassess adopted MFLs on the established schedule to protect the District's unique and irreplaceable resources.
- Expeditiously implement conservation and water resource development projects to recover and support spring flows and water quality standards for Outstanding Florida Springs and additional springs designated as priority water bodies as identified in the Lower Santa Fe/Lower Ichetucknee Recovery Strategy. Specifically, develop and implement 20 million gallons per day (MGD) of conservation and water resource development projects, within the existing water resource caution area, to benefit the Ichetucknee and Lower Santa Fe Rivers over the next five years, as funding is available.
- Partner with the FDEP and the FDACS, as well as other local, state, regional, and federal partners to implement water quality and water supply projects for the restoration of priority water bodies.
- Leverage District cost-share funding to assist with meeting water quality goals.
- Identify short and long-term monitoring needs, and implement data collection, to ensure MFL rules, Water Supply Plans, and Water Use Permit decisions and re-evaluations meet sustainable water quantity goals for people and nature.

GOAL TWO

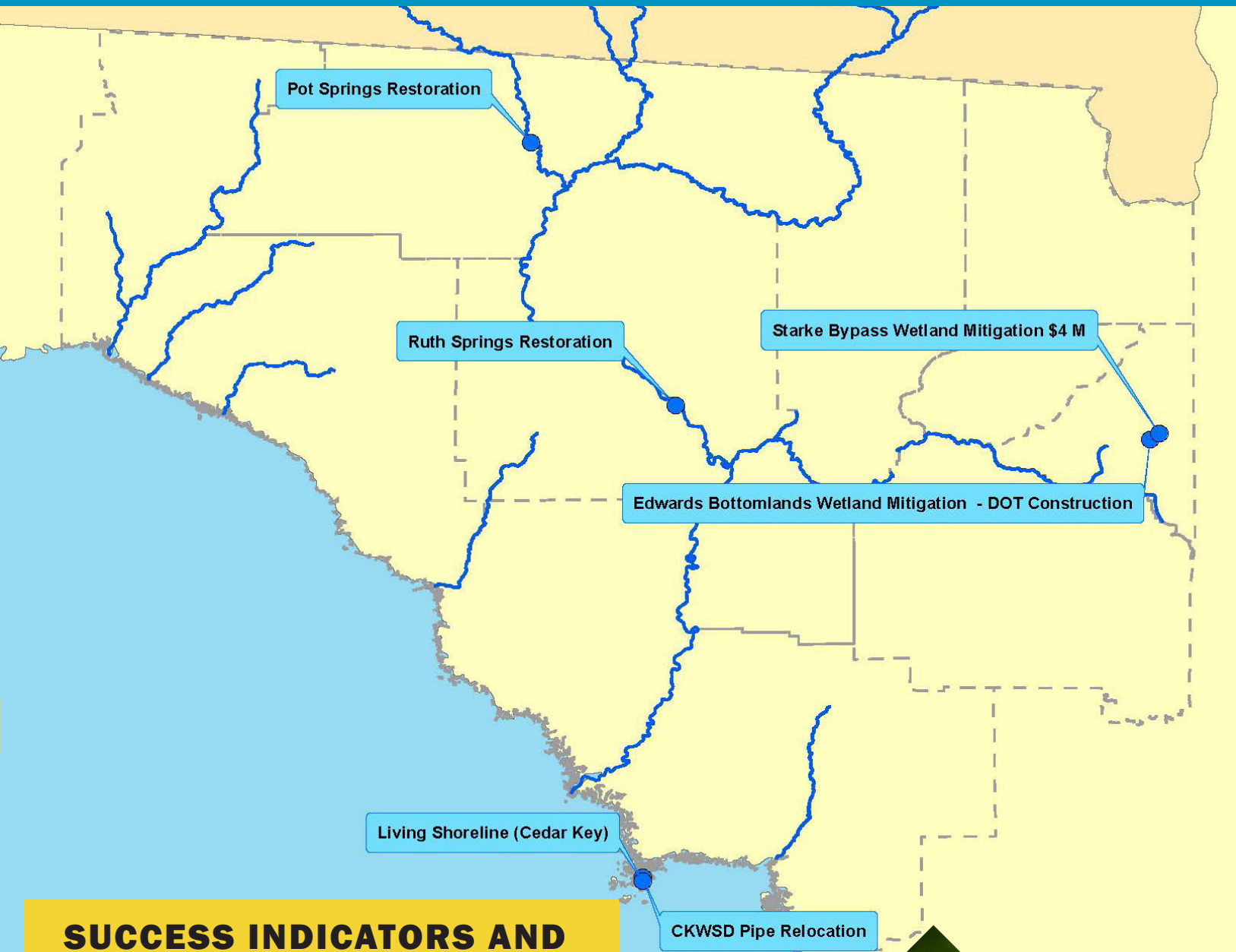
ACQUIRE AND MANAGE DISTRICT LANDS TO PRESERVE AND PROTECT EXCEPTIONAL WATER RESOURCE VALUES AND RELATED NATURAL SYSTEMS

STRATEGIES

- Manage District lands to achieve the highest natural resource value possible, leading the region in quality of public lands, while still generating sustainable revenue streams from the properties.
- Maximize the water resource values of District-owned property by identifying opportunities to restore hydrologic function on current properties; and by analyzing the ability of all future acquisitions to contribute to the District's missions to protect and enhance the area's water quantity and quality, aquifer recharge, and flood protection.
- Surplus District lands that are not needed for flood protection, conservation, or water resource development projects, investing revenue back into the District's natural systems programs.
- Identify and foster partnerships to assist in acquiring and managing lands that preserve and restore Outstanding Florida Springs, priority water bodies, natural systems, and provide flood protection.
- Develop land conservation programs that assist in preserving the unique connections between the area's economy and natural resources, while achieving the District's core missions.



NATURAL SYSTEMS PROJECT MAP



SUCCESS INDICATORS AND MILESTONES FOR NATURAL

The District will measure progress towards the completion of individual tasks contained within the aforementioned goals and strategies by tracking the completion of the planning, funding, construction, or implementation phases of the tasks. In addition, success will be measured by the completion of MFLs for all remaining priority water bodies per the District schedule; the time it takes to re-evaluate MFLs per the District schedule; and the quantity of water (MGD) achieved from conservation and water resource development projects under contract with the District. The success of the District's land acquisition and management goals and strategies will be determined by the number of acres acquired and disposed of; the number of acres acquired by the District that enhance aquifer recharge or flood protection; the number of acres of restored hydrology; and the number of acres of prescribed fire and invasive plant treatment.



WATER QUALITY

PRESERVING AND RESTORING THE FOUNDATION OF NORTH FLORIDA'S ECONOMY

Water quality refers to the chemical, physical, and biological characteristics of water. Data shows persistent elevated nutrient levels, primarily nitrate, in rivers and springs throughout the District. Nitrate, in some instances, is the limiting nutrient that can cause imbalances in the ecosystem and impact the health of springs, rivers, and estuaries. Increased nutrient loads not only adversely impact the ecological health of rivers and springs but also the health of Gulf estuaries downstream.

The FDEP has established a Total Maximum Daily Load (TMDL) for the Lower and Middle Suwannee and Santa Fe Rivers of 0.35mg/L of nitrate as nitrogen (N). To meet this target, nitrate loads from non-point pollution sources need to be reduced anywhere from 30-90 percent on the Suwannee River and associated springs, and 35 percent on the Santa Fe River. Numeric Nutrient Criteria has been set for water quality standards on springs. To assist the FDEP in achieving these targets, the District partners with state agencies, local governments, land owners, and other stakeholders to implement projects to reduce nutrient loading, including implementing agricultural BMPs, stormwater treatment, and erosion control and bank restoration. The District actively monitors nitrate concentrations throughout the District in both groundwater and surface water.

GOAL ONE

REDUCE NITRATE LEVELS IN REGIONAL FLORIDA SPRINGS TO ASSIST IN COMPLIANCE WITH THE STATE'S NUMERIC NUTRIENT CRITERIA STANDARD



STRATEGIES

- Implement pilot projects in key springsheds that reduce nitrate levels beyond those achieved by full implementation of BMPs for non-point sources of pollution.
- Encourage the development of new technologies that can achieve significant reduction in nutrients on any scale.
- Establish programs to coordinate all areas of the District's work, and its partners' efforts, to leverage water quality improvements that protect key natural resources, such as Outstanding Florida Springs.
- Establish an education and outreach program to educate the public on non-point source pollutants.



GOAL TWO

IMPROVE AND PROTECT WATER QUALITY OF THE DISTRICT'S PRIORITY WATER BODIES, ASSISTING IN IMPROVING THE REGION'S ECONOMY

STRATEGIES

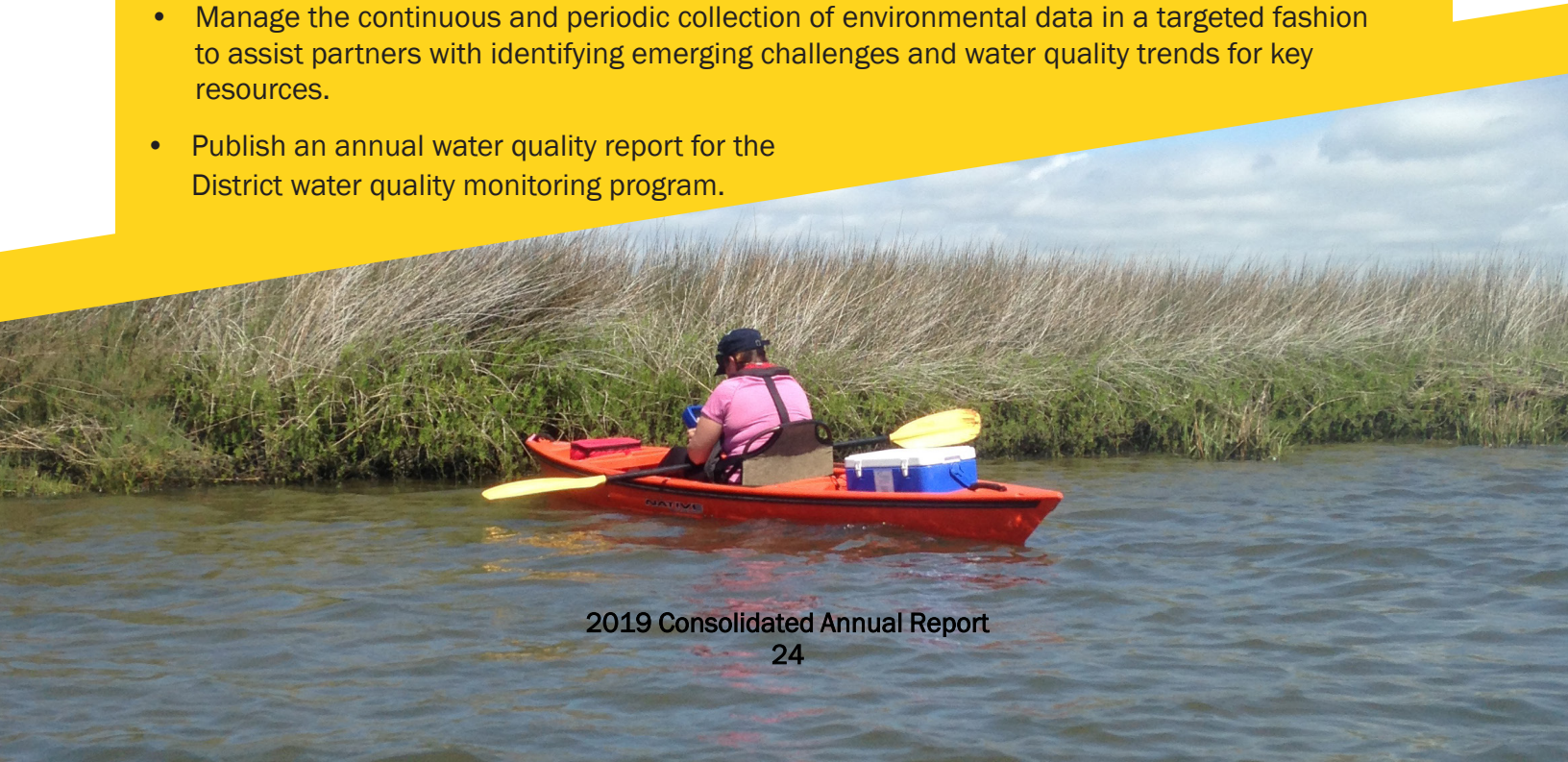
- Assist the FDEP in implementing existing and new Basin Management Action Plans (BMAPs) by coordinating cost-share programs to provide for the timely adoption of BMPs, including precision agriculture.
- Identify and address areas where water quality is limiting economic growth and develop plans to address those impacts.

GOAL THREE

ASSIST IN IDENTIFYING AND ANALYZING TRENDS IN WATER QUALITY FOR SURFACE WATER BODIES THROUGHOUT THE DISTRICT

STRATEGIES

- Complete revised Surface Water Improvement and Management (SWIM) plans to assess and guide project development for all water bodies within the District and update the SWIM plans five years after they are complete.
- Manage the continuous and periodic collection of environmental data in a targeted fashion to assist partners with identifying emerging challenges and water quality trends for key resources.
- Publish an annual water quality report for the District water quality monitoring program.



WATER QUALITY PROJECT MAP



SUCCESS INDICATORS AND MILESTONES FOR WATER QUALITY

The District will measure progress towards the completion of individual tasks contained within the aforementioned goals and strategies by tracking the completion of the planning, funding, construction, or implementation phases of the tasks. In addition, success will be measured by the percentage of Outstanding Florida Springs that meet the state numeric nutrient criteria; the percentage of enrollment for the FDACS BMPs program; and the pounds of nitrate reduced by projects receiving District cost-share.



WATER SUPPLY

ENSURING A SUSTAINABLE SUPPLY OF WATER FOR PEOPLE AND THE ENVIRONMENT

The District is responsible for managing water resources to ensure there is an adequate supply to satisfy all existing and projected reasonable and beneficial uses while sustaining water resources and protecting natural systems. In the District, over 90 percent of the water supply demands are met with fresh groundwater, virtually all from the Upper Floridan aquifer system. This region's ability to continue to grow and develop is therefore dependent on sustainably managing a growing demand for groundwater. Coordinated water-use permitting, water resource planning, and water resource development projects are key to protecting and managing fresh groundwater supply.

Resource planning efforts include water supply assessments and regional water supply planning. Every five years, the District evaluates current and future water supply needs and available water supplies within the District. Water supply assessments help determine whether water supplies will be adequate to satisfy projected demands. Recognizing that water supplies are constrained by demands both within and outside of District boundaries, the District, along with the FDEP and SJRWMD, formed the North Florida Regional Water Supply Partnership (Partnership). The Partnership developed a joint regional water supply plan, the North Florida Regional Water Supply Plan, which established fresh groundwater alone cannot supply the projected increase in demand over the 20-year planning horizon.

The regulation and monitoring of water use within the District is a critical part of managing the resource. Water Use Permits protect water resources, ensuring proposed uses are reasonable and beneficial, within the public interest, and do not adversely impact existing legal uses. To ensure proposed uses are reasonable and beneficial, the permit application review includes, among other things, an analysis to prevent environmental harm and ensure consistency with established MFLs and reference criterion where MFLs have not yet been established.

GOAL ONE

IMPLEMENT REGIONAL WATER SUPPLY PLANNING AND COMPLIMENTARY REGULATORY PRACTICES

STRATEGIES

- Update the Joint Regional Water Supply Plan with the SJRWMD no later than 2022.
- Coordinate with FDEP to ensure that regulatory efforts between water management districts adequately reflect cross-boundary challenges identified within water supply planning efforts.
- Ensure the District's five-year Water Supply Assessments are collaboratively driven and clearly communicate resource constraints as well as opportunities for water resource development.

GOAL TWO

WORK WITH ALL STAKEHOLDERS TO INCREASE WATER CONSERVATION EFFORTS ACROSS THE DISTRICT

STRATEGIES

- Lead the state in the implementation of agricultural water conservation through targeted cost-share and education efforts.
- Assist communities in increasing the beneficial reuse of water, achieving the beneficial reuse of 50 percent of wastewater within the District in five years, tripling reuse within the District.
- Educate the public about the importance of water conservation by assisting in developing a conservation ethic that communicates their stake in the sustainability of the region's water resources.



GOAL THREE

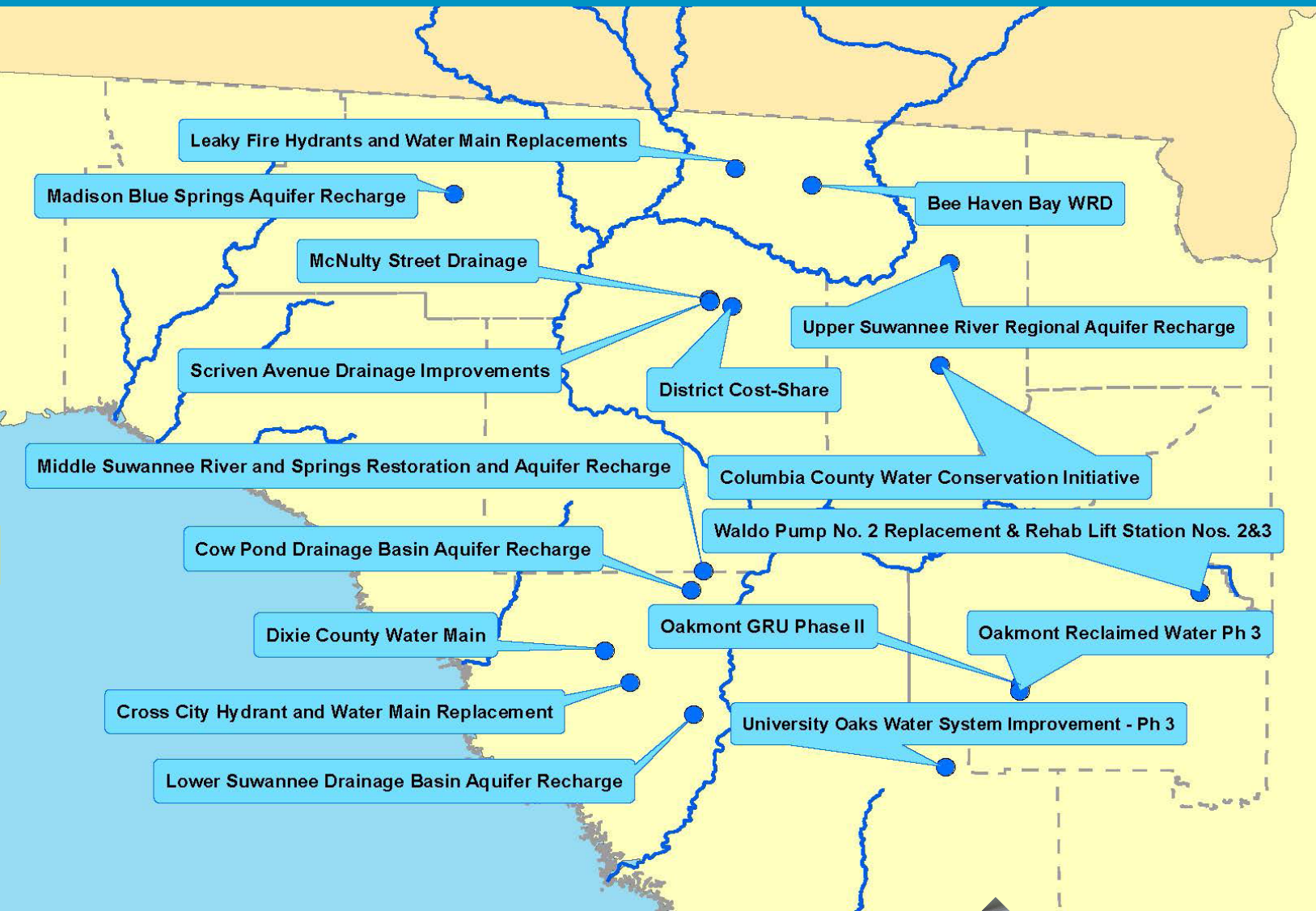
ENVIRONMENTAL DATA COLLECTION AND DISSEMINATION

STRATEGIES

- Monitor 100 percent of eligible agricultural Water Use Permits within six months, and monitor all agricultural use of water from eight-inch or greater diameter wells within five years.
- Complete the establishment of a comprehensive groundwater monitoring network to support the water supply planning efforts of the District within two years.
- Publish water flow information, including annual trends, on all Outstanding Florida Springs in an easy-to-digest online format.



WATER SUPPLY PROJECT MAP



SUCCESS INDICATORS AND MILESTONES FOR WATER SUPPLY

The District will measure progress towards the completion of individual tasks contained within the aforementioned goals and strategies by tracking the completion of the planning, funding, construction, or implementation phases of the tasks. In addition, success will be measured by the amount of estimated water supply demand that can be met with projects identified in District water supply plans; the year-to-year percentage of impact groundwater use within the District is having on the Floridan aquifer system; and the percentage of agricultural groundwater use that is being monitored through automated or manual reporting.

MISSION SUPPORT



CREATING A CULTURE OF EXCELLENCE, EFFICIENCY, AND PASSION FOR THE REGION'S RESOURCES

Investing in and empowering District employees is critical to achieving the goals set out in this strategic plan. As the smallest water management district, District employees often wear multiple hats and one employee performs the job functions of two or three employees. Engaging employees, providing development opportunities, and leadership support will ensure staff has the tools and guidance to achieve District goals. Operational efficiency is also an important focus so employees and District operations can be as effective as possible.

GOAL ONE – MAINTAIN AND INCREASE THE LEVEL OF SKILL AND EXPERTISE AMONG DISTRICT STAFF AND LEADERSHIP

Strategy:

- Ensure District staff remain subject-matter experts in their fields and have the ability to become nationally recognized for their area of work by creating a leadership development program and professional development opportunities. In addition, leverage and reinforce the current expertise of staff by creating opportunities for cross training of employees between program areas and identify and celebrate employee inter-personal and professional achievements.



GOAL TWO – MAINTAIN A BALANCED DISTRICT BUDGET FOR EXISTING AND FUTURE NEEDS

Strategy:

- Continue to develop budgets that focus on the protection of groundwater supply through water conservation and water resource development projects, while containing less than a five percent administrative overhead. In addition, identify priority recurring needs that are not currently being funded with recurring revenue and develop a plan to sustain those needs.

GOAL THREE - ENSURE THE SAFETY OF DISTRICT EMPLOYEES, PROPERTIES AND FACILITIES THROUGH REPAIRS AND PREVENTATIVE MAINTENANCE

Strategy:

- Improve the safety of employees by developing a preventative maintenance program for District facilities and properties as well as conduct workplace safety assessments of occupied facilities.



GOAL FIVE – STRENGTHEN STAKEHOLDER RELATIONSHIPS AND DISTRICT PARTNERSHIPS

Strategies:

- Continue to reinvigorate the Suwannee River Partnership and establish new advisory committees within the partnership to allow a forum for productive dialogue among all District partners, including environmental non-profits, agricultural producers, local governments, and research organizations.
- Create a unified grant application and cost-share assistance program within the District to simplify the project development and funding application process for local governments.
- Develop an organized and recurring set of tours and educational events to share technical information developed by the District and its partners.

GOAL FOUR – REDUCE RISKS IN MANAGEMENT OF DATA AND MAINTAIN INSTITUTIONAL KNOWLEDGE

Strategies:

- Improve the utilization and management of data by implementing a District-wide electronic document and project management system, as well as implement corresponding policies and procedures to institutionalize and augment the use of the system.
- Improve the retention of institutional staff knowledge by developing a new employee orientation training and mentoring program that disseminates the knowledge base of senior employees.



SUCCESS INDICATORS AND MILESTONES FOR MISSION SUPPORT:

The District will measure progress towards the completion of individual tasks contained within the above goals and strategies by tracking the completion of the planning, funding, construction, or implementation phases of the tasks. In addition, success will be measured by the number of professional certifications, graduate degrees, and leaderships positions within professional organizations held by its staff; the District's administrative overhead; the percentage of the District's budget utilized for projects that benefit water quality and water quantity; the percentage of the District's budget that is recurring but not funded with recurring revenues; the percentage of facility repairs identified in the last 10-year facility inspection report that have been addressed; and the number of educational tours and Suwannee River Partnership meetings held in the last year.

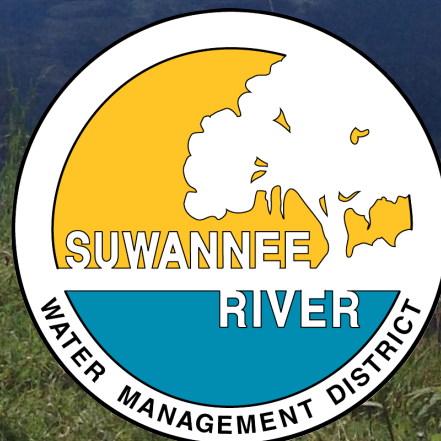


**Suwannee River Water
Management District**

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Introduction

The Suwannee River Water Management District (District), in accordance with section 373.036(2)(e)(4), Florida Statutes (F.S.), submits an annual strategic plan and annual work plan report in lieu of the District Water Management Plan. The annual work plan report describes implementation of the strategic plan for the previous fiscal year.

The strategic priorities and goals set by the strategic plan evaluated in this report, covering fiscal year 2017-2018 (FY 2018), are provided below. This report will describe District efforts over the past fiscal year to achieve these goals.

Flood Protection

- Reduce and mitigate the risk of flooding for District communities
- Protect life and property from flooding through public education and research

Natural Systems

- Establish minimum flows and minimum levels and improve water quality of priority springs and water bodies
- Acquire and manage District lands to preserve and protect exceptional water resource values and related natural systems

Water Quality

- Reduce nitrate levels in Outstanding Florida Springs to assist in compliance with the state's numeric nutrient criteria
- Improve and protect water quality of the District's priority water bodies, assisting in improving the region's economy
- Assist in identifying and analyzing trends in water quality for surface water bodies throughout the District

Water Supply

- Implement multi-district water supply planning and complimentary regulatory practices
- Work with all partners to increase water conservation efforts across the District
- Environmental data collection and dissemination

Mission Support

- Maintain and increase the level of skill and expertise among District staff and leadership
- Maintain a balanced District budget for existing and future needs
- Ensure the safety of District employees, properties and facilities through repairs and preventative maintenance
- Reduce risks in management of data and maintain institutional knowledge
- Strengthen stakeholder relationships and District partnerships

Flood Protection

Harnessing Peak Flows Of Water To Protect Our Communities And Augment Our Aquifer

The District works with multiple cooperators including the Florida Department of Transportation (FDOT), Florida Division of Emergency Management (FDEM), local governments, and landowners to implement regional and local flood protection and flood control projects. Such projects assist local governments to manage, maintain, or expand stormwater infrastructure to better capture runoff, increase stormwater storage, and reduce peak discharge rates.

In addition to flood control projects, the District provides information to the public to reduce and mitigate flood risks. The District partners with Federal Emergency Management Agency (FEMA) to update floodplain maps to help the public make informed decisions that reduce risk to life and property. Further, the District is the primary source of current flooding information for other agencies and the public, including real-time river levels and rainfall amounts.

Through the Environmental Resource Permitting (ERP) Program, the District ensures that development does not result in flooding. Permit reviews are performed to prevent net loss of the 100-year floodplain and increases in flood levels. Permit evaluations also consider specific storm design conditions and any associated impacts to upstream and downstream properties.

Goal One

Reduce And Mitigate The Risk Of Flooding For District Communities

Strategies

1. In conjunction with local entities, identify areas through the FEMA discovery process as under significant risk of flooding and offer cost-share on flood abatement projects through the District's Regional Initiative Valuing Environmental Resources (RIVER) program, as funding is available.
2. Partner with local governments and the state to design multipurpose projects that reduce flooding, while increasing natural or augmented recharge to the aquifer, including identifying existing drainage wells within the Northern Highlands physiographic region for rehabilitation or replacement.
3. Continue to assist in mitigating flood impacts by purchasing floodplain properties, when fiscally appropriate, and with a focus on simultaneously achieving additional core missions.
4. To better maximize and quantify the benefits of restoration projects, establish a unified, comprehensive plan for monitoring, operating, and maintaining hydrologic restoration projects throughout Lafayette and Dixie counties, as well as request an updated FEMA model of flooding in the that area.

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5. Address persistent and large-scale flooding issues in Bradford County by partnering with FEMA to revise flood plain maps for Bradford County and assist the United States Army Corps of Engineers (USACE) in developing a comprehensive flood management project list for the Santa Fe Basin area of Bradford County. In addition, partner with St. John River Water Management District (SJRWMD), Chemours Company, Bradford County and others to complete the design of, identify funding opportunities for, and begin construction of a regional surface water management system in eastern Bradford County.

Goal Two

Protect Life And Property From Flooding Through Public Education And Research

Strategies

1. Improve permittees' knowledge of and compliance with District regulations protecting natural surface water functions by designating a specific employee to serve as the Compliance Assistance and Enforcement Officer.
2. Improve regional knowledge of the purpose of surface water and flood control regulations by providing training to consultants on an annual basis and hosting a regional seminar on a bi-annual basis.
3. Continue education efforts to inform the public of the District's adoption of the North American Vertical Datum of 1988 to ensure the public can properly utilize the District's river level and flooding information.
4. Assist local governments in better predicting changes in storm surge, due to changes in land use and sea level, by partnering with FEMA and research institutes to gather updated information about the District's coastal surface hydrology.
5. Strengthen existing relationships with the Southeast River Forecast Center, National Weather Service, and United States Geological Survey to improve existing flood forecast and warning monitoring network and develop interactive riverine inundation mapping.

Success Indicators And Milestones For Flood Control

The District will measure progress towards the completion of individual tasks contained within the aforementioned goals and strategies by tracking the completion of the planning, funding, construction, or implementation phases of the tasks. In addition, success will be measured by the percentage of riverine floodplain under protection; whether the District's cost-share programs have funded at least one flood control project each year; funding opportunities identified for the Bradford County surface water management projects; the acres of hydrologic restoration implemented and maintained, as well as the associated recharge benefits; and the number of compliance cases addressed, and trainings provided.

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- There are 2.1 million acres within the 100-year floodplain in the District. The District currently has 10% (219,615 acres) of the total acreage under ownership or conservation easement.
- As of December 2018, 292.2 riverine miles contain a minimum flow and minimum water level (MFL). Tributaries of major rivers not mentioned in the rule were not included in the total mileage.
- The District has initiated agreements with two local entities for flood abatement projects in Bradford and Suwannee counties.
- The District worked with Bradford County and City of Starke officials to identify projects throughout the county that would reduce natural resource and property loss due to flooding. Additionally, in 2018 the county received United States Department of Agriculture (USDA) and District funding to remove hurricane debris from Alligator Creek, Sampson River, and their tributaries to mitigate flooding.
- The District continues use of its Current River and Lake Levels webpage to maintain flood warning awareness. This page was operated and updated throughout the ongoing 2018/2019 El Niño event and is one of the most visited locations on the District webpage.
- The District has increased its utilization of social media to communicate water level and flood-related information on a routine basis, as well as in times of high-water incidences.
- In cooperation with National Weather Service, the District implemented three new forecast points on the Upper Santa Fe River, improving flood forecasting and warning gaps that were identified during Hurricane Irma.
- 261 ERPs were issued in 2018, 167 of which were within the 100-year floodplain.
- New FEMA flood risk maps were completed for Gilchrist, Madison, Suwannee, Levy, and Lafayette counties.
- The District completed flood protection improvements for 5,554 acres in Alachua, Dixie, and Jefferson counties.

Natural Systems

Maintaining The Ecosystem Services Provided By The Natural Resources Of The District

District projects, regulations, and land acquisition and management activities protect and restore the overall health of the ecological system. As discussed above, hydrologic restoration projects in the district re-establish and improve natural systems such as wetlands, floodplains, native ecological communities, and aquifer recharge areas, which provide valuable water resource functions including water quality treatment, water supply, flood water conveyance and attenuation, fish and wildlife habitat, and recreation.

Through land acquisition, the District protects wetlands, floodplains, lakes, rivers, estuaries and related resources. Land management strategies include prescribed fire to restore and enhance habitat and natural communities and, where appropriate, the promotion of sustainable forestry activities. ERP evaluations consider avoidance and minimization of impacts to wetlands and other natural systems. Additionally, permit review addresses erosion and sedimentation control measures and basin management actions plans (BMAPs), thereby protecting wetlands, Outstanding Florida Waters, and improving water quality to receiving water bodies.

The District establishes Minimum Flows and Minimum Water Levels (MFLs) for priority rivers, springs, and lakes to ensure there is an adequate supply of water to support natural systems. MFLs are established to prevent significant harm to the water resources and ecology of an area resulting from water withdrawals permitted by the District. MFLs define how much water body levels and/or flows may change and still prevent significant harm.

Goal One

Establish Minimum Flows And Minimum Water Levels And Improve Water Quality Of Priority Springs And Water Bodies

Strategies

1. Establish MFLs for all Outstanding Florida Springs and priority water bodies and reassess adopted MFLs on a timely basis to protect the District's unique and irreplaceable resources.
2. Expeditiously implement conservation and water resource development projects to recover and support spring flows and water quality standards for Outstanding Florida Springs and additional springs designated as priority water bodies. Specifically, develop and implement 20 million gallons per day (MGD) of conservation and water resource development projects, within the existing water resource caution area, to benefit the Ichetucknee and Lower Santa Fe Rivers over the next five years, as funding is available.
3. Partner with the Florida Department of Environmental Protection (FDEP) and the Florida

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Department of Agriculture and Consumer Services (FDACS), as well as other local, state, and federal partners to implement water quality projects for the restoration of priority water bodies.

4. Leverage District cost-share funding to assist with meeting water quality goals.
5. Identify short and long-term monitoring needs, and implement data collection, to ensure MFL rules, Water Supply Plans, and Water Use Permit decisions and re-evaluations meet sustainable water quantity goals for people and nature.

Goal Two

Acquire And Manage District Lands To Preserve And Protect Exceptional Water Resource Values And Related Natural Systems

Strategies

1. Manage District lands to achieve the highest natural resource value possible, leading the region in quality of public lands, while still generating sustainable revenue streams from the properties.
2. Maximize the water resource values of District-owned property by identifying opportunities to restore hydrologic function on current properties; and by analyzing the ability of all future acquisitions to contribute to the District's missions to protect and enhance the area's water quantity and quality, aquifer recharge, and flood protection.
3. Surplus District lands that are not needed for conservation or water resource development projects, investing revenue back into the District's natural systems programs.
4. Identify and foster partnerships to assist in acquiring and managing lands that preserve and restore Outstanding Florida Springs, priority water bodies, natural systems, and provide flood protection.
5. Develop land conservation programs that assist in preserving the unique connections between the area's economy and natural resources, while achieving the District's core missions.

Success Indicators And Milestones For Natural Systems

The District will measure progress towards the completion of individual tasks contained within the aforementioned goals and strategies by tracking the completion of the planning, funding, construction, or implementation phases of the tasks. In addition, success will be measured by the completion of MFLs for all remaining priority water bodies per the District schedule; and the quantity of water (MGD) achieved from conservation and water resource development projects under contract with the District. The success of the District's land acquisition and management goals and strategies will be determined by the number of acres acquired and disposed of; the number of acres acquired by the District that enhance aquifer recharge or flood protection; the number of acres of restored hydrology; and the number of acres of prescribed fire and invasive

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plant treatment.

- The District conveyed 43 acres +/- of surplus lands to Columbia County, 11 acres +/- of surplus lands to Suwannee County, and 167 acres +/- of surplus lands to Suwannee County School Board.
- The District continues to work on developing MFLs for all remaining priority water bodies per the District schedule.
- The District is working to create a schedule and procedures for MFL reassessment. Reassessment of the Lower Santa Fe and Ichetucknee Rivers are in process per the re-evaluation schedule provided in section 62-40.300(1)(e), Florida Administrative Code.
- Almost 4.5 tons of sediment load to District water bodies was reduced through restoration projects throughout the District.
- In 2018, the District's Agriculture Cost-Share Program conserved 4.4 MGD of groundwater between three programs – Irrigation System Retrofits and Controllers, Soil Moisture Probes, and Dairy Wastewater System Upgrades.
- 1,638 acres of forested and herbaceous wetlands are being rehydrated in the Middle Suwannee River and Springs Restoration and Aquifer Recharge Project.
- In FY 2017, 6,398 acres of District lands were managed by prescribed fire, 18,001 acres were burned in FY 2018. Restoration activities were performed on 8,693 acres throughout the District in FY 2018 including timber thinning, roller chopping, prescribed burning, and herbicide application. Additionally, 108 acres were treated for invasive plant management.
- The District completed the acquisition of Ware Forest Tract, 163+/- acres, in Jefferson County. The Ware Forest Tract provides both protection of sensitive riverine and cypress communities, as well as providing connectivity between adjacent District-owned parcels and conservation easements. The acquisition of Ware Forest was a facilitated partnership with Tall Timbers Land Conservancy that provides for springs protection and restoration.

Water Quality

Preserving And Restoring The Foundation Of North Florida's Economy

Water quality refers to the chemical, physical, and biological characteristics of water. Data shows persistent elevated nutrient levels, primarily nitrate, in rivers and springs throughout the District. Nitrate, in some instances, is the limiting nutrient that can cause imbalances in the ecosystem and impact the health of springs, rivers, and estuaries. Increased nutrient loads not only adversely impact the ecological health of rivers and springs but also the health of Gulf estuaries downstream.

The FDEP has established a Total Maximum Daily Load (TMDL) for the Lower and Middle Suwannee and Santa Fe Rivers of 0.35 mg/L of nitrate as nitrogen (N). To meet this target, nitrate loads from non-point pollution sources need to be reduced anywhere from 30-90 percent on the Suwannee River and associated springs, and 35 percent on the Santa Fe River. To assist the FDEP in achieving these targets, the District partners with state agencies, local governments, land owners, and other stakeholders to implement projects to reduce nutrient loading, including implementing agricultural best management practices (BMPs), stormwater treatment, and erosion control and bank restoration. The District actively monitors nitrate concentrations throughout the District in both groundwater and surface water.

Goal One

Reduce Nitrate Levels In Outstanding Florida Springs To Assist In Compliance With The State's Numeric Nutrient Criteria Standard

Strategies

1. Implement pilot projects in key springsheds that reduce nitrate levels beyond those achieved by full implementation of BMPs for non-point sources of pollution.
2. Encourage the development of new technologies that can achieve significant reduction in nutrients on any scale.
3. Establish programs to coordinate all areas of the District's work, and its partners' efforts, to leverage water quality improvements that protect key natural resources, such as Outstanding Florida Springs.

Goal Two

Improve And Protect Water Quality Of The District's Priority Water Bodies, Assisting In Improving The Region's Economy

Strategies

1. Assist the FDEP in implementing existing and new BMAPs by coordinating cost-share programs to provide for the timely adoption of BMPs, including precision agriculture.

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2. Identify and address areas where water quality is limiting economic growth and develop plans to address those impacts.

Goal Three

Assist In Identifying And Analyzing Trends In Water Quality For Surface Water Bodies Throughout The District

Strategies

1. Complete revised Surface Water Improvement and Management (SWIM) plans to assess and guide project development for all water bodies within the District and update the SWIM plans five years after they are complete.
2. Manage the continuous and periodic collection of environmental data in a targeted fashion to assist partners with identifying emerging challenges and water quality trends for key resources.
3. Publish an annual water quality report for the District's website.

Success Indicators And Milestones For Water Quality

The District will measure progress towards the completion of individual tasks contained within the aforementioned goals and strategies by tracking the completion of the planning, funding, construction, or implementation phases of the tasks. In addition, success will be measured by the percentage of Outstanding Florida Springs that meet the state numeric nutrient criteria; the percentage of enrollment for the FDACS BMPs program; and the pounds of nitrate reduced by projects receiving District cost-share.

- The District worked with FDEP to develop language and projects for the Suwannee BMAP which was scheduled to be adopted in mid-2018 and outlines a 2,353,286-pound reduction in nitrate loading needed to achieve 0.35 mg/L goal. The plan was challenged in July 2018 and is pending adoption subject to the challenges.
- Five of the 14 Outstanding Florida Springs meet the requirements for state numeric nutrient criteria based on current available data - Poe, Columbia, Treehouse, Ichetucknee Springs Group and Wacissa Springs group.
- In 2018, the District's Agriculture Cost-Share Program reduced 181,913 pounds of Total Nitrogen applications between two programs – Fertigation Equipment and Dairy Wastewater System Upgrades.
- The District installed one pump and treat nitrate mitigation system at a farm in the Convict Spring Springshed. This is a pilot project to monitor the system's functionality on a large-scale operational farm and the project is expected to remove 25,595 pounds of nitrogen directly from the aquifer.

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- In 2018, the District introduced the Precision Agriculture cost-share program which covers 56,125 acres within the District, resulting in an estimated 1,551,373 pounds of Total Nitrogen from being applied.
- The District received funding for the Sustainable Suwannee pilot program. The \$5 million program will assist producers in converting practices into less nutrient intensive land uses in the Ichetucknee, Fanning and Convict springshed areas. Two projects have been approved converting a 150-acre dairy and 200 acres of intensively farmed row crop land to bahia pastures. This will have an estimated benefit of removing 275,740 pounds of Total Nitrogen loading to ground water.
- An estimated total of 79,071 pounds of Total Nitrogen loading was reduced in 2018 for RIVER and non-agricultural cost share projects.
- The District worked to identify new technologies for water quality improvements. The District implemented the FDOT Water Quality Pilot Project to investigate the benefits of biosorption activated media (BAM) material on water quality for stormwater runoff.
- The District continues to engage and lead the Suwannee River Partnership which works to overcome water quality challenges in the Suwannee River Valley by pooling resources with sister agencies and cooperating stakeholder groups who have similar goals for water quality throughout the District.
- 2017 Water Quality Summary was presented to the Governing Board August 2018. A written water quality report is in draft phase.

Water Supply

Ensuring A Sustainable Supply Of Water For People And The Environment

The District is responsible for managing water resources to ensure there is an adequate supply to satisfy all existing and projected reasonable and beneficial uses while sustaining water resources and protecting natural systems. In the District, over 90 percent of the water supply demands are met with fresh groundwater, virtually all from the Upper Floridan aquifer system. This region's ability to continue to grow and develop is therefore dependent on sustainably managing a growing demand for groundwater. Coordinated water-use permitting, water resource planning, and water resource development projects are key to protecting and managing fresh groundwater supply.

Resource planning efforts include water supply assessments and regional water supply planning. Every five years, the District evaluates current and future water supply needs and water supplies within the District. Water supply assessments help determine whether water supplies will be adequate to satisfy projected demands. Recognizing that water supplies are constrained by demands both within and outside of District boundaries, the District, along with the FDEP and

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SJRWMD, formed the North Florida Regional Water Supply Partnership (Partnership). The Partnership developed a joint regional water supply plan, the North Florida Regional Water Supply Plan, which established fresh groundwater alone cannot supply the projected increase in demand over the 20-year planning horizon.

The regulation and monitoring of water use within the District is a critical part of managing the resource. Water Use Permits protect water resources, ensuring proposed uses are reasonable and beneficial, within the public interest, and do not adversely impact existing legal uses. To ensure proposed uses are reasonable and beneficial, the permit application review includes, among other things, an analysis to prevent environmental harm and ensure consistency with established MFLs.

Goal One

Implement Multi-District Water Supply Planning And Complimentary Regulatory Practices

Strategies

1. Update the Joint Regional Water Supply Plan with SJRWMD no later than 2022.
2. Coordinate with FDEP to ensure that regulatory efforts between water management districts adequately reflect cross-boundary challenges identified within water supply planning efforts.
3. Ensure the District's five-year Water Supply Assessments are collaboratively driven and clearly communicate resource constraints as well as opportunities for water resource development.

Goal Two

Work With All Partners To Increase Water Conservation Efforts Across The District

Strategies

1. Lead the state in the implementation of agricultural water conservation through targeted cost-share and education efforts.
2. Assist communities in increasing the beneficial reuse of water, achieving the beneficial reuse of 50 percent of wastewater within the District in five years, tripling reuse within the District.
3. Educate the public about the importance of water conservation by assisting in developing a conservation ethic that instills in the public a sense of their stake in the sustainability of the region's water resources.

Goal Three

Environmental Data Collection And Dissemination

Strategies

1. Monitor 100% of eligible agricultural Water Use Permits within six months and monitor all

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agricultural use of water from eight-inch or greater diameter wells within five years.

2. Complete the establishment of a comprehensive groundwater monitoring network to support the water supply planning efforts of the District within two years.
3. Publish water flow information, including annual trends, on all Outstanding Florida Springs in an easy-to-digest online format.

Success Indicators And Milestones For Water Supply

The District will measure progress towards the completion of individual tasks contained within the aforementioned goals and strategies by tracking the completion of the planning, funding, construction, or implementation phases of the tasks. In addition, success will be measured by the amount of estimated water supply demand that can be met with projects identified in District water supply plans; the year-to-year percentage of impact of groundwater use within the District on the aquifer.

- The District is seeking funding for the North Florida Regional Water Supply Initiative for water resource development projects in the Suwannee and Santa Fe basins and SJRWMD.
- The Governing Board accepted the 2015-2035 Water Supply Assessment which allowed District staff to begin developing projects and planning in areas where water supply demand is expected to impact resources by 2035.
- The District conducted water conservation education and public outreach to local communities and stakeholders through online education, presentations, civic engagement, tours, and demonstrations.
- The District continues to work through the North Florida Regional Water Supply Partnership with FDEP and other water management districts on regional concerns through project implementation and model development.
- FDEP, at the request of the District's Governing Board, agreed to adopt the Upper and Middle Suwannee river and priority spring MFLs. The District is also conducting technical work pertaining to the Lower Santa Fe and Ichetucknee Rivers MFLs in support of FDEP. These MFLs are currently being reassessed in light of the completion of the joint North Florida Southeast Georgia (NFSEG) model.
- Based on the North Florida Regional Water Supply Plan, which was adopted in 2017, from the base year of 2010 to 2035 average year water demand is projected to increase by 71 MGD from 229 MGD to 300 MGD. Between 29 MGD and 32 MGD of the projected increase of 71 MGD in demand could be met by conservation across all use types (45%). Additional projects are being identified to make up the difference.

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- As of December 2018, the District monitored 98% of eligible agricultural Water Use Permits either by manual or automated monitoring. This makes up 57% of total agricultural water use allocations in the District (205.4 MGD/~360 MGD). The remaining 43% of agricultural water use allocations will become eligible for a monitoring condition during a permit modification or permit renewal.
- For RIVER and non-agricultural cost-share SPRINGS projects, the District made water supply improvements saving 1.56 MGD in the Water Use Caution Areas.

Mission Support

Creating A Culture Of Excellence, Efficiency, And Passion For The Region's Resources

Investing in and empowering District employees is critical to achieving the goals set out in this strategic plan. As the smallest water management district, District employees often wear multiple hats and one employee performs the job functions of two or three employees. Engaging employees, providing development opportunities, and leadership support will ensure staff has the tools and guidance to achieve District goals. Operational efficiency is also an important focus so employees and District operations can be as effective as possible.

Goal One

Maintain And Increase The Level Of Skill And Expertise Among District Staff And Leadership

Strategy

- Ensure District staff remain subject-matter experts in their fields and have the ability to become nationally recognized for their area of work by creating a leadership development program and professional development opportunities. In addition, leverage and reinforce the current expertise of staff by creating opportunities for cross training of employees between program areas and identify and celebrate employee inter-personal and professional achievements

Goal Two

Maintain A Balanced District Budget For Existing And Future Needs

Strategy

- Continue to develop budgets that focus on the protection of groundwater supply through water conservation and water resource development projects, while containing less than a five percent administrative overhead. In addition, identify priority recurring needs that are not currently being funded with recurring revenue and develop a plan to sustain those needs.

Goal Three

Ensure The Safety Of District Employees, Properties, And Facilities Through Repairs And Preventative Maintenance

Strategy

- Improve the safety of employees by developing a preventative maintenance program for District facilities and properties as well as conduct workplace safety assessments of occupied facilities.

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Goal Four

Reduce Risks In Management Of Data And Maintain Institutional Knowledge

Strategies

1. Improve the utilization and management of data by implementing a District-wide electronic document and project management system, as well as implement corresponding policies and procedures to institutionalize and augment the use of the system.
2. Improve the retention of institutional staff knowledge by developing a new employee orientation training and mentoring program that disseminates the knowledgebase of senior employees.

Goal Five

Strengthen Stakeholder Relationships And District Partnerships

Strategies

1. Reinvigorate the Suwannee River Partnership and establish new advisory committees within the partnership to allow a forum for productive dialogue among all District partners, including environmental non-profits, agricultural producers, local governments, and research organizations.
2. Create a unified grant application and cost-share assistance program within the District to simplify the project development and funding application process for local governments.
3. Develop an organized and recurring set of tours and educational events to share technical information developed by the District and its partners.

Success Indicators And Milestones For Mission Support

The District will measure progress towards the completion of individual tasks contained within the above goals and strategies by tracking the completion of the planning, funding, construction, or implementation phases of the tasks. In addition, success will be measured by the number of professional certifications, graduate degrees, and leaderships positions within professional organizations held by its staff; the District's administrative overhead; the percentage of the District's budget utilized for projects that benefit water quality and water quantity; the percentage of the District's budget that is recurring but not funded with recurring revenues; the percentage of facility repairs identified in the last 10-year facility inspection report that have been addressed; and the number of educational activities and Suwannee River Partnership meetings held in the last year.

- District staff hold over 35 different professional certifications, three associates degrees, 29 undergraduate degrees, 16 graduate degrees and two doctoral degrees.
- While training has always been a part of the District's culture, an official training program with emphasis of leadership, communication and conflict management development has been created for staff and executive leadership. The goal of the program is to allow team members to think critically and innovatively on how best to solve our natural resource

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challenges while better communicating and serving stakeholders.

- The District updated its tuition reimbursement and professional certification policies to encourage employee participation and professional development. Three employees utilized the tuition reimbursement program in 2018 and four staff hold leadership positions within professional organizations.
- District leadership has adopted a culture of succession and knowledge transfer for retiring employees in mission critical and leadership positions. New hires are being brought on early to overlap and shadow work processes for a seamless transition.
- The District's administrative overhead for FY 2018 was 5.8%. The FY 2018 Adopted Budget administrative overhead is approximately 2.5%.
- Based on the FY 2019 Adopted Budget, approximately 76% of the budget is spent on water quality, water supply and natural systems projects.
- Assuming appropriations and timber remain recurring, 0.19% of the District's recurring budget is funded by non-recurring dollars within the District fund balance.
- Almost 37%, or six of the 16 items, identified on the most recent 10-year facility inspection report have been completed. For 2019, 62% or 10 of the 16 items listed on the 10-year facility inspection report will be completed.
- The District is continuing to update facilities to meet ADA compliance, improve interior structures, correct exterior roofing issues, and improving air quality with annual duct cleaning. For FY 2018, ADA compliance measures completed were installing automated door openers and completing an ADA compliance survey with implementation plans for FY 2019. Safety flood lighting was installed near all exterior entrances and parking lot lights were repaired for increased employee safety. Indoor air quality testing is scheduled to be completed in FY 2019 to ensure continued clean indoor air.
- The District has created "Safety Centers" in the main office areas, breakroom and vehicles which provide safety items and contact information in the event of an emergency. Vehicles include first aid kits and emergency road side kits in the event of an accident.
- The District recently added Active Shooter training to its safety training program and continues to host annual safety training including Defensive Driving, Harassment and Workplace Safety, and CPR/First Aid.
- The District continued to support the Suwannee River Partnership by including new environmental, utility, and agricultural stakeholders on the Steering Committee to represent a broad scope of interests. Additionally, the Steering Committee finalized the revision of the Articles of Organization, mission, and vision and created a new

Annual Work Plan Report

operational workplan plan. A total of four Steering Committee meetings and 10 partnership breakfast meetings were held in 2018.

- District staff participated in a number of educational outreach activities including tours, speaking engagements, project showcases, demonstrations, school activities, and festivals.
- The District continued to update its Continuity of Operations Plan (COOP) to better respond to stakeholder needs and ensure employee safety. The updated version is due to the FDEM by March 1, 2019.
- The District completed an outreach study to determine District perceptions, resource uses, demographics, and communication channels of regional residents and business owners. The results are already being implemented to improve communication and outreach.
- The District was awarded a \$500,000 grant from the United States Environmental Protection Agency and FDEP for non-point source pollution education and outreach. The grant will include a regional outreach campaign that is expected to kick off in Summer 2019.
- The District participated in the 2018 Statewide Springs Outreach Campaign with the other water management districts and FDEP in an effort to bring awareness to springs and springs' issues. Over the course of the 90-day campaign, the District created three new social media content channels, gained 3,814 new subscribers/followers, received 101,422 unique content views and had 375,374 total content impressions.
- The District continues to grow and leverage its social media platforms to reach broader audiences. At the end of the FY 2018, the District had equal and greater engagement with users on its social media channels when compared agencies of similar scope and larger size.

2018 MINIMUM FLOWS AND MINIMUM WATER LEVELS PRIORITY LIST AND SCHEDULE



Minimum Flows and Minimum Water Levels 2018 Priority List and Schedule

Narrative

Past Year Accomplishments

- NFSEG Model Peer Review Complete
- Progress on MFLs currently in development is listed in the following table.

Current progress of MFLs in development:

Waterbody or System	Current Progress
Upper Suwannee River and Priority Springs	Draft MFL Report Completed
Middle Suwannee River and Priority Springs	Peer Review Completed; Response Completed
Alapaha River	Field Work and Modeling Completed
Withlacoochee River and Priority Springs	Field Work and Modeling Completed
Steinhatchee River and Priority Springs	Peer Review Completed
Lake Hampton	Peer Review Completed; Response Completed
Lake Butler	Peer Review Completed; Response Completed
Lake Santa Fe	Peer Review Completed; Response in Process
Lake Altho	Peer Review Completed; Response in Process
Cherry Lake	Water Resource Assessment in Process

Changes to the Priority List from 2017 to 2018

- The expected year of adoption for all new MFLs on the list (and one re-evaluation, Madison Blue Spring) have been delayed due to the complexity of modeling the impacts of withdrawals on these natural systems, and the time needed to complete the voluntary peer reviews and status assessment.
- Priority waterbodies with established MFLs that are not scheduled for re-evaluation within the next three years are not listed.
- Two springs, Gilchrist Blue (Lower Santa Fe system), and Rock Bluff (Middle Suwannee system), were added to the Priority List, and schedule. They were acquired for conservation and recreational purposes.
- No waterbodies were removed from the Priority List, however, waterbodies anticipated to have MFL development later (i.e., beyond three years) are simply listed with no assigned date.

Minimum Flows and Minimum Water Levels 2018 Priority List and Schedule

Tables

Note: Voluntary Peer Review is listed for all waterbodies as initiated in 2014.

Suwannee River Water Management District Minimum Flows and Minimum Levels to be adopted in (All)

New or Re-Evaluation	Waterbody Name or Compliance Point	System Name	Waterbody Type	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude	Longitude	Rulemaking Status
Adopted	Big Blue Spring	Wacissa	Spring (Mag. 1)	Jefferson	Yes	No	30.3277	83.9848	Rule Adopted
Adopted	Buzzard Log Spring	Wacissa	Spring (Mag. 2)	Jefferson	Yes	No	30.3301	83.9869	Rule Adopted
Adopted	Cassidy Springs	Wacissa	Spring (Mag. 2)	Jefferson	Yes	No	30.3327	83.9890	Rule Adopted
Adopted	Garner Spring	Wacissa	Spring (Mag. 2)	Jefferson	Yes	No	30.3303	83.9831	Rule Adopted
Adopted	JEF63991	Wacissa	Spring (Mag. 2)	Jefferson	Yes	No	30.3249	83.9859	Rule Adopted
Adopted	JEF63992	Wacissa	Spring (Mag. 2)	Jefferson	Yes	No	30.3232	83.9867	Rule Adopted
Adopted	JEF63993	Wacissa	Spring (Mag. 2)	Jefferson	Yes	No	30.3023	83.9796	Rule Adopted
Adopted	Jefferson Blue Spring	Wacissa	Spring (Mag. 2)	Jefferson	Yes	No	30.3306	83.9889	Rule Adopted
Adopted	Little Blue Spring	Wacissa	Spring (Mag. 2)	Jefferson	Yes	No	30.3308	83.9890	Rule Adopted
Adopted	Log Spring	Wacissa	Spring (Mag. 2)	Jefferson	Yes	No	30.3405	83.9930	Rule Adopted
Adopted	Minnow Spring	Wacissa	Spring (Mag. 2)	Jefferson	Yes	No	30.3315	83.9866	Rule Adopted
Adopted	Thomas Spring	Wacissa	Spring (Mag. 2)	Jefferson	Yes	No	30.3397	83.9923	Rule Adopted
Adopted	Wacissa Head Spring #2 (OFS)	Wacissa	Spring (Mag. 1)	Jefferson	Yes	No	30.3399	-83.9915	Rule Adopted

Minimum Flows and Minimum Water Levels 2018 Priority List and Schedule

Suwannee River Water Management District Minimum Flows and Minimum Levels to be adopted in 2019

New or Re-Evaluation	Waterbody Name or Compliance Point	System Name	Waterbody Type	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude	Longitude	Rulemaking Status
Re-Evaluation	Santa Fe River near Fort White	Lower Santa Fe	River	Gilchrist	Yes	Yes	29.8486	-81.2847	Rule Adopted
Re-Evaluation	Columbia (Col101974)	Lower Santa Fe	Spring (Mag. 2)	Columbia	Yes	Yes	29.8340	-82.6767	Rule Adopted
Re-Evaluation	Columbia Spring (OFS)	Lower Santa Fe	Spring (Mag. 1)	Columbia	Yes	Yes	29.8541	-82.6120	Rule Adopted
Re-Evaluation	Devils Ear Spring (OFS)	Lower Santa Fe	Spring (Mag. 1)	Gilchrist	Yes	Yes	29.8353	-82.6966	Rule Adopted
Re-Evaluation	Hornsby Spring (OFS)	Lower Santa Fe	Spring (Mag. 1)	Alachua	Yes	Yes	29.8504	-82.5932	Rule Adopted
Re-Evaluation	July Spring	Lower Santa Fe	Spring (Mag. 1)	Columbia	Yes	Yes	29.8362	-82.6964	Rule Adopted
Re-Evaluation	Poe Spring (OFS)	Lower Santa Fe	Spring (Mag. 2)	Alachua	Yes	Yes	29.8257	-82.6490	Rule Adopted
Re-Evaluation	Rum Island Spring	Lower Santa Fe	Spring (Mag. 2)	Columbia	Yes	Yes	29.8335	-82.6798	Rule Adopted
Re-Evaluation	Santa Fe River Rise	Lower Santa Fe	Spring (Mag. 1)	Alachua	Yes	Yes	29.8739	-82.5916	Rule Adopted
Re-Evaluation	Siphon Creek Rise	Lower Santa Fe	Spring (Mag. 1)	Gilchrist	Yes	Yes	29.8562	-82.7331	Rule Adopted
Re-Evaluation	Treehouse Spring (OFS)	Lower Santa Fe	Spring (Mag. 1)	Alachua	Yes	Yes	29.8549	-82.6029	Rule Adopted
New	Gilchrist Blue Spring	Lower Santa Fe	Spring (Mag. 2)	Gilchrist	Yes	Yes	29.8299	-82.6829	
Re-Evaluation	Ichetucknee at Hwy27 near Hildreth	Ichetucknee	River	Columbia	Yes	Yes	29.9525	-81.2139	Rule Adopted
Re-Evaluation	Blue Hole Spring	Ichetucknee	Spring (Mag. 1)	Columbia	Yes	Yes	29.9805	-82.7584	Rule Adopted
Re-Evaluation	Devils Eye Spring	Ichetucknee	Spring (Mag. 2)	Gilchrist	Yes	Yes	29.8352	82.6966	Rule Adopted
Re-Evaluation	Grassy Hole Spring	Ichetucknee	Spring (Mag. 3)	Columbia	Yes	Yes	29.9678	82.7597	Rule Adopted
Re-Evaluation	Mill Pond Springs	Ichetucknee	Spring (Mag. 2)	Columbia	Yes	Yes	29.9667	82.7600	Rule Adopted
Re-Evaluation	Mission Springs	Ichetucknee	Spring (Mag. 2)	Columbia	Yes	Yes	29.9762	82.7579	Rule Adopted

Minimum Flows and Minimum Water Levels 2018 Priority List and Schedule

Suwannee River Water Management District Minimum Flows and Minimum Levels to be adopted in 2019

Re-Evaluation	Location	District	Spring (Mag. 1)	District	Yes	Yes	29.9842	-82.7619	Rule Adopted
	Ichetucknee Head Spring	Ichetucknee	Spring (Mag. 1)	Suwannee	Yes	Yes	29.9842	-82.7619	Rule Adopted
New	Suwannee River at White Springs	Upper Suwannee	River	Columbia	Yes	Yes	30.3258	-81.2614	
New	Alapaha River Rise	Upper Suwannee	Spring (Mag. 1)	Hamilton	Yes	Yes	30.4376	-83.0899	
New	Blue Spring	Upper Suwannee	Spring (Mag. 2)	Suwannee	Yes	Yes	30.4223	-83.0138	
New	Holton Creek Rise	Upper Suwannee	Spring (Mag. 1)	Hamilton	Yes	Yes	30.4379	-83.0576	
New	Stevenson Spring	Upper Suwannee	Spring (Mag. 2)	Suwannee	Yes	Yes	30.4171	-83.1530	
New	Suwannee Springs	Upper Suwannee	Spring (Mag. 2)	Suwannee	Yes	Yes	30.3945	-82.9345	
New	White Springs	Upper Suwannee	Spring (Mag. 2)	Hamilton	Yes	Yes	30.3300	-82.7608	
New	Suwannee River at Ellaville	Middle Suwannee	River	Suwannee	Yes	Yes	30.3844	-82.8281	
New	Allen Mill Pond Springs	Middle Suwannee	Spring (Mag. 2)	Lafayette	Yes	Yes	30.1628	-83.2431	
New	Anderson Spring	Middle Suwannee	Spring (Mag. 2)	Suwannee	Yes	Yes	30.3534	-83.1897	
New	Bell Spring	Middle Suwannee	Spring (Mag. 3)	Gilchrist	Yes	Yes	29.5974	-82.9412	
New	Bonnet Spring	Middle Suwannee	Spring (Mag. 2)	Suwannee	Yes	Yes	30.1243	-83.1382	
New	Branford Spring	Middle Suwannee	Spring (Mag. 2)	Suwannee	Yes	Yes	29.9549	-82.9284	
New	Charles Spring	Middle Suwannee	Spring (Mag. 2)	Suwannee	Yes	Yes	30.1674	-83.2304	
New	Guaranto Spring	Middle Suwannee	Spring (Mag. 2)	Dixie	Yes	Yes	29.7798	-82.9400	
New	Hart Springs	Middle Suwannee	Spring (Mag. 2)	Gilchrist	Yes	Yes	29.6750	-82.9512	
New	Lime Sink Rise	Middle Suwannee	Spring (Mag. 1)	Suwannee	Yes	Yes	30.3878	-83.1611	
New	Little River Spring	Middle Suwannee	Spring (Mag. 2)	Suwannee	Yes	Yes	29.9969	-82.9663	
New	Otter Spring	Middle Suwannee	Spring (Mag. 2)	Gilchrist	Yes	Yes	29.6448	-82.9428	

Minimum Flows and Minimum Water Levels 2018 Priority List and Schedule

Suwannee River Water Management District Minimum Flows and Minimum Levels to be adopted in 2019

New	Pothole Spring	Middle Suwannee	Spring (Mag. 2)	Dixie	Yes	Yes	29.8107	-82.9359	
New	Rock Bluff Springs	Middle Suwannee	Spring (Mag. 2)	Gilchrist	Yes	Yes	29.7991	-82.9186	
New	Rock Sink Spring	Middle Suwannee	Spring (Mag. 2)	Dixie	Yes	Yes	29.7279	-82.9493	
New	Royal Spring	Middle Suwannee	Spring (Mag. 3)	Suwannee	Yes	Yes	30.0837	-83.0748	
New	Ruth Spring	Middle Suwannee	Spring (Mag. 2)	Lafayette	Yes	Yes	29.9958	-82.9768	
New	Suwanacoochee Spring	Middle Suwannee	Spring (Mag. 2)	Madison	Yes	Yes	30.3867	-83.1718	
New	Turtle Spring	Middle Suwannee	Spring (Mag. 2)	Lafayette	Yes	Yes	29.8474	-82.8903	
New	Lime Spring	Middle Suwannee	Spring (Mag. 2)	Suwannee	Yes	Yes	30.3912	-83.1687	
New*	Falmouth Spring (OFS)	Middle Suwannee	Spring (Mag. 1)	Suwannee	Yes	Yes	30.3612	-83.1350	Emergency rule*
New*	Lafayette Blue Spring (OFS)	Middle Suwannee	Spring (Mag. 1)	Lafayette	Yes	Yes	30.1258	-83.2261	Emergency rule*
New*	Peacock Springs Group (OFS)	Middle Suwannee	Spring (Mag. 2)	Suwannee	Yes	Yes	30.1232	-83.1332	Emergency rule*
New*	Troy Spring (OFS)	Middle Suwannee	Spring (Mag. 1)	Lafayette	Yes	Yes	30.0060	-82.9975	Emergency rule*
New	Steinhatchee River near Cross City	Steinhatchee	River-Estuary	Taylor	Yes	No	29.7864	-82.6783	
New	Steinhatchee River Rise	Steinhatchee	Spring (Mag. 1)	Dixie	Yes	No	29.7699	-83.3250	
New	Tay76992	Steinhatchee	Spring (Mag. 2)	Taylor	Yes	No	29.7614	-83.3350	

* Emergency MFL rule 40BER 17-01 is effective July 1, 2017.

Minimum Flows and Minimum Water Levels 2018 Priority List and Schedule

Suwannee River Water Management District Minimum Flows and Minimum Levels to be adopted in 2020

New or Re-Evaluation	Waterbody Name or Compliance Point	System Name	Waterbody Type	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude	Longitude	Rulemaking Status
New	Lake Altho	Lake Altho	Lake	Alachua	Yes	Under evaluation	29.7886	-81.8386	
New	Lake Butler	Lake Butler	Lake	Union	Yes	Under evaluation	30.0272	-81.6617	
New	Lake Hampton	Lake Hampton	Lake	Bradford	Yes	Under evaluation	29.8644	-81.8386	
New	Lake Santa Fe	Lake Santa Fe	Lake	Alachua	Yes	Under evaluation	29.7450	-81.9014	
New	Alapaha River near Jennings	Alapaha	River	Hamilton	Yes	Under evaluation	30.5981	-82.9267	
New	Cherry Lake	Cherry Lake	Lake	Madison	Yes	Under evaluation	30.6183	-82.5778	
New	Withlacoochee River near Pinetta	Withlacoochee	River	Madison	Yes	Under evaluation	30.5953	-82.7403	
Re-Evaluation	Madison Blue Spring (OFS)	Withlacoochee	Spring (Mag. 1)	Madison	Yes	Under evaluation	30.4804	-83.2444	Rule Adopted
New	Pot Spring	Withlacoochee	Spring (Mag. 2)	Hamilton	Yes	Under evaluation	30.4708	-83.2344	

Suwannee River Water Management District Minimum Flows and Minimum Levels to be adopted in 2021

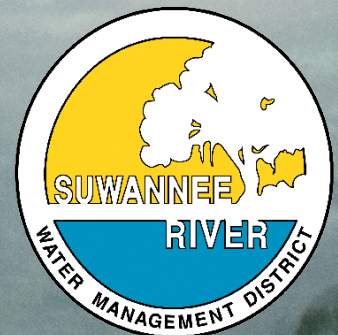
New or Re-Evaluation	Waterbody Name or Compliance Point	System Name	Waterbody Type	County(s)	Voluntary Peer Review to be Completed ?	Cross-Boundary Impacts from Adjacent WMD?	Latitude	Longitude	Rulemaking Status
New	Lake Palestine	Lake Palestine	Lake	Union	Yes	Under evaluation	30.1294	-81.5906	
New	Ocean Pond	Ocean Pond	Lake	Baker	Yes	Under evaluation	30.2153	-81.5581	

Minimum Flows and Minimum Water Levels 2018 Priority List and Schedule

Suwannee River Water Management District Minimum Flows and Minimum Levels to be adopted after 2021

New or Re-Evaluation	Waterbody Name or Compliance Point	System Name	Waterbody Type	County(s)	Voluntary Peer Review to be Completed ?	Cross-Boundary Impacts from Adjacent WMD?	Latitude	Longitude	Rulemaking Status
New	Lake Crosby	Lake Crosby	Lake	Bradford	Yes	Under evaluation	29.9497	-81.8475	
New	Lake Rowell	Lake Rowell	Lake	Bradford	Yes	Under evaluation	29.9211	-81.8331	
New	Lake Sampson	Lake Sampson	Lake	Bradford	Yes	Under evaluation	29.9297	-81.8275	

FIVE-YEAR CAPITAL IMPROVEMENTS PLAN



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 (FDEP), and the water management districts (WMDs). The CIP includes projected revenues and expenditures for capital improvements from Fiscal Years 2018-2019 through 2022-2023. 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 include capital improvement projects are:

- *2.1 Land Acquisition*

The activities under program 3.0 Operation and Maintenance of Lands and Works that 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.

FIVE-YEAR CAPITAL IMPROVEMENTS PLAN

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 / Springs Restoration Grants / Military Base Protection Funds); 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, Springs Restoration Grants and Military Base Protection Funds 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.

FIVE-YEAR CAPITAL IMPROVEMENTS PLAN

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.

FIVE-YEAR CAPITAL IMPROVEMENTS PLAN

Capital improvements involve the District’s headquarters facility and lands acquired for water management purposes. District Governing Board policy has historically been to take a nonstructural water management approach where possible. 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, water resource development, and restoration efforts.*
- *The annual Preliminary Budget and Tentative Budget Submission Report provide 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’s Strategic Plan provides the long-range water resource management issues and strategies for water quality, water supply, flood protection, and natural systems management.*
- *The District’s Five-Year Water Resource Development Work Program provides implementation strategies relating to water resource development and water supply development efforts.*

FIVE-YEAR CAPITAL IMPROVEMENTS PLAN

FISCAL YEAR 2018-2019 THROUGH FISCAL YEAR 2022-2023

2.0 ACQUISITION, RESTORATION AND PUBLIC WORKS

2.1 LAND ACQUISITION

REVENUES	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23
Fund Balance	780,000	1,582,000	1,195,514	1,000,000	1,000,000
District Revenue	-	-	-	-	-
Total	780,000	1,582,000	1,195,514	1,000,000	1,000,000

EXPENDITURES	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23
Total	780,000	1,582,000	1,195,514	1,000,000	1,000,000

3.0 OPERATION AND MAINTENANCE OF LANDS AND WORKS

3.1 LAND MANAGEMENT

REVENUES	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23
District Revenue	100,000	100,000	100,000	100,000	100,000
Total	100,000	100,000	100,000	100,000	100,000

EXPENDITURES	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23
Total	100,000	100,000	100,000	100,000	100,000

3.3 FACILITIES

REVENUES	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23
Fund Balance	250,000	225,000	150,000	150,000	150,000
Total	250,000	225,000	150,000	150,000	150,000

EXPENDITURES	FY18-19	FY19-20	FY20-21	FY21-22	FY22-23
Total	250,000	225,000	150,000	150,000	150,000

FIVE-YEAR CAPITAL IMPROVEMENTS PLAN

PROJECT DESCRIPTIONS

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS

ACTIVITY: 2.1 Land Acquisition

Project Title: Water Management Lands Acquisition

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

Physical Location: Activities are conducted at District headquarters near Live Oak. Acquisitions are located within the District boundaries as identified in the Florida Forever Work Plan 2019.

Square Footage/Physical Description: N/A

Expected Completion Date: Ongoing.

Historical Background/Need for Project: 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, Florida Forever programs, Springs Restoration Grants and Military Base Protection Funds have resulted in the protection of over 287,943 acres of fee title and conservation easement water resource lands. Approximately 160,222 acres of river floodplains, freshwater springs, headwater wetlands, bottomland hardwood and buffering upland forests are protected in full-fee ownership. Conservation easements, access easements and deed restricted from less-than fee purchases have protected nearly 127,721 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 continues to explore potential acquisitions with public and private partners to maximize available funding for conservation acquisitions.

Plan Linkages: Florida Forever Work Plan 2019, Five-Year Strategic Plan 2019-2023, FY 2019 Budget, FY 2020 Preliminary Budget, 5-Year Water Resource Development Work Program

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

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

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other):
FY19 - \$780,000; FY20 - \$1,582,000

FIVE-YEAR CAPITAL IMPROVEMENTS PLAN

PROGRAM: 3.0 OPERATION AND MAINTENANCE OF LANDS AND WORKS

ACTIVITY: 3.1 Land Management

Project Title: Land Management

Type: 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: 160,222 acres.

Expected Completion Date: Ongoing.

Historical Background/Need for Project: 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.

Plan Linkages: Florida Forever Work Plan 2019, Five-Year Strategic Plan 2019-2023, FY 2019 Budget, FY 2020 Preliminary Budget

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

Alternative(s): 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.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other):
FY19 - \$100,000; FY20 - \$100,000

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.

FIVE-YEAR CAPITAL IMPROVEMENTS PLAN

Historical Background/Need for Project: 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.

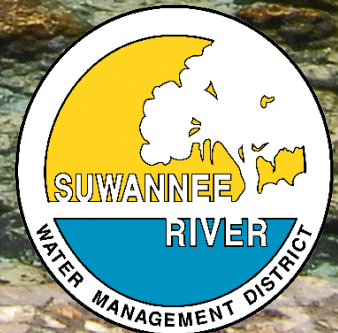
Plan Linkages: FY 2019 Budget, FY 2020 Preliminary Budget.

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

Alternative(s): 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.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities, outside building, site development, other): FY19 - \$250,000; FY20 - \$225,000

ALTERNATIVE WATER SUPPLY REPORT



ALTERNATIVE WATER SUPPLY REPORT

Introduction

In 2005, the Florida Legislature created the Water Protection and Sustainability Program, section 373.707, Florida Statutes (F.S.). As part of this program, the Legislature made State funds available through the Water Protection and Sustainability Trust Fund to water management districts for the development of the alternate water supply and conservation projects. Funds could also be used for water resource development projects if a regional water supply plan had not been completed including, but not limited to, springs protection. Each water management district is required by section 373.707 (8)(n), F.S. to submit an alternative water supply report that provides details on all funded alternative water supply, conservation, and water resource development projects. This Alternative Water Supply Report includes information on funding under the Water Protection and Sustainability Program and the District's continued efforts to protect and enhance water resources. In 2017 the Board adopted the NFRWSP (North Florida Regional Water Supply Plan). The plan includes fourteen counties, of which all or portions of the following are within the SRWMD District – Alachua, Baker, Bradford, Columbia, Gilchrist, Hamilton, Putnam, Suwannee and Union.

Water Protection and Sustainability Program

During the four years of the Water Protection and Sustainability program, the District received over \$21 million dollars from the Water Protection and Sustainability Trust Fund. With this funding, 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. Consistent with subsection 373.707(8)(c), Florida Statutes, the District has also used funding from the WPSTF for water resource development projects, consisting of implementing its Minimum Flows and Levels program.

Water Protection and Sustainability Trust Fund - 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

Water Protection and Sustainability Trust Fund – Alternative Water Supply Projects

Year Funded	Reclaimed Water Program	Amount Funded	Alternative Water Supply Capacity
2006	City of Lake City #151	\$3,000,000	1.0 MGD
2006	City of Monticello #152	\$1,500,000	0.5 MGD
2007	City of Alachua #153	\$1,000,000	3.0 MGD

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Year Funded	Reclaimed Water Program	Amount Funded	Alternative Water Supply Capacity
2007	City of Live Oak #154	\$3,000,000	1.5 MGD

Summary of Continuing Efforts

The District works with its local and state partners to identify, develop and fund alternative water supply, conservation, and water resource development projects. The Districts Regional Initiative Valuing Environmental Resources (RIVER) cost-share program provides local governments with funding for projects including alternative water supply and water conservation projects. Since the inception of the RIVER program in 2013, the District has partnered with local governments to implement four alternative water supply projects and twenty-three water conservation projects with a total estimated benefit of 0.751 MGD.

Through agricultural cost-share programs, the District and FDEP partner with agricultural producers to increase water savings by implementing irrigation retrofits, new water saving technologies, and other water conservation projects. The FDEP has awarded state springs grants for cost share programs for irrigation and nutrient management retrofits for agricultural and dairy operations. The Suwannee River Partnership (SRP) has been instrumental in implementing conservation partnerships with the agricultural community in the Suwannee River Basin. From 2014 through 2017 the estimated benefit at completion will be 18.68 MGD. In 2018 FDEP approved Precision Agricultural Practices with an estimated benefit of 7.02 MGD.

The District also invests money into water resource development projects. These projects include aquifer recharge and hydrologic restoration projects. The continuing support for springs protection and restoration from Governor Scott, the Florida Legislature, and the FDEP has enabled the District to increase efforts, through partnerships, to protect and enhance water supply and resources throughout the District. From 2014 to 2017, the District with the FDEP and local partners implemented 16 water resource development projects with an estimated benefit of 36.12 MGD. In 2018 FDEP recommended three projects with an estimated benefit of 1.4 MGD.

Details on alternative water supply, water conservation, and water resource development projects funded through these various programs is provided below, including project descriptions, benefits, and funding information.

Alternative Water Supply Development:

Oakmont Reclaimed Water Ph 3 #229

Expansion of reclaimed water distribution system pipelines in Oakmont subdivision to offset use of potable water for irrigation.

Infiltrative Wetlands for WWTF (High Springs) #59

This project will convert the City's existing effluent sprayfield into infiltration wetlands. Only 10 acres would be constructed in Phase 1 which would provide sufficient capacity for the City's current wastewater treatment capacity of 0.24 MGD. The project is located within the Santa Fe BMAP area.

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The project is estimated to provide 0.03 MGD of aquifer recharge.

Oakmont GRU Water Main Extension Project #83

The Oakmont GRU Reclaimed Water Main Extension project provides reclaimed water to irrigate 136 residential properties and over three acres of common area. The project is estimated to result in a 0.05 mgd of groundwater offset.

Suwannee Country Club Reuse Connection #105

The City of Live Oak reclaimed water project is to connect a golf course to the City's Public Access Reuse System (PAR). The County Club currently uses onsite wells for irrigation. This project is projected to offset groundwater withdrawals of 0.10 million gallons per day (MGD).

Suwannee Valley Ag Extension Center Surface Water Project #123

The Suwannee Valley Ag Extension Center Surface Water Project is a partnership between the District and the University of Florida's Institute of Food and Agricultural Sciences (UF IFAS). This project installed a variable rate linear irrigation system and surface water pump to reduce reliance on groundwater. This project is projected to offset approximate 0.05 MGD of groundwater withdrawals and was completed in 2015.

Hilltop Dairy Reuse Project #53

The Hilltop Dairy Wastewater Reuse Project makes wastewater from Alliance Dairies available to Hilltop Dairy through connection of both dairy's wastewater systems for the primary purpose of flushing free stall barns at Hilltop Dairy. A secondary benefit of this project is it makes more wastewater available to Alliance Dairies for irrigation purposes offsetting groundwater usage. This project is projected to offset approximately 0.34 mgd of groundwater withdrawals and was completed in 2017.

Alternative Water Supply Projects

Year Funded	Project	Total Project Cost	District Match	Local Match	Capacity MGD
2018	Oakmont Ph 3 #229	\$705,000	\$352,500	\$352,500	0.05
2017	Hilltop Dairy Reuse Project #53	\$390,991	\$180,000	\$210,991	0.34
2017	Infiltrative Wetlands for WWTF Effluent Treatment /Disposal Ph I #59	\$1,708,500			0.03
2016	Oakmont GRU Water Main Extension #83	\$452,571	\$113,143	\$339,428	0.05
2015	Suwannee Country Club Reuse #105	\$129,345	\$124,452	\$4,893	0.10
2014	Suwannee Valley Ag Extension Center Surface Water Project #123	\$125,000	\$40,200	\$84,800	0.05

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Public Supply and Water Conservation Projects

City of Alachua Water Conservation Project #17

The City of Alachua water conservation project will reduce leakage in a water resource caution area, conserving 0.05 MGD. Completed 11 / 2014

City of Waldo Meter Replacement Project #114

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. Completed 11/ 2013

City of High Springs Water Conservation Project #20

The City of High Springs water conservation project will reduce leakage in a water resource caution area, conserving 0.02 MGD of unaccounted water. Completed 09/2014

City of Newberry Water Conservation Project #24

The City of Newberry water conservation project will reduce leakage in a water resource caution area, conserving 0.04 MGD of unaccounted water. Completed 08/2014

City of Jasper Fire Hydrant Replacement Project #21

The City of Jasper water conservation project is to replace 26 leaking fire hydrants in a water resource caution area. This project is expected to conserve approximately 0.04 MGD. Completed 04/2014

Hamilton County Water System Project #96

The Hamilton County water conservation project is to install variable frequency drive controllers at the water treatment plant which will reduce the flushing required by 0.04 MGD. Completed 04/2014

City of Hampton Water Tank Revitalization Project #47

The City 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. Completed 04/2016.

Columbia County October Road Water Main Extension Project #27

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. Completed 12/2015.

City of High Springs CDBG Water Main Replacement Project #51

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. Completed 07/2017.

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City of Madison Barrsfield/Check Valve Project #23

The City of Madison (Barrsfield/check valve) water conservation project will improve efficiency by reducing water loss. This project will replace a 12-inch check valve which will reduce Madison's water loss by 0.03 MGD. This project also includes installation of two solenoid valves that will reduce Madison's water loss by 0.01 MGD. Completed 08/2015.

Columbia County Water Conservation Initiative #26

The Columbia County Water Conservation Initiative project will provide local businesses, such as hotels/motels or office buildings, and multi-family residential units with ultra-high efficiency indoor plumbing retrofit packages. Retrofitting toilets and faucet aerators with high efficiency fixtures will save water that would otherwise be wasted. This project is estimated to conserve 0.057 MGD.

Lawtey Water Conservation #66

This project provides potable water service to residents from a city well in lieu of individual wells. This aids in the conservation of water by metering water use and providing economic incentives for water conservation. Estimated benefit is 0.049 MGD. Completed 06/2017.

Levy County University Oaks Water System Improvement Project #109

Levy County water conservation project involves replacing leaking pipes and service connections estimated to reduce water loss by 0.003 MGD. Completed 02/2017.

City of Hampton Water Supply Improvement and Conservation Project #19

The City of Hampton Water Supply and Conservation project will increase water conservation, improve water service quality, reliability and provide improved fire protection. This includes water meter replacements, new isolation valves, water storage tank repair, improved hydrant access and partial water main replacement. Meter replacement will conserve approximately 0.00006 MGD. Completed 09/2017.

Starke Fire Hydrant Replacement Project #98

The Starke Fire Hydrant Replacement will reduce unaccounted water loss throughout the city, which is currently at 24%. It is estimated that replacement of non-functional, broken, leaking and inaccessible hydrants will conserve 0.0056 MGD.

City of Newberry Potable Water and Central Wastewater System Improvement Project #88

The City of Newberry Potable Water and Central Wastewater System Improvement Project will provide new wastewater and potable water improvements to six businesses and three residences. The estimated savings is 90,000 GPY or 0.0003 MGD.

City of Lake City Public and Staff Restroom Retrofit Project #63

City of Lake City Public and Staff Restroom Retrofit Project will upgrade 51 toilets from 1.6 GPF to 0.08 GPF and upgrade 103-2.2 GPM manual faucets to 1.0 GPM motion detection faucets. The goal is to reduce the water usage of the City's 221 restroom fixtures by 28%, saving approximately 0.002MGD.

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Leaky Fire Hydrant and Water Main Replacement (Jasper) Project #67

The Jasper Fire Hydrant Replacements Project will replace 10 leaking fire hydrants, extend water main lines to create loops and add isolation valves. The looping of lines will reduce water losses due to flushing. This is estimated to conserve 0.011 MGD.

Cross City Hydrant and Water Main Replacement #32

The Cross City Hydrant and Water Main Replacement project will replace 7 leaking hydrants, add isolation valves and replace approximately 1450 LF of water mains. This is estimated to conserve 0.0014 MGD.

University Oaks Water System Improvement – Phase 3 #110

The University Oaks Water System Improvement – Phase 3 project will replace approximately 2,350LF of leaking water main for 15 customers and replace missing or failing water meters that have created a 48% water loss. This is estimated to conserve 0.019 MGD.

Waldo Pump No. 2 Replacement & Rehab Lift Station Nos. 2&3 #113

Replace submersible pump in well 2 and rehabilitation of lift station nos. 2 and 3. Well 2 replacement is needed to provide adequate fire protection to the community as well 1 alone cannot support usage and fire protection.

Waldo Well & Water System Improvements #115

Construct a new 12 inch well to provide 500 GPM capacity for adequate supply and fire protection. This is estimated to conserve .01 MGD.

Dixie County Water Main #208

Transition an unincorporated residential area from well water usage to Community Potable Water service. This is estimated to conserve .0015 MGD.

Public Supply and Water Conservation Projects

Year Funded	Project	Total Project Cost	District Match	FDEP/ State Match	Local/ Other Match	Conservation MGD
2013	City of Alachua #17	\$62,440	\$31,220		\$31,220	0.05
2013	City of Waldo #114	\$153,672	\$76,836		\$76,836	0.01
2013	City of High Springs #20	\$57,256	\$28,628		\$28,628	0.02
2013	City of Newberry #24	\$57,100	\$28,550		\$28,550	0.04
2013	City of Jasper #21	\$107,200	\$97,200		\$10,000	0.04
2013	Hamilton County #96	\$49,480	\$37,480		\$12,000	0.04
2014	City of Hampton water tank #47	\$30,000	\$25,000		\$5,000	0.01
2014	Columbia County	\$450,808	\$201,256		\$249,552	0.03

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Year Funded	Project	Total Project Cost	District Match	FDEP/ State Match	Local/ Other Match	Conservation MGD
	October Rd #27					
2014	City of High Springs Water Mains #51	\$824,800	\$50,000		\$774,800	0.10
2014	City of Madison #23	\$8,119	\$7,675		\$444	0.04
2014	Columbia County Water Conservation Initiative #26	\$350,000	\$30,000	\$250,000	\$70,000	0.057
2014	Lawtey Water System Improvements #66	\$692,700	\$25,000		\$667,700	0.049
2014	Waldo Well & Water System Improvements #115	\$714,137	\$87,000	\$627,137		.01
2015	Levy County (University Oaks Water System) #109	\$156,390	\$151,390		\$5,000	0.003
2016	City of Hampton Improvements #19	\$113,530	\$105,530		\$8,000	.00006
2016	Starke Fire Hydrant Replacement #98	\$142,080	\$119,040		\$23,040	0.0056
2016	City of Newberry Potable Water #88	\$65,000	\$38,435		\$26,566	0.0003
2016	City of Lake City Public & Staff RR Retrofit #63	\$98,850		\$98,850		0.002
2016	Waldo Pump No. 2 Replacement & Rehab Lift Station Nos. 2&3 #113	\$100,000	\$90,000		\$10,000	
2017	Leaky Fire Hydrant and Water Main Replacement (Jasper) #67	\$156,715	\$141,715		\$15,000	0.011
2017	Cross City Hydrant Replacement #32	\$90,400	\$90,400		\$0	0.0014
2017	University Oaks Water System Improvement- Phase 3 #110	\$127,250	\$122,250		\$5,000	0.019
2018	Dixie County Water Main #208	\$416,500	\$176,500		\$240,000	.0015

ALTERNATIVE WATER SUPPLY REPORT

Agricultural Water Conservation

Anticipated District Agricultural Cost-Share Program Results:

Fiscal Year	Funds	Estimated water savings MGD	Irrigation Retrofits	Advance Irrigation Scheduling Tools	Special Projects
2012-2013	\$1,200,550	5.2	70	211	8
2013-2014	\$837,575	3.87	67	100	
2014-2015	\$467,390	1.1	19	43	1
2015-2016	\$3,363,256	2.27	24		
2016-2017	\$1,314,679	4.53	24	282	3

Dairy Wastewater Water Conservation & Nutrient Optimization Project #6

The Dairy Wastewater Water Conservation & Nutrient Optimization Project will improve the management of dairy wastewater by increasing storage pond sizes to achieve greater nutrient uptake and irrigation efficiencies. By having additional storage dairies can more effectively manage effluent irrigation. This project is estimated to reduce nutrient loadings by 62,000 pounds annually and increase irrigation efficiency by saving an estimated 0.3 MGD, benefitting the springs within the Upper and Lower Santa Fe Basins and Middle and Lower Suwannee.

Suwannee BMAP Center Pivot Retrofits Water Conservation Project #5

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.

Improved Nutrient Application Practices in Dairy Operations – Phase 2 #7

The Improved Nutrient Application Practices in Dairy Operations project will assist dairy operations in reducing nutrient leaching by an estimated 34,000 pounds annually while saving an estimated 0.32 MGD. Within the District, most dairies use overhead impact sprinklers on center pivots to apply their effluent. The project will enable the dairies to retrofit their irrigation systems from overhead impact sprinklers to drop nozzles and therefore apply wastewater more uniformly over their crops.

Dairy Wastewater System Improvements #8

This cost share program is for the use of new technology to improve wastewater systems to reduce nutrient impacts and reduce ground water usage. Improvements may include additional waste water storage, advanced manure solids separation, and/or advance treatment technologies.

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Sustainable Suwannee Pilot Program – Low Input Agriculture and Land Conservation #103

The Sustainable Suwannee Pilot Program will incentivize land uses that conserve water and reduce nutrient loading. Agricultural operations within specific spring sheds will be invited to submit proposals to transition to less intensive cropping systems, change the type of cropping system or agricultural crop altogether, including changes to silviculture, or change the land use to a fallow or native landscape for a certain amount of time or even a permanent conservation easement. The project is anticipated to reduce nutrients by 375,000 pounds per year and conserve approximately 5.10 MGD of water.

Precision Agricultural Practices #89

The project will provide cost share funds to agricultural producers in the BMAP areas to implement precision management technology. Priority will be given to producers within both the BMAP and Florida Outstanding Springs areas. The project will implement practices that allow for precision nutrient and irrigation management, estimated to conserve 8.0 MDG.

Precision Agricultural Practices-2 #227

The project will provide cost share funds to agricultural producers in the BMAP areas to implement precision management technology. Priority will be given to producers within both the BMAP and Florida Outstanding Springs areas. The project will implement practices that allow for precision nutrient and irrigation management, estimated to conserve 1.0 MDG.

District /FDEP Agricultural Cost-Share Programs

Year	Project	Total Project Cost	District Match	DEP Match	Local Match	Bene fit MGD
2014	Dairy Wastewater Conservation & Nutrient Optimization #6	\$1,885,590	\$298,004	\$920,000	\$417,586	0.3
2014	Suwannee Center Pivot Retrofits Water Conservation Project #5	\$2,428,975	\$1,235,000	\$885,000	\$308,975	5.26
2015	Improved Nutrient Application Practices in Dairy Operation – Phase 2 #7	\$2,670,000	\$20,000	\$2,120,000	\$530,000	0.32
2016	Dairy Wastewater System Improvement #8	\$1,800,000		\$1,500,000	\$300,000	0.14
2016	Sustainable Suwannee Pilot Program – Low Input Ag and Land Conservation #103	\$5,000,000		\$5,000,000		5.1
2017	Precision Agricultural Practices #89	\$2,250,000		\$2,000,000	\$250,000	8.0
2018	Precision Agricultural Practices-2 #227	\$4,000,000		\$3,000,000	\$1,000,000	1.0

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Water Resource Development Projects

Ichetucknee Springshed Water Quality Improvement Project #58

The Ichetucknee Springshed Water Quality Improvement Project is a partnership between the District, the City of Lake City, and Columbia County. The City's sprayfields are 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 project converted Lake City's largest treated wastewater effluent sprayfield to a constructed wetland to reduce the total nitrogen loading by an estimated 85 percent (up to 94% nitrate removal). The project is estimated to provide beneficial recharge to the Upper Floridan aquifer up to 1.19 MGD. Construction on the project was completed at the end of 2017.

Middle Suwannee River and Springs Restoration and Aquifer Recharge Project #78

The Middle Suwannee River and Springs Restoration and Aquifer Recharge Project is a partnership between the District, the DEP, 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.

Eagle Lake/Upper Suwannee River Springs Enhancement Project #124

The Eagle Lake/Upper Suwannee River Springs Enhancement Project is a Private-Public Partnership with PotashCorp that recovers and stores surface water for use in mining operations, enabling a reduction in ground water withdrawals by approximately 10 MGD, benefitting Blue Sink Spring, Mattair Springs, and Suwannee Springs. The project also reduces nutrient loads to the Upper Suwannee River and local springs by approximately 110,000 lbs./yr. of total phosphorus and 140,000 lbs./yr. of total nitrogen (primarily as ammonia). Construction on the project was completed at the end of June 2016.

Brooks Sink Aquifer Recharge #15

The Brooks Sink Aquifer Recharge Project, located in Bradford County, is a public-private partnership with Rayonier Operating Company LLC to restore a natural hydrologic connection to Brooks Sink. This is one of the largest cover collapse sinkholes in the state of Florida and is directly connected to the IAS, which overlies the UFA. This project was completed in early 2015. Since project completion 190.3 million gallons have recharged the aquifer, 0.22 MGD of recharge.

Ichetucknee Trace-Cannon Creek Project #133

The Ichetucknee Trace-Cannon Creek Project provides flood mitigation, water quality improvement and aquifer recharge. The project will improve spring flows and spring water quality within the Ichetucknee Springs Group. Through the replacement of an old drainage well and 13 acres of wetland construction, the project is estimated to provide approximately 2.0 to 4.0 MGD of aquifer recharge and remove 10,000 lbs. of nutrients annually.

Oakmont Recharge Wetland Project Ph II #83

The District is partnering with Gainesville Regional Utilities to construct a recharge wetland in

ALTERNATIVE WATER SUPPLY REPORT

western Alachua County, treating both reclaimed water and storm water. The subdivision is located within the Poe Springs Watershed. The second phase of the project will provide water quality treatment and roughly 0.5 to 1.0 MGD in aquifer recharge.

Cow Pond Drainage Aquifer Recharge Project #28

The Cow Pond Drainage Aquifer Recharge Project will re-establish natural drainage patterns, use natural recharge features, and recharge wells to enhance aquifer recharge and rehydrate approximately 300 acres of sand ponds and approximately 1,750 acres of wetlands. The estimated benefit is 1.69 MGD

Lower Suwannee Drainage Basin Aquifer Recharge #74

This project will rehydrate approximately 500 acres of sand ponds and approximately 1,250 acres of wetlands by re-establishing natural flow through recharge features and an aquifer recharge well. The estimated benefit is 3.26 MGD.

I-75 / CR 136 Wastewater Improvements, Septic Elimination #56

Construct a new WWTP plant with wetland treatment/aquifer recharge for effluent disposal, eliminating 32 existing commercial septic tanks. The estimated benefit is 0.095 MGD of recharge to the aquifer.

Infiltrative Wetlands for WWTF Effluent Treatment/Disposal Ph 1 (High Springs) #59

This project will convert the City's existing effluent sprayfield into infiltration wetlands. Only 10 acres would be constructed in Phase 1 which would provide sufficient capacity for the City's current wastewater treatment capacity of 0.24 MGD. The project is located within the Santa Fe BMAP area.

Madison Blue Springs #75

This project consists of the rehabilitation or replacement of up to six existing drainage wells to improve recharge rates. This may include the installation of biosorptive activated media (BAM) or the construction of treatment wetlands. This project is in the District's 2017 Florida Forever Plan. The estimated benefit is 5.0 MGD of recharge to the aquifer.

Upper Suwannee Regional Aquifer Recharge #111

This project includes the installation of at least four recharge wells in the Upper Suwannee River basin in locations where wetlands were historically ditched and drained into the river. This project intends to capture water during high flow conditions that occur after large rainfall events and during the winter months, provide additional water quality treatment, and provide significant beneficial aquifer recharge to the Upper Floridan. The estimated benefit is 4.0 MGD of recharge to the aquifer.

Scriven Avenue Drainage Improvements #94

Replacement in kind of a Class V injection well in the City of Live Oak in the adjacent stormwater management facility. A new well of the same diameter, casing depth, and total depth will be drilled in the southwest corner of the facility. Primary goal is to reduce flood vulnerability in residential area. Another benefit is an increase in runoff volume that is treated in stormwater management

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facility. The estimated benefit is 0.03 MGD of recharge to the aquifer.

Lake Harris #137

Lake Harris had five existing 6 or 8 inch drainage wells that became plugged and were nonfunctional leading to flooding during high storm events. In 2004 a 16-inch replacement well was drilled however additional capacity was required and this project provided a second 16-inch well. Both new wells provide additional aquifer recharge and alleviate flooding. This project was done by Columbia County.

Bee Haven Bay WRD #230

Provide surface water storage of stormwater in a formerly mined area to be made available as an alternative water supply.

Ichetucknee Springs Quality & Quantity Enhancement #231

Increase the wetland polishing area from 1 MGD to 3 MGD with estimated recharge of 2 MDG and additional nutrient reduction.

Oakmont Reclaimed Water Ph 3 #229

Expansion of reclaimed water distribution system pipelines in Oakmont subdivision to offset use of potable water for irrigation and recharge.

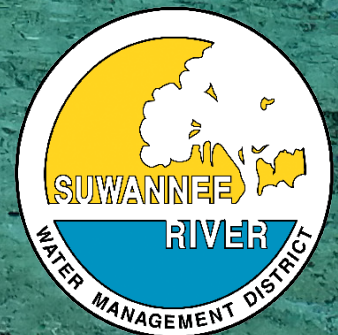
Water Resource Development Projects

Year Funded	Project	Total Project Cost	District Match	DEP Match	Local Match	Benefit (mgd)
2014	Ichetucknee Springshed Water Quality Improvement Project	\$4,600,000	\$400,000	\$3,900,000	\$300,000	1.19
2014	Middle Suwannee River and Springs Restoration & Aquifer Recharge	\$1,852,000	\$277,000	\$1,500,000	\$75,000	10.0
2014	Eagle Lake/Upper Suwannee River Springs Enhancement Project	\$3,600,000	\$300,000	\$3,070,000	\$230,000	10.0
2014	Brooks Sink Aquifer Recharge	\$35,000	\$35,000			0.22
2015	Ichetucknee Trace Cannon Creek	\$3,030,000	\$30,000	\$3,070,000	\$230,000	2.0 -4.0
2015	Oakmont Recharge Wetland Ph II	\$230,000	\$150,000		\$80,000	0.5-1.0

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Year Funded	Project	Total Project Cost	District Match	DEP Match	Local Match	Benefit (mgd)
2016	Cow Pond Drainage Basin Aquifer Recharge	\$1,600,000	\$50,000	\$1,500,000	\$50,000	1.69
2016	Lower Suwannee Drainage Basin Aquifer Recharge	\$2,406,359	\$143,000	\$2,200,000	\$63,359	3.26
2016	Lake Harris	\$120,000			\$120,000	1.12
2017	I75 / CR 136 Waste Water Improvements/Septic elimination	\$3,330,000		\$2,780,000	\$550,000	0.095
2017	Infiltrative Wetlands for WWTF Effluent Treatment/Disposal (High Springs)	\$1,708,500		\$1,708,500		0.03
2017	Madison Blue Springs Aquifer Recharge	\$2,275,000	\$50,000	\$2,150,000	\$75,000	5.0
2017	Upper Suwannee Regional Aquifer Recharge	\$2,500,000		\$2,500,000		4.0
2017	Scriven Avenue Drainage Improvements (RIVER)	\$92,439	\$81,646		\$10,793	0.03
2018	Bee Haven Bay WRD	\$370,000		\$370,000		0.7
2018	Ichetucknee Springs Quality & Quantity Enhancement	\$1,850,000		\$1,800,000	\$50,000	0.63
2018	Oakmont Reclaimed Water Ph 3	\$705,000		\$352,500	\$352,500	0.07

FIVE-YEAR WATER RESOURCE DEVELOPMENT WORK PROGRAM



Introduction

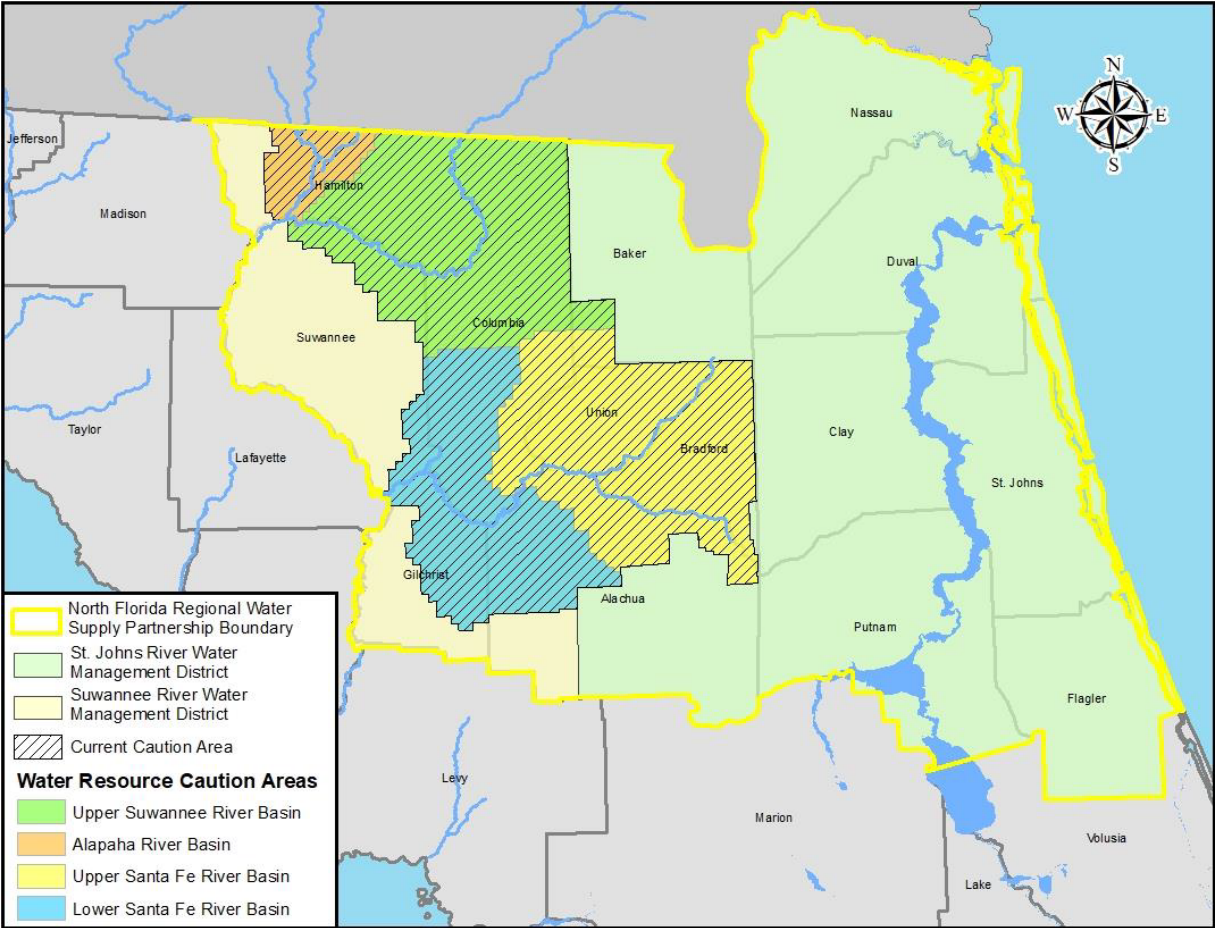
Water Management Districts are required by 373.709, F.S., to evaluate their water resources to ensure that existing sources of water are adequate to supply water for all existing and future reasonable-beneficial uses and to sustain the water resources and related natural systems for a 20-year planning period. A Regional Water Supply Plan (RWSP) is developed when a District determines that there is not enough water to meet the region's needs in a sustainable manner. RWSPs include a technical analysis of the current and future demands, evaluate available sources, and identify water resource development projects and water supply development projects to meet those demands.

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

- Address all the elements of the water resource development component in the District's approved RWSPs, as well as the water supply projects proposed for District funding and assistance;
- Identify both anticipated available District funding and additional funding needs for the second through fifth years of the funding plan;
- Identify projects in the Work Program which will provide water;
- Explain how each water resource and water supply project will produce additional water available for consumptive uses;
- Estimate the quantity of water to be produced by each project;
- Provide an assessment of the contribution of the District's RWSPs in supporting the implementation of minimum flows and minimum water levels and water reservations; and
- Ensure sufficient water is available to timely meet the water supply needs of existing and future reasonable-beneficial uses for a 1-in-10-year drought event and to avoid the adverse effects of competition for water supplies.

This Work Program covers the period from fiscal year (FY) 2018-19 through FY 2022-23 and is consistent with the planning strategies of the District's North Florida Regional Water Supply Plan, (NFRWSP), a regional water supply plan produced and implemented jointly between this District and the SJRWMD (see Figure 1). The NFRWSP was approved by both Districts in 2017 and covers the 2015-2035 planning horizon. The next update is scheduled for January 2022. The planning region includes all or portions of Hamilton, Columbia, Baker, Suwannee, Union, Bradford, Gilchrist, Putnam, and Alachua Counties, as well as Region 1 of the SJRWMD. For additional information about the NFRWSP, please see <https://northfloridawater.com/watersupplyplan/index.html>.

Figure 1: North Florida Regional Water Supply Plan Partnership Area



Work Program Summary

The projects listed in the Five-Year Water Resource Development Work Program demonstrate progress in implementing projects which are listed in the North Florida Regional Water Supply Plan (NFRWSP) or support the Plan's objectives. Implementation of projects listed in the NFRWSP supports the recovery strategy for the Lower Santa Fe and Ichetucknee Rivers and Priority Springs (LSFI). The District believes that this work program is adequate to further the recovery of LSFI, to ensure water is available to timely meet the water supply needs of existing and future reasonable-beneficial uses for a 1-in-10 -year drought event, and to avoid the adverse effects of competition for water supplies based on the District's established MFLs.

Over the next five years, the District will continue to implement projects and support regional water management programs, including water supply planning, water resource data collection and monitoring, and establishment of minimum flows and minimum levels to ensure the availability of adequate water supplies for all reasonable-beneficial uses and to maintain the function of natural systems. This work program illustrates the contributions of the District in support of minimum flows and minimum water levels (MFLs). Establishment of MFLs will proceed according to the District's MFL Priority List. The most current version of the District's MFL priority list, and an overview of the District's MFL program is available on the District's website.

In total, this Work Program outlines projects that, upon completion, will make available 47.34 mgd of water, including reuse and non-reuse water. These projects are detailed in Appendix A. These benefits are associated with approximately \$32,767,048 budgeted for FY 2018–19. The proposed funding for projects identified the 5-year Work Program is approximately \$32,767,048 through FY 2022–23. The District also funds Water Resource Development Activities that are regional in nature and are therefore primarily the responsibility of the District, these activities are described in Table 1 and 2, and are associated with approximately \$5,738,451 budgeted in FY 2018-19.

In addition, these projects set forth a commitment to develop projects associated with implementation of MFLs. The projects benefitting MFLs are anticipated to make available 47.14 mgd of reuse and non-reuse water upon completion. Of that, 20.37 mgd of reuse and non-reuse water that will benefit MFLs in recovery.

Water Resource and Water Supply Development Project Funding

The District funds projects that support water resource development and water supply development. Water resource development components are those that involve the “formulation and implementation of regional water resource management strategies, including the collection and evaluation of surface water and groundwater data; structural and nonstructural programs to protect and manage water resources; the development of regional water resource implementation programs; the construction, operation, and maintenance of major public works facilities to provide for flood control, surface and underground water storage, and groundwater recharge augmentation; and related technical assistance to local governments, government-owned and privately owned water utilities, and self-suppliers to the extent assistance to self-suppliers promotes the policies as set forth in s. 373.016.”¹ Water supply development components are those that involve “planning, design, construction, operation, and maintenance of public or private facilities for water collection, production, treatment, transmission, or distribution for sale, resale, or end use.”² A list of all projects meeting these statutory definitions is provided in Appendix A.

The District provides funding assistance to public supply, agriculture, and other water use permittees, including industrial and commercial users, for projects that are consistent with the District’s RWSP and meet the District’s criteria for cost-share.

Water Resource Development Activity Funding

The District also funds Water Resource Development Activities that are regional in nature and are therefore primarily the responsibility of the District. These Water Resource Development Activities are listed in Table 1 below; and the projected expenditures for these ongoing programs are listed in Table 2. The District has identified the need for additional Regional Water Supply Planning. These planning efforts will be ongoing for FY 2018-19 through 2022-23 and are reflected in the projected expenditures in Table 2.

¹ Section 373.019(24), F.S.

² Section 373.019(26), F.S.

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Table 1: District water resource development activities and descriptions

Water Resource Development Activity	Activity Description
Water Supply Planning (1.1.1)	Long-term planning to assess and quantify existing and reasonably anticipated water supply needs and sources, and to maximize the beneficial use of those sources, for humans and natural systems. This includes water supply assessments developed pursuant to section 373.036, Florida Statutes, and regional water supply plans developed pursuant to section 373.709, Florida Statutes.
Minimum Flows and Minimum Water Levels (MFL, 1.1.2)	The establishment of minimum surface and ground water levels and surface water flow conditions required to protect water resources from significant harm, as determined by the district governing board.
Research, Data Collection, Analysis and Monitoring (1.2)	Activities that support district water management planning, restoration, and preservation efforts, including water quality monitoring, data collection and evaluation, and research. Data collection and analysis activities are a critical part of the water resource development component implemented by the District. This activity supports the District's MFL program.
Water Resource Development Projects (2.2.1)	Regional projects designed to create, from traditional or alternative sources, an identifiable, quantifiable supply of water for existing and/or future reasonable-beneficial uses. These projects do not include the construction of facilities for water supply development, as defined in section 373.019(21), Florida Statutes. Such projects may include the construction, operation, and maintenance of major public works facilities that provide for the augmentation of available surface and 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.
Water Supply Development Assistance (2.2.2)	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 section 373.019(21), Florida Statutes.
Other Cooperative Projects (2.4)	Any non-water source development cooperative effort under this program area between a water management district and another organization. This activity includes the District's Agricultural Conservation Cost Share Program.

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Table 2: Fiscal year 2018-19 through Fiscal Year 2022-23 projected expenditures (including salaries, benefits, and operating expenses) for ongoing water resource development activities. Except as noted below, the table estimates future year expenditures based on recurring expenses.

Regional Water Activity	Fiscal Year 2018-19	Fiscal Year 2019-20	Fiscal Year 2020-21	Fiscal Year 2021-22	Fiscal Year 2022-23	Total
Water Supply Planning (1.1.1)	\$697,543 (includes recurring and non-recurring expenses)	\$577,543	\$577,543	\$577,543	\$577,543	\$3,007,715
Minimum Flows and Minimum Water Levels (MFL, 1.1.2)	\$1,891,604 (includes recurring and non-recurring expenses)	\$1,831,604	\$1,831,604	\$1,831,604	\$1,831,604	\$9,218,020
Research, Data Collection, Analysis and Monitoring (1200-00, 31, 32, 33, 36)	\$2,417,287 (includes recurring and non-recurring expenses)	\$2,277,287	\$2,277,287	\$2,277,287	\$2,277,287	\$11,526,435
Water Resource Development Projects (2.2.1)	\$373,734	\$373,734	\$373,734	\$373,734	\$373,734	\$1,868,670
Water Supply Development Assistance (2.2.2)	\$72,060	\$72,060	\$72,060	\$72,060	\$72,060	\$360,300
Other Cooperative Projects (2.4)	\$206,223	\$206,223	\$206,223	\$206,223	\$206,223	\$1,031,115
Total	\$5,658,451	\$5,338,451	\$5,338,451	\$5,338,451	\$5,338,451	\$27,012,255

Basin Management Action Plan Appendix

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

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Appendix A

District Project Number	Project Name	Project Type	Project Description	Project Status	Construction Completion Date	RWSP Region Supported	Primary MFL Supported	Quantity of Water Made Available upon Completion (MGD)	Reuse Flow Made Available upon Project Completion (MGD)	Project Total
89	Precision Agriculture	Agricultural Conservation	The project will provide cost share funds to agricultural producers within the District BMAP areas to implement precision management technology. Additional priority will be given to producers within both the BMAP and Florida Outstanding Springs areas. The project will assist producers implement practices that allow for precision nutrient and irrigation management. This project is anticipated to reduce TN by 7,500,000 pounds per year and conserve 8 mgd.	Construction/Underway	12/1/2020	SR NFRWSP	LSFI	8		\$ 2,500,000
103	Sustainable Suwannee Pilot Program - Low Input Agriculture and Land Conservation	Agricultural Conservation	The Sustainable Suwannee Pilot Program will incentivize land uses that conserve water and reduce nutrient loading. Agricultural operations within specific springsheds will be invited to submit proposals to transition to less intensive cropping systems, change the type of cropping system or agriculture crop altogether, including changes to silviculture, or change the land use to a fallow or native landscape for a certain amount of time or even a permanent conservation easement. The project is anticipated to reduce nutrients by 375,000 pounds per year and conserve approximately 5.10 mgd of water.	Design	1/31/2023	SR NFRWSP	LSFI	5.1		\$ 5,000,000

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7	Improved Nutrient Application Practices in Dairy Operations (Phase 2) (ACS)	Agricultural Conservation	The Improved Nutrient Application Practices in Dairy Operations project will assist dairy operations in reducing nutrient leaching by an estimated 34,000 pounds annually while saving an estimated 0.32 mgd. Within the District, most dairies use overhead impact sprinklers on center pivots to apply their effluent. The project will enable the dairies to retrofit their irrigation systems from overhead impact sprinklers to drop nozzles and therefore, apply wastewater more uniformly over their crops.	Construction/Underway	6/30/2019	SR NFRWSP	LSFI	0.32		\$ 2,670,000
5	Suwannee BMAP Center Pivot Retrofits Water Conservation Project	Agricultural Conservation	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.	Construction/Underway	6/5/2019	SR District-wide	LSFI	5.26		\$ 2,428,975
132	Santa Fe Springs - Nursery Water Conservation (Task 4 S0796)	Agricultural Conservation	Assist nurseries in the conversion of overhead irrigation to micro spray or drip irrigation systems to reduce groundwater use	RWSP or RPS Option Only		SR NFRWSP	LSFI	0		\$ 1,880,000
130	Agricultural Conservation Cost-Sharing Soil moisture probes	Agricultural Conservation	Multi-year cost share program to assist agricultural producers for projects that increase irrigation efficiency and water conservation and assist with nutrient management technology. Used as match funds for various initiatives.	Construction/Underway	09/30/23	SR District-wide		4.54		\$ 2,000,000
75	Madison Blue Spring Aquifer Recharge	Groundwater Recharge	Four existing drainage wells will be rehabilitated or replaced to improve recharge rates.	Design	8/31/2020	SR NFRWSP	Madison Blue Springs	3.4		\$ 2,275,000

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111	Upper Suwannee River Regional Aquifer Recharge	Groundwater Recharge	Installation of at least four recharge wells in the Upper Suwannee River basin in locations where wetlands were historically ditched and drained into the river. This project intends to capture water during high flow conditions that occur after large rainfall events and during the winter months, provide additional water quality treatment, and provide significant beneficial aquifer recharge to the Upper Floridan. Recharge is estimated at 4 mgd. This project was funded through a FDEP FY18 springs grant in August 2017.	Design	12/31/2020	SR NFRWSP	Lower Suwannee River	4		\$ 2,500,000
28	Cow Pond Drainage Basin Aquifer Recharge Project	Groundwater Recharge	Eliminating ditched stormwater runoff and re-establishing flow patterns from the drainage basin to recharge wells and rehydrate lakes and wetlands for natural recharge.	Design	12/31/2019	SR NFRWSP	Lower Suwannee River	1.69		\$ 1,600,000
74	Lower Suwannee Drainage Basin Aquifer Recharge Project	Groundwater Recharge	Eliminating ditched stormwater runoff and re-establishing flow patterns from the drainage basin to rehydrate lakes and wetlands for natural recharge.	Design	12/1/2020	SR NFRWSP	Lower Suwannee River	3.26		\$ 2,406,359
78	Middle Suwannee Springs Restoration Project: Mallory Swamp Improvements - Phase II	Groundwater Recharge	hydrologic restoration activities on the property to rehydrate roughly 1,500 acres of ponds, 4,000 acres of wetlands and recharge the aquifer up to an estimated 10 million gallons per day.	Construction/Underway	12/1/2020	SR NFRWSP	Lower Suwannee River	10		\$ 1,900,000
94	Scriven Avenue Drainage Improvements	Groundwater Recharge	Replacement of a Class V injection well in the City of Live Oak. Existing well will be properly abandoned and new well will be constructed of the same diameter, casing depth, and total depth. Suwannee BMAP.	Design	7/10/2019	SR NFRWSP	Lower Suwannee River	0.03		\$ 107,639
43	Florida Gateway College Cooling Tower Retrofit	Other Non-Traditional Source	This project will replace the college's aging cooling towers with retrofitted cooling towers that will use surface water from a local pond instead of potable water from the aquifer.	On Hold		SR NFRWSP	LSFI	0.09		\$ 212,000

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6	Dairy Wastewater Conservation & Nutrient Optimization Project (ACS)Task 3	Other Non-Traditional Source	The Dairy Wastewater Water Conservation & Nutrient Optimization Project will improve the management of dairy wastewater by increasing storage pond sizes to achieve greater nutrient uptake and irrigation efficiencies. By having additional storage in wastewater storage ponds, dairies can more effectively manage effluent irrigation. This project is estimated to 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.	Construction/Underway	4/5/2019	SR NFRWSP	LSFI	0.3		\$ 1,885,590
8	Dairy Wastewater System Improvement	Other Non-Traditional Source	The project will provide cost share funds to dairies throughout the Middle Suwannee and Lower Santa Fe watershed to improve their wastewater systems. Improvements could include additional wastewater storage, advance manure solids separation, and/or advanced treatment technologies. The project will result in approximately 10,000 pounds of nutrient reductions each year in addition to conserving approximately 0.14 mgd. The project will benefit the springs along the Middle Suwannee and Lower Santa Fe river basins.	Construction/Underway	12/31/2019	SR NFRWSP	LSFI	0.14		\$ 1,800,000
210	FY19 Springs Grants - TBD	Other Project Type	Projects pending approval of funding	On Hold		SR District-wide				\$ 4,580,000
88	Potable Water and Central Wastewater System Improvements (Newberry)	PS and CII Conservation	Replace existing water and wastewater lines to a community within close proximity to the City of Newberry's historic district. Conserve water by eliminating losses in broken pipes.	Complete	8/27/2018	SR NFRWSP	LSFI	0.003		\$ 127,080
98	Starke Fire Hydrant Replacement Project	PS and CII Conservation	The Starke Fire Hydrant Replacement project will reduce unaccounted for water loss throughout the City, which is currently estimated at 24%. This project will replace fire hydrants that are non-functional, broken, leaking, inaccessible, and/or difficult to use. It is estimated that replacement of these hydrants will reduce water loss by 0.0056 mgd.	Complete	8/10/2018	SR NFRWSP	LSFI	0.0056		\$ 142,080

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32	Cross City Hydrant and Water Main Replacement	PS and CII Conservation	Replacement of 7 hydrants and 10 isolation valves within Town's distribution network; installation of 1450 feet of 6" water main, replacing lines that have had recent breaks.	Construction/Underway	11/7/2018	SR District outside NFRWSP	Lower Suwannee River	0.0014		\$ 90,400
109	University Oaks Water System - Phase 3	PS and CII Conservation	Replacement of approximately 2,350 LF of 6" watermain that will provide service to 15 customers within a subdivision 3 miles northeast of Bronson. This is phase 3 of a multi-phase project; phases 1 and 2 were funded through a single District RIVER Cost-Share grant in the 2015 cycle. This project is estimated to conserve .019 mgd. This project was recently funded through the District's RIVER cost-share program in August 2017.	Design	5/30/2019	SR NFRWSP	None	0.02		\$ 127,500
26	Columbia County Water Conservation Initiative	PS and CII Conservation	The Columbia County Water Conservation Project will provide local businesses, such as hotels/motels or office buildings, and multi-family residential units with ultra-high efficiency technology (UHET) indoor plumbing retrofit packages. Retrofitting toilets and faucet aerators with high efficiency fixtures will save water that would otherwise be wasted. This project is estimated to conserve 0.5 mgd.	On Hold		SR NFRWSP	LSFI	0.05		\$ 350,000
113	Waldo Pump No. 2 Replacement & Rehab Lift Station Nos. 2&3	PS and CII Conservation	Replace submersible pump in well 2 and rehabilitation of lift station nos. 2 and 3.	Design	01/10/20	SR NFRWSP				\$ 100,000
208	Dixie County Water Main	PS and CII Conservation	transition an unincorporated residential area from well water usage to Community Potable Water service.	Design	12/30/19	SR District outside NFRWSP		0.00		\$ 416,500
82	Oakmont Groundwater Recharge Wetlands	Reclaimed Water (for groundwater recharge or natural system restoration)	Construction of groundwater recharge wetlands at Oakmont subdivision.	Design	5/30/2019	SR NFRWSP	LSFI	1		\$ 230,000
105	Suwannee Country Club Reuse Connection	Reclaimed Water (for potable offset)	Connect the Suwannee County Club golf course to the City of Live Oak reuse line; install pump station. Reduce groundwater withdrawals for irrigation	Complete	7/12/2018	SR NFRWSP	LSFI		0.1	\$ 129,344
205	McNulty Street Drainage	Stormwater	This project involves sediment removal and the replacement in kind of a Class V injection well in the City of Live Oak	Design	09/30/20	SR District outside NFRWSP		0.03		\$ 264,310
212	FY19 Springs Grants - TBD	Surface Water	Projects pending approval of funding	On Hold		SR District-wide				\$ 5,000,000
213	FY19 Springs Grants TBD	Surface Water Storage	Projects pending approval of funding	On Hold		SR District-wide				\$ 5,000,000

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Appendix B. Basin Management Action Plan

DEP Project ID	BMAP	Lead Entity	Project Name	Project Description	District Project Number	Project Status	Construction Completion Date	TN Reduction (lbs/yr)	TP Reduction (lbs/yr)	Total State Funding	Total District Funding	Lead Entity Match	Project Total
2094	SAFE	City of Newberry	Potable Water and Central Wastewater Improvements	Replace existing water and wastewater lines in close proximity to historic district, thereby reducing unaccounted water loss and preventing potential sewage spills.	88	Underway	10/1/2018				38,434.00	26,566.00	65,000.00
2099	SAFE	GRU	Oakmont Recharge Wetland	Construct a recharge wetland in an existing stormwater retention basin that will reduce nutrients while recharging aquifer.	82	Underway	5/28/2019				150,000.00	80,000.00	230,000.00
2101	SAFE	SRWMD	Improved Nutrient Application Practices in Dairy	To date, 9 agreements with dairies to install screen separators to reduce wastewater solids. 1 agreement with a dairy in the Santa Fe Basin. DEP has allocated \$2,120,000 for districtwide program. Load reduction to land estimate of 1,485 lb-N/yr.	7	Underway	6/30/2019	200.475		309,600.00			309,600.00
2103	SAFE	SRWMD	Sustainable Suwannee Springs Agriculture Pilot Project	Agriculture operators are invited to submit proposals to transition to less intensive cropping systems, change the type of cropping system, or change the land use to fallow or native landscape for a certain amount of time or a permanent conservation easements.	103	Underway	9/30/2019	33750		2,500,000.00			2,500,000.00
2104	SAFE	SRWMD	Regional Initiative Valuing Environmental Resource (Jasper Wastewater)	Benefits of the annual cost-share projects include: improving wastewater facilities serving hundreds of residents and commercial entities, preventing potential discharge of wastewater into receiving waters during various flood events, and significantly re	204	Planned	9/30/2020	835	209		200,448.00	15,000.00	215,448.00
2107	SAFE	SRWMD	Precision Agricultural Practices	Provide cost-share funds to agricultural producers within the BMAP area to implement precision nutrient and irrigation management technology. Districtwide program benefits and dollars split between Santa Fe and Suwannee BMAPs.	89	Underway	12/1/2020	56250		625,000.00		0.00	625,000.00

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				Load reduction to land estimates.									
2108	SAFE	SRWMD	Nursery Water Conservation Initiative	Assist nurseries in upgrading from overhead irrigation methods to micro-spray or drip irrigation. To date, 45 nurseries on 300 acres have received assistance. Load reduction to land estimate of 45,000 lb.-N/yr.	132	Planned	6/5/2019	8100		940,000.00	39,325.00	341,825.00	1,321,150.00
2116	SAFE	Alachua County	Mill Creek Sink Water Quality Improvement Project	See AL-01 for the Phase I project info. Phase II is the acquisition of 240 additional acres surrounding and upstream of Mill Creek Swallet.	173	Planned	5/31/2021			1,300,000.00		1,300,000.00	2,600,000.00
2118	SAFE	Alachua County	Poe Springs Domestic Sewage Infrastructure Upgrade	Install new waterless restrooms with larger holding tanks adjacent to springshed. Replace OSTDS with enhanced passive nitrogen system using biosorption activated media (BAM). Reduction estimate to land surface of 5,776 lb.-N/yr.	86	Underway	12/21/2019	288			150,000.00	196,600.00	346,600.00
2124	SAFE	Gilchrist County	Santa Fe Park and Boat Ramp	Replace boat ramp, add docks and canoe launch, and remedy drainage to reduce sediment and nutrients.	93	Underway	3/6/2019				123,000.00	6,800.00	129,800.00
2127	SAFE	Columbia County	Dream Inn Motel WWTP Closure	Remove the noncompliant WWTP that serves the motel and connect the motel to the County's central sewer system. This also includes relocating, upgrading, and enlarging the existing County WWTF to handle flow from motel. Reduction estimated load to land sur	35	Underway	8/31/2018	360		1,000,000.00	144,300.00	505,700.00	1,650,000.00
2129	SAFE	City of Alachua	Mill Creek Sink Water Quality Improvement Project	Purchase property to install water quality BMPs to reduce pollutant loads discharging directly into the sink. Nutrient loading should be reduced by 66 % and benefit Hornsby Spring.	79	Underway	5/31/2021			1,000,000.00	400,000.00		400,000.00
2133	SAFE	City of High Springs	Wastewater Collection System Extension - Phase A1	Provide central sewer to remaining areas served by septic systems. Elimination of 132 septic systems. Reduction	50	Underway	9/30/2018	1188		3,307,700.00		125,000.00	3,432,700.00

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				estimate to land surface of 2,640 lb-N/yr.									
2137	SAFE	Columbia County	Rum Island Park	Install new public restrooms with lift station and septic system in place of portable toilets. Install BAM to reduce nutrients around septic system. Project also involves bank restoration and dredging.	91	Underway	5/15/2019				150,000.00	150,000.00	300,000.00
4474	SUWA	City of Live Oak	9th and Scriven Regional Stormwater Management Facility	Reduce flooding by increasing runoff treatment in stormwater facility.	94	Underway	7/10/2019				89,246.00	18,393.00	107,639.00
4476	SUWA	City of Live Oak	Suwannee Country Club (SCC) Reuse Connection	Connect the SCC golf course to the City of Live Oak reuse line and install a pump station.	105	Underway	12/31/2018				124,452.00	4,893.00	129,345.00
4480	SUWA	City of Fanning Springs	Fanning Springs Water Quality Improvement Project	Expansion of wastewater collection and transmission system to convert 198 septic systems to sewer in Area 7	41	Underway	1/31/2020	2116		3,355,100.00		40,000.00	3,395,100.00
4481	SUWA	City of Fanning Springs	Fanning Springs Water Quality Improvement Project	Expansion of wastewater collection and transmission system to convert septic to sewer in Area 10 (60 septic systems).	40	Underway	12/31/2019	1978		2,000,000.00	120,000.00		2,120,000.00
4483	SUWA	City of Chiefland	Biosolids Treatment Unit Replacement	Reconstruct the city's aged biosolids treatment unit (digester). The project includes two new tanks and other equipment to better treat the biosolids.	18	Underway	12/31/2019			376,560.00		41,840.00	418,400.00
4484	SUWA	Town of Branford	Branford Wastewater Effluent Pond Failure Repairs	Replace effluent pond at WWTP with tanks.	12	Underway	10/27/2018			599,406.00	231,500.00	137,368.00	830,906.00
4492	SUWA	SRWMD	Sustainable Suwannee Springs Agriculture Pilot Project	Agriculture operators are invited to submit proposals to transition to less intensive cropping systems, change the type of cropping system, or change the land use to fallow or native landscape for a certain amount of time or a permanent conservation easement.	103	Underway	9/30/2019	225000		3,000,000.00			3,000,000.00

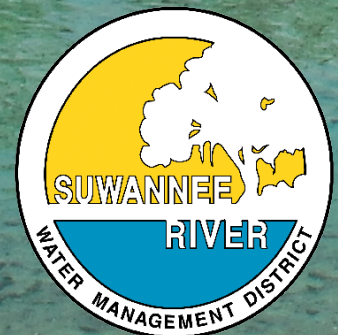
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4493	SUWA	SRWMD	Sustainable Suwannee Springs Agriculture Pilot Project	Agriculture operators, landowners, local governments, private companies, other entities may submit proposals for advanced technologies that can cost-effectively reduce nitrogen in groundwater that contributes to spring flow.	102	Underway	3/30/2020	32700		1,000,000.00		234,626.00	1,234,626.00
4495	SUWA	SRWMD	Precision Agricultural Practices	Provide cost-share funds to agricultural producers within the BMAP area to implement precision nutrient and irrigation management technology.	89	Underway	12/1/2020			2,000,000.00		500,000.00	2,500,000.00
4496	SUWA	SRWMD	Middle Suwannee River Springs Restoration and Aquifer	Installation of hydraulic structures in southeast Lafayette and northeast Dixie counties with the objective of restoring natural water drainage patterns. The project will recharge the aquifer with ~ 10 mgd of water over ~ 1,500 acres of ponds and 4,000 ac	78	Underway	5/9/2019			1,548,000.00	277,000.00	75,000.00	1,900,000.00
4499	SUWA	SRWMD	Dairy Wastewater System Improvement	Cost-share projects with dairies to invest in advanced treatment technologies (bioreactors), additional wastewater storage, and advanced manure solid separation.	8	Underway	12/31/2019	10000		1,500,000.00		300,000.00	1,800,000.00
4502	SUWA	SRWMD	Dairy Wastewater Conservation and Nutrient Optimize	Improve the management of dairy wastewater by increasing storage pond sizes to achieve greater nutrient uptake and irrigation efficiencies.	6	Underway	4/5/2019	62000		920,000.00	298,004.00	417,586.00	1,885,590.00
4504	SUWA	SRWMD	Ravine and Convict Springs Nutrient Capture and Treatment	Install interceptor wells to capture high nitrate groundwater. A denitrifying system will be installed at each spring basin that will reduce nutrient loads and return the groundwater at the two locations.	121	Underway	5/31/2019	4300		600,000.00	30,000.00		630,000.00
4508	SUWA	SRWMD	Improved Nutrient Application Practices in Dairy	To date, nine agreements with dairies to install screen separators to reduce wastewater solids.	7	Underway	6/30/2019	95000		2,120,000.00	20,000.00	530,000.00	2,670,000.00
4512	SUWA	Madison County	Madison Blue Spring Aquifer Recharge	Rehabilitate or replace up to six existing drainage wells to improve aquifer recharge rates. Recharge benefits are estimated up to 3.4 mgd.	75	Underway	9/30/2021	41850		2,150,000.00	50,000.00	300,000.00	2,500,000.00

FIVE-YEAR WATER RESOURCE DEVELOPMENT WORK PROGRAM

4513	SUWA	Lafayette County	County Road 300 Stormwater Improvement Project	Design and construction of a stormwater collection and conveyance system that will increase stormwater storage.	90	Underway	1/5/2018			425,000.00	142,550.00	10,000.00	577,550.00
4514	SUWA	Gilchrist County	Hart and Otter Springs Water Quality Improvement Project	A three-phase project to decommission septic systems at Otter and Hart Springs and to decommission the wastewater package plant at Hart Springs to connect to Fanning Springs WWTP.	85	Underway	1/1/2020	1724		1,779,890.00	115,000.00	50,000.00	1,944,890.00
4517	SUWA	City of Trenton	Trenton Lift Station #7 Rehabilitation	Rehabilitate existing lift station.	69	Completed	12/30/2017				150,000.00	57,600.00	207,600.00
4518	SUWA	SRWMD	Advanced Nutrient Management Through Center Pivots	Fertigation system installation and center pivot retrofits.	4	Underway	6/5/2019	272760		885,000.00	33,150.00	242,500.00	1,160,650.00
4520	SUWA	Dixie County	Cow Pond Drainage Basin Aquifer Recharge Project	Re-establish Natural drainage patterns and use natural recharge features and aquifer recharge wells to restore approx. 300 acres of sand ponds and rehydrate approx. 1,750 acres of wetlands while conserving 1.69 MGD of water and support spring flow.	28	Underway	6/30/2020			1,500,000.00	50,000.00	50,000.00	1,600,000.00
4523	SUWA	Dixie County	Lower Suwannee River Springs Restoration and Aquifer	Restore ~500 acres of sand ponds and rehydrate ~1,250 acres of wetlands by re-establishing N/natural flow through N/natural recharge features and an aquifer recharge well. The project will conserve ~3.26 mgd in water supporting water supply and spring flow	74	Underway	6/30/2020			2,200,000.00	143,000.00	63,359.00	2,406,359.00
4524	SUWA	SRWMD	Pot Spring Restoration Project	Stabilize the shoreline along the spring run to prevent sediment from entering the Withlacoochee River.	87	Underway	4/20/2020	69		183,600.00			183,600.00
4530	SUWA	City of Madison	Lake Frances Sediment Control	This project will improve the quality of stormwater discharged to Lake Frances, which receives most stormwater in the city, a 61-acre watershed.	64	Underway	5/31/2018				42,850.00	34,675.00	77,525.00

WATERBODY GRADES



Introduction

Section 373.036(7)(b)9., F.S., provides that the Consolidated Annual Report shall contain a “grade for each watershed, water body, or water segment in which a project listed under subparagraph 8. is located representing the level of impairment and violations of adopted minimum flow or minimum water levels. The grading system must reflect the severity of the impairment of the watershed, water body, or water segment.”

Table 1 lists the projects contained within the 2018 Five-year Water Resource Development Work Plan, the watershed, water body, or water segment the project impacts, and a grade for two items: 1) the water quality level of impairment and 2) the level of violation of a minimum flow or minimum water level.

Level of Impairment Grade

The Level of Impairment grade is represented as follows:

- *Impaired–High:* This grade is assigned if the waterbody is impaired for one or more parameters other than mercury and based on a consideration of other factors, including the number of impairments, the presence of Outstanding Florida Waters, the proximity to ongoing or planned restoration activities, the ecological priority of the water for endangered and threatened species, environmental justice concerns, the amount of anthropogenic land use, and local aquifer vulnerability.
- *Impaired:* This grade is assigned if the waterbody is impaired for one or more parameters other than mercury.
- *Not impaired:* This grade is assigned if the waterbody is not impaired for any parameters other than mercury.

The FDEP provided the impairment grades based upon Total Maximum Daily Loads (TMDL) based Water Body IDs (WBIDs). Projects that impact a specific WBID were identified in Table 1 for that WBID. As an example, a project that replaced disposal of treated waste water in a spray field or Rapid Infiltration Basin (RIB) with beneficial use of reclaimed water utilized the impairment grade associated with the WBID where the spray field or RIB were originally located. It is important to note that projects contained within a Water Resource Development Work Program are focused on water use/conservation with the exception of the projects contained in appendix A – District Projects for Implementing Basin Management Action Plans.

WATERBODY GRADES REPORT

The Level of Violation of Adopted MFL is represented as follows:

The waterbody was evaluated based on the relative magnitude of the MFL violation and rated as close, moderately close, or not close to meeting the MFL. In evaluating this element, the Districts considered the magnitude of the variance from the MFL, the magnitude of the ecological impact, the timeframe for recovery, and the timeframe for completion of the projects.

The waterbody was also evaluated based on the regional significance of the water body and rated as Tier 1, Tier 2 or Tier 3 with Tier 1 being the highest rating for regional significance and Tier 3 being the lowest rating. In evaluating this element, the Districts considered the waterbody's size and geographical extent, ecological importance, recreational uses, navigation, threatened/endangered species, wildlife utilization, aesthetics, and historical and archeological significance.

- **Meeting:** This grade is assigned for any MFL that was determined to be meeting its MFL at the time of its adoption or during its last status evaluation.
- **Level 0:** This grade is assigned if the waterbody is meeting the MFL but is projected to not meet the MFL within 20 years (that is, the waterbody is in prevention).
- **Level I:** This grade is assigned if the waterbody is close to meeting the MFL and the waterbody is rated as a Tier 3 or Tier 2 for regional significance; or the waterbody is moderately close to meeting the MFL and the waterbody is rated a Tier 3 for regional significance
- **Level II:** This grade is assigned if the waterbody is close to meeting the MFL and the waterbody is rated a Tier 1 for regional significance; or the waterbody is moderately close to meeting the MFL and the waterbody is rated a Tier 2 for regional significance; or the waterbody is not close to meeting the MFL and the waterbody is rated a Tier 3 for regional significance.
- **Level III:** This grade is assigned if the waterbody is moderately close to meeting the MFL and the waterbody is rated a Tier 1 for regional significance; or the waterbody is not close to meeting the MFL and the waterbody is rated a Tier 2 or Tier 1 for regional significance.

WATERBODY GRADES REPORT

District Project ID Number	Project Name	Primary MFL Supported	Quantity grade	WQ WBID NAME	WQ WBID	Quality Grade
4	2014 Springs Projects: Task 1 Fertigation (S0796)	Lower Santa Fe Ichetucknee River	Level III	Ichetucknee River	3519	Impaired
4	2014 Springs Projects: Task 1 Fertigation (S0796)	Lower Santa Fe Ichetucknee River	Level III	Santa Fe River	3605C	Impaired - High
4	2014 Springs Projects: Task 1 Fertigation (S0796)	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422B	Impaired - High
5	2014 Springs Projects: Task 2 WC Through Pivots (S0796)	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422A	Impaired - High
5	2014 Springs Projects: Task 2 WC Through Pivots (S0796)	Lower Santa Fe Ichetucknee River	Level III	Santa Fe River	3605C	Impaired - High
5	2014 Springs Projects: Task 2 WC Through Pivots (S0796)	Lower Santa Fe Ichetucknee River	Level III	Ichetucknee River	3519	Impaired
6	2014 Springs Projects: Task 3 Dairy Lagoon Expansion (S0796)	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422B	Impaired - High
132	2014 Springs Projects: Task 4 Santa Fe Springs - Nursery Water Conservation (Task 4 of S0796)	Lower Santa Fe Ichetucknee River	Level III	Ichetucknee River	3519	Impaired

WATERBODY GRADES REPORT

132	2014 Springs Projects: Task 4 Santa Fe Springs - Nursery Water Conservation (Task 4 of S0796)	Lower Santa Fe Ichetucknee River	Level III	Santa Fe River	3605C	Impaired - High
7	2015 Springs Projects: Dairy Screen Separators	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422A	Impaired - High
8	2016 Springs Projects: Dairy Wastewater System Improvements	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422A	Impaired - High
8	2016 Springs Projects: Dairy Wastewater System Improvements	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422B	Impaired - High
228	Accelerating Suwannee River Restoration and Silviculture Management	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422B	Impaired - High
130	Ag Cost Share - SRWMD soil moisture probes	Lower Suwannee River	Meeting	Suwannee River (Lower Segment), Santa Fe River	3422, 3605	Impaired - High
230	Bee Haven Bay WRD	Lower Suwannee River	Meeting	Rocky Creek Near Benton	3351	Impaired
12	Branford WW Effluent Pond Failure Repairs	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422B	Impaired - High

WATERBODY GRADES REPORT

18	City of Chiefland Nutrient Reduction-Biosolids Treatment Unit Replacement (LP61034)	Lower Suwannee River	Meeting	Unnamed Slough	3710	Not Impaired
26	Columbia County Water Conservation Initiative	Lower Santa Fe Ichetucknee River	Level III	Santa Fe River	3605C	Impaired - High
26	Columbia County Water Conservation Initiative	Lower Santa Fe Ichetucknee River	Level III	Ichetucknee River	3519	Impaired
28	Cow Pond Drainage Basin Aquifer Recharge	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422A	Impaired - High
32	Cross City Hydrant and Water Main Replacement	Lower Suwannee River	Meeting	Fishbone Creek	3686	Impaired
208	Dixie County Water Main	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422A	Impaired - High
35	Dream Inn WWTP Closure	Lower Santa Fe Ichetucknee River	Level III	Olustee Creek	3504A	Impaired - High
40	Fanning Springs Water Quality Improvement Project Phase II	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422A	Impaired - High
41	Fanning Springs Water Quality Improvement Project Phase III	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422A	Impaired - High

WATERBODY GRADES REPORT

43	Florida Gateway College Water Conservation Project (task 3 LP61032)	Lower Santa Fe Ichetucknee River	Level III	Ichetucknee River	3519	Impaired
50	High Springs Wastewater Collection System Extensions - Phase A1	Lower Santa Fe Ichetucknee River	Level III	Santa Fe River	3605C	Impaired - High
231	Ichetucknee Springs Quality & Quantity Enhancement	Lower Santa Fe Ichetucknee River	Level III	Ichetucknee River	3519	Impaired
204	Jasper Wastewater System	Lower Suwannee River	Meeting	Tiger Creek	3358	Not Impaired
64	Lake Francis Sediment Control	Lower Suwannee River	Meeting	Alapaha River	3324	Not Impaired
69	Lift Station No. 7 Rehabilitation	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422A	Impaired - High
74	Lower Suwannee Drainage Basin Aquifer Recharge	Lower Suwannee River	Meeting	Unnamed Drain	3704	Not Impaired
75	Madison Blue Springs Aquifer Recharge	Madison Blue Springs	Meeting	Madison Blue Spring	3315Z	Impaired - High
205	McNulty Street Drainage	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422B	Impaired - High
78	Middle Suwannee River and Springs Restoration and Aquifer Recharge	Lower Suwannee River	Meeting	Unnamed Slough	3624	Not Impaired

WATERBODY GRADES REPORT

79	Mill Creek Sink (FDEP Funding Agreement NS017) Water Quality Improvements	Lower Santa Fe Ichetucknee River	Level III	Mill Creek Sink	3644	Impaired - High
80	Mill Creek Sink (RIVER Agreement with City of Alachua)	Lower Santa Fe Ichetucknee River	Level III	Mill Creek Sink	3644	Impaired - High
173	Mill Creek Sink Land Acquisition Ph II (Alachua Co Contract)	Lower Santa Fe Ichetucknee River	Level III	Mill Creek Sink	3644	Impaired - High
82	Oakmont GRU Phase II (Recharge Wetland)	Lower Santa Fe Ichetucknee River	Level III	Noncontributing Area	2692	Not Impaired
82	Oakmont GRU Phase II (Recharge Wetland)	Lower Santa Fe Ichetucknee River	Level III	Noncontributing Area	2692	Not Impaired
229	Oakmont Reclaimed Water Ph 3	Lower Santa Fe Ichetucknee River	Level III	Noncontributing Area	2692	Not Impaired
85	Otter and Hart Springs Water Quality Improvement*	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422A	Impaired - High
86	Poe Springs Domestic Sewage Infrastructure Upgrade	Lower Santa Fe Ichetucknee River	Level III	Poe Spring	3605W	Not Impaired
87	Pot Springs Restoration	Lower Suwannee River	Meeting	Withlacoochee River	3315	Not Impaired

WATERBODY GRADES REPORT

88	Potable Water and Central Wastewater System Improvements (Newberry)	Waccasassa River	Meeting	Noncontributing Area	3675	Not Impaired
227	Precision Ag-2	Lower Suwannee River	Meeting	Withlacoochee River	3315	Not Impaired
227	Precision Ag-2	Waccasassa River	Meeting	Waccasassa River	3699	Impaired
227	Precision Ag-2	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422	Impaired-High
227	Precision Ag-2	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422B	Impaired - High
227	Precision Ag-2	Econfina River, Aucilla & Wacissa Rivers	Meeting	Aucilla River, Econfina River, Fenholloway River, Steinhatchee River	3310, 3402, 3473, 3573	Impaired
227	Precision Ag-2	Aucilla & Wacissa Rivers	Meeting	Aucilla River	3310	Impaired
227	Precision Ag-2	Lower Suwannee River	Meeting	Tiger Creek	3358	Not Impaired
89	Precision Agricultural Practices	Lower Santa Fe Ichetucknee River	Level III	Ichetucknee River	3519	Impaired
89	Precision Agricultural Practices	Lower Santa Fe Ichetucknee River	Level III	Santa Fe River	3605C	Impaired - High

WATERBODY GRADES REPORT

89	Precision Agricultural Practices	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422a	Impaired - High
121	Ravine & Convict Springs Nutrient Capture and treatment Program (LP61031)	Lower Suwannee River	Meeting	Convict Spring	3422V	Impaired
90	Roosevelt Circle Area	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422B	Impaired - High
91	Rum Island Park	Lower Santa Fe Ichetucknee River	Level III	Blue Spring (Gilchrist County)	3605X	Not Impaired
91	Rum Island Park	Lower Santa Fe Ichetucknee River	Level III	Blue Spring (Gilchrist County)	3605X	Not Impaired
93	Santa Fe Park & Boat Ramp	Lower Santa Fe Ichetucknee River	Level III	Santa Fe River	3605C	Impaired - High
94	Scriven Avenue Drainage Improvements	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422B	Impaired - High
98	Starke Fire Hydrant Replacement Project	Lower Santa Fe Ichetucknee River	Level III	Alligator Creek	3598C	Impaired - High
98	Starke Fire Hydrant Replacement Project	Lower Santa Fe Ichetucknee River	Level III	Alligator Creek	3598C	Impaired - High
102	Sustainable Suwannee Ag Pilot Program - Advanced Technology *	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422B	Impaired - High

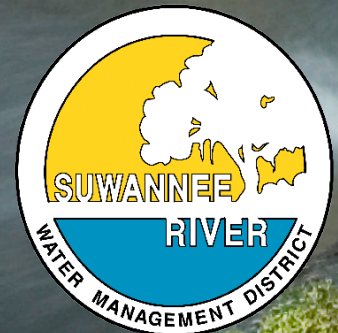
WATERBODY GRADES REPORT

102	Sustainable Suwannee Ag Pilot Program - Advanced Technology *	Lower Santa Fe Ichetucknee River	Level III	Santa Fe River	3605C	Impaired - High
102	Sustainable Suwannee Ag Pilot Program - Advanced Technology *	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422A	Impaired - High
103	Sustainable Suwannee Ag Pilot Program - Low Input*	Lower Suwannee River	Meeting	Suwannee River (Lower Segment)	3422A	Impaired - High
103	Sustainable Suwannee Ag Pilot Program - Low Input*	Lower Santa Fe Ichetucknee River	Level III	Ichetucknee River	3519	Impaired
103	Sustainable Suwannee Ag Pilot Program - Low Input*	Lower Suwannee River	Meeting	Convict Spring	3422V	Impaired
105	Suwannee Country Club Reuse Connection	Lower Suwannee River	Meeting	Tenmile Hollow	3438	Not Impaired
109	University Oaks Water System Improvement	Waccasassa River	Meeting	Unnamed Slough	3712	Not Impaired
110	University Oaks Water System Improvement - Phase 3	Waccasassa River	Meeting	Unnamed Slough	3712	Not Impaired
111	Upper Suwannee River Regional Aquifer Recharge-	Lower Suwannee River	Meeting	Bay Creek, Hunter Creek, Deep Creek, Robinson Creek	3353, 3364, 3388, 3448	Impaired - High

WATERBODY GRADES REPORT

113	Waldo Pump No. 2 Replacement & Rehab Lift Station Nos. 2&3	Upper Santa Fe River	Meeting	Bee Tree Creek	2686	Not Impaired
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FLORIDA FOREVER FIVE-YEAR WORK PLAN



Introduction

The Suwannee River Water Management District (District) is required by section 373.199(7), Florida Statutes (F.S.), to annually update the Florida Forever Five-Year Work Plan. This annual update is presented as a separate chapter in the Consolidated Annual Report pursuant to Section 373.036(7), F.S.

The Florida Forever Act provides funding for land acquisition projects and water resource development and restoration projects. Florida Forever funding must be used to achieve the following goals, as set out in Section 259.105, F.S.:

- Enhance the coordination and completion of land acquisition projects.
- Increase the protection of Florida’s biodiversity at the species, natural community, and landscape levels.
- Protect, restore, and maintain the quality and natural functions of land, water, and wetland systems of the state.
- Ensure that sufficient quantities of water are available to meet the current and future needs of natural systems and the citizens of the state.
- Increase natural resource-based public recreational and educational opportunities.
- Preserve significant archaeological or historic sites.
- Increase the amount of forestland available for sustainable management of natural resources.
- Increase the amount of open space available in urban areas.

The Florida Forever Five-Year Work Plan annual update presents projects the District has identified as eligible for funding under the Florida Forever Act and reports on District land acquisition and management activities.



FLORIDA FOREVER FIVE-YEAR WORK PLAN

Table 1. Actual Florida Forever Expenditures

Fiscal Year	Fee Acquisition Expenditures	Fee Acres Acquired	Conservation Easement Expenditures	Conservation Easement Acres Acquired	Water Resource Development	Restoration
2000-2001	-	-	-	-	-	-
2001-2002	\$4,117,869	30,477	\$5,643,127	12,960	-	-
2002-2003	\$1,158,661	564	\$3,382,632	5,026	-	-
2003-2004	\$3,565,225	1,761	\$1,517,048	2,023	-	-
2004-2005	\$3,792,645	2,661	-	-	-	-
2005-2006	\$648,440	123	-	-	-	-
2006-2007	\$13,082,288	4246	-	-	-	-
2007-2008	\$4,041,930	493	\$6,379,514	3,294	-	\$210,510
2008-2009	\$10,965,200	2,171	-	-	-	-
2009-2010	\$494,000	84	\$1,789,725	786	\$23,500	\$309,080
2010-2011	\$5,426,437	1,201	\$1,557,593	682	\$400,000	-
2011-2012	-	-	\$250,710	167	-	-
2012-2013	-	-	-	-	\$20,825	-
2013-2014	-	-	-	-	-	-
2014-2015	\$628,145 ¹	85	\$707,850 ²	35	\$97,918	-
2015-2016	\$7,160 ¹	-	-	-	\$26,398	-
2016-2017	\$20,073 ¹	-	-	-	-	-
2017-2018	\$1,760,918 ³	329	\$8,045 ⁴	199	-	-
2018-2019	-	-	-	-	-	-
Total	\$49,708,991	44,195	\$21,236,244	25,172	\$568,641	\$519,590

¹ Includes pre-acquisition costs ² Includes land exchanges ³ Florida Forever funded portion of acquisition of Rock Bluff Springs and Ware Forest Tract ⁴ Includes Hancock pre-donation and closing costs

Table 2. Projected Florida Forever Expenditures

	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Conservation Land Acquisition	-	-	-	-	-
Water Resource Development and Restoration Projects	-	-	-	-	-
Total Projected	-	-	-	-	-

Water Resource Development

The District is responsible for managing water resources to ensure there is an adequate supply to satisfy all existing and projected reasonable and beneficial uses while sustaining water resources and protecting natural systems. Potential water resource development projects eligible for Florida Forever funding are detailed below. As the District continues to work with its various partners to further develop these projects, the District will look to leverage multiple funding sources including Florida Forever funding.

Upper Suwannee River Basin Water Storage and Aquifer Recharge Projects

Columbia and Hamilton Counties

These projects propose the identification of areas within the Upper Suwannee River Basin where surface water storage and aquifer recharge can be implemented to attenuate flooding, maintain baseflows in surface streams, and restore the Floridan aquifer system. The District is looking for suitable public and private lands to site water storage and recharge wells within these counties. The project cost is being determined.

Upper Suwannee River Regional Aquifer Recharge

This project is currently being implemented. It includes the installation of at least four recharge wells in the Upper Suwannee River basin in locations where wetlands were historically ditched and drained into the river. This project intends to capture water during high flow conditions that occur after large rainfall events. The estimated capital cost is \$2,500,000.

Bee Haven Bay Water Resource Development Project

The project concept provides for surface water storage in a formerly mined area known as Bee Haven Bay. The project area includes 1,800 acres that would be improved to provide enhanced surface water storage of stormwater, which would be available as an alternative water supply. Nutrien would commit to operation and maintenance (O&M) for the pumps, piping, and water quality monitoring. Once established, this location could be enhanced in the future by directing additional flow to this area or pairing the location with a recharge well. The estimated project cost is \$3,370,000 for all phases.

Hunter Creek Aquifer Recharge Project

The project provides passive gravity recharge of the upper Floridan aquifer (UFA). A gravity recharge well and conveyance would be constructed adjacent to Hunter Creek, downstream of a constructed treatment wetland. A recharge well would improve the ability of the mine to beneficially recharge stormwater when water in excess of mining requirements is present on site. The mine would commit to O&M for the piping and water quality monitoring associated with this well. The estimated project cost is \$650,000.

Eagle Lake II

The project provides passive gravity recharge of the UFA. A gravity recharge well and conveyance would be constructed adjacent to Eagle Lake and builds on the current benefits of the existing Eagle Lake project. A recharge well would improve the ability of the mine to beneficially recharge stormwater when water in excess of mining requirements is present on site. The mine would commit to O&M for the piping and water quality monitoring associated with this well. The estimated project cost is \$650,000.

Hamilton County Drainage Wells

This project concept is to replace two, 12-inch drainage wells to provide aquifer recharge and flood protection in the Alapaha Basin. The wells would allow up to 2 million gallons per day (MGD) of natural aquifer recharge to the UFA and the potential for increased recharge contribution in the form of alternative water supplies from the City of Jasper and surrounding communities. Positive flows into the wells will provide a benefit to springs along the Upper Suwannee River. The project cost and benefits are being determined.

Pilgrim's Pride Wastewater Reuse Feasibility Assessment

Suwannee County

This project is located in eastern Suwannee County and is to investigate, and potentially implement, the reuse of the wastewater stream from the Pilgrim's Pride poultry processing facility along U.S. Highway 90 near Falmouth Spring. Reuse of the wastewater eliminates a permitted discharge into the Suwannee River and provides an alternate source of up to 1.5 MGD of groundwater to a potential user(s) currently using Floridan aquifer water, thereby helping maintain base flows to nearby springs as well as to the Suwannee River. The project is to assess reuse potential within at least a five-mile radius from the facility, and includes local agricultural irrigation, dairy pasture irrigation, and a sawmill as possible end users. The project cost and benefits are being determined.

Upper Santa Fe Basin Flood Mitigation and Aquifer Recharge Projects

Alachua, Bradford and Union Counties

These projects propose the identification of areas within the Upper Santa Fe basin where surface water storage and aquifer recharge can be implemented to attenuate flooding, maintain baseflows in surface streams, and restore the Floridan aquifer system. The District is looking for suitable public and private lands to site water storage and recharge wells.

West Ridge Water Resource Development Area

Bradford County

The West Ridge Water Resource Development Area 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 (DOD) as part of a program designed to secure buffers around military installations. This project provides an excellent opportunity for natural resource enhancement and restoration (particularly wetlands), flood protection, potential aquifer recharge to the UFA, and to augment flows to the upper Santa Fe River. A portion of the project area was previously mined. The District is working closely with the mining business to develop a project that will benefit water resources while allowing the mining business to optimize their mining reclamation plan. The project is currently in the conceptual design phase. The objective of this phase is to evaluate potential project concepts and identify which concepts will maximize water resource development benefits based on flexibility, technical, environmental, and economic feasibility. The project cost is being determined.

Double Run Creek Water Resource Development Area

Bradford County

The Double Run Creek Water Resource Development Area project is in eastern Bradford County and includes 1,910 acres of District-owned land adjacent to the Guard's Camp Blanding. The purchase was funded by a grant from the Guard through the DOD as part of a program designed to secure buffers around military installations. This project presents an excellent opportunity for flood protection, natural resource enhancement and restoration (particularly wetlands), potential aquifer recharge to the UFA, and to augment flows to the upper Santa Fe River. This project is in the conceptual design phase and the project cost is being determined.

Inter-District Water Resource Development Project

Bradford County

This Inter-District Water Resource Development Project is in southeastern Bradford County and will utilize lands adjacent to the Guard's Camp Blanding. This project presents an excellent opportunity for natural resource enhancement and restoration (particularly wetlands), aquifer recharge to the UFA, and to augment flows to the upper Santa Fe River. Aquifer recharge associated with this project will have regional cross-boundary benefits for stressed water resources in both the District and St. Johns River Water Management District (SJRWMD) due to its proximity to the Keystone Heights potentiometric high, which is a regional recharge area for the UFA. The project is in the initial phases of feasibility and is dependent upon successful acquisition of property by the District. The project cost is being determined.

Inter-District Water Resource Development Project

Alachua County

This Inter-District Water Resource Development Project is located in central Alachua County and will target flood storage and aquifer recharge potential in the Prairie Creek and Paynes Prairie sub basins. This project presents an excellent opportunity for aquifer recharge to the UFA in a critical

area providing groundwater flow to Santa Fe River Springs and thereby augment flows to the Lower Santa Fe River. Aquifer recharge associated with this project will have regional cross-boundary benefits for stressed water resources in both the District and SJRWMD due to its relative potentiometric high and large recharge feature in the Prairie. The project is in the initial phases of feasibility and is dependent upon a significant degree of interagency cooperation. The project cost is being determined.

Brooks Sink Phase 2

Bradford County

Brooks Sink, located in Bradford County, is known as one of the largest cover collapse sink holes in Florida and directly connects to the UFA. In the 1970s, previous landowners excavated a series of ditches to drain the wetlands and divert the natural flow of water away from Brooks Sink. In 2015, the District, partnering with Rayonier Operating Company, LLC, completed the first phase of the Brooks Sink Project, which involved installing a flashboard riser in the main ditch to divert the water back to the sinkhole. The first phase has resulted in 190 million gallons, or 0.2 MGD, of recharge from March 1, 2015 through October 31, 2017. Phase 2 proposes the acquisition of an additional 1,020 acres, for a total project area of 2,020 acres, on which flows would be redirected to the natural sink for additional recharge. Phase 2 is in the conceptual design phase and the project cost is being determined. Estimated additional recharge benefits of 0.2 MGD are anticipated.

Lake Sampson Drainage Wells

Bradford County

This project proposes to replace abandoned drainage wells to provide aquifer recharge and flood protection in the Lake Sampson Basin. Flow into the well(s) will be monitored with telemetry using a flume and water level instrumentation. Volumes will be reported in million gallons per day and per year. Positive flows into the well will provide a benefit to springs in the Lower Santa Fe River Water Use Caution Area as well as to related Minimum Flows and Minimum Water Levels (MFLs) set for the river which are currently in recovery. Recharge benefits are estimated up to 2 MGD. The District is actively seeking funding sources for this project. The project cost is estimated to be \$1,200,000.

Outstanding Springs and Priority Focus Area Projects

Sustainable Suwannee – Forestry Cost-Share Pilot Project

The District is proposing a cost-share project that would benefit springs by encouraging land uses such as silviculture that use less water and reduce potential nutrient inputs into surface or groundwaters. Three Outstanding Florida Springs - Ichetucknee, Madison Blue and Troy Springs, Primary or Priority Focus Areas (PFAs) of their respective springsheds will be addressed for potential opportunities. Approximately 3,000 acres may be enrolled.

Dispersed Water Storage Initiative

Several decades ago industrial land owners excavated ditches to drain land for commercial purposes, including pine tree production. This draining had 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.

This project will 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. 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.

Drainage Well Replacement/Rehabilitation and Enhancement of Natural Recharge Features

The District's karst landscape is characterized by frequent interaction between groundwater and surface water through sinkholes and other natural recharge features that promote rapid recharge to the Floridan aquifer. In the past, municipalities used these phenomena to their advantage by accelerating rainfall drainage and reducing flooding impacts using drainage wells. Over time most of the wells have fallen into disrepair or have been plugged entirely. Drainage well replacement and rehabilitation projects would accelerate aquifer recharge and provide increased flood protection, while incorporating modern flow conveyances to provide a greater level of control and water quality improvements compared to past designs. The District will identify existing and/or abandoned drainage wells within the Northern Highland geographic region for replacement/rehabilitation. In addition, the District will identify natural recharge features that may provide recharge projects on an opportunistic basis.

Engineering for Regional Water Resource Development

Preliminary engineering feasibility and scope-identification analyses are typically required to leverage regional water resource development projects to derive enhanced benefits related to water supply or water quality improvement goals. Within the District, the vast majority of municipalities, counties, and partners are economically distressed and are not fiscally able to implement this type of effort. This project would serve to identify and define 'shovel-ready' projects that can be initiated upon securing of other funding avenues.

Restoration Projects

The District, together with state and local partners, has devoted significant funding to projects that focus on restoring water quality and quantity to protect natural systems, especially springs, rivers, and wetlands. Descriptions of water resource restoration projects identified as eligible for Florida Forever funding are provided below. The District continues to work with its state and local partners to identify additional project needs. As projects are developed, the District will look to leverage various funding sources including Florida Forever.

Hydrologic Restoration

San Pedro Bay, Mallory Swamp, and Waccasassa Flats

The District contains extensive ‘pocosin swamps’ that were historically ditched and drained to reduce groundwater saturation of the pocosin soils to allow more intensive plantings of pine species. The largest of these swamps are known as San Pedro Bay in Madison, Taylor, and Lafayette counties, Mallory Swamp in Lafayette and Dixie counties, and the Waccasassa Flats in central Gilchrist County. While successful in increasing plantation densities, derivative impacts included declines in the UFA underlying the swamps, periodic drying of sand-bottom lakes at the perimeter of the swamps and increased suspended solids in the canals and riverine systems leading to the Gulf of Mexico.

In 2001, the District purchased nearly 30,000 acres of the interior of Mallory Swamp and began initial restoration efforts with assistance from the U.S. Department of Agriculture, Natural Resources Conservation Service. Restoration activities included the installation of 311 culverts and 57 ditch blocks to restore natural drainage patterns and increase the ability of the property to store water, thereby rehydrating wetlands and inducing aquifer recharge. However, because the District-owned property did not include the perimeter ditching to the east and extensive drainage features to the south and west of the swamp, overall benefits are less than what is potentially feasible. To date, no such restoration activities have occurred in San Pedro Bay or the Waccasassa Flats.

The goal of future projects in these critical areas is to restore natural hydrology and thereby improve wetland conditions and enhance aquifer recharge at the swamp perimeters to aid in perimeter lake level recovery, as well as, to provide increased springflows to major river systems. These hydrologic restoration projects will also reduce the discharge of suspended solids through the extensive remaining canal networks to natural receiving water bodies and eventually the Gulf of Mexico.

Hydrologic restoration projects in these areas can be accomplished through the acquisition of large conservation easements within the swamp boundaries and along man-made drainage features to permit construction of and perpetual maintenance access for control structures (culverts, ditch blocks, controlled gates), recharge wells and related conveyances, and other restoration activities. These projects are still in the conceptual design phase, however based on similar efforts, restoration costs per acre are estimated at \$1,000, including a conservation easement estimated value of \$500 per acre. An estimated minimum practicable project size would be 4,000 acres, with a consequent planning estimate cost of \$4 million. Total acreage within the three swamps is more than 600,000 acres.

Initial phases of each of these projects can be facilitated by GIS gathering efforts related to identifying and locating man-made drainage features (i.e. canals and ditches) to help target restoration opportunities.

Middle Suwannee River and Springs Restoration Project: Phase II

Lafayette County

The proposed Phase II of the Middle Suwannee River and Springs Restoration and Aquifer

Recharge Project is a private-public partnership between a timber company and the District. The Phase II property and adjacent to Mallory Swamp and adjacent to the existing boundary of the Middle Suwannee Project. The Phase II property is in excess of 6,000 acres, and the District is investigating conservation easement acquisition opportunities to optimize the water resources development potential of the Middle Suwannee Project. Phase II will rehydrate natural systems along and adjacent to the southeastern margin of Mallory Swamp; thereby increasing available surface water for wetland hydration and groundwater recharge, which will enhance springs restoration. The District's approach includes re-establishment 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. Phase II is in the initial stages of investigation with potential benefits being determined. The project cost is being determined.

Spring Water Quality and Quantity Restoration

District-wide

Since 2012, the District has devoted significant funding for projects generating water quantity and quality improvements, with a large focus on springs protection and restoration activities. These projects increased springflow, improve erosion and sediment control, reduce nutrient (Total Nitrogen, Total Phosphorous, Suspended Solids) loading, improved recreational opportunities, support economic growth and development within our communities, and provide natural systems restoration and protection. Projects focused on springs restoration may include: construction of stormwater management systems, parking lot paving, bank repair and stabilization, sediment and debris removal from spring boils/pool/run, construction of distinct access entrance points to protect bank (i.e. steps, ramp, diving platform, canoe launch, etc.), invasive vegetation removal, and/or native aquatic plant installation. Springs restoration project costs average approximately \$100,000 – \$300,000 depending on scope.

Wastewater Septic to Sewer Upgrades

District-wide

Efforts to reduce wastewater pollution may include the elimination of small wastewater package plants and septic tanks that have low levels of treatment and redirect the wastewater to larger regional plants with higher treatment levels. Eliminating septic tanks and package plants can be accomplished by installing service connections to existing sanitary sewer collection systems which directly connect to regional wastewater treatment plants (WWTP). Costs vary greatly depending on the existence of a collection system and the capacity of the WWTP. If the plant can handle the additional wastewater and the collection system is close by, the scope simply involves pumping out the wastewater, crushing the septic tank, and adding a sanitary sewer service connection line. If grinder pumps are needed project costs will increase. The District will continue to work with local partners to develop wastewater infrastructure upgrades and septic to sewer conversion projects. One example is working with SJRWMD and the University of Florida Institute for Food and Agricultural Sciences (UF/IFAS) to evaluate the effectiveness of enhances to septic systems at an UF/IFAS facility. Project costs will be determined as individual projects are identified.

Stormwater Treatment

District-wide

Agricultural and urban runoff has been identified as significant sources of nutrient, bacterial, and potential toxic contaminant pollution. The goal of stormwater treatment projects is to collect and treat stormwater runoff before it’s discharged to surface waters and groundwater. This can be accomplished through the use of hydrodynamic separators or screening devices as a pretreatment method and then using best management practices such as retention and detention systems to filter and/or dilute storm waters. Benefits include preventing trash, debris, suspended solids, oils, and other pollutants from entering surface waters and groundwater, reducing flow rates to match predevelopment rates, reducing erosion, and maximizing storage capacity and property usage. Stormwater treatment projects vary depending on type of treatment and if land is needed, however, these project costs average approximately \$50,000 per acre of impervious area for treatment.

Land Acquisition and Land Management

Land acquisition and management activities protect water resources and the overall ecological health of communities within the District. The Save Our Rivers, Preservation 2000, and Florida Forever programs have preserved over 287,944 acres to protect the region’s river systems and groundwater resources. The following table summarizes fee and less than fee acres owned by the District as of December 2018.

Table 3. Protected Lands by River Basins

Basin	Fee Acres	Less Than Fee Acres	Potential Acquisition Project Acres*
Alapaha	2,922	1,542	2,902
Aucilla/Wacissa	15,706	12,031	4,544
Coastal River/Econfina/Steinhatchee	48,372	52,645	2,648
Santa Fe/Ichetucknee	15,564	8,632	37,268
Suwannee	65,937	28,639	27,933
Waccasassa	5,327	24,214	5,840
Withlacoochee	6,394	18	6,251
Total	160,222	127,721	87,386

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*Acreage change from prior workplan is a result of the District's water resource development initiatives and proposed property offers.



Land Acquisition Planning

The District's land acquisition efforts focus on areas for springs protection and to support potential water resource development projects. Water resource development project areas are basically located in two broad zones:

- Areas of high recharge adjacent to the Cody Escarpment: These areas provide the highest potential for identifying and/or locating natural recharge features in the vicinity of possible upgradient recharge water sources, with the intent of minimizing eventual water resource development project transmission and treatment costs.
- Areas of potentiometric high groundwater: These areas constitute the greatest relative benefit with respect to the duration of time that recharged or otherwise retained waters remain in the UFA, as well as maximizing groundwater gradients in District springsheds.

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 and contractors, who then make recommendations to the Governing Board Lands Committee for review and approval to send the proposed acquisition to the full Governing Board for consideration. The following objectives guide the District's evaluation of potential acquisition areas:

- Preserving floodplain to maintain storage capacity, attenuate floodwaters, and mitigate flood risk;
- Protecting groundwater quality by maintaining low intensity land uses;
- Preserving natural buffers along water bodies where adjacent uses have a high potential to degrade surface water quality;
- Preserving and restoring springs and surrounding areas to protect and improve surface and groundwater; and
- Increasing recharge to the UFA via water resource development projects restoring natural hydrology in headwater swamps and increasing water retention for recharge enhancement.

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Approved Land Acquisition Projects

The Governing Board has directed staff to use a watershed approach to conduct detailed assessments of potential acquisitions and water resource development projects within the Aucilla, Coastal Rivers, Lower Suwannee, and Waccasassa River Basins. This approval allows staff to take advantage of unanticipated opportunities and leverage District resources on potential projects with RESTORE funds and other funding sources. The Governing Board also approved District staff to work with local partners to identify potential acquisition and water resource development projects in the Santa Fe and Ichetucknee Basins that benefit the Santa Fe and Ichetucknee Rivers and Associated Springs MFLs and the Santa Fe Basin Management Action Plan (BMAP). If benefits for acquisition are identified, staff will make a recommendation to the Lands Committee for review and approval to forward to the Governing Board.

Also, the District has executed an agreement with the North Florida Land Trust to perform specific conservation land acquisition services on behalf of the District. These acquisition services will only be performed upon District staff receiving the appropriate approvals by the Governing Board Lands Committee and Governing Board. This agreement will enable the District to reduce costs while leveraging services to forage conservation acquisition partnerships.



During Fiscal Year (FY) 2018, the Governing Board approved the Chastain tract and Moses Exchange land acquisition projects for detailed assessment. These approved projects are summarized in the table below. The District will consider the use of alternative acquisition techniques as a cost-effective means of protection, including exchanges, donations and less than fee purchases.

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Table 4. Acquisition Projects Approved for Detailed Assessment

Seller	Project	Acres	County
Red Hills Land Conservation, LLC	Ware Forest Tract	163	Jefferson
Tim Walker	Tim Walker Conservation Easement	90	Lafayette
Bob Chastain	Chastain Tract	7	Columbia
Jerry Coker	Lumber Camp Springs	37	Gilchrist
Michael and Freda Shaw	Shaw Conservation Easement Exchange	1,099	Lafayette
U.S. Forest Service	Sandlin Bay Exchange	2,023	Columbia
James Moses	Moses Exchange	10-20	Hamilton/Suwannee

The following table summarizes the District's land acquisition activity during FY 2018.

Table 5. Acquisitions Completed in FY 2018

Seller	Acres	County	Date	Transaction	Funding Source
Red Hills Land Conservation, LLC N/A	163	Jefferson	02/14/2018	Fee	Surplus Lands Fund Balance & Florida Forever

Surplus Lands

The District reviews its land holdings to identify any areas that may not be critical for floodplain management, aquifer recharge, and the protection of surface waters, wetlands, and springs. Such lands are declared surplus and either sold or exchanged on the private market or conveyed to other units of government. The proceeds of any sales and exchanges are dedicated to the acquisition of lands with higher water resource and conservation values. Table 6 lists surplus lands activities during FY 2018.

Table 6. Surplus Lands Activity FY 2018

Surplus Parcels	Acres	County	Disposition Date	Transaction	Proceeds
Alligator Lake	43	Columbia	8/14/2018	Conveyance to Columbia County	\$0.00
Suwannee Springs Solid Waste Transfer Site	6	Suwannee	7/10/2018	Conveyance to Suwannee County	\$0.00
Falmouth Spring Solid Waste Transfer Site	5	Suwannee	7/10/2018	Conveyance to Suwannee County	\$0.00
Branford Bend	167	Suwannee	7/10/2018	Conveyance to Suwannee County School Board	\$0.00

Land Management

Land management activities ensure District lands continue to provide important water resource functions needed to maintain natural systems and benefit the public. Annually, the District's Land Management Review Team performs a review of management objectives and activities conducted on fee-simple title lands held by the District. The results of the review are published in the Land Management Report which provides details and accomplishments on natural community resource

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projects designed to maintain or improve natural communities, forest resources, rare species, cultural and historical resources, and aesthetic and visual resources. The Land Management Report also addresses social and economic management goals and activities which are key components of the land management program and include public use, communications and fiscal responsibility. During FY 2018, the Land Management Review Team met and exceeded its goals for managing the land according to the plan and purpose for which it was acquired.

The following summarizes significant natural community resource projects during FY 2018. A complete listing of activities and accomplishments can be found in the 2018 Land Management Report available on the District's website.

Silviculture Water Yield Research Project

This project is part of a statewide effort to advance the understanding of the potential benefit of forest management practices on water yield, and whether this water is held in surficial systems or reaches the aquifer. This project was completed in FY 2018 and was being conducted with other water management districts, Florida Department of Environmental Protection, Florida Department of Agriculture and Consumer Services, Florida Forest Service, UF/IFAS. Research outcomes from this effort will be used to identify and impact water resource development projects.

Natural Resource Management

Forest Resources

- In FY 2018 the District completed eight timber sales totaling 742 acres.
- Three timber sales were final harvests for species conversion in stands with declining health.
- Two timber sales were pine thinnings for improving forest health and natural community restoration.
- Two timber sales were salvage operations due to southern pine beetle infestations.
- One timber sale was a hardwood removal for sandhill natural community restoration.
- Data was collected on 730 inventory plots during FY 2018. The data from these plots can be used to quantify the acres that have achieved their natural community goals and provide data for areas that could be improved by a timber harvest.

Prescribed Fire

- In FY 2018, prescribed burning was conducted on approximately 18,000 acres of District lands. This work was done to help meet natural community vegetation restoration/management objectives and to help protect against the damaging effects of wildfire by reducing fuel loads.
- The District received \$60,928 in grant funding from the Florida Forest Service to conduct prescribed burning on approximately 1,282 acres of the Mallory Swamp tract in Lafayette County.

Mechanical Vegetation Control

- In FY 2018, approximately 908 acres were roller-chopped, and 313 acres were mowed to

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help facilitate the use of prescribed fire and to help meet natural community restoration/management objectives.

- The District received \$25,599 in grant funding from the Florida Forest Service to conduct roller chopping work on approximately 310 acres of the Mallory Swamp tract in Lafayette County.
- The District received \$24,930 in grant funding from the U.S. Fish and Wildlife Service to conduct mowing work on approximately 99 acres of the Peacock Slough tract in Suwannee County.

Chemical Vegetation Control

- In FY 2018, approximately 332 acres were treated with herbicides on the Mattair Springs tract in Suwannee County to help facilitate the use of prescribed fire and to help meet natural community restoration/management objectives. Approximately 189 miles of ditch edges were also treated on the Mallory Swamp tract in Lafayette County to help control hardwood re-sprouts and facilitate the use of prescribed fire by increasing fireline width.
- The District received \$16,076 in grant funding from the U.S. Fish and Wildlife Service to conduct herbicide work on approximately 87 acres of the Mattair Springs tract in Suwannee County.

Invasive Plant Control

- In FY 2018, District staff monitored 133 invasive plant infestations and treated 84 of those infestations with herbicides.
- Contractors treated approximately 76 acres of invasive plant infestations on the Lake Rowell tract in Bradford County; 32 acres were also treated by contractors on the Edwards Bottomland area in Bradford County in conjunction with a wetland mitigation project.
- The District received \$9,472 in funding through the Florida Fish and Wildlife Conservation Commission (FWC) to conduct invasive plant control work on 32 acres of the Edwards Bottomland area in Bradford County.

Rare Species Survey/Monitoring

- In FY 2018, District staff conducted rare species survey and monitoring work on portions of the Peacock Slough tract in Suwannee County, the Steinhatchee Springs tract in Lafayette County, and the Steinhatchee Falls tract in Taylor and Dixie Counties. This survey work yielded a total of 51 new plant occurrences and five animal occurrences. Six existing rare plant occurrences were also monitored and found to be intact. All new occurrences included species listed as either state endangered, state threatened, or species of special concern.
- The Florida Fish and Wildlife Conservation Commission conducted Gopher Tortoise (*Gopherus Polyphemus*) line transect surveys on the Withlacoochee Quail Farm tract in Madison County and the Little River tract in Suwannee County. On the Withlacoochee Quail Farm tract, 186 potentially occupied burrows were scoped and Tortoise density was determined to be .622/acre. Data for the Little River tract was still not available and will be documented in the FY 2019 Report. All new occurrences documented during these surveys will be uploaded into the Districts rare species GIS layer file.

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- Special Use Authorizations were obtained from the District in FY 2018 to conduct several types of biological research. This included: 1) A study by the University of Florida looking at the effect of land use changes on the dietary composition of bats on the Double Runs Creek tract in Bradford County; 2) Population surveys of the Spotted Turtle (*Clemmys guttata*) and the Round-Tailed Muskrat (*Neofiber alleni ssp.*) conducted by the Florida Fish and Wildlife Conservation Commission. These surveys were conducted on the Mallory Swamp, Steinhatchee Springs, and Santa Fe Swamp tracts in Lafayette, Alachua, and Bradford Counties. Results of this research is still not available and will be documented in upcoming reports.

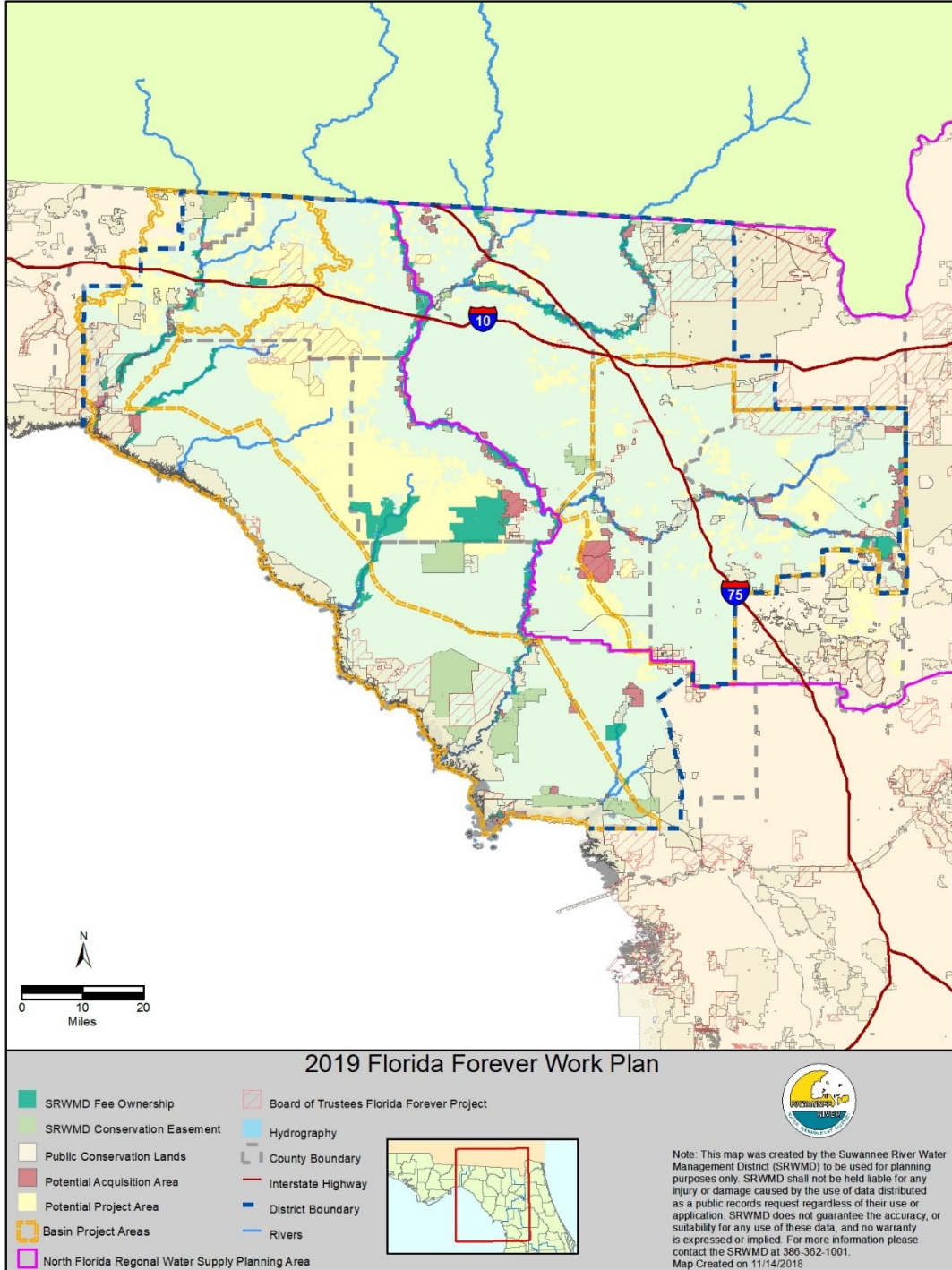
Public Use

- 94% of fee title lands owned by the District are open to the public for recreation. Lands not open to the public include wellfields, spray fields, and water resource development project sites.
- District partnered with Lake City Longbeards, Jefferson County King of Springs, and Gator Gobblers Chapters of the Nation Wildlife Turkey Federation to sponsor women in the outdoors and youth special opportunity hunts.
- Land Management staff worked with GIS staff to develop several GIS apps to use on tablets and iPads that will enable the staff and contractors to use and collect data. For example, the public use area has an app to collect tract inspection data to identify safety issues and repair work needed on District lands.
- The District cooperates with FWC and U.S. Fish and Wildlife Service to provide public hunting opportunities on almost 108,000 acres.
- During FY 2018, 614 Special Use Authorizations (SUA) were issued for use of District lands.

Facilities Maintenance Projects

- In FY 2018, a total of 175 miles of property boundaries were maintained.
- Approximately 42 miles of total road maintenance was completed on the following tracts: Steinhatchee Springs, Steinhatchee Falls, Steinhatchee Rise, Mud Swamp, Santa Fe River Ranch, Lake Rowell, Hunter Creek, Roline, and Manatee Springs (Usher Landing). Of the 42 total miles of roadwork completed in FY 2018, approximately eight miles were timber harvest related.
- A new half mile long access road was constructed on the Hunter Creek tract to improve recreational access. The new road also enabled vehicle use on the property without possession of an SUA.

Florida Forever Plan Map



MITIGATION DONATION ANNUAL REPORT



Executive Summary

In accordance with Section 373.4137, Florida Statutes (F.S.), 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.

A total of 15 wetland mitigation projects have been initiated since 1996. Eight projects were completed successfully, five are being monitored by District staff, and two were for the purchase of mitigation bank credits. The District has received a sum total of \$6,060,856 from FDOT to manage these wetland mitigation activities. The FDOT has not proposed any new projects for the 2019 through 2023 planning period.

Background Information

Section 373.4137, F.S. , 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 a mitigation plan to offset environmental impacts from FDOT road projects that require an Environmental Resource Permit (ERP). By July 1st of each year, 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 develop 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 (USACE), and other appropriate federal, state, and local governments, to develop a mitigation plan for presentation to the WMD Governing Board prior to March 1st of each year. Once the mitigation plan is approved by the Governing Board it shall be submitted to FDEP for approval. Upon approval by FDEP, the WMDs can implement mitigation projects as outlined in the mitigation plan.

FDOT wetland impacts in the District have occurred or will occur in the following eight river basins: Alapaha, Aucilla, Coastal Rivers, Santa Fe, Suwannee River, Upper Suwannee River, Waccasassa, and Withlacoochee (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 (UMAM), in accordance with Chapter 62-345, Florida Administrative Code (F.A.C.), to calculate the functional 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 Projects

No new FDOT mitigation projects are proposed for the next three-year period (2019 to 2022).

On-Going Projects

Santa Fe River Basin

- 1) FDOT Project: County Road 231 New River Bridge Replacement
Mitigation Project 1: Edwards Bottomland (EBL)

The District received an application from FDOT, ERP-007-228291-2 on September 10, 2018, for the construction of a new bridge over the New River on County Road (CR) 231 in Bradford and Union counties. The anticipated construction date is July 8, 2019. FDOT proposes 1.26 acres of wetlands will be impacted by the project resulting in a total UMAM functional loss of 0.62. The project will occur in the Santa Fe River basin and the mitigation for the project will be completed at the Edwards Bottomland (EBL) mitigation site, also located in the Santa Fe River Basin. Upon completion of the EBL site, which consists of 10.33 acres of wetland/hydrologic restoration, enhancement, and creation plus invasive species removal and control, a total UMAM functional gain of 7.49 will be created. Earthwork at the mitigation site is complete and wetland plantings are scheduled for the 2018-2019 planting season. The estimated total projected mitigation costs are \$181,890.00 for the UMAM functional loss of 0.62.

- 2) FDOT Project: Starke By-pass Project (State Road 223)
Mitigation Project 2: Starke Bypass Mitigation Area (SBMA)

The District issued ERP-007-213985-1 on October 22, 2017, for the construction of a new roadway corridor, State Road (SR) 223, that routes traffic around the City of Starke in Bradford County. The project impacted 58.06 acres of wetlands with a total UMAM functional loss of 46.47. Construction of SR 223 is ongoing. A wetland mitigation project to offset these impacts was advertised under a low bid design-build procedure. The District awarded the contract to one of two shortlisted design-build firms. The winning bid was \$2,980,000 submitted by Alligator Creek Mitigation Bank, LLC. The District issued ERP-007-223088-1 on November 6, 2015 for the Starke Bypass Mitigation Area. Alligator Creek Mitigation Bank, LLC initiated construction activities in December 2015. Construction of the mitigation site is complete and monitoring of wetland plantings for success is ongoing.

Completed Projects

Aucilla River Basin

- 1) FDOT Project: US 98 Aucilla River Bridge Replacement
Mitigation Credits 3: San Pedro Bay Mitigation Bank Credit Purchase

The District issued ERP-123-212754-1 on October 24, 2011 for the replacement of US Highway 98 Bridge across Aucilla River. The bridge replacement 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 for this project. District staff met with USACE and FDOT representatives in 2016 to evaluate the success of the mitigation project. It was determined that an additional 0.42 mitigation credits would be required to complete the project. FDOT purchased these mitigation credits from the San Pedro Bay Mitigation Bank on October 27, 2017.

Withlacoochee River Basin

- 2) FDOT Project: State Road 53 Widening and Resurfacing (US 90 to State Line)
Mitigation Project 4: West Farm Lake Stormwater Pond Project

The District issued ERP-079-204218-1 on June 9, 1998 for the widening of SR 53 from US Highway 90 in the City of Madison to the Georgia State Line. The widening of SR 53 impacted 1.6 acres of wetlands. Mitigation created wetland and lake habitat at the West Farm Lake Storm Water Facility in Madison County. Mitigation activities were completed in March 2001. The District received \$260,325 from FDOT for this project.

- 3) FDOT Project: State Road 14 Widening (I-10 to CSX railroad)
Mitigation Project 5: Cabbage Grove Wetland Enhancement

The District issued ERP-079-209145-1 on March 11, 2003 for the widening of SR 14 from Interstate 10 to the CSX Transportation Railroad in the City of Madison. The widening of SR 14 impacted 0.89 acres of wetlands. Mitigation restored natural water flow in wetlands within District owned property, Cabbage Grove Tract, in Taylor County. The District received \$75,594 from FDOT. The mitigation project was completed in 2006. The District conducted operation and maintenance improvements at this site in December 2011.

Upper Suwannee River Basin

- 4) FDOT Project: County Road 143 Widening (CR 146 to I-75)
Mitigation Project 6: Woods Ferry Hydrologic Enhancements

MITIGATION DONATION REPORT

The District issued ERP-047-209544-1 on December 13, 2005 for the widening of CR 143 in Hamilton County from CR 146 to Interstate 75. The widening impacted 1.23 acres of wetlands. The 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.

Coastal Rivers Basin

- 5) FDOT Project: State Road 51 Widening Lafayette County
Mitigation Project 7: Steinhatchee River Basin Hydrological Improvements

The District issued ERP-067-223712-1 on March 13, 2001 for the widening of SR 51 from the City of Mayo to the Taylor County line. The widening of SR 51 impacted 3.5 acres of wetlands in 2002. The mitigation project restored natural water flow for wetlands located on District-owned property called Steinhatchee Springs Tract. The District received \$279,174 from FDOT for this project.

- 6) FDOT Project: State Road 51 Widening Taylor and Dixie Counties
Mitigation Credits 3: San Pedro Bay Mitigation Bank Credit Purchase

The District issued ERP-123-210590-1 on October 10, 2006 for the widening of SR 51 from the Town of Steinhatchee to the Lafayette County line. The widening of SR 51 impacted 1.27 acres of wetlands. Mitigation was achieved by purchase of mitigation credits from San Pedro Bay Mitigation Bank. The District received \$10,200 from FDOT for mitigation and purchased 0.6 mitigation credits from San Pedro Mitigation Bank in 2006.

Santa Fe Basin

- 7) FDOT Project: US Hwy 441 Santa Fe River Bridge Replacement
FDOT Project: State Road 121 Santa Fe River Bridge Replacement
Mitigation Project 8: Alligator Lake Surface Water Improvement and Management (SWIM) Program

The District issued ERP-001-206684-1 and ERP-125-205839-1 on June 13, 2000 and May 13, 1999, respectively, for the replacement of bridges crossing the Santa Fe River in Alachua and Union Counties. The projects impacted 2.3 acres of wetlands. The mitigation project restored natural water flow between wetlands adjacent to Alligator Lake and Price Creek (both in Columbia County). Mitigation activities were completed in March 2001. The District received \$60,000 from FDOT for this project. District staff inspected the Alligator Lake and Price Creek surface water improvements project in January 2017.

MITIGATION DONATION REPORT

- 8) FDOT Project: County Road 231 Widening (SR 100 to Baker County Line)
Mitigation Project 9: Cellon Creek Floodplain Restoration at San Felasco Hammock State Preserve

The District issued ERP-125-209144-1 on March 11, 2003, for the widening of CR 231 in Union County from SR 100 to the Baker County line. The project impacted 1.96 acres of wetlands. The mitigation project restored natural water flow and exotic plant species were removed 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.

- 9) FDOT Project: County Road 229 New River Bridge Replacement
Mitigation Project 10: Lake Rowell Tract Restoration and Enhancement

The District issued ERP-125-210531-1 on April 12, 2005 for the replacement of the CR 229 bridge over New River at the Union/Bradford County's line. The project impacted 2.44 acres of wetlands. The mitigation project, located at the District-owned Lake Rowell tract, restored natural water connections between Alligator Creek and Lake Rowell (both in Bradford County). The District received \$180,214 from FDOT for this project. Mitigation activities were completed in 2006, evaluated in 2013, and deemed to be a success.

Waccasassa River Basin

- 10) FDOT Project: State Road 500 Widening (from Chiefland to Bronson)
Mitigation Projects:
Cedar Key Storm Water Quality Restoration Project
Cow Creek Road Restoration in Goethe State Forest
Wetland Preservation in Levy County

The District issued ERP-075-206226-1 on May 9, 2002 for the widening of SR 500 from Chiefland to Bronson. The project impacted 23.0 acres of wetlands. Mitigation involved improvements to the Cedar Key stormwater 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. The District received \$1,713,490 from FDOT for this project. The Cedar Key Water Quality Restoration Project was evaluated by District staff in 2019 and determined to be successful. The Cow Creek Road Restoration project was evaluated November 2017 and determined to be successful. In 2003 the District acquired and recorded conservation easements for the Meeks and Mann parcels (1,000 acres) in Levy County.

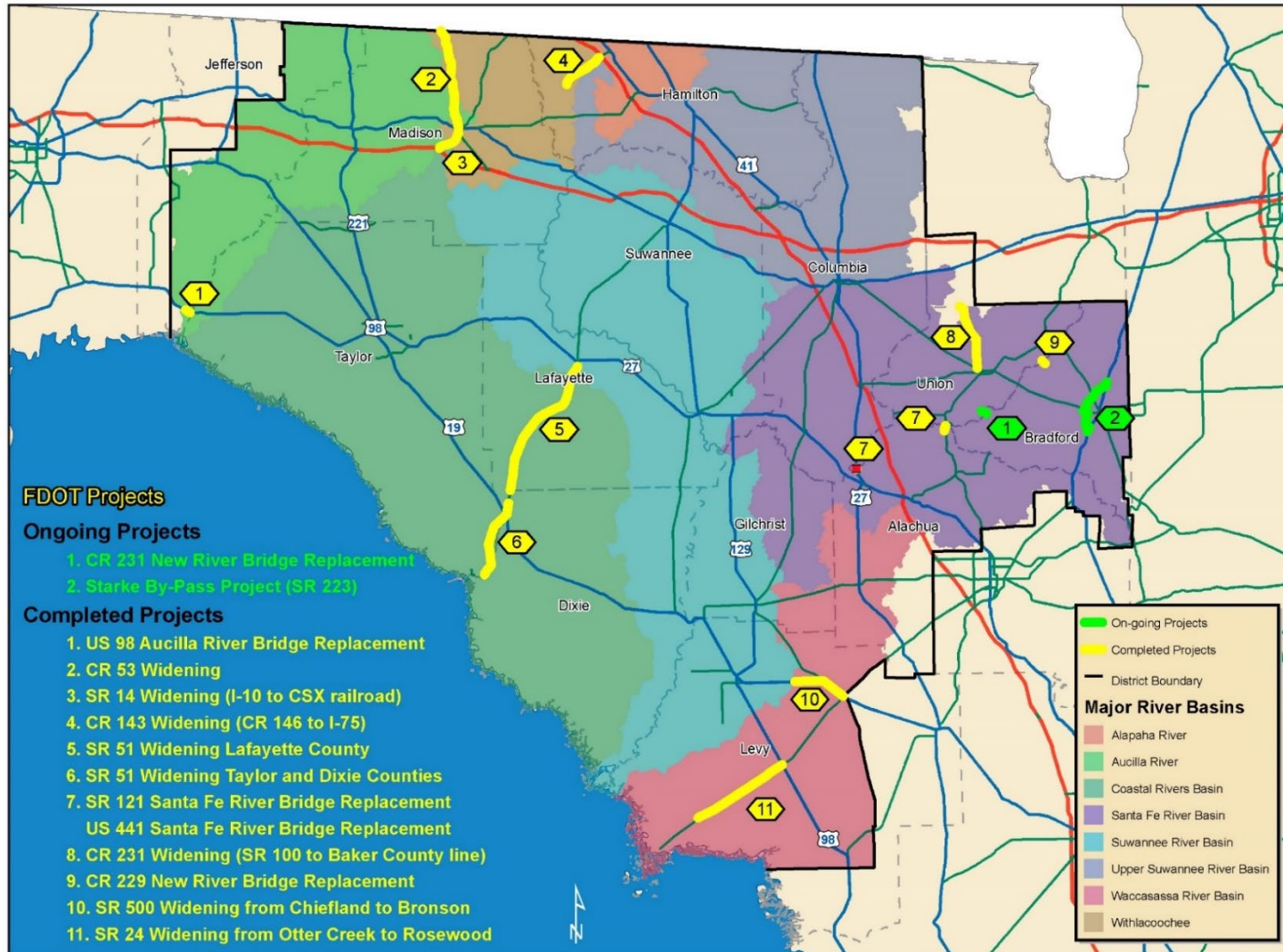
MITIGATION DONATION REPORT

- 11) FDOT Project: State Road 24 Widening from Otter Creek to Rosewood
Mitigation Project 14: Devil's Hammock Hydrological Enhancement and Preservation

The District issued ERP-075-210019-1 on March 8, 2005, for the widening of SR 24 in Levy County. The project impacted 9.95 acres of wetlands. The District contracted with consultants to identify, evaluate, and construct the mitigation project that restored natural water flow for wetlands located on the District-owned Devil's Hammock property. Mitigation activities were completed in January 2007. The District received \$180,913 from FDOT for this project. Evaluation of mitigation success was conducted by Jones, Edmunds and Associates in 2010 and shown to have met mitigation requirements.

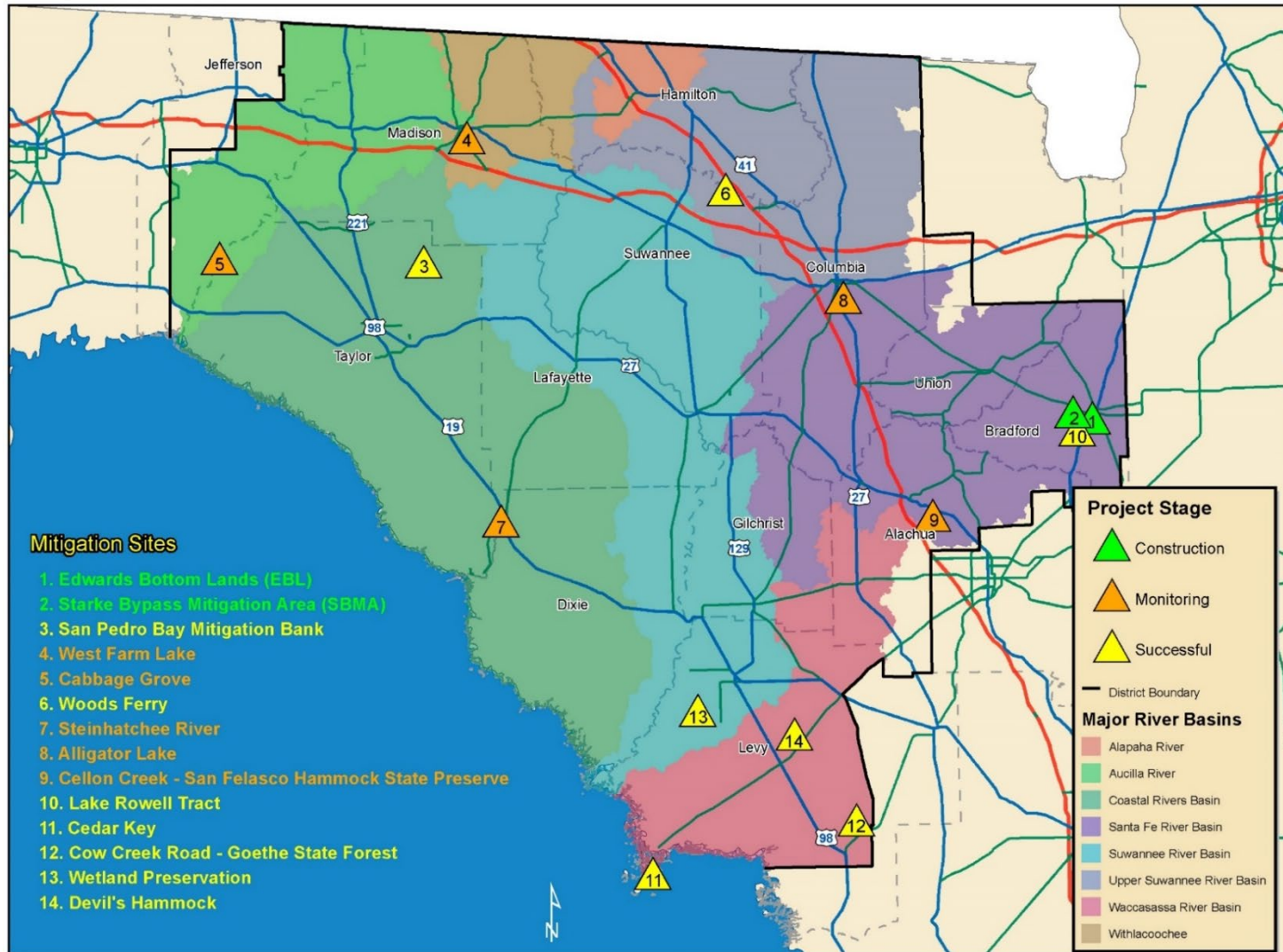
MITIGATION DONTATION REPORT

Figure 1. FDOT Construction Projects



MITIGATION DONTATION REPORT

Figure 2. Wetland Mitigation Sites



MITIGATION DONTATION REPORT

Table 1. FDOT Construction Projects and Associated Mitigation Projects

TABLE 1. FDOT CONSTRUCTION PROJECTS AND ASSOCIATED MITIGATION PROJECTS									
FDOT Project Status	River Basin	FDOT Project	FDOT Work Number	ERP Number	Impact Acres	Mitigation Stage*	Mitigation Project	Revenue from FDOT	Total Fund Expended
ONGOING	Santa Fe	1. CR 231 New River Bridge Replacement	433957	209144-1	1.50	C	1. Edwards Bottomland (EBL)	\$ 181,890.00	\$ 181,890.00
		2. Starke By-pass Project (SR223)	2080014 2080015 2080016	213985-1	58.06	C	2. Starke Bypass Mitigation Area (SBMA)	\$ 2,980,000.00	\$ 2,931,843.00
COMPLETED	Alapaha	Currently no projects							
	Suwannee River								
	Aucilla	1. US 98 Aucilla River Bridge Replacement	2108732	212754-1	5.70	S	3. San Pedro Bay Mitigation Bank Credit Purchase**	\$ 43,500.00	\$ 43,500.00
	Withlacoochee	2. State Road 53 Widening and Resurfacing (US 90 to State Line)	2117565	204218-1	1.60	M	4. West Farm Lake Stormwater Pond Project	\$ 260,325.00	\$ 260,325.00
		3. State Road 14 Widening (I-10 to CSX railroad)	2105281	209145-1	0.90	M	5. Cabbage Grove Wetland Enhancement	\$ 75,594.00	\$ 46,459.00
	Upper Suwannee River	4. County Road 143 Widening (CR 146 to I-75)	2122181	209544-1	1.23	S	6. Woods Ferry Hydrologic Enhancements	\$ 110,970.00	\$ 53,848.00
	Coastal Rivers (Steinhatchee)	5. State Road 51 Widening Lafayette County	2100751 2100851	223712-1	3.50	M	7. Steinhatchee River Hydrological Improvements	\$ 279,174.00	\$ 279,174.00
		6. State Road 51 Widening Taylor and Dixie Counties	2108502 2084662	210590-1	1.27	S	3. San Pedro Bay Mitigation Bank Credit Purchase**	\$ 10,200.00	\$ 10,200.00
	Santa Fe	7. US Hwy 441 Santa Fe River Bridge Replacement and State Road 121 Santa Fe River Bridge Replacement	2110486	206684-1 205839-1	1.00 1.30	M	8. Alligator Lake Surface Water Improvement and Management (SWIM) Program	\$ 60,000.00	\$ 60,000.00
		8. County Road 231 Widening (SR 100 to Baker County line)	2128801	209144-1	1.96				
		9. County Road 229 New River Bridge Replacement	2128761	210531-1	2.44	S	10. Lake Rowell Tract Restoration and Enhancement	\$ 180,214.00	\$ 180,214.00
	Waccasassa	10. State Road 500 Widening from Chiefland to Bronson	2117089	206226-1	23.00	S	11. Cedar Key Storm Water Quality Restoration Project	\$ 1,713,490.00	\$ 1,713,490.00
				204584-1		S	12. Cow Creek Rd Restoration in Goethe State Forest		
				224156-1		S	13. Wetland Preservation in Levy County		
11. State Road 24 Widening from Otter Creek to Rosewood	210384	210019-1	9.95	S	14. Devil's Hammock Hydrological Enhancement and Preservation	\$ 180,913.00	\$ 190,694.00		