



# Strategic Plan 2014–2018

Southwest Florida  
*Water Management District*



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# MESSAGE FROM THE CHAIR

## District committed to meeting its core water resources mission

In Florida, with its many lakes, rivers, wetlands and estuaries, water defines our quality of life and serves as the engine that drives our economy. The Southwest Florida Water Management District (District) is responsible for managing and protecting the water resources in the 16-county west central Florida region to ensure their continued availability while maximizing the benefits to the public. Our core areas of responsibility are water supply, water quality, natural systems and flood protection.

Funded primarily through property taxes, the District is responsible to the taxpayers to protect their investment in water management. We are committed to providing the greatest value to our taxpayers by meeting our core mission efficiently and effectively. The District restructured itself to increase efficiency, reduce duplication, and lower our operational costs. Additionally, we are implementing new business processes and taking advantage of technological advances. Through these efforts, the District has been able to reduce its operational expenses by approximately 33 percent over the last three fiscal years, allowing for tax relief and freeing up dollars for water resource projects.

The District is well-positioned with adequate funding and a talented staff to face the water resource challenges of our region. There are many challenges across our 16 counties; clear direction is needed to ensure that our expenditures are coordinated and focused efficiently in the most important areas.

This Strategic Plan provides the road map for meeting those challenges by identifying what needs to be accomplished, how we will get the job



**Carlos Beruff**  
*Governing Board Chair*

done, and how we will measure our success. In addition to identifying the programs at our disposal, the Plan targets the specific priorities in each of our four planning regions. The Plan will be used by staff to prioritize project funding requests and to provide guidance to our funding partners.

How we do our jobs is as important as what we do. The Plan identifies the core values that guide our day-to-day work. The District is a solution-oriented agency that emphasizes scientific and technical excellence while also providing high quality service to its customers. As a public agency using tax dollars, we operate transparently, hold ourselves accountable, and apply our processes, rules and regulations consistently.

The Strategic Plan has been a collaborative process among the District's senior leadership, Governing Board and stakeholders. The Plan will be reviewed annually and updated when necessary to ensure that the road ahead is clearly labeled. While we have improved our efficiency, we are continually looking for ways to reduce costs, improve effectiveness and maximize the taxpayer investment in our mission. The District

seeks continuous improvement in our business processes to ensure that our human and financial resources remain aligned to achieve our core mission. And we will continue to use developing technology to deliver a better value to our "shareholders," the taxpayers, by increasing efficiencies in all areas.

### Governing Board

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Hillsborough, Pinellas Counties

**Wendy Griffin**

Hillsborough County

**George W. Mann**

Polk County

**vacant**

Citrus, Lake, Levy, Sumter Counties

**vacant**

Charlotte, Sarasota Counties

*The Governing Board establishes policies for the District. Board members are unpaid citizen volunteers appointed by the Governor and confirmed by the Florida Senate. At printing, there are two vacant Board seats.*

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# OVERVIEW

The Southwest Florida Water Management District (District) is a science-based organization responsible for managing and protecting water resources in west-central Florida. The District's job is to ensure there are adequate water supplies to meet the needs of current and future users while protecting and restoring water and related natural resources. (See *Mission Statement*.)

The District encompasses all or part of 16 counties, from Levy County in the north to Charlotte County in the south. It extends from the Gulf of Mexico east to the highlands of central Florida. The District contains 98 local governments spread over approximately 10,000 square miles, with a total population estimated to be 4.7 million in 2010. For planning purposes, the District is divided into four regions: Northern, Tampa Bay, Heartland, and Southern. (See *District Planning Regions map*.)

## Governing Board

A 13-member board governs the District. The Governing Board establishes policies and sets the budget for the District. Appointed by the Governor and confirmed by the Senate, Governing Board members are unpaid

volunteers representing diverse backgrounds and interests. Board members, who must live in the District, serve four-year terms.

## Budget

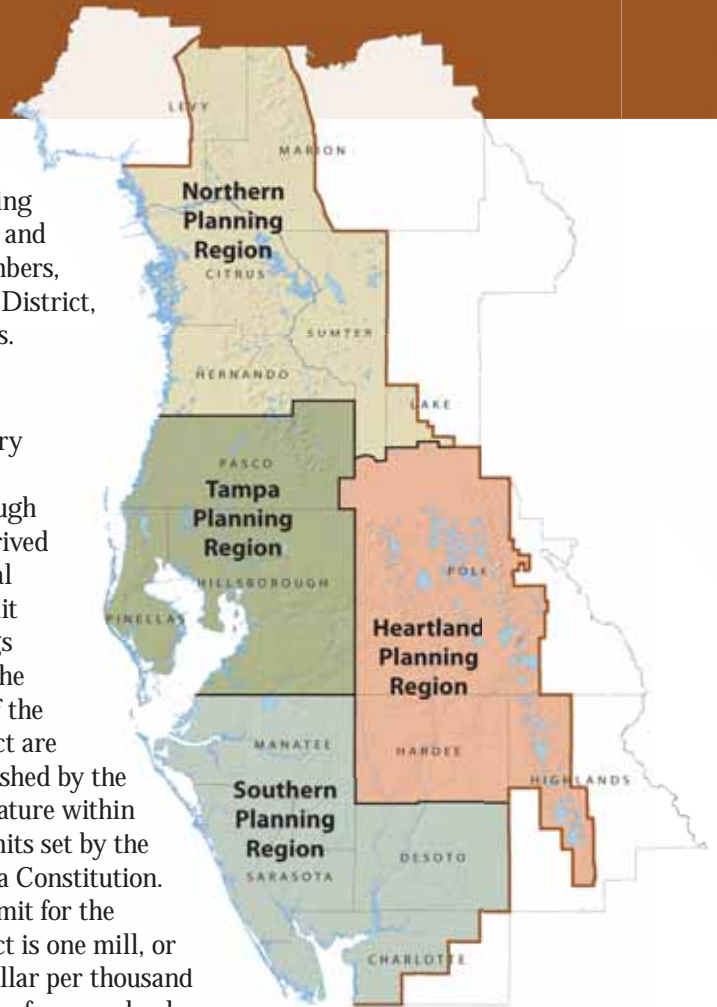
The District's primary funding source is ad valorem taxes, although revenues are also derived from state and federal appropriations, permit fees, interest earnings and other sources. The taxing capabilities of the

District are established by the Legislature within the limits set by the Florida Constitution. The limit for the District is one mill, or one dollar per thousand dollars of assessed value. The Governing Board millage for fiscal year 2014 is 0.3818 mill. More information about budgeting is included in this document's Core Business Practices section.

## Core Mission

Florida Statutes, primarily Chapter 373, authorize the District to direct a range of initiatives, programs and actions. These responsibilities can be grouped under four general areas which form the District's core mission: water supply, water quality, natural systems and flood protection. The District has established a goal for each of these areas of responsibility:

- **Water Supply Goal:** Ensure an adequate supply of the water resource to provide for all existing and future reasonable and beneficial uses while protecting and maintaining water resources and related natural systems.
- **Water Quality Goal:** Protect and improve water quality to sustain the water, environment, economy and quality of life.
- **Natural Systems Goal:** Preserve, protect and restore natural systems to support their natural hydrologic and ecologic functions.
- **Flood Protection Goal:** Minimize flood damage to protect people, property, infrastructure and investment.



## Strategic Initiatives

The District is implementing a wide array of programs and projects to meet these four goals. These activities are grouped under 10 Strategic Initiatives:

- Regional Water Supply Planning
- Alternative Water Supplies
- Reclaimed Water
- Conservation
- Water Quality Assessment and Planning
- Water Quality Maintenance and Improvement
- Minimum Flows and Levels Establishment and Recovery
- Natural Systems Conservation and Restoration
- Floodplain Management
- Emergency Flood Response

The Strategic Initiatives section of this document will provide additional information on each of the Initiatives, including goals and strategies.

## Regional Priorities

While the Strategic Initiatives identify activities implemented throughout the District, the water resource needs vary from one planning region to another. The top water resource priorities for each region, along with measurable objectives, are identified in the Regional Priorities section of this document.

## Vision and Values

Every organization has an identity that is forged not only by what it does, but by how it conducts itself. The qualities identified in this Vision include being dynamic, efficient, ethical, collaborative, competent and committed to the vitality of the state and its environment.

To achieve this Vision, the District has established five Core Values that set the tone and the direction for its employees:

- Service Excellence
- Teamwork & Collaboration
- Self Management
- Professional Integrity
- Professional and Technical Excellence

*(See Vision/Values chart for more information.)*

These Core Values are further defined in, and serve as the foundation of, the District's annual employee evaluation process, embedding these principles in the fabric of the organization and making them meaningful to employees in their daily activities.

## Core Business Processes

In addition to adhering to its adopted values, the District must excel in seven core business processes to successfully achieve its strategic initiatives:

- Water Resources Planning
- Innovative Projects
- Regulation
- Long-Range Financial Planning
- Land and Structure Operations
- Knowledge Management
- Public Engagement

These business processes are explained in more detail in the Core Business Processes section.

## VISION

The District is a dynamic and efficient public organization led and staffed by ethical, collaborative and highly competent people who provide superior service to our community. As stewards of Florida's water and related natural resources, we find our work rewarding and are driven by a desire to sustain the vitality of our state and its precious environment.

## CORE VALUES

Beliefs setting the tone and direction for our employees

### Service Excellence

We are a solution-oriented agency committed to achieving results and efficiently meeting the needs of the public and the water resources.

### Teamwork & Collaboration

We communicate and work together effectively to achieve our common goals.

### Self Management

We set challenging goals for our personal achievement and hold ourselves accountable for the results.

### Professional Integrity

We operate transparently and apply our processes, rules and regulations in a consistent manner.

### Professional and Technical Excellence

We use our expert knowledge, technology and other available resources to achieve high-quality work.

# STRATEGIC INITIATIVES

## Water Supply

### 1. Regional Water Supply Planning

*Goal Statement: Identify, communicate and promote consensus on the strategies and resources necessary to meet future reasonable and beneficial water supply needs.*

The District's regional water supply planning effort provides the framework for future water supply management decisions for all sixteen counties within the District. This is a collaborative effort involving local governments, utilities, the agricultural community, business representatives, environmental organizations and other stakeholders.

#### Strategies

- Develop accurate and reliable demand projections
- Identify sufficient regional water supply sources to meet projected demands
- Encourage the development and use of regional water supply authorities to plan and coordinate water supply solutions
- Incorporate adaptive management processes in water supply planning
- Coordinate with other water management districts on water supply and regulation approaches
- Proactively coordinate with water supply utilities
- Demonstrate the District's financial commitment to assist in the development of regional water supply needs

### 2. Alternative Water Supplies

*Goal Statement: Increase development of alternative sources of water to ensure groundwater and surface water sustainability.*

Alternative water supply (AWS) refers to any nontraditional source of water that reduces the region's dependency on fresh groundwater. Reclaimed water is addressed separately in this document due to its importance. Over the last 12 years, the District has helped to develop 370 million gallons daily (mgd) of alternative water supplies.

#### Strategies

- Develop surface water capture, desalination and brackish groundwater systems
- Partner with the agricultural community to provide alternative water supplies
- Continue to leverage District funds to facilitate the development of alternative water supplies
- Continue to support research into aquifer storage and recovery viability
- Promote conjunctive use approaches through regulation and funding incentives

### 3. Reclaimed Water

*Goal Statement: Maximize beneficial use of reclaimed water to offset potable water supplies and restore water levels and natural systems.*

Reclaimed water is wastewater that has received at least secondary treatment and disinfection and is used for a beneficial purpose, such as irrigation, manufacturing processes or power generation. By offsetting demand for groundwater and surface water, this alternative water source reduces stress on environmental systems, provides economic benefits by delaying costly water system expansions and reduces the need to discharge wastewater effluent to surface waters. Currently more than 149 mgd of reclaimed water is beneficially reused in the District, accounting for 10 percent of overall water use.

#### Strategies

- Increase availability by increasing storage capacity
- Increase availability by promoting interconnects
- Leverage District funds to maximize efficient and beneficial use of reclaimed water
- Improve efficiency through measures such as metering and volume-based pricing
- Continue to support reclaimed water research, monitoring and public education
- Augment reclaimed water with traditional sources when appropriate
- Provide regulatory incentives to increase beneficial use and offsets
- Increase benefits by promoting recharge and environmental enhancement projects

### 4. Conservation

*Goal Statement: Enhance efficiencies in all water-use sectors.*

The District fosters water stewardship awareness and sustainable behaviors among the people who live, work and play within the District's boundaries. Conservation is achieved through education, financial incentives and various regulatory and non-regulatory programs. Per capita water usage in the District has regularly ranked as the lowest in the state.

#### Strategies

- Promote water conservation through public engagement programs
- Support research and implementation of conservation techniques and practices
- Promote water-conserving rate structures
- Utilize financial incentives to further encourage effective conservation practices
- Utilize regulatory program to establish effective conservation practices

## 1. Water Quality Assessment and Planning

*Goal Statement: Collect and analyze data to determine local and regional water quality status and trends to support resource management decisions and restoration initiatives.*

Those who manage Florida's water resources must have access to accurate and timely data. Good decisions require reliable information.

### Strategies

- Continue to develop and maintain long-term water quality monitoring networks to collect, analyze and distribute accurate water quality information
  - Coastal Groundwater Quality and Water Use Permit Monitoring Networks
  - Springs and Aquifer Nutrient Monitoring Networks
  - Surface Water Quality Monitoring Networks
- Continue to support the District's internal data governance process
- Continue to promote partnerships through District water quality programs

## 2. Water Quality Maintenance and Improvement

*Goal Statement: Develop and implement programs, projects and regulations to maintain and improve water quality.*

The District develops and implements projects, programs and regulations to maintain and improve water quality. Through Fiscal Year 2013, District projects have provided water quality treatment for approximately 120,000 acres of watershed, resulting in the

reduction of an estimated 120 tons per year of nitrogen to area waters. Examples of these efforts include partnerships for best management practices (BMPs) implementation such as the Facilitating Agricultural Resource Management Systems (FARMS) Program, focused on the agriculture community, and the Watershed Management Program, addressing watershed improvements; well abandonment assistance offered by the Quality of Water Improvement Program (QWIP); and the restoration of surface waters performed by the Surface Water Improvement and Management (SWIM) and the Springs and Environmental Flows programs.

The District also acquires and manages land for water resources conservation/protection purposes through its land resources program and regulates stormwater management through the environmental resource permitting process. In addition, water quality assistance is accomplished through data and information sharing and the implementation of improvement projects.

### Strategies

- Use cooperative funding to support local government efforts in development and implementation of basin management action plans (BMAPS)
- Continue to monitor the USEPA Numeric Nutrient Criteria process
- Promote Florida-Friendly Landscaping™ principles and other behaviors that help protect water quality
- Participate in the development and implementation of the statewide stormwater management criteria to enhance an active environmental resource permitting (ERP) program



*Rainbow Springs*

- Utilize regulatory programs to promote water quality protection and improvement
- Continue to promote partnerships through District water quality programs such as the SWIM and the FARMS programs

# STRATEGIC INITIATIVES

## Natural Systems

### 1. Minimum Flows and Levels Establishment and Recovery

*Goal Statement: To prevent significant harm and reestablish the natural ecosystem, determine MFLs and, where necessary, develop and implement recovery plans.*

Minimum flows and levels (MFLs) for aquifers, surface watercourses, and other surface water bodies identify the limit at which withdrawals would be significantly harmful to the water resources or ecology of the area. Rivers, streams and springs require minimum flows, while minimum levels are set for lakes, wetlands and aquifers. MFLs are used for permitting or planning decisions concerning how much water may be safely withdrawn from a water body.

Through Fiscal Year 2013 the District has set 204 minimum flows and levels on rivers, lakes, aquifers and wetlands. The District's process for establishing MFLs includes independent scientific peer review and opportunities for interested stakeholders to participate in public review. The District also assesses potential water supply/resource problems and evaluates water use permit applications to ensure no violation of established MFLs occurs. In addition, MFLs are monitored and evaluated for compliance. This includes determining the need for recovery, implementing strategies to prevent flows or levels from falling below established MFLs, and assessing the recovery of water bodies where significant harm has occurred. To date, the District has developed three regional recovery strategies associated with Water Use Caution Areas (Northern Tampa Bay, Southern and Dover/Plant City) and two water body-specific plans that cover the water resources currently known to not meet established MFLs.

### Strategies

- Update MFL priority list and schedule annually
- Establish water body-specific MFLs through:
  - Data collection
  - Data analysis and reporting
  - Independent scientific peer review and public review
  - Rule adoption
- Continue to incorporate MFLs in District water use permit application review processes and compliance monitoring
- Monitor and report hydrologic conditions to ensure compliance with MFLs
- Continue to review and refine scientific methodologies used in establishing MFLs
- Implement adopted recovery strategies
- Incorporate MFL recovery and prevention strategies into the Regional Water Supply Plan development process

### 2. Conservation and Restoration

*Goal Statement: Identify critical environmentally sensitive ecosystems and implement plans for protection or restoration.*

The conservation and restoration strategic initiative preserves, protects and restores natural systems to support natural hydrologic and ecologic functions. The major components of this initiative include land acquisition and management, ecosystem monitoring and restoration, education and regulation. Through 2013, nearly 30,000 acres of habitat have been restored through District programs and partnerships with state and local governments.

Acquisition and management of land are critical to the District's conservation and restoration objectives. Once acquired,

land is restored and managed to maintain ecological and hydrological functions. Restoration initiatives, such as the Surface Water Improvement and Management (SWIM) Program, are overseen by the District to restore priority water bodies. Numerous recreation and educational opportunities are offered on District lands to enhance conservation land stewardship.

The District also regularly tracks land and water resource alterations through its aerial land use/land cover, wetland and seagrass mapping efforts. Staff is able to monitor changes and offer feedback to better link land and water resources for developments of regional impact (DRI) and local government comprehensive plan amendments. The District's environmental resource permit (ERP) program helps protect water resources.

### Strategies

- Evaluate acquisition opportunities, placing priority on ecological value, inholdings, additions, core conservation areas, realistic landowner expectations, and leveraging partnership dollars
- Innovative restoration projects and partnerships
- Promote conservation of land through recreation and education opportunities
- Regulate to avoid impacts or minimize and mitigate unavoidable impacts
- Partner to continue wetland, lake and river monitoring and analysis
- Provide technical assistance to state, regional and local governments for linking land and water
- Utilize management tools to enhance maintenance of conservation lands



## 1. Floodplain Management

*Goal Statement: Develop better floodplain information and implement floodplain management programs to maintain storage and conveyance and to minimize flood damage.*

The District's Watershed Management Program (WMP) identifies, prioritizes and addresses flood-related water resource issues within a watershed. Information developed through the WMP is used by local governments, the District, and state and federal governments in regulatory and advisory floodplain management programs.

The District's environmental resource permit (ERP) program protects floodplain and historic basin storage and ensures that new development does not increase the rate of stormwater runoff onto neighboring properties.

Strategic acquisition allows land to fulfill natural functions of storing and accommodating excess water and reduces the risk of flooding damage by preserving floodplains. The District also maintains and operates 4 major canal and conveyance systems and 81 flood control and water conservation structures as an important strategy in floodplain management. Extensive areas of the District depend upon the maintenance and operation of these facilities.

### Strategies

- Implement the WMP, collect and analyze data and develop and distribute accurate floodplain information

- Implement the ERP program using WMP floodplain information
- Identify floodplain management and flood protection value associated with land acquisition opportunities
- Operate, maintain and upgrade water management structures and associated facilities
- Increase public awareness of floodplains

## 2. Emergency Flood Response

*Goal Statement: Operate District flood control and water conservation structures, providing effective and efficient assistance to state and local governments and the public to minimize flood damage during and after major storm events.*

Through its emergency flood response initiative, the District prepares for, responds to, recovers from and mitigates the impacts of critical flooding incidents. To ensure adequate preparation, the District has developed an emergency operations program and maintains a Comprehensive Emergency Management Plan (CEMP), which provides guidelines for pre-incident preparation, post-incident response and recovery, deployment and annual exercises. The District's Emergency Operations Center (EOC) and Emergency Operations Organization (EOO) are critical to incident response.

All water management districts are members of the State Emergency Response Team and serve as support agencies to the state. The District provides emergency assistance to local governments and the public. District regulatory flood investigation teams assist local governments with emergency construction authorizations,

equipment and staff and help to determine and implement solutions to flooding problems for major conveyance systems.

The enhancement and modernization of District water management facilities includes the automation and upgrading of water conservation and flood control structures with remote control and equipping mission-critical structures with digital video monitoring. Emergency notification sirens have been installed at two high-hazard District water control facilities — Medard Reservoir in Hillsborough County and G-90 in Highlands County. With these sirens, downstream residents can be warned to evacuate should either of the facilities fail.

### Strategies

- Continue to promote the National Incident Management System (NIMS) and Incident Command System (ICS) as the District's incident management system
- Establish redundant control systems for all mission-critical infrastructure
- Use technology, including automation, to the fullest extent to ensure optimal response capabilities
- Train staff in NIMS/ICS structure and exercise the District's CEMP and high hazard structure Emergency Action Plans
- Provide emergency assistance to local governments and agencies as requested

# REGIONAL PRIORITIES AND OBJECTIVES

## Northern Region — Springs

### PRIORITY:

Improve northern coastal spring systems

### OBJECTIVES:

- Implement water quality improvement projects in each priority water body or springshed to move closer to the established water quality standards
- Establish natural systems restoration plans with targets and implement identified projects for each spring

### Narrative:

Among the most precious water resources in the District are the more than 150 documented springs, and the rivers, bays, and estuaries that are fed by them. Over the past half century virtually all of these spring-fed systems have experienced significant ecological changes caused by both natural variability and human activities.

Most individual springs cluster around 16 groups of springs. The five largest are classified as first-magnitude groups (flow rates of 100 cubic feet per second or greater). These are the Rainbow Springs, Crystal River/Kings Bay, Homosassa Springs, Chassahowitzka Springs and Weeki Wachee Springs.

The District recognizes the need to manage all springs within its boundaries but places a priority on the five first-magnitude spring groups, which fall within the northern area of the District. These five spring groups collectively discharge more than one billion gallons per day.

Four of the five groups discharge into the Gulf coastal waters, home to the second largest seagrass area in the United States. With an estimated 700,000 acres, the Springs Coast seagrass area is one of the largest seagrass areas in the world. These coastal groups are also critical manatee habitat providing thermal refuge during the winter months. Kings Bay is the largest natural thermal refuge for manatees in the United States.

These groups are important not only for their ecological value but also for their economic impact on the communities that call these areas home. Four of the five first-magnitude systems have state parks associated with them that draw over one million non-resident visitors annually. This translates into \$46 million in direct economic impact.

More than 900 jobs are generated by state parks associated with these springs groups. According to the United States Fish and Wildlife Service, Kings Bay supports 42 small businesses through kayaking and diving tours alone.

The District takes an ecosystem-level approach to springs management by minimizing human impacts on flow regimes, improving water quality and clarity, and restoring natural habitats. The District's Springs Management Plan lays out a general restoration strategy, an overview of the goals and issues, and a list of proposed projects for the five-year period 2013-2017. The plan is a living document with adaptive management at its core.

The plan builds upon the Springs Coast Comprehensive Watershed Management Plan (2001) and the Springs Coast Initiative (2002), as well as more than 20 years of Districtwide expertise designing and implementing projects and monitoring activities.



*Homosassa Springs*

Through sound investment, the District, in partnership with the various stakeholders, is implementing projects to conserve and restore the ecological balance of our spring systems, thereby supporting regional economies and quality of life. The District will track its program against the goals identified in its Springs Management Plan.

## PRIORITY:

Ensure long-term sustainable water supply

## OBJECTIVES:

- Increase conservation
  - Achieve and maintain 150 gallon per day compliance per capita with all public supply utilities by December 31, 2019 (12 utilities above 150 throughout the region – 4 in Citrus County; 6 in Marion County; 1 in Sumter County; 1 in Hernando County)
  - Reduce 2011 regional average compliance per capita of 126 gallons by 15 percent to 107 by 2020
- Maximize beneficial use of reclaimed water
  - Achieve 75 percent utilization of all wastewater flows and a 75 percent offset efficiency by 2030. As of 2010, the Northern Region has a utilization rate of 58 percent and offset efficiency of 71 percent
  - Increase beneficial reuse flow by 18 million gallons daily (mgd) by 2030. As of 2010, the Northern Region had 9.75 mgd of reuse flow
  - Reduce reclaimed water discharge to rapid infiltration basins (RIBs) in springsheds
- Partner with Withlacoochee Regional Water Supply Authority to promote regional water supply planning and development

## Narrative:

The District's 2010 Regional Water Supply Plan shows that demand for water in the Northern Planning Region through 2030 and beyond could be met with fresh groundwater if the region's considerable potential for reuse and conservation were realized.

Public supply use, which accounts for about 60 percent of the water use in the Northern Planning Region, has significant potential for water savings. In 2011, public supply water use in the northern region averaged 126 gallons per person per day (gpcd). This figure represents a 38 percent reduction from water usage in 2000. However, it's still significantly higher than the other three planning regions. Also, in 2010, there were 12 utilities in the northern region with compliance per capita figures higher than 150 gpcd, which will be the maximum allowed starting on December 31, 2019.

The District's goals are to ensure that all utilities fall below the maximum per capita usage and to reduce the regional per capita usage 15 percent by 2020. The District plan to assist public supply utilities is to minimize the need for additional groundwater supplies by maximizing the use of available reclaimed water and implementing comprehensive water conservation measures and best management practices.

The District promotes regional approaches to water supply planning and development. The benefits of regional systems include economies of scale, better ability to manage



environmental impacts, improved system reliability, operational flexibility and emergency backup capability. Larger, regional systems are also able to take advantage of conjunctive use, wherein both groundwater and alternative sources are available and can be managed to mimic natural hydrologic cycles.

In the northern region, the District is partnering with the Withlacoochee Regional Water Supply Authority to promote regional water supply planning and development.

# REGIONAL PRIORITIES AND OBJECTIVES

## Tampa Bay Region — MFL Recovery



### PRIORITY:

Implement Minimum Flow and Level (MFL) Recovery Strategies

### OBJECTIVES:

- **Northern Tampa Bay Water Use Caution Area (NTBWUCA) Recovery Strategy**
  - Recover minimum flows for 2 segments of the Hillsborough River, and minimum levels at 33 lakes and at 27 wetlands
  - By 2018, complete an assessment to determine whether Tampa Bay Water's reduction to 90 million gallons daily (mgd) of groundwater withdrawal from the Central Wellfield System provides necessary recovery for impacted rivers, lakes and wetlands
  - Complete the permitting, final design and construction of Blue Sink and Morris Bridge Sink projects for the Lower Hillsborough River recovery
  - Conduct a 5-year assessment of the adopted MFL for the Lower Hillsborough River
- **Dover/Plant City Water Use Caution Area (DPCWUCA) Recovery Strategy**
  - Reduce the risk of negative impacts from concentrated withdrawals associated with crop protection
  - Ensure compliance with the DPCWUCA area minimum aquifer level of 10 ft NGVD for the Upper Floridan aquifer at the District's DV-1 Suwannee monitor well
  - Reduce January 2010 permitted crop protection quantities by 10 percent by January 2015 and by a total of 20 percent by January 2020
  - Establish automatic flow meter reporting equipment on 960 agricultural withdrawal points
- **Southern Water Use Caution Area (SWUCA) Recovery Strategy**
  - Offset up to 50 mgd in groundwater in SWUCA by 2025 with 40 mgd achieved through FARMS
  - Recover the SWUCA saltwater intrusion minimum aquifer level of 13.1 ft for the Upper Floridan aquifer to slow the rate of saltwater intrusion in the Most Impacted Area (MIA)
  - Ensure that there are sufficient water supplies for all existing and projected reasonable-beneficial uses



### Narrative:

The District sets minimum flows and levels (MFL) on priority water bodies. An MFL is the limit at which withdrawals would be significantly harmful to the water resources or ecology. If the existing flow or level of a water body is below, or is projected to fall below, the applicable minimum flow or level within 20 years, a recovery or prevention strategy must be implemented.

Additionally, the District can designate a water use caution area (WUCA) when the Governing Board determines that regional action is necessary to address cumulative water withdrawals which are causing or may cause adverse impacts to the water and related natural resources or the public interest. WUCA rules enhance the protection and recovery of the water resources.

In the Tampa Bay Region, the District has identified recovery strategies

associated with MFLs in three WUCAs: Northern Tampa Bay, Dover/Plant City, and Southern.

The **Northern Tampa Bay Water Use Caution Area (NTBWUCA)** was established to address adverse impacts to water resources from groundwater pumping. The WUCA encompasses all of Pinellas and Pasco counties, and those portions of Hillsborough County north of Highway 60. The first phase of the District's recovery strategy for restoring water resources called for reducing pumping from Tampa Bay Water's regional wellfields and providing financial incentives for construction of alternative water supply projects. In the Northern Tampa Bay WUCA, these efforts have produced 149 mgd of new alternative water sources and allowed for groundwater withdrawals to be reduced by more than 60 mgd.

Significant hydrologic recovery has resulted from these reductions. However, more information is needed to fully evaluate the effects of the reductions on MFL recovery. Therefore, the District initiated a second phase of the recovery strategy through adoption of a comprehensive plan that includes continued monitoring and evaluation of environmental mitigation for withdrawal impacts and continued water conservation activities by Tampa Bay Water's member governments.

One of the water resources impacted in the NTBWUCA is the Hillsborough River. The recovery strategy for the lower Hillsborough River calls for the augmentation of the river from a variety of sources, including Sulphur Springs, Blue Sink, Morris Bridge Sink and the Tampa Bypass Canal. Since December 2007 the District has transferred 11 cubic feet per second of water from the Tampa Bypass Canal to

the Hillsborough River Reservoir and pumped 75 percent of this volume over the City of Tampa dam when necessary. To further support recovery of the lower river, the City of Tampa has been supplying up to 18 cubic feet per second of flow from Sulphur Springs to the base of the City of Tampa dam. Projects to develop additional augmentation quantities for the lower Hillsborough River are planned at Blue and Morris Bridge sinks.

The **Dover/Plant City Water Use Caution Area (DPCWUCA)** was established to address impacts from groundwater pumping for frost/freeze protection. To protect crops from freeze events, a best management practice for many farmers with agricultural commodities including strawberries, blueberries, citrus, and nurseries is to pump groundwater and irrigate when temperatures drop to near freezing. Substantial irrigation use during these times strains the aquifer system which lowers groundwater levels and can also impact residential wells and contribute to sinkhole development.

During the historic 11-day January 2010 freeze event, many residential wells were impacted and sinkholes were reported. Moreover, significant freeze events resulting in well failures and sinkholes have occurred three times over the past 10 years. As a result, the District has developed and adopted a comprehensive management plan to significantly reduce and monitor in real time groundwater pumping during future freeze events that may cause impacts to existing legal users.

A southern portion of Hillsborough County is included in the **Southern Water Use Caution Area (SWUCA)**. In the eight-county SWUCA, which encompasses approximately 5,100 square miles, depressed aquifer levels have caused saltwater intrusion along

the coast, contributed to reduced flows in the upper Peace River and lowered lake levels in areas of Polk and Highlands counties.

Groundwater withdrawals were identified as the primary cause of the depressed aquifer levels throughout the groundwater basin, with drawdowns in some areas exceeding 50 feet.

The District has adopted MFLs for 41 priority water bodies in the SWUCA. More than half of the established MFLs are not being met. The District adopted the SWUCA Recovery Strategy to recover flows and levels to established MFLs, including reducing the rate of saltwater intrusion by achieving the proposed minimum aquifer level, restoring minimum flows in the upper Peace River, and restoring minimum levels to the priority lakes in the Highlands Ridge area.

Some of the primary Recovery Strategy elements for the SWUCA include:

- Updating the Regional Water Supply Plan to identify how to address growing regional water needs while minimizing impacts to the water resources and natural systems.
- Providing financial incentives for conservation, creation of alternative supplies and regional interconnections.
- Resource monitoring, reporting and cumulative impact analysis. The cumulative impact analysis evaluates changes in permitted and used groundwater quantities and water resource development projects benefiting the Upper Floridan aquifer in and around the Most Impacted Area (MIA).

# REGIONAL PRIORITIES AND OBJECTIVES

## Tampa Bay Region — Improve Water Bodies

### PRIORITY:

Improve Lake Thonotosassa, Tampa Bay, Lake Tarpon and Lake Seminole

### OBJECTIVES:

- Develop and update plans and implement water quality improvement projects in each priority water body to move closer to the established water quality standards and seagrass targets
- Complete the Old Tampa Bay Water Quality and Habitat Assessment and begin implementation of priority projects
- Develop and update plans and implement natural system projects that restore critical shoreline, coastal upland and intertidal habitats



*Lake Thonotosassa shoreline.*

### Narrative:

**L**ake Thonotosassa, the largest natural lake in Hillsborough County with a surface area of greater than 800 acres, is popular for recreational use as it is one of the few natural lakes in the area with public access. The lake discharges into the Hillsborough River which is used for the City of Tampa's municipal water supply. The lake is designated as a District priority water body through its implementation of the state Surface Water Improvement and Management (SWIM) Program.

Four main challenges exist in the Lake Thonotosassa watershed. Nutrient loadings from the watershed have caused extreme nutrient enrichment

resulting in algal blooms. Habitat quality and species diversity have declined. Nonnative plant species are more abundant, while availability of desirable sport fish has declined.

The District is partnering with other government agencies to identify nutrient sources in the watershed. Areas with high nutrient loadings will be prioritized for projects, such as stormwater improvement projects, maintenance/control of exotic plants, enhancement of wetland and aquatic habitats, and public education and awareness of stormwater pollution prevention and the importance of water quality and wetlands.

Success indicators include meeting pollutant reduction goals for nutrients and chlorophyll-a, increasing water clarity and increasing eelgrass bed coverage and other aquatic vegetation. More information is available in the District's SWIM Plan for the lake.

**Tampa Bay** is designated as an "Estuary of National Significance" and a SWIM priority water body. The 373-square-mile bay is Florida's largest open-water estuary. Its 2,200-square-mile watershed contains more than 2 million residents.

Three main challenges exist in the Tampa Bay watershed. Coastal uplands and wetlands have been altered and lost. Nonnative animal and plant species have spread. Water quality has been degraded from pollutants and nutrient loading.

The District is working with other government agencies on a comprehensive conservation and management plan, implementation of water quality improvement projects, and restoration of the balance between coastal upland, wetland and intertidal habitats.

Success indicators include improved water quality, reduction/removal of nonnative terrestrial and wetland species, and increased hydroperiods, coverage of seagrasses and wildlife use. Through the efforts of the District SWIM program and local cooperators, 2,990 acres of coastal habitats have been restored in Tampa Bay. As a result, water quality has improved and Tampa Bay has seagrass acreage approaching levels seen in the 1950s. More information is available in the District's SWIM Plan for the bay.

Many areas of the bay have seen significant improvement through the efforts of multiple agencies. However, the Old Tampa Bay segment has been identified as an area of primary concern through several Tampa Bay Estuary Program (TBEP) research initiatives and advisory committee recommendations.

Unlike the other major bay segments of Tampa Bay, periodic poor water quality conditions, sediment accumulation, and limited seagrass expansion are still observed in Old Tampa Bay.

**Lake Tarpon** is the largest freshwater lake in the Tampa Bay area with 2,532 acres of surface area. The lake is designated as an Outstanding Florida Water, a Fish Management Area and a SWIM priority water body.

Three main challenges exist in the Lake Tarpon watershed: water quality decline, fish community imbalance, and nuisance algal blooms and nonnative vegetation increases.

The District is working in partnership with other government agencies to further assess Lake Tarpon and develop an updated plan that identifies projects and programs to reduce nutrient loading to the lake. Success indicators include increased submerged

plant growth, balanced fish communities and expanded coverage of native plants.

**Lake Seminole** is a 684-acre freshwater lake in west-central Pinellas County that was created in the 1940s by the impoundment of an arm of Long Bayou, a brackish water segment of Boca Ciega Bay. The Lake Seminole watershed encompasses approximately 3,500 acres, of which almost 90 percent is developed as urban land uses.

Lake Seminole is currently listed by the Florida Department of Environmental Protection as an impaired water body. The primary pollutants associated with this impairment are nutrients, which have resulted in hyper-eutrophic conditions and poor water quality.

The major water quality concerns are the control of excessive nutrients entering the lake and the fate of the nutrients that do reach the lake (e.g., internal nutrient recycling).

In 2004 Pinellas County adopted the Lake Seminole Watershed Management Plan to identify and implement projects to reduce nutrient



*Lancaster Tract Restoration Project created several new wetland areas and also formed a freshwater pond to collect and treat stormwater entering the site. Lancaster Tract now provides improved water quality entering Tampa Bay.*

concentrations in the lake and to meet targeted water quality goals. These projects included retrofitting stormwater outflows from the five highest nutrient loading sub-basins with alum treatment systems, alum treatment and redirection of a portion of flows in the Lake Seminole Bypass Canal into Lake Seminole, removal of organic muck sediments and lake level fluctuation. The District has been partnering with the county on these projects.

# REGIONAL PRIORITIES AND OBJECTIVES

## Heartland Region — SWUCA Recovery

### PRIORITY:

Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy

### OBJECTIVES:

- Achieve a net reduction of up to 50 million gallons daily (mgd) of groundwater use in SWUCA by 2025 with 40 mgd of offsets achieved through agricultural reductions via the Facilitating Agricultural Resource Management Systems (FARMS) Program.
- Recover the SWUCA saltwater intrusion minimum aquifer level of 13.1 ft NGVD for the Upper Floridan aquifer to slow the rate of saltwater intrusion in the Most Impacted Area (MIA)
- Recover 87 to 89 percent of the minimum flows for three segments of the upper Peace River through implementation of the Lake Hancock Lake Level Modification project
- Recover minimum levels at seven Polk County lakes and nine Highland County lakes by 2025
- Ensure a sustainable water supply
  - Achieve and maintain the 150-gallon-per-day compliance per capita with all public supply utilities
  - Reduce 2011 regional average per capita of 99 gallons per capita daily by 5 percent to 94 by 2020
  - Assist Polk County and its municipalities in the development of 30 mgd of alternative supply sources through the creation of a regional water supply entity
  - Increase percentage of total water use supplied by alternative sources
  - Maximize the water conservation potential for the region
  - Complete the Lower Floridan aquifer study in Polk County to assess its viability as an alternative water supply source and to gain a better understanding of the Lower Floridan aquifer characteristics and groundwater quality
  - Develop a Regional Water Supply Plan for the Central Florida Water Initiative by 2014
  - Achieve 75 percent utilization of all wastewater flows and a 75 percent offset efficiency by 2030. As of 2010, the Heartland has a utilization rate of 37 percent and offset efficiency of 91 percent
  - Increase beneficial reuse flow by 53 mgd by 2030. As of 2010, the Heartland Region had about 12 mgd of reuse flow.
  - Complete the TECO's SW Polk Power Station Interconnects of reclaimed water from the City of Lakeland and Polk County to offset up to 17 mgd by 2015
  - Maximize interconnects among public supply utilities



### Narrative:

Most of the District's Heartland Region falls within the eight-county Southern Water Use Caution Area (SWUCA), which encompasses approximately 5,100 square miles. In the SWUCA, depressed aquifer levels have caused saltwater intrusion along the coast, contributed to reduced flows in the upper Peace River and lowered lake levels in areas of Polk and Highlands counties.

Groundwater withdrawals were identified as the primary cause of the depressed aquifer levels throughout the groundwater basin, with drawdowns in some areas exceeding 50 feet.

The District has adopted minimum flows or levels (MFL) for 41 priority water bodies in the SWUCA. An MFL is the limit at which withdrawals would



be significantly harmful to the water resources or ecology. More than half of the established MFLs are not being met. The District adopted the SWUCA Recovery Strategy to recover flows and levels to established MFLs, including reducing the rate of saltwater intrusion by achieving the proposed minimum aquifer level, restoring minimum flows to the upper Peace River, and restoring minimum levels to priority lakes in the Ridge area, which extends roughly 90 miles along the center of the state in Polk and Highlands counties.

Some of the primary Recovery Strategy elements for the SWUCA include:

- Updating the Regional Water Supply Plan to identify how to address growing regional water needs while minimizing impacts to the water resources and natural systems.
- Providing financial and regulatory incentives for conservation, construction of alternative supplies and regional interconnections. District funding sources include the Cooperative Funding and Water Supply and Resource Development initiatives.
- Resource monitoring, reporting and cumulative impact analysis. The Recovery Strategy includes the continuous monitoring of trends in resource conditions and permitted and actual water use. The cumulative impact analysis evaluates changes in permitted and used groundwater quantities and water resource development projects benefiting the Upper Floridan aquifer in and around the Most Impacted Area (MIA).
- Developing and implementing water resource projects to aid in reestablishing minimum flows to rivers, recover levels in Ridge lakes, and enhance recharge. A project focus area is to increase the

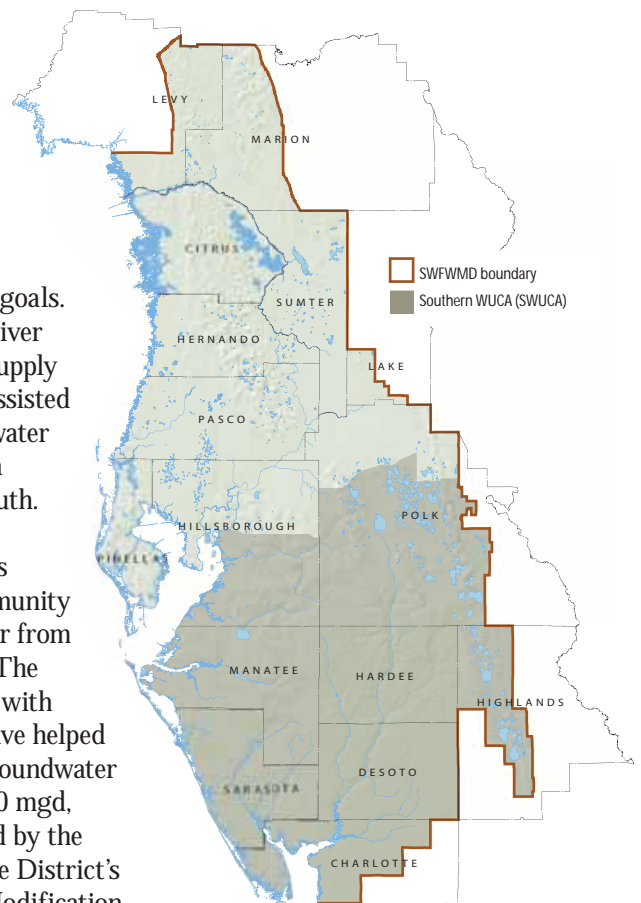
wet-weather storage in the upper Peace River watershed.

The District has been successful in multiple efforts associated with its SWUCA goals. Partnering with the Peace River Manasota Regional Water Supply Authority, the District has assisted in developing a sustainable water supply to meet the needs of a four-county region in the south. The District's cooperatively funded FARMS program has helped the agricultural community reduce its use of groundwater from the Upper Floridan aquifer. The FARMS program combined with other conservation efforts have helped to reduce Upper Floridan groundwater withdrawals by more than 50 mgd, one of the targets established by the SWUCA Recovery Plan. The District's Lake Hancock Lake Level Modification Project will be operational in 2014 to help meet the minimum flows for the upper Peace River.

Challenges remain in reducing the rate of saltwater intrusion along the coast and meeting minimum levels for Ridge lakes in Highlands and Polk counties.

While the southern portion of Polk County is included in the SWUCA, all of Polk County is part of a designated Central Florida Water Initiative (CFWI) region that is reaching sustainable groundwater limits, facing increased demands on water resources, and involves overlapping regulatory programs.

The CFWI region covers five counties, including Polk, Orange, Osceola, Seminole and southern portions of Lake. The boundaries of the St. Johns River, South Florida and Southwest Florida water management districts meet in the area.



The District is collaborating with the other water management districts and local governments to identify a sustainable water supply for the region. The keys to meeting the water resource challenges of the CFWI region include developing:

- One shared groundwater model to determine availability
- One coordinated strategy for MFL prevention & recovery
- One Regional Water Supply Plan
- Consistent rules among the permitting agencies

Polk County has a need to develop 30 mgd of water supply sources by 2035. The District is assisting Polk County and its municipalities in establishing a regional water supply entity, while concurrently working with its CFWI partners to develop a regional water supply plan to address the water supply needs of its five-county region.

# REGIONAL PRIORITIES AND OBJECTIVES

## Heartland Region — Improve Water Bodies

### PRIORITY:

Improve Ridge Lakes, Winter Haven Chain of Lakes and Peace Creek Canal

### OBJECTIVES:

- Implement water quality improvement projects in each priority water body to move closer to the established water quality standards
- Reduce nitrogen load from Lake Hancock into Charlotte Harbor via the Peace River by 27 percent through the Lake Hancock Wetland Treatment System
- Complete Surface Water Resource Assessments (SWRA) for the Peace Creek Canal Watershed and develop operational levels for the Winter Haven Chain of Lakes structures to optimize natural systems and water quality improvement while maintaining flood protection services

### Narrative:

**T**he **Winter Haven Chain of Lakes** is a system of 19 interconnected lakes in Polk County. Designated as a SWIM priority water body, the chain encompasses a 32-square-mile watershed and is made up of two major groups with 5 lakes in the northern chain and 14 in the southern chain. The lakes were interconnected through the construction of canals to promote recreational access.

Two main challenges exist in the Winter Haven Chain of Lakes

watershed: nutrient loading from urban runoff and the loss of natural systems.

The District is working with other government agencies to reduce non-point source pollutant loadings through pollutant reduction goals and stormwater management, to restore upland and aquatic habitats while preserving plant and wildlife populations, and to implement ecologically and environmentally sound land-use practices.

Success will be measured by water quality improvements including reductions in non-point source loading of phosphorous, decreases in nonnative or undesirable species, and increases in native aquatic and upland vegetation. More information is available in the SWIM plan for the Winter Haven Chain of Lakes.

To date, water quality improvement projects have been implemented for eight lakes (Conine, Howard, May, Lulu, Hartridge, Jessie, Cannon, and Mariana). In addition, twelve low impact development (LID) best management practices (BMPs) have been installed within the downtown area of the City of Winter Haven.

The **Peace Creek Canal** watershed in Polk County encompasses 230 square miles. The District is completing a Surface Water Resource Assessment for the watershed. The assessment involves analyzing the existing ecological infrastructure of the watershed. Several specific areas have been identified and are being further evaluated. The goal is to determine the areas of the watershed that could be restored to improve water quality, restore natural systems and enhance water storage.

Approximately 130 lakes lie along the **Ridge**, which extends roughly 90 miles along the center of the state in Polk and Highlands counties. A high number of



*Lake Isis, Highlands County*

deep sinkhole basin lakes makes this region uniquely different from the other lake regions in the District, as well as throughout the state.

Declining water quality and lake levels are challenges for the lakes along the Ridge. Common water quality impacts include stormwater runoff, wastewater effluent, residential and fertilizer applications, agricultural runoff, groundwater pollution, shoreline habitat degradation and hydrologic alterations.

Through the District's Ridge Lakes Restoration Initiative, emphasis is placed on protective lake management strategies. Stormwater treatment is identified as a high priority. Subsequently, the objective of these projects is the protection and enhancement of water quality through stormwater treatment as well as enhancement and restoration of natural systems and further flood protection.

## PRIORITY:

Implement Southern Water Use Caution Area (SWUCA) Recovery Strategy

## OBJECTIVES:

- Achieve a net reduction of up to 50 mgd of groundwater use in SWUCA by 2025 with 40 mgd of offsets obtained through agricultural reductions via the Facilitating Agricultural Resource Management Systems (FARMS) Program
- Recover the SWUCA saltwater intrusion minimum aquifer level of 13.1 ft NGVD for the Upper Floridan aquifer to slow the rate of saltwater intrusion in the Most Impacted Area (MIA)
- Ensure a sustainable water supply
  - Achieve and maintain 150 gallon per day compliance per capita with all public supply utilities
  - Reduce 2011 regional average compliance per capita of 82 gallons per capita daily by 5 percent to 78 by 2020
  - Develop ASR options for potable and reclaimed water supply
  - Increase percentage of total water use supplied by alternative sources
  - Complete Feasibility Study for Flatford Swamp Hydrologic and Adaptive Management Restoration by 2014
  - Assist the Peace River Manasota Regional Water Supply Authority in completing construction on three of the eight planned phases of the Regional Integrated Loop System project by 2014

## Narrative:

The entire Southern Planning Region of the District falls within the eight-county Southern Water Use Caution Area (SWUCA). In the SWUCA, which encompasses approximately 5,100 square miles, depressed aquifer levels have caused saltwater intrusion along the coast, contributed to reduced flows in the upper Peace River, and lowered lake levels in areas of Polk and Highlands counties.

Groundwater withdrawals were identified as the primary cause of the depressed aquifer levels throughout the groundwater basin, with drawdowns in some areas exceeding 50 feet.

The District has adopted minimum flows or levels (MFL) for 41 priority water bodies in the SWUCA. An MFL

is the limit at which withdrawals would be significantly harmful to the water resources or ecology. More than half of the established MFLs are not being met. The District adopted the SWUCA Recovery Strategy to recover flows and levels to established MFLs, including reducing the rate of saltwater intrusion by achieving the proposed minimum aquifer level, restoring minimum flows to the upper Peace River, and restoring minimum levels to the priority lakes in the Ridge area, which extends roughly 90 miles along the center of the state in Polk and Highlands counties.

Some of the primary Recovery Strategy elements for the SWUCA include:

- Updating the Regional Water Supply Plan to identify how to address growing regional water needs while minimizing impacts

to the water resources and natural systems.

- Providing financial incentives for conservation, development of alternative supplies and regional interconnections. District funding sources include the Cooperative Funding and Water Supply and Resource Development initiatives.
- Resource monitoring, reporting and cumulative impact analysis. The Recovery Strategy includes the continuous monitoring of trends in resource conditions and permitted and actual water use. The cumulative impact analysis evaluates changes in permitted and used groundwater quantities and water resource development projects benefiting the Upper Floridan aquifer in and around the Most Impacted Area (MIA).

The District has been successful in multiple efforts associated with its SWUCA goals. Partnering with the Peace River Manasota Regional Water Supply Authority, the District has assisted in developing a sustainable water supply to meet the needs of a four-county region. The District's cooperatively funded FARMS program has helped the agricultural community reduce its use of groundwater from the Upper Floridan aquifer. The FARMS program combined with other conservation efforts have helped to reduce Upper Floridan groundwater withdrawals by more than 50 mgd, one of the targets established by the SWUCA Recovery Plan. The District's Lake Hancock Lake Level Modification Project will be operational in 2014 to help meet the minimum flows for the upper Peace River.

Much progress has been made in the region, but challenges remain to reduce the rate of saltwater intrusion along the coast and move toward meeting minimum levels for the Ridge lakes.

# REGIONAL PRIORITIES AND OBJECTIVES

## Southern Region — Improve Water Bodies

### PRIORITY:

Improve Charlotte Harbor, Sarasota Bay, Shell/Prairie/Joshua creeks

### OBJECTIVES:

- Implement water quality improvement projects in each priority water body to move closer to the established water quality standards and seagrass targets
- Reduce nitrogen load from Lake Hancock into Charlotte Harbor via the Peace River by 27 percent through the Lake Hancock Wetland Treatment System
- Develop and update plans and implement natural system projects that restore critical shoreline, coastal upland and intertidal habitats.
- Complete Surface Water Resource Assessments (SWRA) for 45 percent of the Southern region to assess the water quality of surface waters and identify potential best management practices (BMPs) needed to achieve standards
- Assist local governments with implementation of BMPs to achieve water quality standards



### Narrative:

**C**harlotte Harbor is Florida's second largest open water estuary at 270 square miles. Generally considered one of the most productive estuarine ecosystems in southwest Florida, the harbor is designated an "Estuary of National Significance" and a SWIM priority water body.

Challenges to the 4,400-square-mile Charlotte Harbor watershed include alteration and loss of wetlands, an increase in nonnative and plant species, and water quality degradation from point and non-point source pollutants.

The District is working with other government agencies on a comprehensive conservation and management plan, implementation of water quality improvement projects, and restoration of the balance between coastal upland, wetland and intertidal habitats.

Success indicators include improved water quality, reduced/removed nonnative terrestrial and wetland species, and increased hydroperiods, coverage of seagrasses and wildlife use. More information is available in the District's SWIM Plan for the harbor.

The District and its cooperators have completed 13 natural systems projects which have restored 1,083 acres of coastal habitats for Charlotte Harbor. Construction of the District's Lake Hancock Outfall Treatment System will be completed in December 2013. This project will remove an estimated 85 tons of nitrogen annually discharged from Lake Hancock to the Peace River and, ultimately, Charlotte Harbor.

**Sarasota Bay** is designated as an "Estuary of National Significance" and a SWIM priority water body. Similar to Charlotte Harbor, challenges to this 150-square-mile watershed include

changes to coastal uplands and loss of wetlands, an increase in nonnative and plant species, and water quality degradation from point and non-point source pollutants.

The District is working with other government agencies on a comprehensive conservation and management plan, implementation of water quality improvement projects, and restoration of the balance between coastal upland, wetland and intertidal habitats.

Success indicators include improved water quality, reduced/removed nonnative terrestrial wetland species, and increased hydroperiods, coverage of seagrasses and wildlife use.

The District and its cooperators have completed projects that have reduced nitrogen loading to Sarasota Bay by approximately 64 percent since 1988 and restored more than 700 acres of coastal habitats. Seagrass coverage has increased by 24 percent above that present in 1950.

The **Shell, Prairie and Joshua Creek (SPJC)** watersheds are located in the southern region of the Peace River Basin. Combined, the SPJC watersheds comprise a surface area of 487 square miles, or approximately 20 percent of the Peace River Basin.

The City of Punta Gorda obtains its potable water supply from the Shell Creek in-stream reservoir. Prairie and Shell Creeks (and their associated tributaries) are designated as Class I waters, which means they are designated for use as potable water supplies. These creeks converge at, and sustain, the City's reservoir.

The Shell Creek and Prairie Creek Watersheds Management Plan was adopted in 2004 to improve water



*Sarasota Bay © Roger Wollstadt, Creative Commons*

quality degraded by increased salinity in the watersheds to achieve Class I surface water standards throughout the Shell Creek and Prairie Creek watersheds.

The plan includes a multitude of regulatory, technical assistance, research and education programs being used in combination with incentives and other non-regulatory tools to form a comprehensive approach to address the full scope of water quality issues within Shell Creek, Prairie Creek, and Joshua Creek. The effort involves a substantial level of state, federal and private resources.

The signatories of the Plan agreed to assess sources of salinity to Shell Creek, Prairie Creek and Joshua Creek to optimize reductions in concentrations to waters of these

watersheds emphasizing voluntary, incentive-based programs for protecting the environment and public health.

Water quality issues in the Shell, Prairie and Joshua Creeks watersheds developed from various inputs over an extended period of time. The District publishes a biennial performance monitoring update to assess the effectiveness of the plan's implementation.

Since the implementation of management actions outlined within the SPJC Reasonable Assurance Plan, water quality (chloride, specific conductance, and Total Dissolved Solids) has significantly improved as measured at 5 reference sites. In addition, Upper Floridan aquifer groundwater pumping has been reduced (as a part of SWUCA recovery) by approximately 7.5 MGD.

# CORE BUSINESS PROCESSES

**M**anaging and protecting the water resources of a 16-county area requires a highly skilled, motivated work force with the right tools, support, and good information to make informed decisions and provide high quality service to the residents of the District. All the various functions of this workforce have been evaluated and categorized into seven core business processes. To successfully achieve our Strategic Initiatives and Regional Priorities, the District must excel in each of these.

## Water Resources Planning

Water Resources Planning encompasses surface water and groundwater resource evaluations and other comprehensive planning efforts in partnership with local, state, regional, federal and other stakeholders. These responsibilities include identifying, collecting, analyzing and disseminating relevant and accurate data and providing technical assistance.

Examples include the Southern Water Use Caution Area Recovery Strategy Five-Year Assessment, Minimum Flows and Levels studies, Regional Water Supply Planning, Strategic Plan Update, Consolidated Annual Report and reviews of proposed Comprehensive Plan amendments and Developments of Regional Impact.

## Innovative Projects

The District initiates and supports creative, collaborative projects to produce measurable benefits to the environment, water resources and the regional community. The projects address the District's Core Mission goals in water supply, flood protection, water quality, and natural systems.

To ensure that these tax dollars are used as efficiently and effectively as possible, the District created a Project Management Office. Comprising a team of project managers, this Office oversees District project processes to increase efficiency and maximize benefits.

## Financial Sustainability

The District's primary funding source is ad valorem taxes, which vary from year to year. In addition to paying for its operating costs, the District provides financial incentives through partnerships with public and private entities on projects that protect and restore the water resources of the region, such as promoting water conservation, developing alternative water supplies, enhancing natural systems and water quality, and promoting flood management activities.

To best use available funds to meet its Core Mission, the District operates on a pay-as-you-go basis that allows it to make more funding available for projects. The District targets at least 50 percent of its budget each year for water resources projects.

## Regulation

Regulation involves multiple permit activities that promote a fair allocation of the water resources, protect wetlands, enforce well construction standards and ensure that new activities do not increase the risk of flooding or degrade water quality. The permitting process also monitors subsequent operational performance of permitted systems to protect the region's citizens and water resources.

The District is committed to protecting the water resources while also providing quality service in a

timely, convenient and consistent manner to the regulated community. The District's Regulatory Division is structured to eliminate duplication, increase efficiency and consistency, and reduce costs. Centralizing the permitting review process in the District's Tampa office ensures that permit applicants throughout the District are treated consistently. Improved online permitting services make it easier and more convenient to submit a permit application and access permit data.

The District is also working with the other water management districts and the Florida Department of Environmental Protection to achieve statewide permitting consistency wherever possible while allowing for regional water resource differences.

## Land Management and Structure Operations

Land Management and Structure Operations operate and maintain District lands and water control structures to restore and sustain natural systems and minimize flood damage.

In its 10,000-square-mile region the District owns 340,000 acres of land that provide various water resource benefits. These lands are managed to restore and sustain those ecosystems, store flood waters, recharge the aquifer, and treat water quality.

The District also operates 81 water control structures. Most of these structures are conservation structures that are operated to maintain water levels and provide limited flood relief. The larger flood control structures, like those associated with the Tampa Bypass Canal, are capable of quickly moving large quantities of water and



*District staff work in a variety of fields and disciplines to conserve, protect and restore water resources in west-central Florida.*

are operated to provide maximum flood protection. Structure S-160 on the Tampa Bypass Canal is the largest flood control structure in the state.

### **Knowledge Management**

As a science-based organization, high quality data are critical to making informed decisions that protect and enhance the water resources. Knowledge Management is the process of systematically and actively collecting, managing and leveraging an organization's information. As the region's knowledge leader for water resources information, the District collects a variety of scientific and socio-economic data to support its Strategic Initiatives. While the focus of Knowledge Management activities is on meeting and supporting these initiatives, it is recognized that many

public and private stakeholders also rely on this information to meet their business needs.

Information technology and water resource data collection activities at the District are managed by a governance procedure, with oversight by a Governance Committee that includes members of the District's Executive Team. The Information Technology and Data Governance process monitors, informs, and controls the efficient and effective use of information technology and data collection to ensure these initiatives and associated resource expenditures are in alignment with the strategic direction and priorities of the District.

The District promotes consistency of data collection activities by coordinating with local, regional and

state entities through participation on statewide and regional Florida Water Resource Monitoring Councils and interagency workgroups. The District is also working with the other water management districts and state agencies to implement common replacement standards for equipment; to develop common standards for sharing financial, geospatial, scientific and permit information; and to establish frameworks for joint development of software applications.

### **Engagement**

Engagement is a key to retaining a highly skilled and motivated work force, the cornerstone of any successful organization. Keeping staff informed and involved promotes good morale and increases productivity. Additionally, engagement extends beyond internal staff.

To manage water resources effectively over a large region, engaging external publics, including citizens, media, elected officials, advisory committees and other stakeholders is also critical. Outreach and education engage these various groups to foster behaviors, secure funding, and assist in developing laws that conserve, protect and sustain Florida's precious water and related natural resources. Also, through its planning and outreach processes the District collaborates with stakeholders and advisory committees to help meet those goals. Input from stakeholders and advisory committees is used by the Governing Board to make water resource decisions.

Engagement helps to communicate those shared interests, forging relationships that support collaboration to benefit the region's water and related resources, economic stability and quality of life.



## Southwest Florida Water Management District

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The Southwest Florida Water Management District (District) does not discriminate on the basis of disability. This nondiscrimination policy involves every aspect of the District's functions, including access to and participation in the District's programs and activities. Anyone requiring reasonable accommodation as provided for in the Americans with Disabilities Act should contact the District's Human Resources Bureau Chief, 2379 Broad St., Brooksville, FL 34604-6899; telephone (352) 796-7211 or 1-800-423-1476 (FL only), ext. 4702; TDD 1-800-231-6103 (FL only); or email [ADACoordinator@WaterMatters.org](mailto:ADACoordinator@WaterMatters.org).