

WATER FOR NATURE...WATER FOR PEOPLE

**2011-2020  
STRATEGIC PLAN**



Suwannee River Water  
Management District



THE SPRINGS HEARTLAND



## A MESSAGE FROM CHAIRMAN

The District Governing Board is determined to successfully fulfill its mission to protect and manage water resources to support natural systems and the needs of the public.

Over the past couple of years, I have travelled the State to see firsthand how other areas are responding to water supply demands and have noted the costs that these areas have incurred. The costs associated with restoration and recovery of natural systems are enormous.

The District must take a proactive approach to meet our future challenges. We have seen and made note of the lessons learned elsewhere. We intend to leverage that knowledge to propel forward in avoiding the same oversights.

The District has finalized its 2010 District-wide Water Supply Assessment (Assessment). The Assessment evaluates the availability of water supplies over the next 20 years and presents a sobering reality of our fragile water supplies and the importance for all users to embrace conservation.

Decline in groundwater levels in the northeastern portion District is suspected to have impacted a number of rivers and springs to the degree that they are currently not meeting their established Minimum Flows and Levels (MFLs) or interim

flow constraints, or they are predicted to fall below them over the next 20 years.

Four areas of concern have been identified in the water supply assessment: the Upper Santa Fe River Basin, the Upper Suwannee River Basin, the Lower Santa Fe Basin, and the Alapaha Basin.

Regional water supply plans will be developed for areas where the Assessment determined supplies will not be sufficient within the 20-year planning horizon. The Assessment and subsequent regional water supply plans will be re-evaluated every five years or sooner if needed.

Also, modeling and science used in developing MFLs for our major rivers and springs have confirmed that our water supplies are limited and we are faced with significant resource constraints. Thus, efforts must focus on protecting springs and natural systems, developing alternative water supplies that offset groundwater withdrawals, and promoting regional water supply development. This must be accomplished by balancing the water needs of our communities and natural systems.

The Water Protection and Sustainability Trust Fund established by the Legislature provided the necessary fiscal resources for establishing MFLs, protecting springs and natural systems, and developing alternative water supplies. State funding for the program was significantly reduced in FY 2009 and eliminated in FY 2010 and FY 2011. It is essential for funding levels to be restored to ensure a long-term adequate and reliable water supply and to protect our natural systems.

When preparing the budget for this fiscal year, the Governing Board took a rare position of proposing to increase the District's millage rate to pay for the MFL program. However, with backing from the Governor's Office, other funding sources were identified so that the District did not have to take this last resort measure. This extraordinary step proposed by the Governing Board exemplifies the importance of developing and establishing MFLs for our priority water bodies.

Protecting our water resources while maintaining and enhancing our economy is a balancing act.

Establishing and implementing MFLs will be the key in preserving our natural systems, which is our economic lifeline.

Without MFLs our springs, rivers, lakes, and ground water are in jeopardy. Once lost, these resources will be extremely difficult and expensive to restore. Losing these resources will have profound impacts on agriculture and tourism that will in turn have resounding economic impacts to the State.

Partnerships with our communities, other water management districts, and the State of Georgia are more essential than ever to ensure an adequate water supply and protection of our water resources. The District will continue its partnerships and outreach efforts to assure there is an adequate water supply for all users while protecting our natural systems.

The Nature Coast Regional Water Authority (Authority) is a prime example of a community partnership that provides the required leadership to collaboratively address regional water supply issues. The District is committed to supporting the Authority and encouraging the formation of similar regional water supply authorities.

Conservation among all water users is crucial in meeting existing and future demands. Conservation is the most cost effective means to reduce demands and help make certain that future generations enjoy our unique resources. Our partnership with the City of Cedar Key has yielded noteworthy demand reductions that are resulting in substantial savings to the City's taxpayers.

The District revised its water use permitting program in 2010. These revisions will go a long way in preserving and protecting our water resources while ensuring that supply allocation is based upon documented need.

The District has the highest concentration of first magnitude springs in the United States and the highest concentration of freshwater springs in the State of Florida. The District is working to protect and preserve the water quality and quantity of our springs and rivers through the Heartland Springs Initiative.

The foundation of the District water resource programs is data. Data is used to develop

plans to manage water supply, provide flood protection and protect water quality and natural systems. The District also collects and analyzes rainfall data and flood levels. This information is provided to the public through our website.

Caring for our resources involves an all-inclusive approach that encompasses the District's areas of responsibilities for water supply, water quality, natural systems, flood protection, and mission support. We must approach these areas of responsibilities in a comprehensive manner rather than individually to make certain that our resources are protected and preserved for future generations.

We are encouraged by the efforts our community has made to protect and preserve our most precious resource.



*Don J. Quincey, Jr.*  
*Chair*  
*Chiefland*  
*Lower Suwannee Basin*

*N. David Flagg*  
*Vice-Chair*  
*Alachua County*  
*Santa Fe, Waccasassa*  
*Basins*

*Carl E. Meece*  
*Secretary/Treasurer*  
*O'Brien*  
*At Large*

*Alphonas Alexander*  
*Madison*  
*Upper Suwannee River*  
*Basin*

*Donald R. "Ray" Curtis III*  
*Perry*  
*Coastal Rivers Basin*

*Dr. C. Linden Davidson*  
*Lamont*  
*Aucilla River Basin*

*Heath M. Davis*  
*Cedar Key*  
*At Large*

*James L. Fraleigh*  
*Madison*  
*At Large*

*Guy N. Williams*  
*Lake City*  
*At Large*

*David A. Still*  
*Executive Director*  
*Lake City*

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## DISTRICT OVERVIEW

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

Under the direction of its Governing Board, the District's organization is structured by the Executive Office, the Mission Support Department, the Water Supply and Resource Management Department, and the Land Acquisition and Management Department.

The District has a population of about 320,000 people, representing roughly 2% of the State's population. According to the 2010 Water Supply Assessment the District's population is projected to grow to over 730,000 by the year 2030.

The District covers approximately 7,640 square miles which is nearly 12% of the State's land area. The District is the smallest of Florida's water management districts and covers all or part of 15 counties in north central Florida.

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

The District covers 13 river basins, which include the following major rivers: Suwannee, Santa Fe, Withlacoochee, Aucilla, Alapaha, Ichetucknee, Fenholloway, Steinhatchee, Econfina, Waccasassa, and Wacissa. Over 50% of the Aucilla, Alapaha, Withlacoochee, and Suwannee river basins are located in Georgia.

The District is currently experiencing water supply problems in the Upper Santa Fe and Upper Suwannee river basins. Additionally, in the northeastern portion of the District, there is a declining trend in the Upper Floridan Aquifer.

Water quality problems related to nutrient loading are also a resource management issue. The District employs voluntary, locally-based,

incentive programs like the Suwannee River Partnership and The Ichetucknee Partnership to address these issues.

The District's budget is derived from a combination of local property tax revenues, state grants, and federal funds. Locally-generated tax revenues are approximately 11% of the District's total budget—indicative of the lowest tax base of any Florida water management district. Such a low tax base makes it difficult for the District to achieve its statutory requirements without funding from the legislature. Federal, state, and other sources make up 89% of our funding.

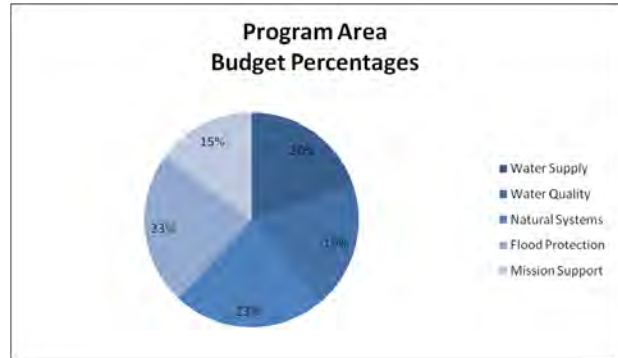
The District faces challenges in managing the water and related resources as the region continues to grow and develop. Moreover, the District's water resources are affected by groundwater withdrawals outside of its boundaries including Georgia. According to the Georgia water plan, groundwater withdrawals from the upper Floridan aquifer system are expected to significantly increase in the future.

These challenges are related to the District's limited financial and staff resources and reliance on state and federal funding. The District's responsibilities have grown considerably due to legislative mandates and program delegation during the last two decades. Coupled with the projected regional growth and impacts to the District's water resources from groundwater withdrawals outside of the District, the agency must be strategic and prioritize if the challenges are to be successfully met.

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

- ★ To provide for the availability of water of sufficient quantity and quality to maintain natural systems and meet the full range of water needs.
- ★ To create and implement a land acquisition and management program that will ensure preservation, conservation, and appropriate public uses of water and related natural resources.

- ★ To encourage nonstructural surface water management techniques.
- ★ To develop and implement regulatory programs that will ensure preservation and reasonable uses of water and related natural resources.
- ★ To use public funds in an efficient and effective manner.
- ★ To promote public awareness of water resource issues through a program of public information and education.



## OUR MISSION

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

## OUR VALUES

**Teamwork:** Working together to meet the needs of the organization, the public, and the natural resources.

**Respect:** Dealing fairly, embracing diversity, and considering the opinions of others.

**Integrity:** Being honest always, maintaining public trust, and being good stewards.

**Professionalism:** Displaying courtesy, respect, and expertise in all that we do.

**Public Service:** Providing prompt, courteous, and reliable responses to our customers.

## OUR STRATEGIC PRIORITIES

The District Strategic Plan addresses our four areas of responsibility under Chapter 373, Florida Statutes (F.S.): water supply, flood protection, water quality, and natural systems. These responsibilities are implemented through the District's resource management and regulatory programs. Additionally, the District considers Mission Support a vital and integral component to accomplish these four areas of responsibility. Therefore, the Plan also addresses Mission Support as a strategic priority.

District programs cannot be accomplished solely with funding from the District's ad valorem tax base. To achieve the District's Priorities, funding from the federal and state governments as well as from partnerships with public and private organizations are needed. Historically, there has been success in receiving funding from the federal and state governments and in developing partnerships with citizen groups, industry, and local, state, and federal agencies. However, over the past several years the District has experienced a significant decline in funding from the state legislature, a situation expected to continue in future years.

The District has identified twelve strategic priorities that will guide its activities for 2011 – 2020. The strategic priorities will be implemented through five major program areas.

### Water Supply

#### ★ **Regional Water Supply Planning**

*Goal: Ensure an adequate and sustainable water supply for all reasonable-beneficial users while preserving and protection springs and natural systems*

#### ★ **Heartland Springs Initiative**

*Goal: Ensure springs throughout the District are protected and preserved*

#### ★ **Alternative Water Supplies**

*Goal: Develop and implement alternative water supply projects that offset groundwater demands*

#### ★ **Conservation**

*Goal: Maximize conservation among all users throughout the District*

### Water Quality

#### ★ **Water Quality Monitoring**

*Goal: Monitor and report on the status of the District's water resources*

#### ★ **Water Quality Improvement**

*Goal: Develop and implement projects to protect and improve water quality*

### Natural Systems

#### ★ **MFLs**

*Goal: Ensure District priority water bodies are protected from significant harm for current and future generations*

#### ★ **Land Acquisition**

*Goal: Implement the Florida Forever Work Plan to acquire interests in lands for water resource protection*



★ **Land Stewardship**

*Goal: Manage District-owned lands in accordance with the Excellence in Land Management standards and guidelines*

**Flood Protection**

★ **Community-Based Flood Protection**

*Goal: Enhance flood risk information and increase public awareness of flooding potential*

**Mission Support**

★ **Data Management**

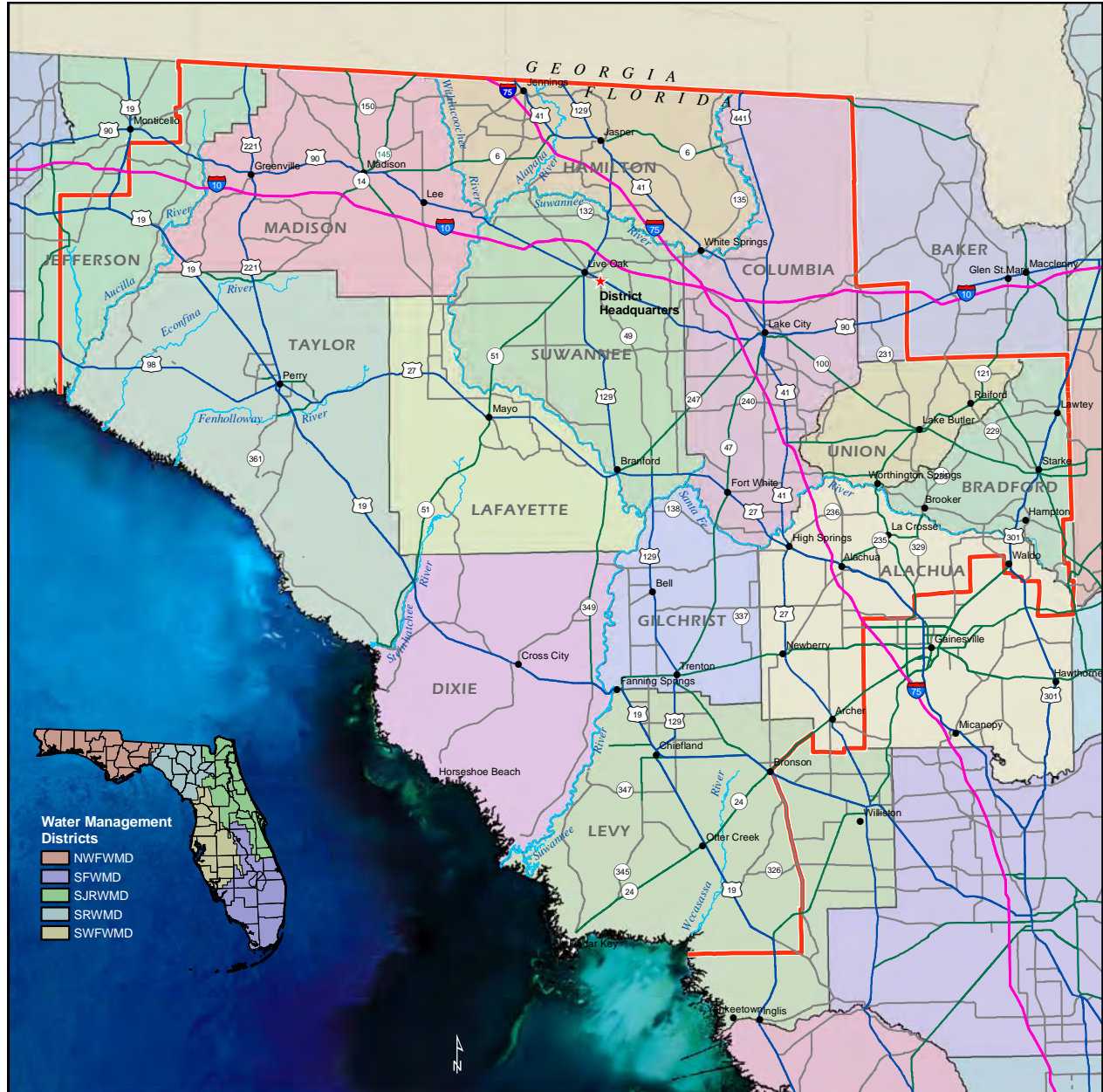
*Goal: Develop an integrated data management system for efficient and effective analysis and timely delivery of information*

★ **Trained and Service Oriented Employees**

*Goal: Ensure that District operations and activities support and facilitate fulfillment of the District's mission and statutory responsibilities*



# DISTRICT MAP



# WATER SUPPLY

## STRATEGIC PRIORITY

### REGIONAL WATER SUPPLY PLANNING

**Goal: Ensure an adequate and sustainable water supply for all reasonable-beneficial users while preserving and protecting springs and natural systems.**

Not too long ago in the Suwannee River Water Management District was deemed to have abundant water supplies that would be around forever. The District's 2010 Water Supply Assessment along with the science developed through the District's minimum flows and levels (MFLs) program demonstrate that long held perception is no longer valid.

Like other areas in the State, the District is faced with water supply constraints. This realization requires the District to re-evaluate its short and long-term priorities to meet the challenge of ensuring an adequate water supply for all reasonable-beneficial users. Simultaneously, we must protect our springs and natural systems.

The District collaborates with adjacent water management districts, local governments, State of Georgia, and other partners to help meet the water needs for all users. With increases in population growth, water demands, and impacts occurring outside of the District, these relationships are more important than ever. Regular and frequent coordination has been instituted with adjacent water management districts and the State of Georgia to understand existing and potential future impacts.

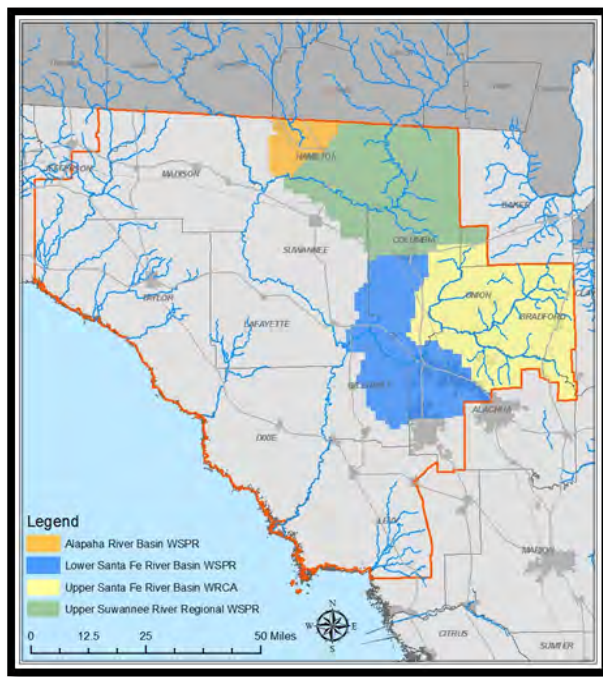
District boundaries are based on surface drainage areas called watersheds or water basins. However, groundwater aquifers, the primary source of most water used in north Florida, do not necessarily follow those boundaries.

The decline in groundwater levels in the northeastern District is suspected to have impacted a number of rivers and springs to the degree that they are not meeting their established MFL or interim flow constraints, or they are predicted to fall below them over the next 20 years.

The District's 2010 Water Supply Assessment has revealed that resources in the northeastern portion of the District are under severe stress. The Assessment identifies two areas that currently have resource constraints and two areas that are projected to have inadequate resources to meet future demands within the 20-year planning horizon.

The four areas of concern that are in need of water supply planning. These four areas are the Upper Santa Fe River Basin (USFRB), the Upper Suwannee River Basin (USRB), the Lower Santa Fe Basin, and the Alapaha Basin.

#### Water Supply Planning Regions



## REGIONAL WATER SUPPLY PLANNING

The Water Supply Planning Region designation requires the development of water supply plans that will identify strategies to use alternative sources and conservation rather than groundwater to meet projected demands. In addition, the water supply plans must contain a recovery strategy for water resources that currently do not meet their established MFLs. Within one year of designating these areas as Water Supply Planning Regions, they must also be designated as Water Resource Caution Areas. A Water Resource Caution Area is where existing sources of water will not be adequate to satisfy future water demands and sustain water resources.

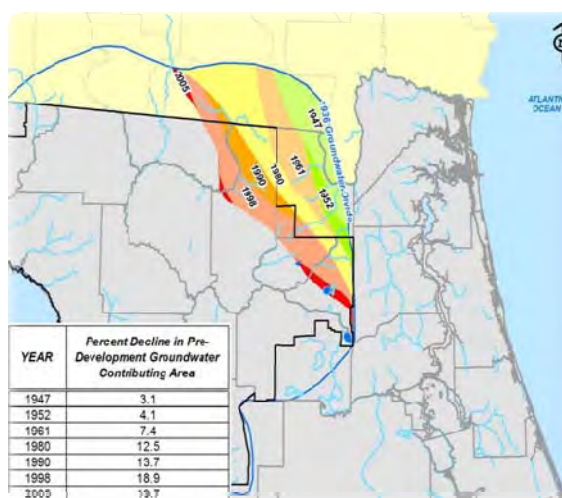
Currently, the District is developing a regional water supply plan for the USFRB. The USFRB includes portions of Baker, Columbia, Bradford, Union and Alachua counties. It has been determined by the District that there will not be sufficient water to meet future needs in the USFRB. This determination is based on minimum flows developed for the Upper Santa Fe River. This is also an issue for the St. Johns River Water Management District (SJRWMD) because the preliminary SJRWMD water supply assessment shows that many water bodies in the SJRWMD will trip MFLs over a 20-year planning horizon.

The groundwater basin divide in the northeastern District has migrated southwestward more than 35 miles in 70 years as a result of the potentiometric surface decline that occurred from pre-development through 2005. As a consequence of this migration, the size of the groundwater contributing area to the eastern District has decreased by more than 20 percent or 1,900 square miles. The decrease is apparently a result of groundwater withdrawals originating within the District, the SJRWMD, and the State of Georgia. The decline in the potentiometric surface in the northeastern District is suspected to have impacted a number of rivers, lakes, and springs to the degree that they are not currently meeting their established minimum flows and levels or interim flow constraints or they will not meet them at some point during the 20-year planning period.

Regional groundwater use patterns in the District and the SJRWMD will influence the water supply plan for the USFRB. For this reason the two districts are closely coordinating in the development of their respective water supply plans. This will ensure that the plans reflect the regional nature of groundwater levels and withdrawals. Additionally, groundwater withdrawals in the State of Georgia also influence the District's water resources.

The extent of the groundwater basin decline is graphically shown below.

### Migration of Groundwater Flow Divide



Groundwater demand throughout the District, portions of three adjacent water management districts, and southern Georgia, is projected to increase by up to 24 percent during the next 20 years. The magnitude of groundwater withdrawals that are projected to occur by 2030 in the SJRWMD northern-most nine counties will be significantly larger than the withdrawals in the our District.

MFLs for our major rivers and springs have revealed that our water supplies are limited. Thus, management efforts must focus on protecting springs and natural systems, developing alternative water supplies that offset

## REGIONAL WATER SUPPLY PLANNING

groundwater withdrawals, and encouraging regional water supply development. This must be accomplished by balancing the water needs of our communities and natural systems.

Developing and maintaining cooperative partnerships allows the District to facilitate effective approaches to eliminate or reduce existing resource impacts and prevent future adverse impacts.

The District recently facilitated the establishment of the Nature Coast Regional Water Authority (Authority). The Authority is a prime example of community partnerships that provide collaboratively address regional water supply issues. The District has worked with the Authority to acquire wellfield protection areas to ensure a high quality water supply source remains viable for existing citizens and for future generations.

Conservation partnerships with agriculture producers have improved over 325 irrigation systems and saved an estimated one billion gallons of ground water per year. Public supply conservation coordination with local governments has also been successful in reducing groundwater withdrawals.

Monitoring and data collection by the District is also used in water supply planning, water supply development, water conservation management, water use permitting, and environmental protection and restoration projects.

Prior to the passage of Water Protection and Sustainability Trust Fund (WPSTF), public access reuse water to offset existing ground water withdrawals was unavailable in the District. With the advent of the WPSTF, the District formed collaborative partnerships with the cities of Live Oak, Lake City, Monticello, and Cedar Key to establish reclaimed water programs.

Approximately 3.5 million gallons per day of reuse water has been made available to offset existing groundwater withdrawals within the District. Other alternative water supply projects have been identified that have the potential to

offset an estimated additional 5 million gallons per day. However, the Water Protection and Sustainability Trust Fund must be funded if the groundwater offset potential and resource sustainability are to be realized.

Development of alternative water supplies is vital to the District. Alternative water supplies are essential to ensure adequate water supplies for all reasonable-beneficial users and to protect our ecology. Alternative water supplies offset dependency on groundwater, expand available sources to assist in maintaining sustainable resources, and help make water sources resistant to drought.

Monitoring and data collection by the District is also used in water supply planning, water supply development, water conservation management, water use permitting, and environmental protection and restoration projects.

Conservation partnerships with all water users are essential in meeting existing and future demands. Also, the District collaborates with the Natural Resources Conservation Service (NRCS) and Florida Department of Agriculture and Consumer Services to improve agricultural water use efficiency. Irrigation systems are assessed for water use efficiency and retrofitted with water-saving equipment through cost-sharing agreements with farmers. The District also partners with farmers to collect irrigation water use data.

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

### Program Strategies

- ★ Develop Regional Water Supply Plans
- ★ Encourage creation of regional water supply authorities
- ★ Support the Nature Coast Regional Water Authority
- ★ Enhance monitoring programs

## REGIONAL WATER SUPPLY PLANNING

- ★ Partner with communities to develop alternative water supply projects
- ★ Partner with communities to develop conservation projects
- ★ Communicate the value of water resource partnerships to the public and landowners
- ★ Encourage low impact development
- ★ Continue resource regulatory programs
- ★ Coordinate with all users in protecting and managing water supplies
- ★ Coordinate with the adjacent water management districts in protecting our natural resources
- ★ Coordinate with the State of Georgia in protecting our natural resources
- ★ Provide regional water supply and facility planning assistance to local governments
- ★ Develop partnerships to implement alternative water supply projects that offset groundwater withdrawals as legislative funds become available
- ★ Promote water conservation through cost share, public outreach, and technical assistance projects
- ★ Establish and implement MFLs
- ★ Ensure water uses are sustainable through adoption and implementation of MFLs
- ★ Conduct workshops with the regulated community
- ★ Participation of local governments in regional water supply efforts
- ★ Participation by the State of Georgia and the adjacent water management districts in developing the water supply assessment and regional water supply plans
- ★ Water conservation measures established
- ★ Amount of groundwater withdrawals offset
- ★ MFLs established by rule on schedule
- ★ MFLs technical reports completed
- ★ Number of water use permits in compliance

### Program Funding

Funding sources include the Water Protection and Sustainability Trust Fund (WPSTF), Water Management Lands Trust Fund (WMLTF), state legislative appropriations, federal appropriations, permit fees, and ad valorem taxes. There insufficient WMLTF and no WPSTF, state or federal funding for FY 2011.



### Success Indicators

- ★ Number of water conservation projects implemented
- ★ Number of farmers sharing water use data
- ★ Number of alternative water supply projects implemented

# WATER SUPPLY

## STRATEGIC PRIORITY

### HEARTLAND SPRINGS INITIATIVE

*Goal: Ensure springs throughout the District are protected and preserved.*

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

The District has the highest concentration of first magnitude springs in the United States. Additionally, the highest concentration of springs in the State is within the District.

Moreover, there are 197 known springs solely within the Suwannee River Basin. During low flow periods the Suwannee River, Santa Fe River, and Withlacoochee River essentially become a spring run.

Other rivers such as the Ichetucknee and Wacissa are primarily spring-fed.

This extremely unique environmental condition truly makes the District the springs heartland of the State. The Heartland Springs Initiative was implemented by the District in 2009. It is a comprehensive, multi-faceted approach involving every aspect of the District's resource management and regulatory programs.

The highly interactive character of ground water and surface water in the District makes springs much like the proverbial "canary in the coal mine" when it comes to water resources. If our springs flow freely and are of good quality, we know that our aquifers and rivers are also doing well.

Therefore, preserving the flows and water quality of our springs will best reflect our ultimate success in protecting the water resources of the region and the State.

Setting and achieving a high standard for protecting and managing our publicly-owned springs requires monitoring of our natural systems, establishing of minimum flows and levels, implementing alternative water sources,

maintaining and improving water quality, and cooperating and coordinating with partners and permittees.

Only through a concerted focus of technical, political, and economic resources can North Florida's springs be preserved for future generations.

Effective springshed management depends on comprehensive partnerships for managing water quality and quantity. Landowners, citizens, and local, state, and federal agencies must share the responsibility to preserve our springs for future generations. Springshed management is achieved through research, technical assistance, cost-share funding, interagency coordination, regulation, and education programs.

A model for springshed management is establishing partnerships. Within the District there are two successful partnership examples.

One such example is The Ichetucknee Partnership (TIP). TIP is based on the development of a locally led effort to protect the Ichetucknee River and its springs. Participating groups include the City of Lake City, Columbia County, the Chamber of Commerce, Rotary, the Institute of Food and Agricultural Sciences (IFAS), the Florida Department of Agriculture and Consumer Services (FDACS), the District, and others. TIP has been successful in developing and implementing education and outreach tools. Additionally, TIP has achieved widespread implementation of urban and agricultural best management practices.

The Suwannee River Partnership (SRP) is another example of a successful springshed private-public partnership management program. SRP brings landowners and agencies together to implement BMPs to reduce nutrient inputs and implement water conservation measures. SRP has 63 member agencies and organizations. SRP farmer participation is significant with over 146 farms that are comprised of roughly 123,000 acres and involves 90% of dairy, 99% of poultry, and 75% of crop farmers throughout the District. Estimated nitrogen reduction is 2,589 tons per

## HEARTLAND SPRINGS INITIATIVE

year. Estimated water saving is 1 billion of gallons of water per year.

The District supports TIP and SRP by planning, funding, and implementing BMPs; providing water quality data; and administering outreach and educational programs.

Monitoring is a fundamental element of the District's Heartland Springs Initiative. Resource monitoring of water resources linked to springs provides the only assessment tools available to gage the health of springs throughout the District.

Due to budgetary cutbacks, the Florida Department of Environment Protection eliminated numerous spring monitoring sites in the District. In effort to make sure that continual data collection and analysis was maintained at Fanning Springs, Manatee Springs, priority sites in the Ichetucknee Basin the District revised its monitoring plan to continue monitoring several of the priority sites.

Data is used to identify long-term trends and identify management challenges. The District monitors 22 springs to assess the quality and quantity of conditions of the priority springs.

Another facet of the District's springs protection initiative involves water quantity and water quality restoration projects. Stormwater, water quality restoration, and reuse projects have been developed and implemented in priority springshed basins to reduce groundwater, protect or improve water quality, and offset existing groundwater withdrawals.

Land acquisition is another method that the District uses to protect and preserve our springs. Benefits to springs associated with land acquisition include protection of water quality, water supply, recharge areas within springsheds, and the ecology.

One of the District's key criteria in fee and less-than-fee acquisitions is springs protection. Recently, the District acquired a 6,300 acre conservation easement in Suwannee and Columbia counties that provided an additional 3,000 acres of protection in the Ichetucknee

springshed. Altogether, the District has acquired 13,300 acres within primary spring buffers to protect springs.

Establishing minimum flows and levels (MFLs) for priority springs is imperative to ensure long-term protection. To-date, the District has developed and implemented MFLs for the following springs: Little Fanning Spring, Fanning Spring, Madison Blue Spring, Manatee Spring, and Levy Blue Spring.

White Sulfur Springs, springs of the Lower Santa Fe River Basin, and springs of the Ichetucknee River Basin are scheduled for MFL development during 2011.

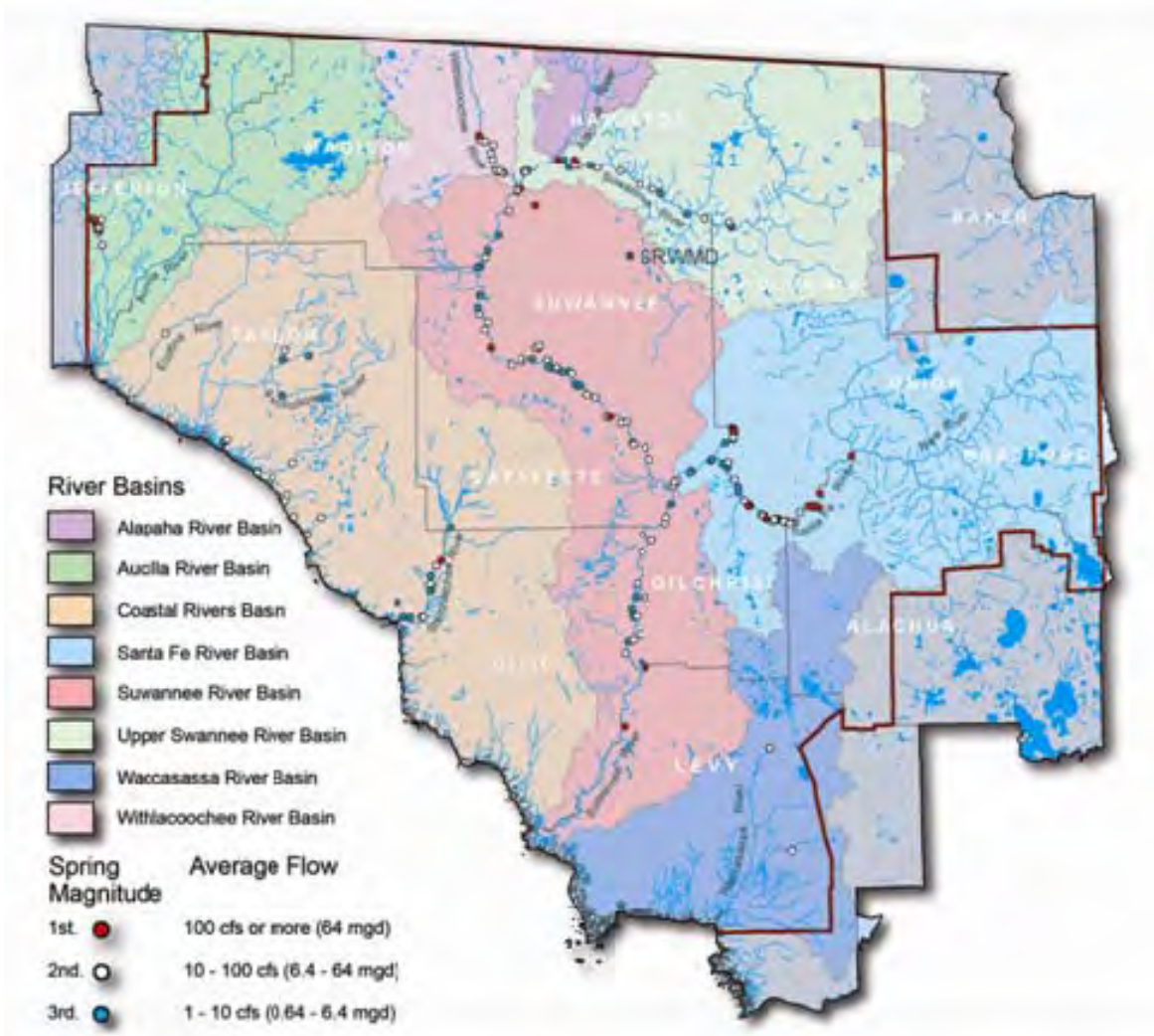
The District's resource regulatory programs also assists in ensuring that development activities do not cause adverse impacts to spring flow and quality. Evaluation of proposed activities requiring permits helps to make sure that regulatory criteria are met.

In 2010, the District revised its water use permitting rule to help ensure that water use in the District will not adversely impact springs. This was the first time in over 25 years that the District's water use regulations were amended.





# General Springs Location Map



# HEARTLAND SPRINGS INITIATIVE

## Program Strategies

- ★ Encourage springshed management based on locally initiated projects, including the Suwannee River Partnership and The Ichetucknee Partnership
- ★ Assist farmers in implementing BMPs to improve water quality in springs and rivers
- ★ Partner with the Florida Springs Initiative for improved springs protection
- ★ Maintain spring monitoring sites
- ★ Continue land acquisition activities in springsheds
- ★ Seek state and federal funding for Heartland Springs Initiative
- ★ Establish MFLs

## Success Indicators

- ★ Number of projects implemented to protect springs
- ★ Amount of nitrogen reduced
- ★ Number of farmers implementing nutrient management BMPs
- ★ Quantity of water saved
- ★ MFLs established on schedule
- ★ Number of springshed acres preserved

## Program Funding

Funding sources include the Water Protection and Sustainability Trust Fund (WPSTF), legislative appropriations, federal appropriations, and ad valorem taxes. There was neither WPSTF nor state or federal funding for FY 2011.



# WATER SUPPLY

## STRATEGIC PRIORITY

### ALTERNATIVE WATER SUPPLIES

**Goal: Develop and implement alternative water supply projects that offset groundwater demands.**

Development of alternative water supplies is vital to ensure that the District has adequate water supplies to meet future demands and protect the region's ecology. Alternative water supplies offset dependency on ground water and expand available sources to assist in maintaining sustainable resources.

Alternative water supplies are an effective source to expand available sources to meet demands. Alternative water sources also help in reducing impacts associated with drought. Potential alternative water supply development in the District includes reclaimed waste water, surface water, brackish ground water, and stormwater reuse.

With the advent of the Water Protection and Sustainability Trust Fund, the District formed collaborative reclaimed water partnerships with the cities of Live Oak, Lake City, Monticello, and Cedar Key. Approximately 3.5 million gallons per day of reuse water has been made available to offset existing groundwater withdrawals within the District. Other alternative water supply projects have been identified that have the potential to offset an estimated

additional 5 million gallons per day. However, the Water Protection and Sustainability Trust Fund (WPSTF) must continue to be funded if the groundwater offset potential and resource sustainability will be realized.

#### Program Strategies

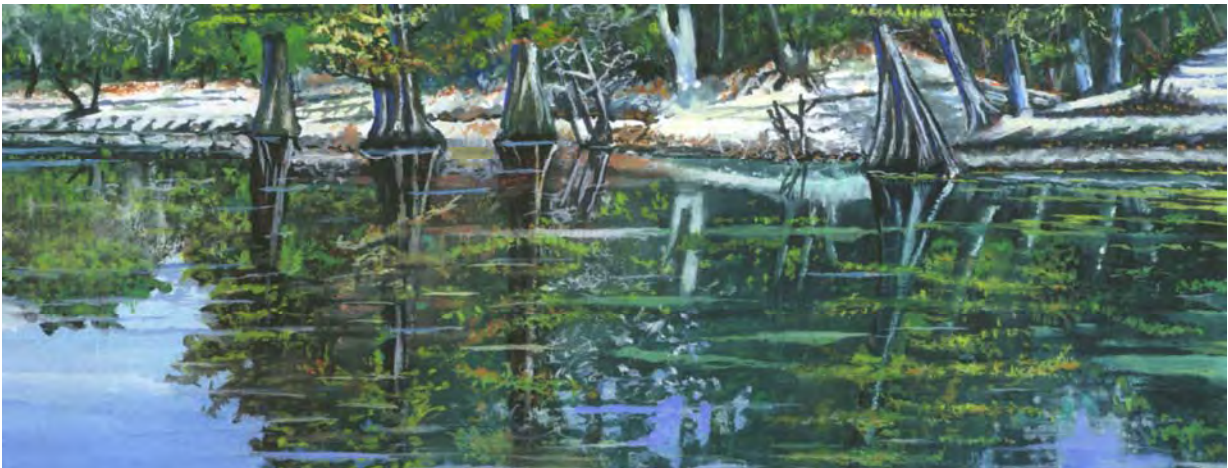
- ★ Develop partnerships to implement alternative water supply projects that offset groundwater withdrawals as legislative funds become available
- ★ Seek funding

#### Success Indicators

- ★ Alternative water supply projects implemented
- ★ Quantity of groundwater offset
- ★ Funding for projects

#### Program Funding

The District's water supply and management programs are funded by ad valorem taxes, state grants, state and federal legislative appropriations, interagency revenues, permit fees, license fees, and the WPSTF. There is neither funding for the WPSTF nor state or federal appropriations for FY 2011.



# WATER SUPPLY

## STRATEGIC PRIORITY

### CONSERVATION

**Goal: Maximize conservation among all users throughout the District.**

The District continues to increase its water conservation efforts among all users. Significant progress has been achieved with a number of public supply systems, agricultural users, and industrial/commercial facilities in the implementation of conservation practices. Conservation measures will be encouraged through management incentives and regulatory mechanisms.

The Suwannee River Partnership (SRP) has been instrumental in implementing conservation partnerships with the agriculture community in the Suwannee River Basin. To date, it is estimated that one billion gallons annually have been saved through the implementation of Best Management Practices (BMPs).

Conservation partnerships with agriculture have improved over 325 irrigation systems and saved an estimated one billion gallons of ground water per year. Public supply conservation coordination with local governments has also been successful in reducing groundwater withdrawals.

The Ichetucknee Partnership (TIP) is based on the development of a locally led effort to protect the Ichetucknee River and its springs. Additionally, TIP has achieved widespread implementation of urban conservation practices such Florida-Friendly™ landscaping. Also, TIP has provided assistance in establishing agricultural BMPs throughout the Ichetucknee River Basin.

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

Mandatory lawn and landscaping watering rules are in effect throughout the District. The rule applies to residential landscaping, public or commercial recreation areas, and public and commercial businesses that are not regulated by a District water use permit.

This past year, the District partnered with the City of Cedar Key to install no-flow and highly efficient restroom fixtures at an elementary school, City Hall, and a city park. Significant demand reductions were realized at each retrofit location.

As increasing demands are placed upon our water resources, we all must make conservation a way of life. We all play a role in conservation and in being a good steward of our most precious resource.

#### Program Strategies

- ★ Retrofit irrigation systems to achieve water savings
- ★ Develop a cost-share plumbing fixture retrofit program
- ★ Monitor water use
- ★ Communicate the value of water resources partnerships with the public
- ★ Encourage low impact development
- ★ Continue resource regulatory programs



## CONSERVATION

### Success Indicators

- ★ Number of irrigation systems retrofitted
- ★ Number of plumbing fixtures retrofitted
- ★ Number of non-agriculture conservation projects implemented
- ★ Percentage of farmers reporting water use

### Program Funding

Funding sources include the Water Protection and Sustainability Trust Fund (WPSTF), legislative appropriations, and ad valorem taxes. There was neither funding to the WPSTF nor legislative appropriation funding for FY 2011.



# WATER SUPPLY DELIVERABLES AND MILESTONES

Categories	2011	2012	2013	2014	2015	2016-2020
<b>Suwannee River Partnership</b>	Provide Technical Assistance to Farmers For Nutrient Management and Water Conservation					➔
<b>Springs Protection and Management</b>	Provide Funding and Technical Assistance For Ichetucknee Partnership Obtain Heartland Springs Funding					➔
<b>Water Use Monitoring</b>	Evaluate Water Use Data Install Monitoring Equipment					➔
<b>Water Supply Planning</b>	Develop Upper Santa Fe River Basin Water Supply Plan	Develop Upper Suwannee River Basin Water Supply Plan	Develop Alapaha River Water Supply Plan	Develop Lower Santa Fe River Basin Water Supply Plan	➔	Update District Wide Water Supply Assessment
<b>Wellfield Supply Planning and Development</b>	Provide Technical Assistance to Communities					➔
<b>Alternative Water Supply Projects</b>	Develop Projects In Water Supply Planning Areas Coordinate with All User Groups to Develop Projects					➔
<b>Water Conservation</b>	Develop Water Conservation Program Assist Communities In Establishing Water Conservation Programs Implement Regulatory Strategies					➔
<b>Water Use Program</b>	Implement 40B-2 Refine Water Use Compliance					➔
<b>Surface Water Level Monitoring</b>	➔	Annual Monitoring Atlas & Data Report				➔
	Complete Network Assessment			Complete Network Assessment		
<b>Groundwater Level Monitoring</b>	➔	Annual Monitoring Atlas & Data Report				➔
	Complete Network Assessment			Complete Network Assessment		

# WATER QUALITY

## STRATEGIC PRIORITY

### WATER QUALITY MONITORING

**Goal:** Monitor and report on the status of the District's water resources.

Effective water management requires accurate information on the status of water and related natural resources. Collecting and analyzing data from monitoring networks allows the District to understand how natural resources change over time and how to protect their ecological integrity.

Monitoring of rainfall, ground water, rivers, springs, and lakes provides the only assessment tools available to gage the health of our water resources throughout the District. The District summarizes this data monthly in its hydrologic conditions report.

The groundwater quality network is made up of 90 groundwater sampling points which are sampled quarterly. Surfacewater quality is measured at 68 river, spring, and lake sites throughout the District. Aquatic biology is also collected at 19 river, spring, and lake sites. These networks enable the determination of water quality trends. Rainfall is monitored at 39 real-time gage sites throughout the District.

The procurement of laboratory analysis services, quality assurance, and quality control; database management; and development of data reports and interpretation are also associated with data collection efforts.

#### Program Strategies

- ★ Maintain a website with online resources
- ★ Monitor surfacewater and groundwater quality, aquatic biology, surfacewater levels and flows, groundwater levels, and rainfall to determine short-term and long-term changes
- ★ Improve public access to data resources

- ★ Routinely evaluate monitoring networks and data to ensure adequate coverage and quality

#### Success Indicators

- ★ Number and continuity of data collection points
- ★ Updated annual water resources report
- ★ Publication of monthly hydrological conditions reports
- ★ Continued public use of monitoring data on the web and automated river level phone line

#### Program Funding

The District's water quality improvement program is funded by general revenue, Water Protection and Sustainability Trust Fund, and the state legislative appropriations. For FY 2011 the only funding available was from general revenue.



# WATER QUALITY

## STRATEGIC PRIORITY

### WATER QUALITY IMPROVEMENT

*Goal: Develop and implement projects to protect and improve water quality.*

Water quality projects are developed and implemented through collaborative efforts with our communities. These efforts focus on retrofitting and creating water quality systems in areas that preceded current regulatory requirements.

Water quality problems related to excess nutrient loading from agricultural, residential, and urban land uses are increasing and are presently a significant resource management issue. The District is using voluntary, locally-based, incentive programs like the Suwannee River Partnership (SRP) and The Ichetucknee Partnership (TIP) to address these issues.

District programs such as SRP and TIP are central components to help protect the quality of our water resources. SRP and TIP are community based partnership programs that among many things develop and implement water quality projects based on best management practices.

TIP has been successful in developing and implementing education and outreach tools. These tools form the structural foundation elements in protecting and improving water quality.

The SRP is another example of a successful springshred private-public partnership management program. SRP brings landowners and agencies together to implement best management practices to reduce nutrient contamination and implement water conservation measures. SRP has 63 member agencies and organizations. SRP farmer participation is significant with over 146 farms that comprise of rough 123,000 acres and involves 90% dairy, 99% poultry, and 75% crop farmers throughout the District. Estimated nitrogen reduction is 2,589 tons per year.

District environmental resource permitting, water use permitting, and water well construction regulations are also vital components in protecting water quality.

Environmental resource permitting regulates stormwater discharges generated by development and activities that affect surface waters, wetlands, and related natural systems as authorized in Part IV of Chapter 373, Florida Statutes (F.S.). Water use permitting regulates the withdraw and use of water supplies to protect existing legal users, to ensure the withdraw is a reasonable-beneficial use, and to ensure the use is in the public interest as authorized by Part II of Chapter 373, F.S. Water well construction and contractor licensing regulations ensure the integrity of ground water by establishing standards for well construction and ensuring that well contractors meet minimum basic qualifications as authorized by Part III of Chapter 373, F.S.

#### Program Strategies

- ★ Partner with communities to implement water quality improvement projects
- ★ Continue regulatory initiatives to ensure water quality is maintained
- ★ Continue education and outreach programs

#### Success Indicators

- ★ Number of water quality improvement projects implemented
- ★ Continuation of regulatory programs
- ★ Continuation of education and outreach efforts

#### Program Funding

The District's water quality improvement program is funded by general revenue, the Florida Forever Program and legislative appropriations. There is no funding available from these sources for FY 2011.



## WATER QUALITY DELIVERABLES AND MILESTONES

Categories	2011	2012	2013	2014	2015	2016-2020
<b>Surfacewater Quality and Biological Monitoring</b>	←		Annual Monitoring and Data Report	Complete network Assessment	→	
<b>Groundwater Quality Monitoring</b>	←		Annual Monitoring and Data Report	Complete Network Assessment	→	
<b>Regulatory Compliance Verification</b>	Enhance Inspection and As-built Programs Enhance Water Use compliance	→				
<b>Water Quality Restoration</b>	Develop Projects in the Ichetucknee River Basin	→	Implement Projects in the Ichetucknee River Basin	→		



# NATURAL SYSTEMS

## STRATEGIC PRIORITY

### MINIMUM FLOWS AND LEVELS

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

Through establishing minimum flows and levels (MFLs), the District is working to protect our water resources. Establishing MFLs help ensure that future demands for water will not cause significant harm to our water resources and related natural systems.

Establishment of MFLs is a key and critical mechanism to ensure protection of our springs, rivers, lakes, and ground water. MFLs are necessary to help determine sustainable flows for the various water bodies and their associated ecologies.

MFLs determine the amount of water needed to sustain the benefits and functions of natural systems from water withdrawals, diversions, or other alterations. MFLs are the minimum water levels and/or flows adopted by the District Governing Board as necessary to prevent significant harm to the water resources or ecology of an area.

Development of MFLs is required by Chapter 373.042, Florida Statutes (F.S.).

The District's MFLs Program is a science-based process from which MFLs are established by the Governing Board of the District. This process uses the best information available to determine the recommended MFLs.

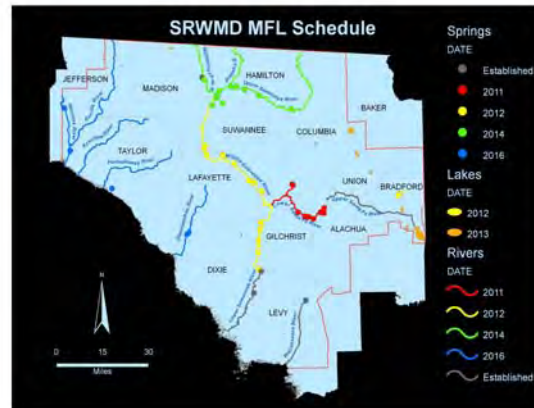


Before adoption by the board in the District rules Chapter 40B-8, Florida Administrative Code (F.A.C.) the science supporting the MFLs is subject to a peer review process initiated by the District.

To-date, the District has developed and implemented MFLs for the Lower Suwannee River, Upper Santa Fe River, and Waccasassa River. MFLs have also been developed for the following springs: Little Fanning Spring, Fanning Spring, Madison Blue Spring, Manatee Spring, and Levy Blue Spring.

Annually, the District publishes a priority list of MFL water bodies with an anticipated completion schedule. This list is reviewed annually and submitted to the Florida Department of Environmental Protection for review and approval. A map of the current MFL water bodies is shown below.

#### Minimum Flows and Levels Schedule



The MFLs program provides technical support for water supply planning and permitting criteria for the consumptive use permitting program (Chapter 40B-2, F.A.C.) and the environmental resource permitting (ERP) program (Chapter 40B-400, F.A.C.).

MFLs identify a range of water levels and/or flows above which water may be permitted for consumptive use. In addition, MFLs protect nonconsumptive uses of water. Nonconsumptive uses include the water

## MINIMUM FLOWS AND LEVELS

necessary for navigation and recreation, for fish and wildlife habitat and other natural resources (Chapter 62-40, F.A.C.).

Florida law states that the District’s Governing Board shall calculate MFLs using the best information available. MFLs are developed using available meteorological, hydrological, and ecological data. These data typically include an historical range of drought and flood conditions.

MFLs take into account the ability of water resource-dependent communities to adjust to changes in hydrologic conditions. MFLs allow for an acceptable level of change to occur.

When use of water resources shifts the hydrologic conditions below levels defined by MFLs, significant harm can occur.

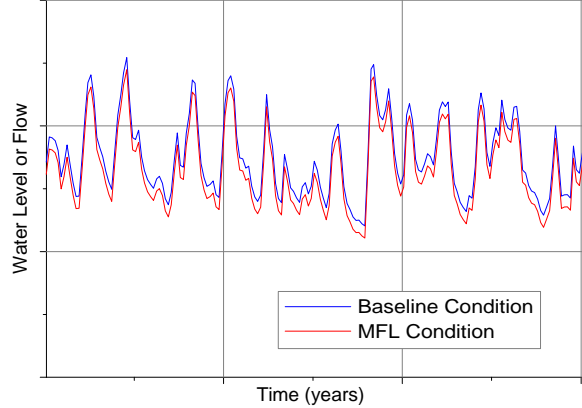
Adoption is a four- to six-month process that involves public workshops, review by the Florida Department of Environmental Protection, and publication in the Florida Administrative Weekly. MFLs are to be reviewed periodically and revised as necessary under Subsection 373.0421(3), F.S.

Figure 1 represents two hydrographs depicting the fluctuation of water levels or flows in a typical stream or lake over a long time period.

The upper line represents the existing hydrologic conditions (baseline) and the lower line represents the hydrologic conditions defined by the MFLs. The hydrologic conditions defined by the MFLs are similar to, but are usually lower than, the existing hydrologic conditions.

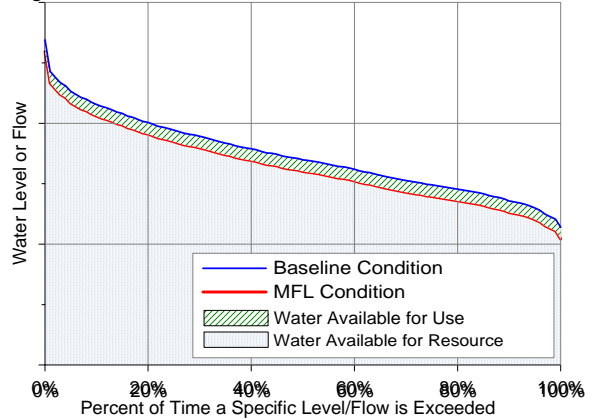


Figure One



The two curves in Figure 2 show the percentage of time each water level or flow is equaled or exceeded; this is called a water level or flow duration curve.

Figure Two



The area below the MFLs curve (the light blue shaded area in Figure 2) represents the water available for protection of fish and wildlife or public health and safety. If use of water resources shifts the water flows and/or levels below that defined by the MFLs, significant harm is expected to occur.

The distance between the baseline condition and the MFL condition (the blue hatched area in Figure 2) represents the water available for “reasonable-beneficial uses” that will not result in significant harm to the water resources.

State law defines reasonable-beneficial use as

## MINIMUM FLOWS AND LEVELS

State law defines reasonable-beneficial use as the use of water in such quantity as is necessary for economic and efficient use for a purpose and manner which is both reasonable and consistent with the public interest.

MFLs apply to decisions affecting permit applications, declarations of water shortages and assessments of water supply sources.

Computer simulation models for surface and ground waters are used to evaluate the effects of existing and/or proposed consumptive uses and the likelihood they might cause significant harm.

The District's Governing Board is required to develop recovery or prevention strategies in those cases where a water body currently does not or will not meet an established MFL. Water uses cannot be permitted that cause any MFL to be violated.

The science established through setting MFLs has determined that water resources in the north and northeastern regions of the District are being adversely impacted. White Sulfur Springs no longer flows; flow from Worthington Springs only occurs during periods of extreme rainfall events; Upper Santa Fe River is at or near its MFL limit; and the groundwater basin divide in the northeastern District has migrated more than 35 miles in the past 70 years.

Rivers that will not meet their established minimum flows or interim flow constraints during the next 20 years include 1) the Alapaha at Jennings, 2) the Upper Santa Fe at Worthington Springs, 3) the Lower Santa Fe at Ft. White, 4) the Upper Suwannee at White Springs, 5) the Aucilla at Lamont, and 6) the Waccasassa at Gulf Hammock.

Currently, the District is in the process of developing MFLs for White Sulfur Springs, the Upper Suwannee River and associated springs, the Middle Suwannee River and associated springs, and the Lower Santa Fe River and associated springs. It is the intent of the District to continue developing MFLs for the remaining priority rivers, springs, and lakes.

The Lower Santa Fe River Basin, Ichetucknee Springs, and White Sulfur Spring are schedule for MFL development in FY 2011.

The District is committed to continue to develop and establish MFLs for the remaining priority rivers, springs, and lakes. Committing to develop MFLs for priority rivers, springs, and lakes will mandate extraordinary measures by the District.

MFLs also enable the District to help ensure that there are adequate water supplies for all beneficial users. Understanding the scientific limits of water sources will assist the region in developing alternative resources at the right time to prevent significant harm.

Scientific data established through development of MFLs has illuminated the precarious and fragile nature of our resources.

Data and modeling also indicate that groundwater withdrawals from outside the District's boundaries are causing adverse impacts to the Upper Santa Fe River Basin MFL. Discussions with the St. Johns River Water Management District (SJRWMD) and with the State of Georgia have been initiated to address this issue.

The head waters of the Suwannee, Alapaha, Withlacoochee, and Aucilla rivers are located in Georgia. Also, ground water expands across state and water management district boundaries.

Therefore, established MFLs are influenced by areas outside of the District's jurisdiction. Groundwater withdrawals from northeast Florida and southeast and south-central Georgia affect the District's springs, groundwater, and surface-water resources.

Thus, developing and implementing MFLs requires close coordination with Georgia and adjoining water management districts.

The District has made noteworthy strides in cultivating collaborative relationships with the SJRWMD and Georgia. These efforts must continue for the District to be successful in protecting our resources from significant harm.

## MINIMUM FLOWS AND LEVELS

The Water Protection and Sustainability Trust Fund established by the Legislature provided the necessary fiscal resources for establishing MFLs, protecting springs and natural systems, and developing alternative water supplies.

State funding for the program was significantly reduced in FY 2009 and eliminated in FY 2010 and FY 2011. It is essential for funding levels to be restored to ensure a long-term adequate and reliable water supply and to protect our natural systems.

Elimination of state funding for the District's MFLs program requires the District to take difficult steps to fund the establishment of MFLs. The District must continue to make difficult budget choices to compensate for the loss of state funding.

### Program Strategies

- ★ Develop and establish MFLs for priority water bodies
- ★ Obtain statutory authorization for MFL recognition across district boundaries
- ★ Seek state and federal funding for MFLs program

- ★ Coordinate Water Use Permitting and regional water supply planning with St. Johns River Water Management District  
Coordinate with the State of Georgia

### Success Indicators

- ★ Number of priority water bodies with established MFLs
- ★ Number of priority water bodies with implemented MFLs
- ★ Statutory authorization to protect MFLs across district boundaries

### Program Funding

Funding sources include the Water Protection and Sustainability Trust Fund (WPSTF), Water Management Lands Trust Fund (WMLTF), legislative appropriations, and ad valorem taxes. There was limited funding to the WMLTF, no funding to the WPSTF, and no legislative funding FY 2011.



# NATURAL SYSTEMS

## STRATEGIC PRIORITY

### LAND ACQUISITION

**Goal:** *Implement the Florida Forever Work Plan to acquire interests in lands for water resource protection.*

The District has been acquiring water management lands since 1984 under a succession of acquisition programs—Save Our Rivers, Preservation 2000, and Florida Forever. Together, these programs have achieved the protection of more than 320,000 acres of land in north-central Florida. A District priority is the acquisition of lands within the 100-year floodplain of the Suwannee River, its tributaries, and other rivers. The District now owns or controls roughly 344 miles of riverfront property.

Ninety-eight percent of all District lands are open to the public.

Where appropriate, conservation easements and other less-than-fee purchases can provide adequate protection at a lower cost to the public. Management costs are reduced and the property remains in the hands of the private owner. Over 40 percent of land acquisitions have been achieved using less-than-fee ownership.

The public benefits of the District's acquisition program include nonstructural flood protection, water quality and water recharge protection, open space, passive recreation and access to District lands, habitat for fish and wildlife, and land for water supply protection.

The land acquisition program is strictly voluntary—all land acquisition projects are negotiated with willing sellers at appraised market value. Lands available for sale are evaluated by District staff, reviewed by the Governing Board, and included in the District's land acquisition planning process.

Lands acquired by the District are managed for many uses including water resource benefits, fish and wildlife habitat, public use and recreation, and timber production.

The District participates in the Excellence in Land Management Program. This Program is a means for establishing and maintaining high standards in land management. At times, restoration projects are warranted on District lands.

The District has recently embarked on a surplus lands initiative that will enable the District to shed lands that do not meet the criteria for acquisition. Revenue generated from the District's surplus lands program will be used to acquire properties that have greater environmental benefits.

The strategy of the District Governing Board today is the same as when the program began. Then and now the goal is "to acquire as much of the 100-year floodplain of the Suwannee River and its tributaries by way of voluntary sale by owners of large river parcels."

The District's acquisition plan reflects its commitment to preserve and enhance the water resources within its jurisdiction. It outlines the near-term strategy and process for acquiring those remaining lands most important to the protection of our rivers, lakes, wetlands, springs and aquifers.

The management of rivers is a key part of the District's overall mission. The primary benefits associated with the acquisition and management of riverine lands include minimizing flood impacts, protection of water quality, and preservation of natural communities. On a practical level, the 100-year floodplain represents identifiable land area to which specific water resource benefits can be attributed. Large headwater wetlands provide similar benefits and have a large impact on the health of the rivers and streams they feed.

The groundwater aquifers are an especially valuable resource since they supply almost all of the potable water for the District. The ground water is also vulnerable to contamination over much of the District. In many areas, the Floridan Aquifer is unconfined and readily receives inputs through infiltration. In addition, the porous nature of the limestone that holds the Floridan Aquifer allows for innumerable

## LAND ACQUISITION

points of interchange between surface water and ground water. The District's acquisition program focuses on those areas where the aquifer is most likely to be affected by conditions or activities on the surface. These include springs, stream-to-sink systems, and municipal wellheads.

There are a number of areas where local governments may need assistance to protect their drinking water supply, complete other water resource development projects, or restore the water resource values to altered hydrologic systems. Acquisitions for these purposes may be considered upon request by a municipal, county, or regional governmental agency.

The District is a leader in the use of conservation easements. These easements are binding agreements that leave the basic ownership of the land with a private party, but permanently restrict development and other management activities on the property.

Where appropriate, conservation easements and other less-than-fee purchases can provide adequate protection at a lower cost to the public. Management costs are reduced and the property remains on the tax roll because the title is still held by the private owner.

### Program Strategies

- ★ Protect the 100-year floodplain, headwater wetlands, and freshwater spring systems of the District's major rivers
- ★ Preserve natural floodplain function areas on the major river systems in this region
- ★ Conserve the District's water recharge areas
- ★ Assist local governments in the acquisition of lands for regional wellhead protection
- ★ Continue to use a resource-based selection process to target the most important and sensitive remaining lands available
- ★ Emphasize the use of voluntary sale by willing sellers of large ownerships of reasonably priced resource lands

- ★ Encourage the use of alternative acquisition techniques such as conservation easements as a cost-effective means of protection

### Success Indicators

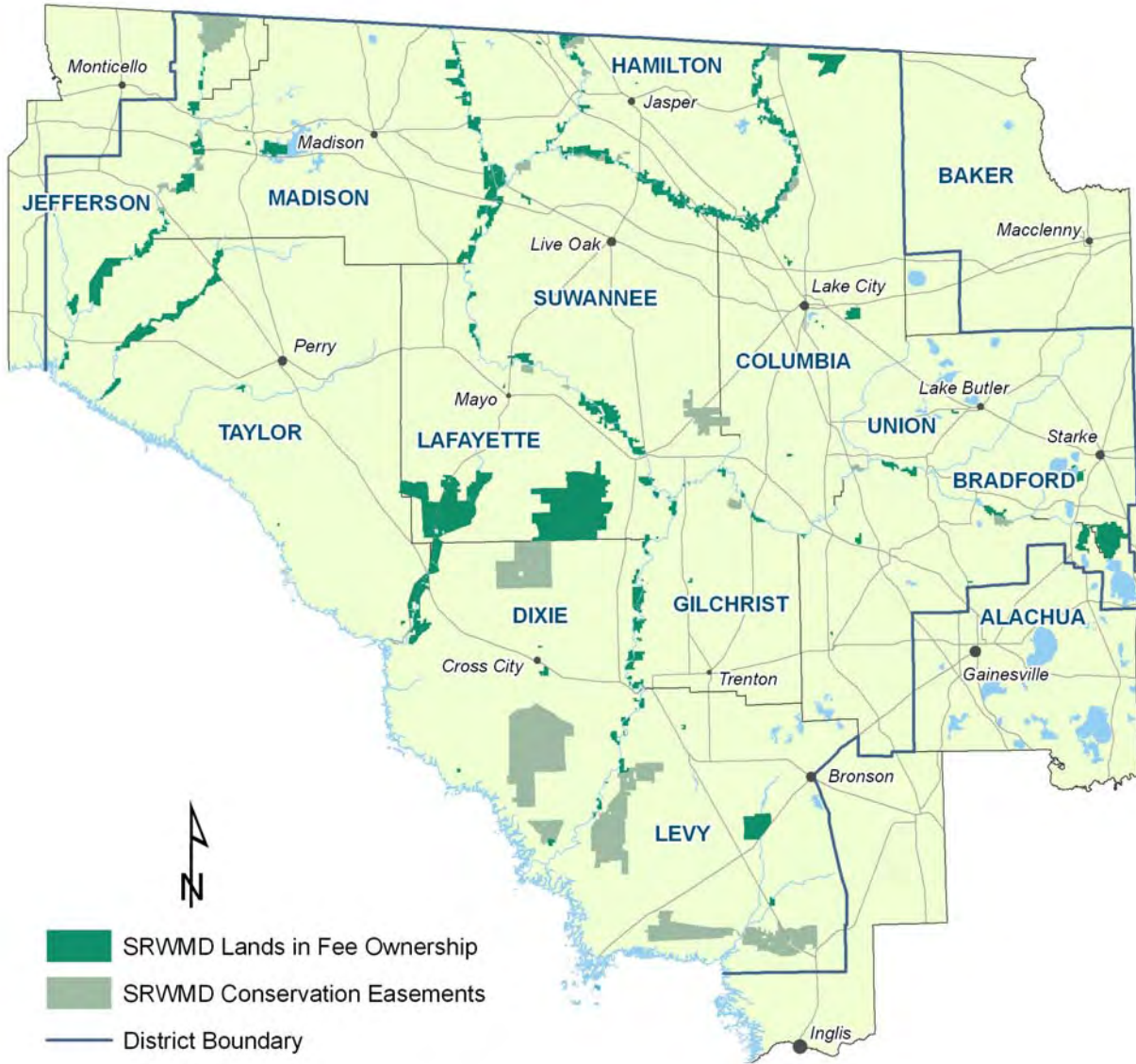
- ★ Acres of land acquired consistent with the District's Florida Forever Plan
- ★ Acres acquired for wellfield protection
- ★ Percentage of Florida Forever goals achieved
- ★ Percentage of Florida Forever acquisition projects acquired versus projects approved

### Program Funding

Lands are acquired with funds from the Florida Forever Trust Fund, funds from the sale of surplus lands, and revenues generated from activities on District lands (e.g., timber sales).



# LAND ACQUISITION MAP





# NATURAL SYSTEMS

## STRATEGIC PRIORITY

### LAND STEWARDSHIP

*Goal: Manage District-owned lands in accordance with the Excellence in Land Management standards and guidelines.*

Acquiring land for water management purposes is just the beginning of the District's commitment to resource protection. Caring for the public's investment is an ongoing responsibility.

The Excellence in Land Management (ELM) Program encompasses a wide range of responsibilities—water management and nonstructural flood protection, public access and use, habitat management, and hydrologic restoration.

The ELM Program objectives fall in four categories:

- 1) Resource Protection - Protect, enhance, and/or restore natural and cultural resources
- 2) Public Use - Provide opportunities for high quality, compatible recreation
- 2) Communications - Coordinate with public and private stakeholders
- 4) Fiscal Responsibility - Manage District lands in an efficient manner

#### Program Strategies

- ★ Develop, update, and implement land management plans for all properties
- ★ Provide opportunities for public input and review of management plans
- ★ Guide public use of District lands to the most suitable areas and provide appropriate public use facilities to reduce impacts to land and water resources
- ★ Restore natural hydrology and native vegetation

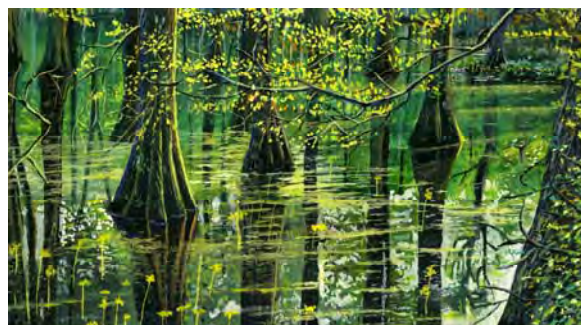
- ★ Use prescribed fire to restore and enhance habitat and natural communities
- ★ Promote sustainable forestry in appropriate areas to provide alternate sources of revenue for land management
- ★ Engage in cooperative land management programs where feasible to maximize public benefit

#### Success Indicators

- ★ Increasing scores reported in ELM Program annual reports
- ★ Percent of facilities and recreation sites that meet standards
- ★ Percent of Sustainable Forestry Initiative (SFI) indicators that are found to be "in compliance" or "exceeds requirements" by third party auditors
- ★ Percent of natural communities, maintained by fire, that are burned within their natural fire return interval
- ★ Number of acres of non-native invasive plants treated

#### Program Funding

Land management funds are from the Water Management Lands Trust Fund, revenues generated from timber sales, and other fees from District lands. Funding from this Trust Fund was reduced by more than 50 percent in FY 2011.



# NATURAL SYSTEMS DELIVERABLES AND MILESTONES

Categories	2011	2012	2013	2014	2015	2016-2020
<b>Suwannee River, Tributaries and Springs</b>	Pursue Acquisition Stream Buffers, Wetlands, Springsheds, and High Recharge Areas					
<b>Coastal Rivers</b>	Pursue Acquisition in 100-Year Floodplains and Springsheds					
<b>Wellhead Protection</b>	Acquire Regional Wellfields					
<b>Water Resource Development</b>	Develop Projects in Water Supply Planning Areas					
<b>Excellence in Land Management</b>	Conduct SFI Audit Report ELM Performance Trends					
<b>Land Management Planning</b>	Revise District Land Management Plan					
<b>Public Use and Recreation</b>	Continue High Rate of Access			Conduct Public Satisfaction Survey		
<b>Prescribed Fire</b>	Conduct Burns on 8,000 Acres					
<b>Suwannee River Wilderness Trail</b>	Monitor Public Use	Design Fletcher Landing River Camp		Complete Fletcher Landing River Camp		
<b>Timber Management</b>	Implement Planned Harvests Reforest 1,000 acres					
<b>Minimum Flows and Levels</b>	White Sulphur Springs MFL/Lower Santa Fe River Basin and Associated Springs/Ichetucknee	Middle Suwannee River Basin and Associated Springs	Upper Suwannee River Basin and Associated Springs			Sampson Lake Econfina River 3 Lakes Aucilla River Wacissa River & Springs Steinhatchee River

# FLOOD PROTECTION

## STRATEGIC PRIORITY

### COMMUNITY-BASED FLOOD PROTECTION

**Goal: Enhance flood risk information and increase public awareness of flooding potential.**

Flooding is a natural and common occurrence in many areas throughout the District. The District uses a non-structural approach to address flood issues.

The District's non-structural approaches consists of educating the public, assisting communities with the best available data, making data electronically available, acquiring floodplains, and regulating development in floodplains.

The District is continuing its partnership with the Federal Emergency Management Agency (FEMA) to improve flood risk assessment and enhance public access to flood risk information.

The District is in the final stages of working with FEMA and our communities on the Map Modernization Program. The goal of the program is to digitize the Flood Rate Maps (FIRMs) and Flood Insurance Studies (FIS) to make them readily accessible to the public.

Additionally, in many instances federal funding was also available to conduct detailed flood studies.

The FIRM maps and FIS provide data for local development regulations and help communities avoid flood hazards from new development. Also, these maps provide useful information in the regulatory process and in the District's land acquisition criteria assessments.

The District intends on continuing its partnership with FEMA and our communities to develop accessible and accurate floodplain data.

FEMA has recently initiated a multi-year Risk Map Program that involves mapping, assessment and planning. The purpose of the Risk Map Program is to provide reliable data by watershed areas that increases public awareness to reduce the loss of life and property.

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

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

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

#### Program Strategies

- ★ Provide accessible and timely flood information
- ★ Enhance distribution of flooding information
- ★ Protect the 100-year floodplain of the District's major rivers
- ★ Preserve natural floodplain function areas on the major river systems in this region
- ★ Ensure no net loss of the 100-year floodplain

# COMMUNITY-BASED FLOOD PROTECTION

## Success Indicators

- ★ Number of permits preserving and protecting the 100-year floodplain
- ★ Number of community outreach workshops and meetings
- ★ 100-year floodplain acreage preserved
- ★ Implementation of District floodway outreach program



## Program Funding

The District's flood protection program is funded by general revenue, permit fees, and federal grants.

# FLOOD PROTECTION DELIVERABLES AND MILESTONES

Categories	2011	2012	2013	2014	2015	2016-2020
<b>District Floodways Outreach</b>	Coordination with Building Departments and Property Owners					➔
<b>FEMA Mapping</b>	Complete Flood Mapping for Bradford and Levy Counties Implement Risk Map for Gilchrist, Lafayette, and Suwannee Counties	Initiate Risk Map for Columbia and Bradford Counties	Initiate Risk Map for Levy and Taylor Counties			➔
<b>Rainfall Data and Surfacewater Level Monitoring</b>	Flood Assessment and Forecasting					➔

# MISSION SUPPORT

## STRATEGIC PRIORITY

### DATA MANAGEMENT

*Goal: Develop an integrated data management system for efficient and effective analysis.*

Effective analysis depends on accurate and quality data collection. Effective resource management relies upon data and the ability to easily access the data in both tabular and spatial formats.

For years, the District has had various tabular databases for individual programs. Geographic Information Systems (GIS) has greatly improved the ability to analyze and display data. Integrating these databases will vastly enhance the District's ability to effectively analyze data.

Recent technological advances enable the District to refine the tabular systems to improve quality control for spatial data entry. This will allow tools such as spatially-aware databases, GIS web services, and quality assurance auditing to help improve the accuracy of the data. By improving the quality of spatial data, the District will enhance its ability to protect our resources.

The District is in its third year of integrating database systems to improve data analysis and reporting. Data management that integrates the District's inventory databases with the District's GIS will enhance staff's ability to analyze and display data.

The District's GIS database was developed to support the District's planning, environmental, resource management, natural systems, flood protection, and regulatory activities. This database includes a considerable amount of information that is potentially of value to federal, state, regional, and local governmental agencies, as well as to private businesses and citizens.

Wise use of web-based information will continue to be practiced. Providing data that is easily accessible, such as hydrological data and digital floodplain maps, gives the public the tools to help make knowledgeable resource decisions.

#### Program Strategies

- ★ Integrate databases
- ★ Update computer technology on a rotating three-year cycle to prevent obsolescence
- ★ Provide GIS support to District staff
- ★ Provide technical GIS development assistance to local governments

#### Success Indicators

- ★ Database integration
- ★ Number of local governments assisted
- ★ Number of times assistance provided to staff

#### Program Funding

Data Management is funded by general revenue, federal grants, and state grants.



# MISSION SUPPORT

## STRATEGIC PRIORITY

### HIGHLY TRAINED AND SERVICE ORIENTED EMPLOYEES

**Goal:** *Ensure that District operations and activities support and facilitate fulfillment of the District's mission and statutory responsibilities.*

The District successfully operates with a small, well-trained workforce that has the tools and knowledge to get the job done. Based on ongoing surveys conducted by the District, the staff typically exceeds external and internal customer expectations. This is an outcome of our commitment to the values of the District and of providing staff with the training and technology needed to operate in an increasingly complex and demanding service environment.

The Governing Board's application of process improvement changes since 2000 has yielded numerous benefits in program and project planning, tracking, and reporting. A structured, team-based program planning and management process provides accountability and process efficiency. All projects are required to have a Project Execution Plan that shows, task by task, how a project will be done. Each project team also uses an action register database to keep programs, projects, and activities on schedule and consistent with District priorities.

Successful implementation of the District's strategic priorities requires effective management leadership. It is incumbent upon District staff to diligently pursue efficient and cost-effective approaches to accomplish all District programs and projects.

Diligent oversight of public funds is essential in executing all initiatives. The District approves only the fiscal and staffing resources that are absolutely necessary. Additionally, the District remains committed to a pay-as-you-go approach in implementing our mission.

The District also evaluates ongoing programs and seeks to outsource activities that can be performed more cost effectively by the private sector.

In addition to specific program deliverables and milestones, there are many recurring support activities. These include:

- ★ Information Technology (IT) support, database management, and services
- ★ Daily IT backups and security procedures
- ★ Clearing all invoiced accounts payable within two weeks
- ★ Records automation, filing, and retrieval services
- ★ Comprehensive program budgeting and expenditure tracking services
- ★ Contracts facilitation and tracking
- ★ Staff training and development assistance, support, and tracking
- ★ Budget and work plan development, review, and approval services
- ★ Maintaining and refining project planning and management tools
- ★ Communication and outreach services

#### Program Strategies

- ★ Update computer technology on a rotating three-year cycle to prevent obsolescence
- ★ Develop and communicate annual work plan priorities through process management
- ★ Implement leadership development for program and project staff
- ★ Closely monitor contract development and execution
- ★ Maintain emergency preparedness and continuity of operation plans

## HIGHLY TRAINED AND SERVICE ORIENTED EMPLOYEES

- ★ Provide efficient and timely procurement services, ensuring the highest value for taxpayer dollars
- ★ Provide incentive and motivation for District staff's continued excellent performance
- ★ Provide technical Geographic Information Systems (GIS) development assistance to local governments

### Success Indicators

- ★ Comprehensive Annual Financial Report Certification
- ★ Number of employee training courses and sessions per year (or average hours of training per year per employee)

### Program Funding

Employees and training are funded by general revenue, federal grants, and state grants.

## MISSION SUPPORT DELIVERABLES AND MILESTONES

Categories	2011	2012	2013	2014	2015	2016-2020
<b>Human Resource</b>	Develop Online Employment Application Process	Implement Enterprise-Wide Position Application Review & Evaluation System				
<b>Information Technology</b>	Fully Implement SDE/GIS Functionality Revise Webpage Structure	Complete GIS Water Information System Provide Portal-Base Access To All District Tabular Data	Develop Inter-District Web-Based Information Exchange Protocols	Fully Integrate Voice, Data, and GIS Information Protocols	← Provide GIS Technical Assistance →	
<b>Data Management</b>	Integrate Tabular and Spatial Data	Automate Field Collection of Data	Develop New Data Entry Protocols	Develop New Data Retrieval Protocols	Provide Portal-Base Access to All Data	Provide Web-Base Access to Relevant Data
<b>Data Base Development</b>	Develop Water Use Data Management System	→				
<b>Finance</b>	Zero-Base Budget		Evaluate Project Expenditure Projection	→		

# 2010 ACCOMPLISHMENTS

## Water Supply:

- ★ Adopted revisions to the District's Water Use Permitting Rule
- ★ Completed District-wide water supply assessment
- ★ Initiated a Water Supply Plan for the Upper Santa Fe River Basin
- ★ Continued cooperative water supply planning project with the St. Johns River Water Management District
- ★ Initiated water resource coordination with the State of Georgia
- ★ Acquired a wellfield protection area for the Nature Coast Regional Water Supply Authority
- ★ Continued to improve format and expand content of hydrological conditions report
- ★ Continued coordination and outreach efforts

## Water Quality:

- ★ Expanded assistance to farmers in applying crop management tools for reducing fertilizer use and water consumption in springsheds
- ★ Provided input to the Environmental Protection Agency on numeric nutrient criteria
- ★ Provided funding for Florida Yards and Neighborhoods programs in Columbia and Suwannee counties
- ★ Established the Algal Turf Scrubber Pilot Project
- ★ Continued coordination and outreach efforts

## Natural Systems:

- ★ Reinstated the minimum flows and levels program
- ★ Acquired conservation easements over 7,637 acres

- ★ Completed the Adams Tract native habitat restoration on 150 acres
- ★ Completed the Lake Rowell invasive weed control project involving 194 acres
- ★ Conducted prescribed burning on 15,225 acres
- ★ Planted longleaf and slash pine seedlings on 13 tracts involving 1,561 acres

## Flood Protection:

- ★ Continued outreach program for District regulated floodways
- ★ Developed FEMA digital flood insurance rate maps for Bradford and Levy Counties
- ★ Enhanced the internet outreach FEMA flood insurance rate map website
- ★ Completed Light Detection and Ranging mapping for Jefferson County
- ★ Initiated the FEMA Risk Map Program for Gilchrist, Lafayette, and Suwannee counties

## Mission Support:

- ★ Centralized communication efforts
- ★ Enhanced website
- ★ Continued database upgrades
- ★ Initiated conversion of water use permits to digital files
- ★ Updated aerial photography database for 5 counties
- ★ Developed electronically assessable financial data
- ★ Improved long-term document storage



## STRATEGIC PLAN PROGRAM SUMMARY BY AREAS OF RESPONSIBILITIES

Programs	Responsibilities			
	Water Supply	Flood Protection	Water Quality	Natural System
<b>Regional Water Supply Planning</b>	Continue Regional Water Supply Planning, Local Planning Assistance, Conservation Projects, Alternative Water Supply Projects	Protect Properties and Natural Systems	Ensure Water Quality Protection	Conduct Minimum Flows and Levels Research and Development
<b>Resource Monitoring</b>	Provide Data for Regional Water Supply Planning	Provide Accurate Water Levels, Flows, and Rainfall Data for Flood Forecasting	Identify Status and Trends In Water Quality and Aquatic Biology	Provide Data for Establishing Minimum Flows and Levels
<b>Land Acquisition</b>	Acquire Land for Regional Wellfield Protection and Water Resource Development	Acquire Land for Nonstructural Flood Protection	Protect Stream Buffers and Wetlands	Protect Natural Communities and Provide Habitat for Fish and Wildlife
<b>Land Stewardship</b>	Protect Groundwater Supplies and Recharge Areas  Protect Areas of High Recharge	Provide Floodwater Storage and Conveyance  Maintain Nonstructural Management	Manage Conservation Lands for Water Quality Protection	Conserve, Restore, and Protect Habitat and Natural Hydrologic Regimes
<b>Heartland Springs Initiative</b>	Protect and Preserve Spring Flows	Restore and Protect Springs in Riverine Floodplains	Improve Water Quality and Provide Groundwater Recharge Protection	Protect and Restore Springs and Springsheds
<b>Regulations</b>	Provide Water Supplies for Reasonable-Beneficial Uses  Protect Water Sources and Supplies	Ensure Environmental Resource Permitting meets Level of Service	Protect Water Quality	Ensure Compliance with Regulatory Requirements
<b>Mission Support</b>	Supports All Areas of Responsibilities by Providing Human Resource, Technical, Financial, Budgeting, and Outreach Services/Data Management			

