

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT

# Strategic Plan

2010–2014

Southwest Florida  
*Water Management District*

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# Communicating Our Message

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Our water resources clearly define our quality of life. The Southwest Florida Water Management District is rich in water resources, with approximately 1,800 lakes, 13 major rivers, 3 estuaries of national recognition and thousands of acres of productive wetlands, all bordered by the Gulf of Mexico. While growth and development have recently slowed, few would argue this trend will reverse and once again new people will discover our great state. With fiscal resources tightening, our challenge to manage our water resources and enhance our quality of life has never been greater.

The District’s overriding goal is superior stewardship of Florida’s precious water

resources. We have been given the responsibility of ensuring that the water supply needs of our residents are met while also protecting the environment. These responsibilities fall within four main categories: water supply, flood protection, water quality and natural systems. These four areas of responsibility are distinct yet undeniably linked; for example, how we meet our water supply needs can impact our natural systems. Environmental restoration projects that improve natural systems may also improve water quality, strengthen flood protection or increase available water supply.

With strong Governing Board support and guidance, the staff of this agency will

## Areas of Responsibility

*Florida Statutes, especially Chapter 373, authorize the District to direct a wide range of initiatives, programs and actions. These responsibilities can be grouped under four general areas: water supply, flood protection, water quality and natural systems.*

*In developing this Strategic Plan, the District has established a goal statement for each of these areas, along with strategic initiatives designed to meet those goals. Additional information on these strategic initiatives is presented on later pages in this document.*

### 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.

**Strategic Initiatives:**  
**Regional Water Supply Planning** – Identify, communicate and promote consensus on the strategies and resources necessary to meet future reasonable and beneficial water supply needs.

**Conservation** – Enhance water use efficiencies in all water use sectors to reduce demands on all water supplies.

**Alternative Water Supplies** – Increase development of alternative sources of potable water to ensure ground and surface waters are sustainable.

**Reclaimed Water** – Maximize beneficial use of reclaimed water to offset demand of ground and potable alternative water supplies.

continue to work hard to put plans and remedies into action. We are committed to doing more with less — providing science-based decisions and programs within the means afforded by the citizens and lawmakers of our state. While the pace is quick and unrelenting, our bottom-line goal is to produce positive results no matter the economic setting.

Through this Strategic Plan, we clearly identify goals for each of these areas of responsibility, define strategic initiatives that will help us meet those goals and list success indicators that will measure how well we've done our job. Rather than a static document that is shelved and gathers dust, the Strategic Plan is

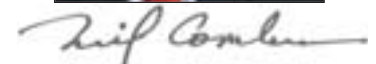
part of a cycle of planning, budgeting, implementation, evaluation and continued planning. This cycle provides for a dynamic process that promotes continuous improvement.

In simple language, the plan illustrates where we want to go, how we want to get there and how to measure our progress. This important tool allows for continuous review and improvement as we annually assess accomplishments and reestablish our priorities to protect our water resources and our quality of life.

But this plan is more than an internal communications tool. Protecting our

water resources is a shared interest of everyone who works, lives and plays in our District. In these difficult economic times, it's even more important that we partner with local and state governments and the private sector to address our water resource challenges. Let's keep the lines of communication open and consider this Strategic Plan as part of a continuing dialogue.



  
**Neil Combee**  
Governing Board Chair

#### WATER QUALITY

Goal: Protect and improve water quality to sustain the environment, economy and quality of life.

Strategic Initiatives:

**Water Quality Monitoring** – Collect and analyze water quality data to determine the region's water quality status and trends.

**Water Quality Maintenance and Improvement** – Develop and implement programs, projects and regulations to maintain and improve water quality.

#### NATURAL SYSTEMS

Goal: Preserve, protect and restore natural systems in order to support their natural hydrologic and ecologic functions.

Strategic Initiatives:

**Minimum Flows and Levels (MFL) Establishment and Monitoring** – Establish and monitor MFLs to ensure maintenance of the hydrology necessary to sustain the region's natural systems.

**MFL Recovery** – Develop regionally accepted recovery plans and oversee the successful implementation of the plans to ensure the recovery of all water resources not meeting MFLs.

**Natural Systems Identification and Monitoring** – Identify and monitor critical ecosystems to promote awareness of the region's ecologic systems and their status.

**Natural Systems Conservation and Restoration** – Develop plans for acquisition, conservation and restoration of selected ecosystems and monitor, assist and oversee the successful completion of the plans to ensure protection, recovery and function of these ecosystems.

#### FLOOD PROTECTION

Goal: Minimize flood damage to protect people, property, infrastructure and investment.

Strategic Initiatives:

**Floodplain Management** – Develop better floodplain information and utilize the information in the implementation of regulatory and nonregulatory floodplain management programs to maintain floodplain storage and conveyance and to minimize flood damage.

**Emergency Flood Response** – Operate District flood control and water conservation structures and provide effective and efficient assistance to state and local governments and the public to minimize flood damage during and after storm events.

## District Overview

### Governing Board

C. A. "NEIL" COMBEE  
CHAIR, POLK COUNTY

TODD PRESSMAN  
VICE CHAIR, PINELLAS COUNTY

JENNIFER E. CLOSSHEY  
SECRETARY, HILLSBOROUGH COUNTY

RONALD E. OAKLEY  
TREASURER, PASCO COUNTY

BRYAN K. BESWICK  
DE SOTO COUNTY

PATRICIA M. GLASS  
MANATEE COUNTY

HUGH M. GRAMLING  
HILLSBOROUGH COUNTY

ALBERT G. JOERGER  
SARASOTA COUNTY

SALLIE PARKS  
PINELLAS COUNTY

MARITZA ROVIRA-FORINO  
HILLSBOROUGH COUNTY

H. PAUL SENFT, JR.  
POLK COUNTY

DOUGLAS B. THARP  
SUMTER COUNTY

JUDITH C. WHITEHEAD  
HERNANDO COUNTY

The Southwest Florida Water Management District is responsible for managing and protecting water resources in west-central Florida. The District's job is to ensure adequate water supplies to meet the needs of current and future users while protecting water and related natural resources.

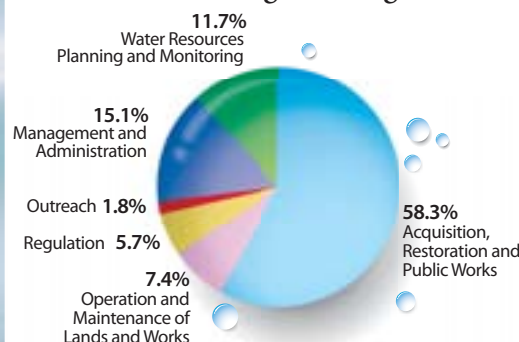
The District encompasses all or part of 16 counties, from Levy County in the north to Charlotte County in the south. It extends from the Gulf of Mexico east to Polk and Highlands counties. The District contains 98 local governments spread over approximately 10,000 square miles, with total population in 2007 of more than 4.5 million people. A 13-member board appointed by the Governor and confirmed by the Senate governs the District. Board members, who must live in the District, serve staggered four-year terms. 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.

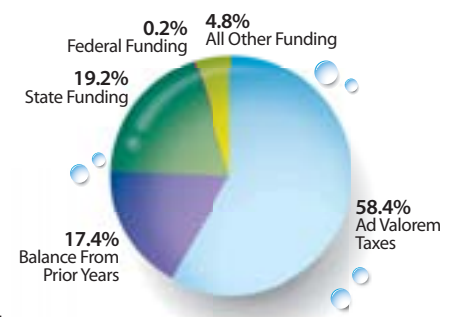
The District is further divided into nine basins, eight of which have separate Basin Boards (the Governing Board funds activities within the Green Swamp basin). Members of the Basin Boards are also appointed by the Governor, confirmed by the Senate and serve three-year terms. These Boards identify water-related issues in their basins and fund programs to address these issues. The District is the only state water management district with this form of Basin Board system. The one mill taxing capability of the District is divided evenly between the Governing Board (0.5000 mill) and the District's eight Basin Boards (0.5000 mill). Governing Board millage for FY2009 is 0.3866 mill. Basin millage rates for FY2009 range from 0.1484 to 0.3701.

*The Governing Board establishes policies for the District. Board members are unpaid citizen volunteers appointed by the Governor and confirmed by the Florida Senate.*

**FY2009 Program Budget**



**FY2009 Revenues and Balances**

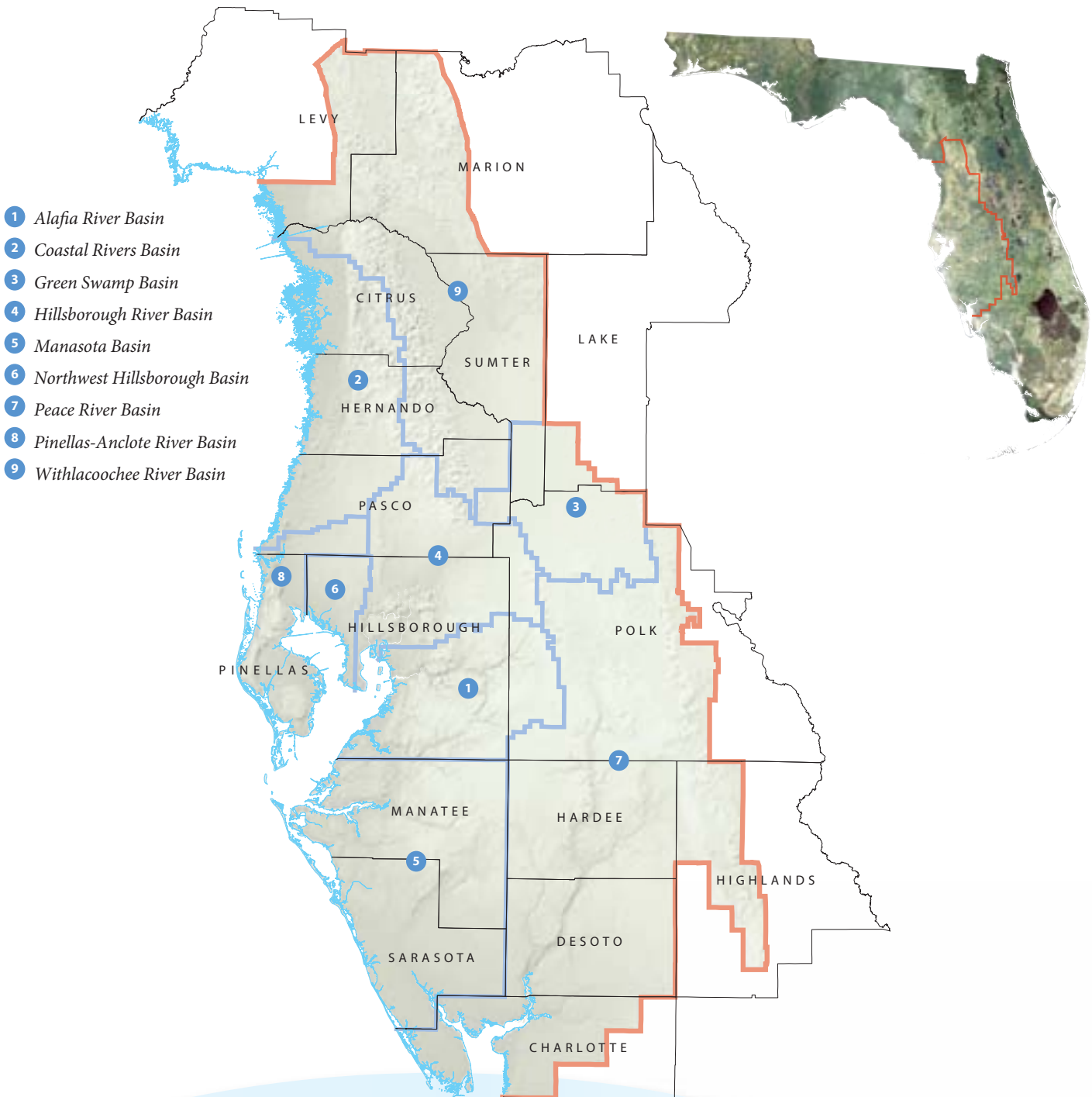


## Basin Boards

The Southwest Florida Water Management District is divided into nine basins, primarily based on watershed or geographic boundaries. Eight of the District's basins are administered by local Basin Boards to ensure that local concerns are addressed effectively.

The ninth encompasses the Green Swamp and is managed by the District's Governing Board because of its hydrologic significance. Forty-four local Basin Board members are appointed by the Governor and serve three-year terms as unpaid volunteers. The Basin Board members serve as stewards of

one-half the District's millage capacity. Working with local governments and other partners, each Basin Board funds innovative projects that address water supply, flood protection, water quality and natural systems issues in its watershed.



## MISSION STATEMENT

THE MISSION OF THE DISTRICT IS TO MANAGE WATER AND RELATED NATURAL RESOURCES TO ENSURE THEIR CONTINUED AVAILABILITY WHILE MAXIMIZING ENVIRONMENTAL, ECONOMIC AND RECREATIONAL BENEFITS. CENTRAL TO THE MISSION IS MAINTAINING THE BALANCE BETWEEN THE WATER NEEDS OF CURRENT AND FUTURE USERS WHILE PROTECTING AND MAINTAINING WATER AND RELATED NATURAL RESOURCES WHICH PROVIDE THE DISTRICT WITH ITS EXISTING AND FUTURE WATER SUPPLY.

Message From the Executive Director

## Environmental Stewardship With Fiscal Responsibility

This Strategic Plan lays out the District's goals and strategies to ensure that the water supply needs of the region are met while the environment is protected and the risk of flooding is minimized. We've also identified measurements to tell us how far we've come and how much further we still need to go.

The District continues to promote regional approaches to water supply planning and development to provide system reliability, facilitate interconnected systems and improve ability to manage water withdrawal impacts.

The acquisition, management and restoration of environmentally sensitive land remain priorities. The District's land acquisition program would not be possible without funding from the Florida Forever program, which the Legislature authorized for another ten years. District staff is actively implementing strategies to enhance and expand recreational opportunities on District lands.

Partnering with the Federal Emergency Management Agency (FEMA), the District is updating FEMA flood insurance rate maps, which are generally out of date. Updated maps will be available in a digital format, providing a more powerful tool for flood hazard analysis and improved capability for updates.

The District is continually evaluating its regulatory programs to ensure they are efficient, fair and consistent. Some conservation measures previously required only in water use caution areas are being considered for Districtwide application. Online applications are being implemented to make it easier to apply for a permit.

*We have evaluated all the various functions of the District and categorized them into seven core business processes. To successfully achieve the strategic initiatives explained on the following pages, the District must excel in each of these processes.*

**Water Resources Planning and Knowledge Management** oversees watershed and basin management planning for inter- and intra-District water and related resources (including the development of minimum flows and levels) and other water comprehensive resource planning in partnership with local, state, regional, federal and other stakeholders. This process also includes identifying, collecting, analyzing and

timely disseminating relevant and accurate data to interested parties.

**Innovative Projects: Public Works, Restoration and Land Acquisition** initiates and supports creative, collaborative projects to produce measurable benefits to the environment, water resources, critical knowledge and the regional community. The process includes capital projects for water resource development and water supply development assistance, water control and conservation, land acquisition, restoration of lands and water resources, administrative facilities construction and internal projects.

**Outreach/Education** provides citizens, visitors, media, elected officials, educators and other stakeholders with essential water resource information and ombudsman

Coordination with other water management districts will ensure an adequate, environmentally sustainable water supply for counties that encompass multiple Districts. The District is partnering with the South Florida Water Management District and Polk County to fund a countywide water supply plan to examine all potential water sources and recommend projects to meet the demands of the county and its 17 municipalities.

The Governing Board's longstanding policy has been to operate on a pay-as-you-go basis without incurring bonded debt. Between project cost sharing and human resource initiatives, the District will outsource approximately \$232.1 million, or 62.7% of its FY2009 budget, into the economy of the 16-county region. The District will do this with attention towards promoting diversity and increasing individual work responsibilities. The number of full-time, Board-authorized staff has not increased since the early 1990s.

The District incorporates superior environmental stewardship into its daily operations to reduce its carbon footprint in a fiscally responsible manner. This initiative includes such activities as the continued deployment of hybrid vehicles and installing energy and water-efficient fixtures in District facilities. As next steps, our organization is closely reviewing the costs and benefits of energy-conserving practices such as advanced video-teleconferencing and electronic workflow and many other activities to continually seek superior environmental stewardship.



*David L. Moore*  
**David L. Moore**  
Executive Director

## OFFICE OF EXECUTIVE DIRECTOR

DAVID L. MOORE  
Executive Director

WILLIAM BILENKY  
Office of General Counsel

LOU KAVOURAS  
Deputy Executive Director  
*Outreach, Planning & Board Services*

RICHARD OWEN  
Deputy Executive Director  
*Division of Resource Regulation*

EUGENE SCHILLER  
Deputy Executive Director  
*Division of Management Services*

BRUCE WIRTH  
Deputy Executive Director  
*Division of Resource Management*

support to foster behaviors, secure funding and assist in developing laws that conserve, protect and sustain Florida's precious water and related natural resources.

**Regulation** involves multiple permit activities that promote a fair allocation of the water resources, protect wetlands, enforce well construction standards and ensure that new development does 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.

**Land and Structure Operations** operates and maintains District lands and water control and conservation structures to restore and sustain natural systems, minimize flood

damage and provide opportunities for education and recreation.

**Long-Range Financial Plan** provides financial incentives on a pay-as-you-go basis to encourage and align partnership efforts for the purpose of conserving water and developing alternative water supplies, enhancing natural systems and water quality, and promoting flood management activities.

**Mission Support** includes vital functions in support of other core business processes. These functions include human resource development, online information technology, facility and fleet support, records management, risk management, financial, legal counsel and audit services.

## Goal Statement

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

### Strategic Initiative

## Regional Water Supply Planning

Population projections forecast that more than 6 million people will live in the District by the year 2025. This represents a 51 percent increase from 2000 and creates new demands for water on an already stressed supply.

The District's regional water supply planning effort is based on a provision of Chapter 373, Florida Statutes, requiring preparation of a Regional Water Supply Plan (RWSP) every five years. As part of this obligation, the District's regional water supply planning effort seeks to provide the framework for future water supply management decisions in areas of the District where the hydrologic system is stressed.

The most recent RWSP encompasses a ten-county area where existing groundwater withdrawals are the major contributor to impacts to water and related natural resources.

The RWSP was developed in a public process, in collaboration with local governments and utilities, the agricultural community, business representatives, environmental organizations and other interested parties. The District's objective has been to actively involve all groups in the RWSP planning process. The District has accomplished this by involving its standing advisory committees and other interested stakeholders in developing methods for projecting water demand and identifying water supply options. Staff regularly provided status reports to the District's

Governing and Basin Boards during scheduled public meetings.

The District has expanded its leadership in regional water supply planning to include counties that border or are shared with other water management districts. The District is actively coordinating efforts with the St. Johns River and South Florida water management districts to identify and ensure the development of alternative supplies to meet the growing public supply demands in central Florida. This effort is known as the Central Florida Coordination Area, or CFCA. In addition, the District has expanded its coordination with the St. Johns River Water Management District to address growing water supply needs in Marion, Sumter and Lake counties.

In the Southern Water Use Caution Area — which encompasses all or part of eight of the counties in the ten-county region — residential, commercial and industrial land uses are expanding. District staff anticipates that the water needs of the expanding land uses will be met by alternative supplies, such as wet-season river flows, reclaimed water and seawater desalination. Conservation will also be critical. Finally, any land uses being replaced that rely on ground water will provide a portion of future needs onsite as well as contribute to environmental recovery. The remainder can be used to meet the demands of residential, commercial and agricultural development



in areas where access to alternative supplies is limited.

During FY2008, the District expanded its RWSP to include the northern six counties. The District is already addressing the long-range water supply needs of those counties through a variety of investigative and resource development projects, including cooperative efforts with the Withlacoochee Regional Water Supply Authority and Hernando and Marion counties.

Vigilant development and management of the District's long-range financial plan and maintenance of adequate reserves will help promote a regional approach to water supply. The District provides financial incentives for alternative water supply and reclaimed water development to encourage regional water supply authorities, local governments, industry, and agriculture to develop sustainable, although more expensive, alternatives to ground water.

### Strategies

- Develop accurate, professionally accepted demand projections
- Identify sufficient water supply sources to meet projected demands
- Encourage the development and use of regional water supply authorities to plan and coordinate water supply solutions

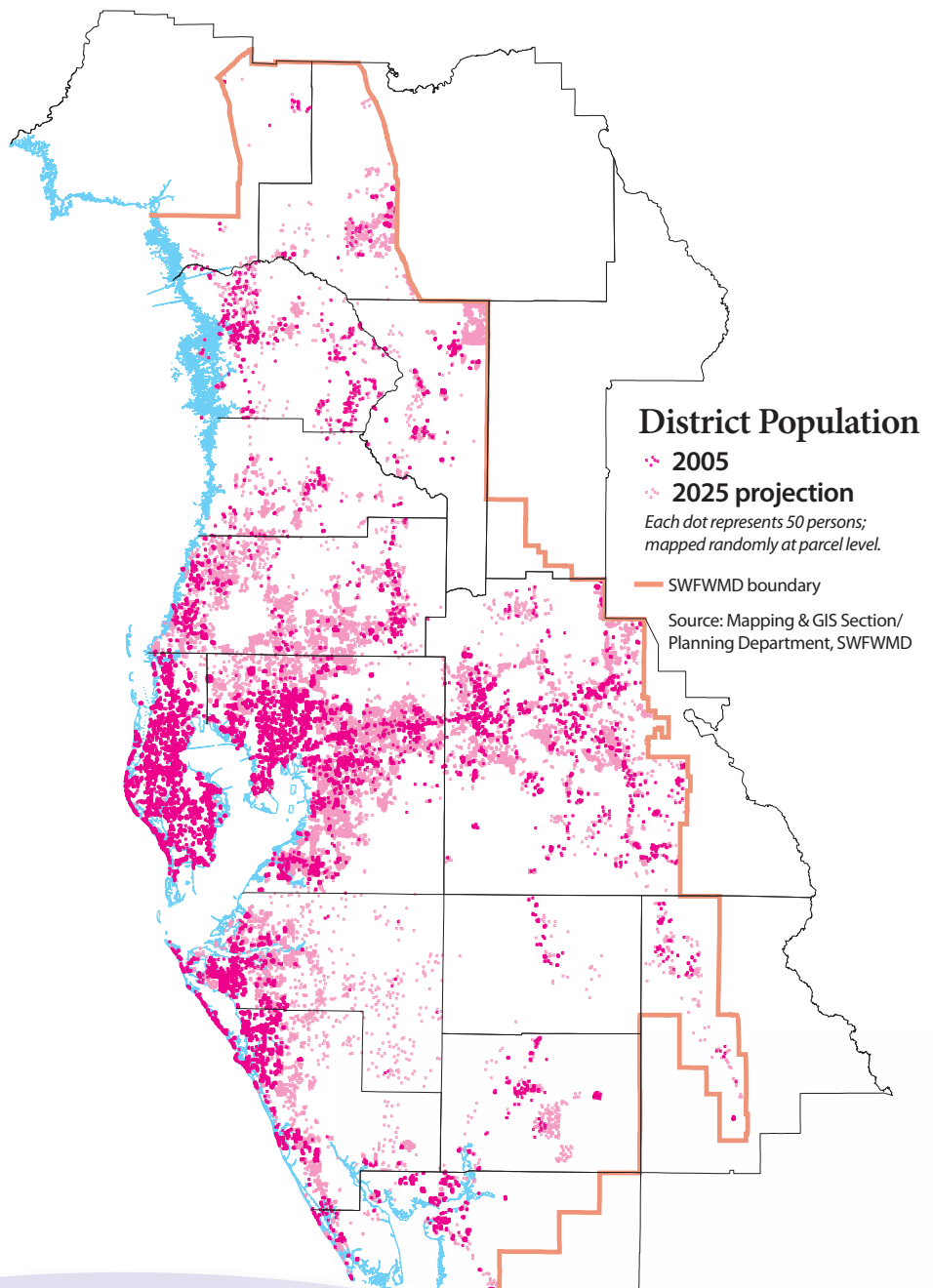
- Coordinate with other water management districts on water supply and regulation approaches
- Demonstrate the District's financial commitment to assist in the development of regional water supply needs

### Primary Success Indicator

- Supply sources identified vs. 20-year projected demand

### Supporting Success Indicators

- Number of outside participants in the regional water supply planning process
- Percent of District-identified projects incorporated into relevant local government or regional water supply authority plans
- Gallons made available through District incentive-based funding



## Water Supply:

### Goal Statement

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

Strategic Initiative

## Alternative Water Supplies

The District's regional water supply planning initiative coordinates planning efforts with local governments and others in the region to identify alternative water supply projects. Alternative water supply refers to any nontraditional source of water that reduces the region's dependency upon fresh ground water. Reclaimed water, although it is included in the statutory definition of alternative supply, is discussed separately in this document because of the District's long history of commitment and wide range of projects that maximize the use of reclaimed water.

Alternative water sources such as desalination, surface water high flow capture and aquifer storage and recovery (ASR) have been recently used to augment or offset our region's demand and use of fresh ground water. For instance, key alternative water supply components for the District's southern region include the expansion of the Peace River/Manasota Regional Water Supply Authority's Peace River facilities, the construction of a new, aboveground reservoir to store surface water captured during high flows, and interconnection among the authority, its member governments and other water suppliers.

In the Tampa Bay area, Tampa Bay Water's Configuration II Project involves modifying existing water use permits to withdraw more water during mid-level flow periods from the Hillsborough River and Tampa

Bypass Canal and expanding its surface water treatment plant. Later phases will investigate the potential for additional withdrawals from the Alafia River and construction of an additional offstream reservoir. Each of these projects is critical to meeting future water supply needs. The District's alternative water supply initiative supports the timely completion of these and other projects.

Agriculture represents a significant water use throughout the District. The District works with the agricultural community to address its unique water needs. The Facilitating Agricultural Resource Management Systems (FARMS) Program, a cost-share reimbursement program with the agricultural community, funds projects that promote tailwater recovery and/or surface water use while reducing groundwater withdrawals. Through the FARMS Program, the District expedites the implementation of production-scale agricultural best management practices to help agriculturists reduce groundwater use from the Upper Floridan aquifer, improve water quality and restore the area's water resources and ecology. By the year 2025, the District projects the agricultural industry can reduce its groundwater use by 40 million gallons per day through these projects. To reach this ambitious goal, the District adjusts reimbursement cost-share rates based on the degree to which the agriculturists implement best management practices for water quantity and water quality improvements.

To maximize the effectiveness of these projects, the District's regulatory program helps public water suppliers and agriculturists develop conjunctive use permits. A conjunctive use permit holder uses both ground water and alternative sources such as surface water or desalinated seawater. As an example, a permit holder with access to both ground water and surface water can maximize the use of surface water during periods of high flows, which enables reductions in groundwater use. Maximizing the use of alternative sources can reduce groundwater withdrawals while ensuring demands are met. Additionally, the development of off-stream reservoirs and ASR for storage helps sustain yields of surface water sources well beyond high rainfall periods, allowing for further reductions in groundwater use. Through its regulatory program, the District will work with water supply authorities, water utilities, major commercial and mining enterprises, and agriculturists to explore the feasibility of implementing a conjunctive use approach to managing water supplies.

The District advances regional alternative water supply development through the efficient use of the resources available from its eight Basin Boards, the Governing Board and the Florida

Legislature. District boards manage the District's long-range financial plan to ensure that all entities commit financial resources to help the region's water resource challenges. Then, through its Cooperative Funding Initiative, the District provides significant funding as an incentive for the development of sustainable alternative water supplies. In addition, District staff also provides extensive technical assistance to ensure development of the most economically feasible and environmentally sustainable projects.

### Strategies

- Develop surface water capture, desalination and interior Lower Floridan brackish systems
- Partner with agricultural community to provide alternative water supplies

- Leverage District funds to facilitate the development of alternative water supplies
- Continue to support research into ASR viability
- Promote conjunctive use approaches through regulation and funding incentives

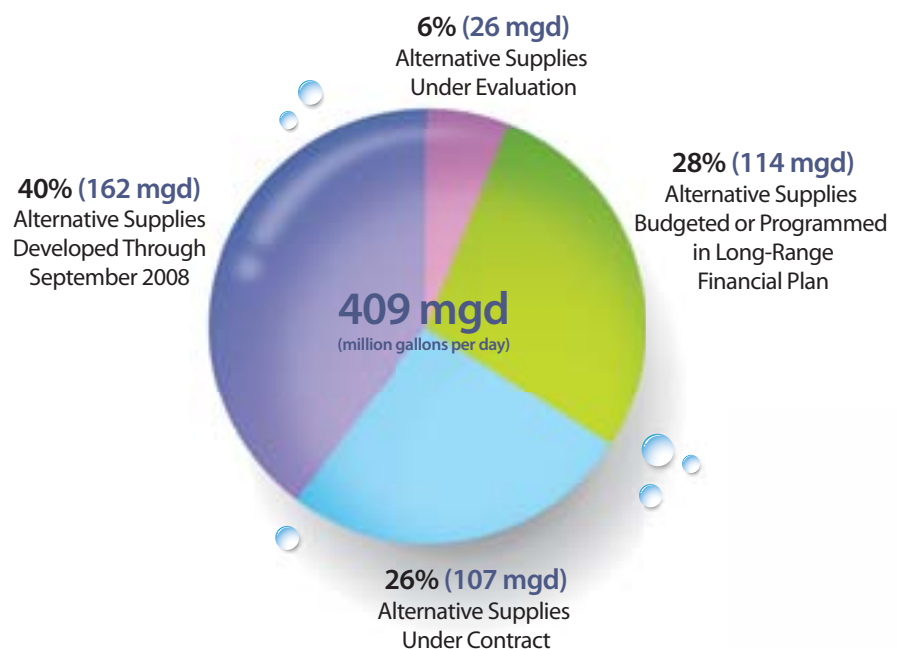
### Primary Success Indicator

- Percentage of identified alternative water supplies developed

### Supporting Success Indicators

- Quantity of alternative water supply developed through District-funded projects
- Quantity of groundwater withdrawal offset by FARMS Program

## Status of Alternative Water Supply Development to Meet 2025 Need



## Goal Statement

*Maximize beneficial use of reclaimed water to offset potable-quality water supplies.*

### Strategic Initiative

## Reclaimed Water

The District encourages the use of reclaimed water for nonpotable purposes as an alternative to ground water and other potable-quality sources. Reclaimed water is wastewater effluent that has received at least secondary treatment and is used for a beneficial purpose, such as irrigation, manufacturing processes or power generation. By offsetting demand for ground water 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.

As demand for water has grown, reclaimed water has played a key role in helping to meet the above needs while also protecting the environment. Through the diligent use of Basin Board, Governing Board, and state financial resources, the District has developed a nationally recognized reclaimed water supply development program. The District uses its Cooperative Funding Initiative to provide significant funding incentives for local governments to develop sustainable reclaimed water supplies. Storage remains critical for an effective and efficient reclaimed water program. During the rainy season, customers typically use less reclaimed water, yet the same amount or more of reclaimed water is produced by the wastewater treatment plants. To practically manage and efficiently price reclaimed water use, significant storage must contain the surplus reclaimed water produced

during the wet season for distribution during the high-demand dry season. The District's ultimate goal is to utilize 75 percent of the wastewater produced as reclaimed water and, of those quantities, 75 percent will offset potable uses.

The District has funded reclaimed water projects since 1987. Since then, through FY2008, the District has budgeted more than \$272 million in matching grants for 282 reclaimed water projects with more than 55 cooperators. This investment has leveraged projects that collectively will cost more than \$672 million to construct and when complete will result in 928 miles of reclaimed water pipeline, 219 million gallons per day (mgd) of reclaimed water supply and 1.05 billion gallons of reclaimed water storage. These reclaimed water projects will provide an offset of 146 mgd of traditional water supplies that would have otherwise been used to meet demand.

In addition to its fiscal commitment, the District provides technical support in identifying appropriate solutions to the water resource challenges within its area. Currently, District staff has identified 137 potential reclaimed water projects, which represent the many different types of projects that could maximize the use of reclaimed water supplies through 2025.

The District Division of Resource Regulation's water use permit program promotes the appropriate and efficient

use of reclaimed water to reduce the demands on potable-quality supplies. Where available and determined to be economically feasible, District water use permit regulations require applicants to connect to reclaimed systems as a requirement of their permit.

As part of the District's efforts to promote and encourage reclaimed water, the District has committed to developing comprehensive reclaimed water education. All District reclaimed water funding agreements contain language requiring cooperators to develop a District-approved reclaimed water education program. In addition to this educational requirement, the District developed reclaimed water brochures for residents, utilities, engineering firms, environmental agencies and other parties interested in developing and expanding reclaimed water systems. The District Reclaimed Water Guide highlights real-world examples of ordinances, policies, petitions and rate structures and is available at no cost. The District has developed a comprehensive reclaimed water web site. The site offers a "one-stop shop" for any entity looking for reclaimed water information.

### 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
- Use regulatory program to increase beneficial use and offsets

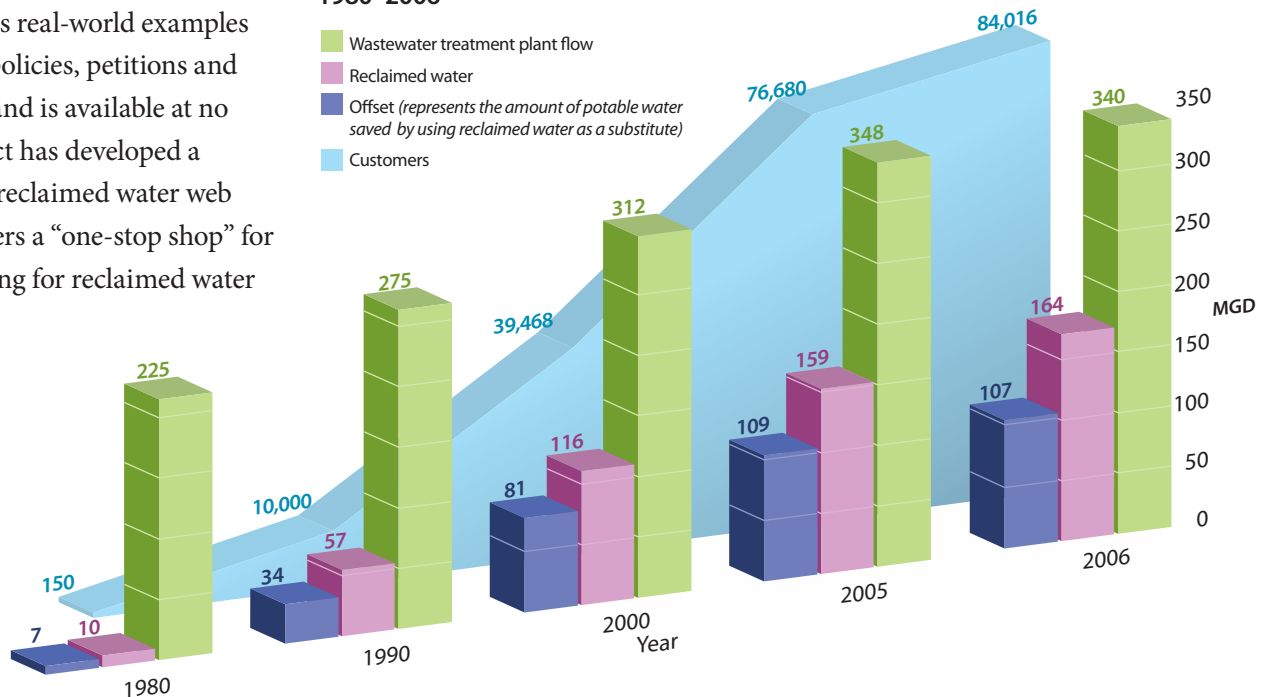
### Primary Success Indicator

- Quantity of potable supply offset by reclaimed water

### Supporting Success Indicators

- Efficiency of reclaimed water used (gallons offset/gallons reused)
- Percentage of reclaimed water used vs. total domestic wastewater treated

**Reclaimed Water in the District  
1980–2006**



# Water Supply:

## Goal Statement

*Enhance efficiencies in all water-use sectors to reduce demands on all water supplies.*

## Strategic Initiative

### Conservation

The District recognizes conservation as a critical water source. True conservation reduces the pressure for all water demands regardless of the source. More than any other strategic initiative, conserving water resources positively impacts other District strategic initiatives. To achieve conservation, the District fosters water stewardship awareness and sustainable behaviors among the people who live, work and play within the District's boundaries.

Education is an essential tool to gain the cooperation and participation of our residents and visitors. The District has designed a broad range of programs and materials to effectively educate these audiences, equipping them to conserve and protect the water resources. The District's youth education programs offer teacher training, mini-grants for classroom projects, field trips, curricula and other education materials to help teachers, students and families learn about water resources. These educational resources are available to county school boards, private and charter schools, and home-school groups. The District continually adapts its youth education programs to current trends in Florida's education system and seeks to prepare students to make smart water-use decisions. Targeting specific audiences increases the likelihood of fostering behavior that will sustain the water resources. Public education programs inform residents, visitors and businesses about water conservation and the protection of local watersheds through exhibits,

publications, special events, water body cleanups, volunteer programs, speaking engagements, workshops, grants and other programs.

Florida-friendly landscaping saves water and protects water quality. With approximately half of the water in a typical single-family home being used on landscapes, Florida-friendly landscaping has become an appropriate area of emphasis for public education. Through its partnership with the University of Florida Institute of Food and Agricultural Sciences' Florida Yards & Neighborhoods (FYN) program, the District reaches homeowners, landscape managers and the landscaping industry. Strategies for the future include enhanced outreach to local planning officials, builders and developers.

Another water conservation education program, the Water Conservation Hotel and Motel Program (Water CHAMP), promotes reusing linens and towels and educates hotel/motel management and guests on conserving water. Average savings of up to 219 million gallons of water per year will continue to grow as participation in this program increases. The District's Program for Restaurant Outreach (Water PRO) promotes water conservation in restaurants. Water PRO provides free materials such as table tents, coasters and placemats to restaurants interested in furthering the conservation message.

Throughout the District, a standard of 150 gallons per person per day has been established as a maximum guideline for water supply utilities to gauge water use in their service areas. The District implements numerous programs targeted to assist utilities to achieve or surpass this standard. Utility rate structures provide an effective tool for conservation. The District has partnered with other water management districts and utilities to conduct a study of the impact of price and rate structures on single-family residential water demand. To facilitate the adoption of water-conserving rate structures, the study results were incorporated into a rate impact analysis model that is made available to utilities at no charge.

The District also provides funding and technical expertise in support of Conserve Florida, an information clearinghouse and web-based collection of services that promotes effective water conservation planning by public supply systems.

The District actively uses its Cooperative Funding Initiative to provide financial incentives to water supply entities to use water efficiently. Funded projects typically reduce water use through incentives that change water-related habits or hardware, or through education about conservation measures. Cooperatively funded projects include plumbing retrofit rebates, landscape irrigation evaluation,

community education and new water-conserving technology research. Since the District's inception, it has awarded in excess of \$20 million toward cooperative funding assistance for water conservation projects.

The District's water use permit program ensures that all regulated water uses are reasonable and beneficial, in the public interest and do not interfere with existing legal users. The District provides several regulatory programs to protect water resources. For example, the Agricultural Ground and Surface Water Management (AGSWM) program assists agricultural operations with the permitting process. District teams conduct field visits to help tailor conservation management plans for individual farms. The District's water use permit program also includes public supply regulations that require utility water conservation plans, limits on per capita usage, and adoption of water-conserving rate structures.

## Strategies

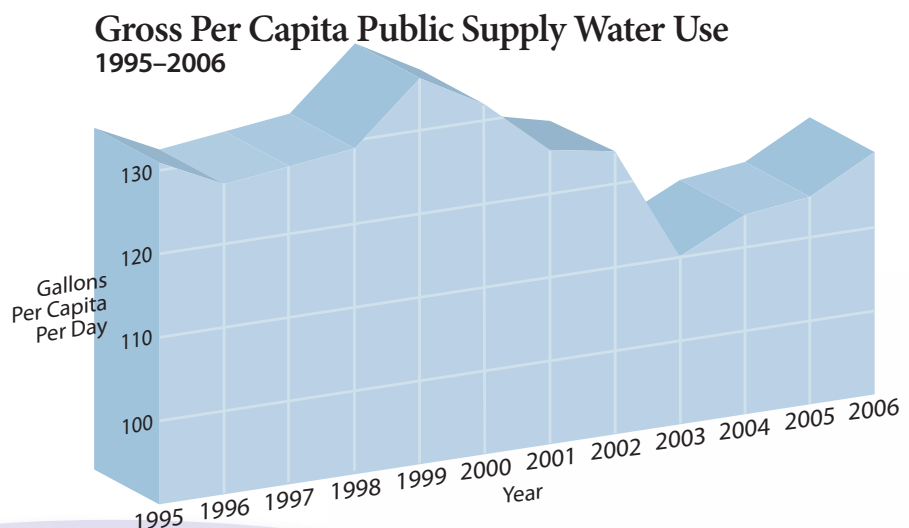
- Promote water conservation through education
- Support research and implementation of conservation techniques and practices
- Facilitate water-conserving rate structures
- Utilize regulatory program to establish effective conservation practices
- Utilize financial incentives to further encourage effective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

## Primary Success Indicator

- Decreasing trends in per capita water use

## Supporting Success Indicators

- Increasing trends in public/water user awareness
- Percentage of utilities with a water-conserving rate structure
- Gallons saved through District-funded conservation projects
- Percentage of local governments with Florida-friendly landscape ordinances



## Goal Statement

*Collect and analyze water quality data to assist in determining regional water quality status and trends.*

### Strategic Initiative

## Water Quality Monitoring

The sustainability of Florida's natural systems, economy and quality of life depends on good water quality. Protecting and maintaining water quality will become increasingly challenging because of the state's unique geology and rapid development. To meet this challenge, those who manage Florida's water resources must have access to accurate and timely data. Good decisions require reliable information. Therefore, the District continues to develop and maintain water quality monitoring networks to track existing water quality, identify trends and proactively manage new water quality problems. These networks focus on the major issues of saltwater intrusion, springs protection and surface water quality. The District coordinates with state and local governments and other entities, including academic institutions, to prevent duplication of efforts.

The District's Coastal Groundwater Quality Monitoring Network tracks the occurrence and movement of saltwater intrusion and the intrusion of poor water quality into major aquifers. This information is supplemented with data from the Water Use Permit Water Quality Network and other permit data to ensure adequate spatial coverage and reduce data collection costs to both taxpayers and permit holders. District staff now sample approximately 359 wells three times each year for chloride, sulfate and other key parameters. Data collected indicates that approximately 53 percent of the wells sampled in the lower portion of the Upper Floridan aquifer show increasing chloride trends. These wells are generally located in the most

impacted area (MIA) of the Southern Water Use Caution Area (SWUCA). Using these data, the District identified saltwater intrusion as one of the primary resource concerns in the southern portion of the District and developed an action plan contained in the District's SWUCA Recovery Strategy.

The District's Springs Network focuses on monitoring water flow and quality of 55 springs throughout the central and northern regions of the District. Diagnostics performed by District staff include the monitoring of 84 wells for the Upper Floridan Aquifer Nitrate Monitoring Network to track the success of management actions and public outreach efforts in effectively managing fertilizer use and other sources of nutrients that can impact ground water in spring recharge basins. Additional efforts include determining pollutant load reduction goals and identifying areas of concern for elevated nutrient inputs to the aquifer, springs, spring runs and estuaries. Data collection for these studies is coordinated with regional efforts to assess algal blooms and is also vital for the continued development of best management practices by state and local governments.

The Surface Water Monitoring Network monitors water quality at 59 river and stream locations and more than 300 lake locations throughout the District to document water quality trends. These data are provided to the Florida Department of Environmental Protection (FDEP) for use in total maximum



daily load (TMDL) assessments. These assessments serve as a major tool for the FDEP to meet its responsibilities under the Watershed Restoration Act of 1999 to identify impaired waters and establish TMDLs on a priority basis.

The District maintains several special project monitoring networks. These critical monitoring networks improve understanding of water quality concerns and measure the success of implemented management actions. As an example, the Shell, Prairie and Joshua Creek Monitoring Network measures the success of management actions to improve surface water quality impacted through the irrigation of agricultural lands with mineralized ground water. This monitoring network indicates that management actions have resulted in improved water quality.

The District is committed to reviewing its monitoring programs for all possible efficiencies. This review and planning process is used to establish performance and acceptance criteria, which serve as the basis for designing a plan for collecting data of sufficient quality and quantity to support the goals of the monitoring. These reviews lead to efficient and effective expenditures of resources; consensus on the type, quality and quantity of data needed; and provides documentation of actions taken during the development of the project. The end objective is to efficiently use limited funding while maximizing the District's ability to acquire meaningful water quality data.

To ensure availability of water quality information to all interested parties, the District also invests in its information technology (IT) infrastructure. By 2010, all water quality data will be made available through the District's web site via the Water Management Information System (WMIS).

### Strategies

- Optimize the District's Water Quality Monitoring Network
  - Coastal Groundwater Quality Monitoring Network
  - Water Use Permit Water Quality Network
  - Springs Network
  - Surface Water Quality Monitoring Network
- Continue to consider cost when identifying goals of data collection efforts
- Identify gaps in data collection

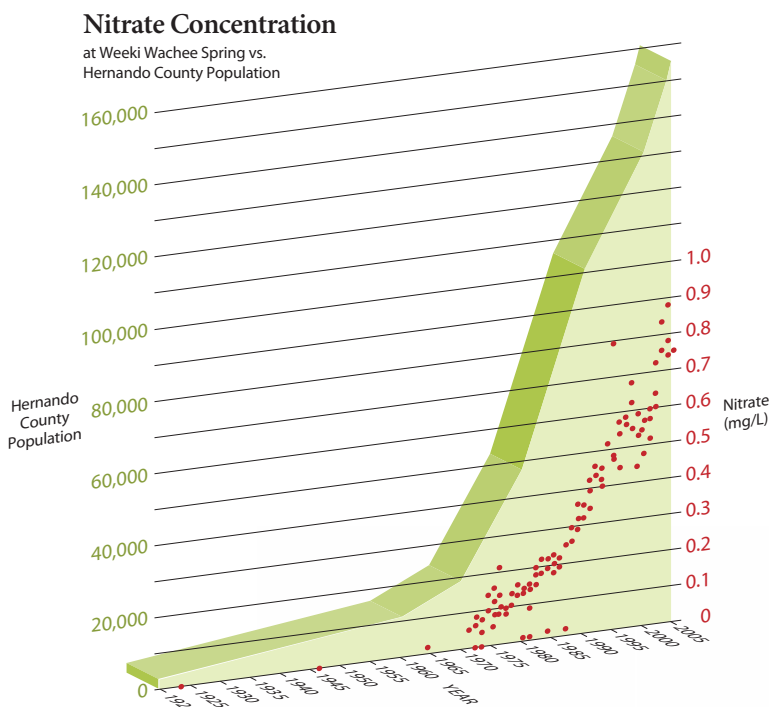
- Continue to invest in IT infrastructure to support the collection, analysis and distribution of water quality data
- Continue to support the District's internal Scientific and Regulatory Data Authority activities

### Primary Success Indicator

- Effectiveness of data to identify water quality issues and monitor developing trends

### Supporting Success Indicators

- Number of data gaps identified and number of data gaps filled
- Percent of all District-funded water quality data entered into WMIS and accessible through the web
- Number of data collection locations evaluated for effectiveness and efficiency



Population and nitrate concentrations at Weeki Wachee Spring in Hernando County show a correlation over time.

## Goal Statement

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

### Strategic Initiative

## Water Quality Maintenance and Improvement

The District develops and implements projects, programs and regulations to maintain and improve water quality. The Surface Water Improvement and Management (SWIM) Program provides one of the primary means by which the District accomplishes water quality protection and restoration. The SWIM Program develops plans to protect and restore priority water bodies of regional or statewide significance. The District has identified ten priority water bodies: Tampa Bay, Rainbow River, Banana Lake, Crystal River/Kings Bay, Lake Panasoffkee, Charlotte Harbor, Lake Tarpon, Lake Thonotosassa, Winter Haven Chain of Lakes and Sarasota Bay. The SWIM Program uses water quality and biological monitoring data to identify and characterize the water quality and related issues in the watershed, set water quality and pollutant load reduction goals and develop watershed management priorities. The program then identifies and implements best management practices (BMP), such as stormwater retrofits, to accomplish the program's objectives.

The District employs many other programs to protect the quality of Florida's water resources. The Facilitating Agricultural Resource Management Systems (FARMS) Program, a public/private partnership, promotes best agricultural management practices that help improve water quality and conserve water. The well back-plugging program, a component of the FARMS effort, was implemented to address impairments in the Shell Creek and

Prairie Creek watersheds by rehabilitating agricultural wells to improve water quality. Within the Quality of Water Improvement Program (QWIP), the District provides incentives to landowners to come into compliance with well-plugging requirements detailed in the Florida Statutes. The District's land acquisition program also helps maintain water quality in the region through conservation and protection of areas of high groundwater recharge. These areas are of particular interest as they are vital for replenishing Florida's water supply and are also highly susceptible to pollutant contamination.

Regulation plays a role in protecting all of Florida's water and water-related resources. The well construction permit program ensures that the construction and abandonment of wells does not jeopardize the quality of groundwater resources. The environmental resource permit (ERP) program requires that new development properly treats and attenuates stormwater runoff, compensates for any losses in floodplain storage, reduces potential wetland impacts, and mitigates for proposed impacts to wetlands.

The District continues to increase its outreach programs to encourage behaviors that protect local water resources and the natural systems that sustain them. The District's promotion of Florida-friendly landscaping through media messaging, educational

materials and support of Florida Yards & Neighborhoods programs helps conserve water and protect water quality. In addition, the Adopt-A-Pond programs in Hillsborough and Pasco counties equip homeowners to improve and maintain water quality in their own neighborhood ponds and watersheds.

The Florida Department of Environmental Protection (FDEP) is the lead agency in the development of total maximum daily loads (TMDLs), the maximum level of pollutants a water body can receive before it is impaired. The District assists by sharing existing plans, data and information. If water quality data shows that TMDLs for prioritized water bodies have been exceeded, basin management action plans (BMAPs) are to be developed and implemented by the responsible local entity. For appropriate projects, the District assists local governments by sharing critical data and providing matching cooperative funding for TMDL projects identified in BMAPs.

The FDEP and the water management districts are collaborating to establish the statewide stormwater rule to address water quality treatment through the use of BMPs and new design standards for stormwater treatment systems. The new stormwater rule will be incorporated into the District's ERP rules.

### Strategies

- Use cooperative funding to support local government efforts in development and implementation of BMAPs
- 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 ERP program
- Continue to promote partnerships through District water quality programs

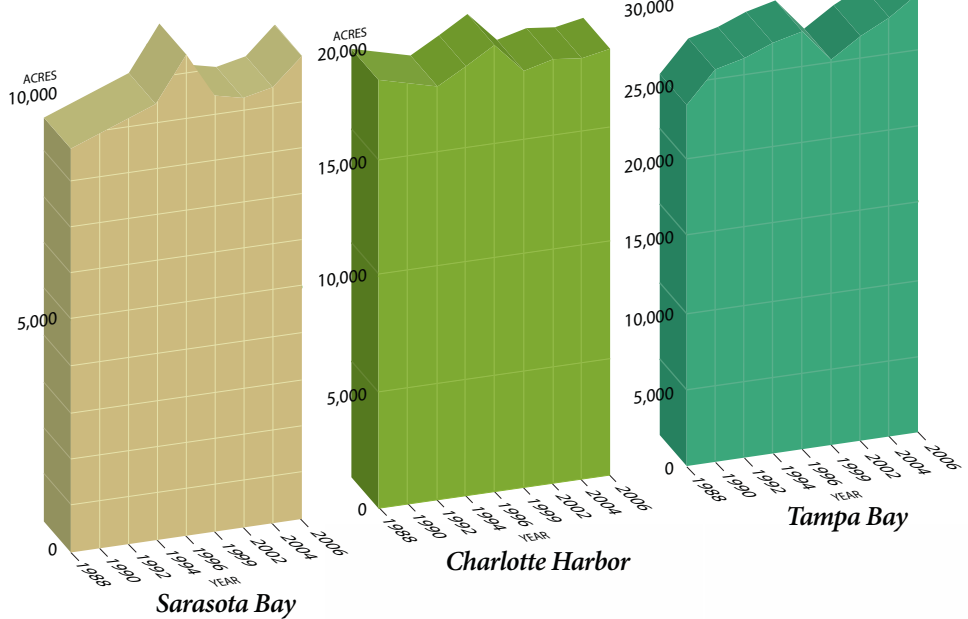
### Primary Success Indicator

- Percentage of monitored water bodies showing stable or improved water quality

### Supporting Success Indicators

- Tons of nitrogen and phosphorus removed by District-funded projects
- Acres of watersheds treated by District-funded stormwater retrofit projects
- Number of builders, developers and landscape professionals using Florida-friendly landscaping principles
- Percentage of saltwater intrusion monitoring sites showing acceptable rates of impact

**Seagrass Mapping**  
1988–2006



Stormwater rules and improved water quality are reflected in increased seagrass coverages in Tampa Bay and Sarasota Bay. Good water quality of Charlotte Harbor has helped maintain healthy seagrass coverage over time.

## Goal Statement

*Establish and monitor MFLs to ensure maintenance of the hydrology necessary to prevent significant harm and sustain the region's natural systems.*

### Strategic Initiative

## Minimum Flows and Levels Establishment and Monitoring

Florida law (Chapter 373.042, Florida Statutes) requires the state water management districts or the Department of Environmental Protection to establish minimum flows and levels (MFL) for aquifers, surface watercourses, and other surface water bodies to identify the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area. Rivers, streams, estuaries and springs require minimum flows, while minimum levels are set for lakes, wetlands and aquifers. The establishment and monitoring of MFLs affect water supply planning and regulation by identifying how much water may be withdrawn safely from a water body and by providing valuable data on important natural systems. MFLs create hydrologic and ecological standards that can be used for permitting or planning decisions concerning withdrawals from either surface or ground waters.

The focus of the MFL program is on those water bodies that are experiencing or expected to experience significant harm. One of the challenges for the program is defining what constitutes "significant harm." The District collects and analyzes a variety of data from each water body to help define significant harm for that particular water body. An essential component of the District's MFL establishment process includes the voluntary use of peer review in which independent scientists review and comment on proposed MFLs. The

establishment process also includes an opportunity for public review, which affords all interested stakeholders an opportunity to provide comments prior to any final decisions being made. The intent of the process is to be inclusive while developing scientifically defensible MFLs that will afford protection to the water resources and allow sustainable withdrawals to meet human needs. This review process begins with the publication of a draft technical report by District staff that provides the technical justification for the proposed MFLs. Following consideration of peer review findings and public comment, the Governing Board may choose to adopt the proposed minimum flows or levels or pursue further analyses and possible revision of the proposed minimum flows or levels. If actual conditions are below the established MFLs, the District develops a recovery strategy (see MFLs Recovery initiative, page 22).

Surface and groundwater monitoring is a major component of the MFL initiative. Monitoring of water elevations or flows is conducted throughout the District on a monthly, or more frequent, basis at approximately 1,387 well sites and at 873 river, stream, wetland and lake locations to assess hydrologic conditions. The data acquired in the District's extensive monitoring program assists in establishing the historic water flows and surface elevations used for developing a water body's MFL. The monitoring

program provides data for evaluating compliance with the adopted MFLs, determining the need for recovery strategies and analysis of the recovery of water bodies where recovery strategies are necessary.

The District MFL program has made substantial progress with the anticipated establishment of 179 MFLs for key water bodies by the end of 2008 (109 lakes, 41 wetlands, 12 river segments, 9 springs, 7 wells in northern Tampa Bay and 1 aquifer system in the most impacted area of the Southern Water Use Caution Area). Most work to date has addressed priority water bodies in water use caution areas where withdrawals have already resulted in significant harm. However, a number of MFLs have been adopted for water bodies in the northern portion of the District, and significant data collection and analysis are under way in anticipation of establishing additional MFLs in this region. Minimum flows or levels are, or will be, established for every major river system in the District and all first- and second-magnitude springs on publicly owned conservation lands. The District has aligned its existing staff and financial resources to expedite establishing MFLs for various water resources considered potential supply sources.

### Strategies

- Update MFL priority list and schedule annually
- Establish water body-specific MFLs through:
  - Data collection
  - Data analysis and reporting
  - Independent scientific peer 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

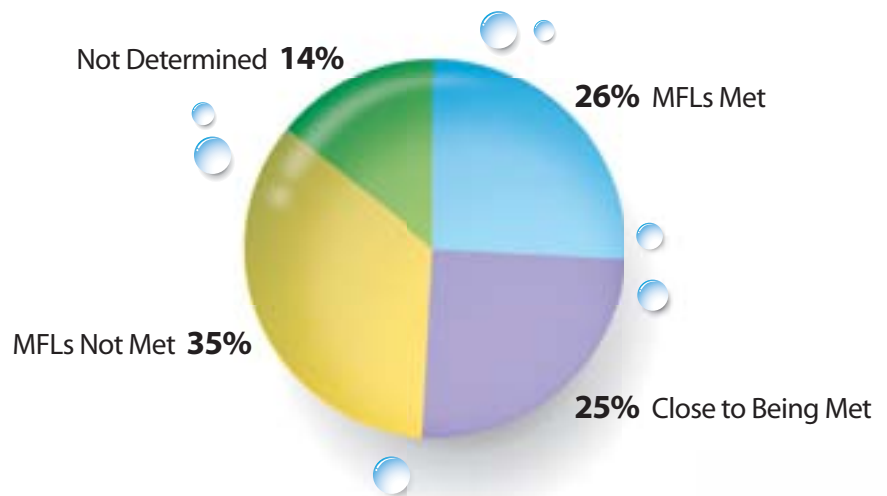
### Primary Success Indicator

- Percentage of listed water bodies with MFLs established on schedule

### Supporting Success Indicators

- Percentage of listed water bodies meeting MFLs
- Percentage of MFLs established with peer review
- Percentage of listed water bodies with operational monitoring

**MFLs Compliance**  
**Percentages of Water Bodies (Including Aquifer Systems)**  
**Based on a Ten-Year Evaluation Period Through 2007**



*Compliance evaluated by comparing ten-year water levels or flows to adopted MFLs. Compliance not determined for water bodies with limited water level records, for systems without finalized MFLs or for a single wetland that was destroyed as a result of permitted development.*

## Goal Statement

*Develop and implement MFL recovery plans where needed.*

### Strategic Initiative

## Minimum Flows and Levels Recovery

The District's responsibilities to establish minimum flows and levels (MFL) do not end with adoption and monitoring. In accordance with state law (Chapter 373.0421, Florida Statutes), if actual flows or levels are expected to drop below established minimum flows or levels within the next 20 years, the District will develop and implement a prevention or recovery strategy. The District leads the process to (1) develop a regional or site-specific recovery or prevention strategy and (2) oversee the successful implementation of the strategy to ensure compliance with the adopted MFL. In all cases where recovery strategies have been necessary, the water resources had been impaired by water-use withdrawals in existence prior to the establishment of water use permitting at the District. Consequently, the District developed two regional recovery strategies and one water body-specific plan that covers all water resources currently known to not meet established MFLs.

### Northern Tampa Bay

The District's recovery strategy to restore lakes and wetlands impacted by wellfield withdrawals in the northern Tampa Bay is to reduce pumping from regional well fields and provide financial incentives to develop alternative water supplies and meet growing demands for water. The 1998 Partnership Agreement between the District and Tampa Bay Water executes the strategy, calling for the District to contribute up to \$183 million in matching funds to develop sustainable, alternative

supplies in return for a reduction in groundwater pumping. The development of these alternative supplies was completed with the construction of the C.W. Bill Young Reservoir, the regional surface water treatment plant, the seawater desalination plant and various associated infrastructure. The Partnership Agreement also calls for the District Basin Boards in the northern Tampa Bay area to continue funding conservation and reuse projects at not less than \$9 million per year or \$90 million in total. With the conservation, reuse and alternative supply projects in place, it is anticipated Tampa Bay Water will reach the required pumping reduction (90 mgd) by December 31, 2008.

### Lower Hillsborough River

In the fall of 2007, the Governing Board led a cooperative effort, including the City of Tampa, Tampa Bay Water and various citizen groups, to adopt the lower Hillsborough River minimum flows and associated recovery strategy. The recovery strategy calls for the augmentation of the river during periods of low flow from a variety of sources, including Sulphur Springs, Blue Sink, Morris Bridge Sink and the Tampa Bypass Canal. The projects necessary for the river's recovery should be completed by 2013. Costs for the recovery projects, not to exceed \$44.5 million in total, will be funded by the District and the City of Tampa. On December 31, 2007, the District began pumping 11 cubic feet per second of water from the Tampa Bypass Canal to



*Modification of the structure at Lake Hancock's outfall to Saddle Creek will be key to the Upper Peace River Watershed Restoration initiative, modifying the level of Lake Hancock.*

the Hillsborough River Reservoir as the initial project of the recovery strategy.

### **Southern Water Use Caution Area (SWUCA)**

In 2006, the Governing Board approved the SWUCA recovery strategy to restore actual flows and levels to their adopted minimums by 2025 and ensure adequate water supplies for all reasonable and beneficial water uses. The SWUCA encompasses approximately 5,100 square miles, including all or part of eight counties in the southern portion of the District. Existing groundwater withdrawals from nearly 6,000 water use permits have caused saltwater intrusion into the aquifer, lowered flows in the upper Peace River and lowered lake levels along the Lake Wales Ridge. In many cases, actual flows and levels are or were below minimums adopted by the District. The strategy recognizes the importance of water-use reductions that may occur with land-use changes as urban/suburban land uses displace

agricultural land uses and their associated water use permits. Development of alternative water supplies (surface water, reclaimed water, conservation, etc., as identified in the District's Regional Water Supply Plan) is another important component of the strategy. Regarding conservation, the recovery plan indicates the District will work closely with existing users of ground water from the Floridan aquifer to maximize water-use efficiency so that average daily groundwater use in the SWUCA may be reduced by 50 million gallons over the next 20 years.

Even these efforts will not be enough to recover from a century of damage. The SWUCA recovery strategy also includes projects that are part of the District's Upper Peace River Watershed Restoration initiative, one of four major programs identified in the District's West-Central Florida Water Restoration Action Plan. The plan will provide a cost-effective means of restoring

minimum flows to the upper Peace River while allowing ground water to continue to be a significant source of water supply for urban, agricultural and industrial users in the area. The key project in the initiative is the Lake Hancock Lake Level Modification Project. This project will store water by raising the water level on Lake Hancock. Water will be slowly released during the dry season to help meet the minimum flow requirements in the upper Peace River. Without this project, groundwater withdrawals in the SWUCA would need to be reduced by as much as 60 to 80 percent to achieve recovery.

### **Strategies**

- Implement adopted recovery strategies
- Implement the West-Central Florida Water Restoration Action Plan
- Incorporate MFL recovery and prevention strategies into the Regional Water Supply Plan development

### **Primary Success Indicator**

- Progress toward meeting recovery strategy goals

### **Supporting Success Indicator**

- Percentage of recovery projects on schedule

## Goal Statement

*Identify and monitor critical environmental land to promote awareness and facilitate policy-making decisions about the region's natural systems.*



## Strategic Initiative

# Natural Systems Identification and Monitoring

As Florida's population grows, expansive areas of native ecosystems, both uplands and wetlands, are altered or lost to urbanization, transportation, agriculture, mining and industry. The environmental land identification and monitoring initiative helps the leaders of southwest Florida remain apprised of the condition of ecosystems so that they can make informed decisions on issues that will directly impact natural systems to maintain the quality of life that Florida's citizens expect. To gauge the effects of land alterations, the District monitors the following key areas: land-use conversions, habitat fragmentation, wetland maps and land-use projections.

Through its aerial mapping program, the District monitors actual year-to-year land-use conversions. By monitoring conversions from natural areas to agriculture and urban land uses, as well as agriculture to urban land uses, the District identifies where the greatest stress is being placed on natural habitat and where the greatest opportunities for alternative water supplies and natural system investments may reside. This information is vital to all leaders who must consider the linkage of land and water use.

Wetland maps, a subset of the aerial land use mapping effort, help the District monitor large systems and provide an early warning mechanism for potential loss of vital habitat. Florida's

wetlands play increasingly important roles in our water supply, flood protection, water quality and natural system strategies. Consequently, governmental and citizen leaders must monitor large systems to ensure that the wetlands can function effectively. The District's regulatory program assists these efforts by gathering critical detailed information about wetlands during the permit process.

The District has monitored water levels in wetlands since the 1970s. Today, the District collects both hydrologic and biologic data at approximately 150 wetlands, mostly in the central part of the District. To expand its monitoring capability, the District partners with several water supply utilities to expand coverage by about 300 additional wetlands. Data is collected through the use of both staff gages and wells, as well as through ecologic health monitoring methodologies developed by both the District and its collaborating water supply agencies.

Finally, the District's regulatory and outreach efforts gather information on proposed growth and planned land-use alterations. By tracking environmental resource permit (ERP) applications and monitoring and commenting upon local governments'



Developments of Regional Impact (DRI) and Comprehensive Plan Amendments, the District provides the public with important information on pending land-use decisions and the potential impacts on Florida's water resources.

### Strategies

- Update land-use, wetland and orthoimagery mapping annually
- Continue wetland monitoring and analysis
- Continue to use regulation to minimize wetland impacts
- Implement ERP program using future land-use transition data
- Emphasize outreach and water resources planning

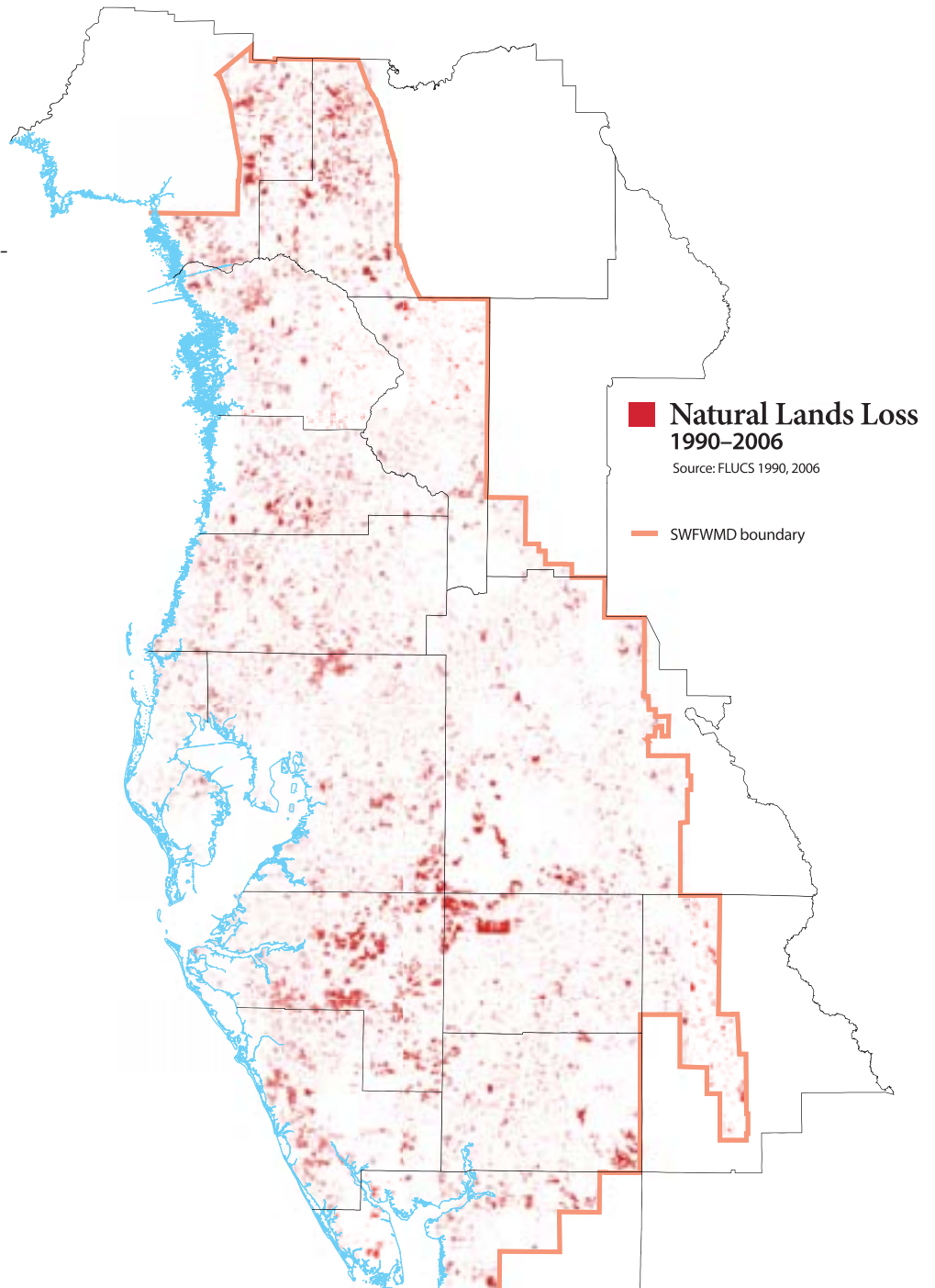
### Primary Success Indicator

- Monitoring of land-use trends

### Supporting Success Indicators

- Percentage of orthoimagery analyzed annually

- Number of DRI and Comprehensive Plan reviews reported annually
- Percentage of District land-use, wetland and upland mapping data available on the web



## Goal Statement

*Develop plans for acquisition, conservation and restoration of selected ecosystems and manage the completion of the plans to ensure protection, recovery and function of these ecosystems.*

## Strategic Initiative

# Natural Systems Conservation and Restoration

Natural systems define Florida's identity and quality of life. The environmental land conservation and restoration strategic initiative preserves, protects and restores natural systems to support their natural hydrologic and ecologic functions, which in turn protects our quality of life. The major components of this initiative include land acquisition and management, ecosystem restoration, regulation, and education efforts.

Acquisition of land has long been recognized as a critical component of protecting and restoring Florida's fragile ecosystems in a rapidly urbanizing state. To date, the District, along with its many partners, has protected more than 430,000 acres of conservation lands. Even though there has been tremendous success in acquiring conservation lands, more than 400,000 acres of important lands are not currently protected. The continuing success of the program depends on available financial resources from the state's Florida Forever program. Currently, Florida Forever provides the District approximately \$26 million per year to acquire land for both conservation and water resource and supply development projects through 2010. The recent legislative renewal of Florida Forever will ensure funding through 2020 at a rate of approximately \$22.5 million per year.

Acquiring the land is only the first step. Conservation lands must be restored and managed to maintain the ecologic functions that define Florida's

quality of life. Management tools include using prescribed fire to mimic ecological processes and to reduce the risk of catastrophic wildfires; controlling nonnative invasive plant species; providing site security; administering revenue-producing activities such as timber management and cattle grazing; restoring previously altered uplands and wetlands; and providing for public outreach and recreation.

The state Legislature empowered the District with the responsibility of overseeing the Surface Water Improvement and Management (SWIM) Program to protect and restore priority water bodies. The restoration strategy outlined in each SWIM water body management plan emphasizes creating, enhancing or restoring habitat mosaics typically found in natural Florida ecosystems. The SWIM program uses data from water quality and biological monitoring to identify and characterize the water quality-related issues in the watershed, develop water quality and pollutant load reduction goals, and to develop watershed management priorities. Restoring this balance protects the habitats for threatened or endangered species, restores the historical hydrologic and ecologic functions, and preserves the natural resources and their scenic beauty for future generations.

Protecting ecosystems does not stop at acquiring, managing and restoring lands. To be successful, watershed protection needs to be embedded in the values of our communities. The District

promotes these values through its land recreation and environmental education efforts. Every year, hundreds of thousands of people enjoy recreational opportunities offered on District lands. Through these recreational opportunities, visitors gain an appreciation for and become better stewards of the land. District lands throughout west-central Florida serve as “nature classrooms” to assist the region’s school systems in helping children understand Florida’s precious water and related natural resources.

District permitting programs are critical in promoting ecologic conservation and restoration. The District’s environmental resource permit (ERP) program ensures that new development reduces potential impacts to wetlands and other surface waters whenever practicable and appropriately mitigates remaining impacts. The establishment of the Uniform Mitigation Assessment Method (UMAM) has provided a standardized procedure for assessing the functions provided by wetlands and other surface waters, the amount that those functions are reduced by a proposed impact, and the amount of mitigation necessary to offset that loss. The Regulatory program further addresses wetland impacts by identifying habitat and wetland corridors and encouraging ERP applicants to extend or link these corridors by preserving the contiguous parcels. The District also partners with the Florida Department of Transportation (FDOT) to identify and restore large-scale ecosystem projects to

compensate for the impacts associated with roadway development. The Efficient Transportation Decision Making program, a District Regulation-FDOT initiative, fosters better resource management via commentary during the initial planning stages of future roadway projects.

### Strategies

- Develop and implement innovative restoration projects and partnerships
- Identify conservation and restoration value of land acquisition opportunities
- Operate structures to optimize water levels for natural systems benefits
- Participate in efforts to extend and protect state funding sources

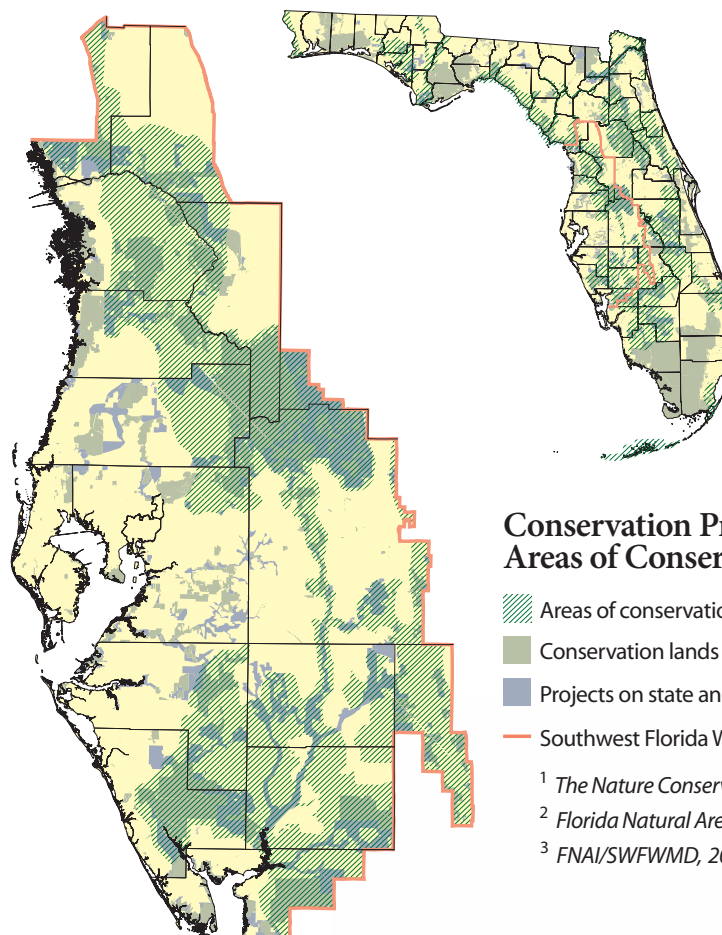
- Promote conservation of land through recreation and education opportunities
- Regulate to avoid, minimize and mitigate unavoidable impacts
- Promote regulatory mitigation planning

### Primary Success Indicator

- Trending of natural systems conservation, restoration and protection

### Supporting Success Indicators

- Acres of land acquired vs. the acres of land in Florida Forever Plan
- Acres of land restored by District-funded projects
- Trending of wetlands mitigation



### Conservation Priorities and Areas of Conservation Interest

- Areas of conservation interest <sup>1</sup>
- Conservation lands permanently protected <sup>2</sup>
- Projects on state and District Florida Forever list <sup>3</sup>
- Southwest Florida Water Management District

<sup>1</sup> The Nature Conservancy, 2006

<sup>2</sup> Florida Natural Areas Inventory (FNAI), 2008

<sup>3</sup> FNAI/SWFWMD, 2008

# Flood Protection:

## Goal Statement

*Develop better floodplain information and utilize the information in the implementation of regulatory and non-regulatory floodplain management programs to maintain floodplain storage and conveyance and to minimize flood damage.*

## Strategic Initiative

# Floodplain Management

Flooding is essential in Florida's natural water cycle; however, damage to life and property from flooding can occur because of human development within floodplains.

The floodplain management initiative includes District strategies to develop better information so that the District and local governments can maintain floodplain storage and conveyance and use the information to minimize damage from floods.

The District employs its Watershed Management Program (WMP) as a critical strategy to achieve its floodplain initiative goal. The program identifies, prioritizes and addresses flood-related water resource issues within a watershed and has five stages:

- The collection of detailed information, such as land elevation, drainage ditches, culverts and other features, that affect how water moves within the watershed
- The evaluation of collected data to identify flood-related problems
- The development of watershed models and plans to identify potential projects, or best management practices, that will resolve the water resource problems
- The implementation of best management practices to resolve problems
- The regular updating of data to ensure that decisions are made based on the best available information

Local governments, the District and state and federal governments use

information developed through the WMP in regulatory and nonregulatory floodplain management programs. Local governments have responsibility for planning and land-use decisions. Therefore, the District partners with local governments through the Cooperative Funding Initiative to implement the WMP. The District serves as a cooperating technical partner with the Federal Emergency Management Agency (FEMA) through FEMA's map modernization program to update flood insurance rate maps. The maps serve as the primary means to inform the public of flooding risks. The District's strategies include increasing public awareness of the benefits and risks of flooding associated with floodplains.

The District's environmental resource permit (ERP) program ensures new development properly treats stormwater runoff to remove pollutants, compensates for losses in floodplain and historic basin storage, reduces or eliminates wetland impacts, mitigates for remaining impacts to wetlands and does not increase the rate of stormwater runoff onto neighboring properties. ERPs address single storm events up to a 100-year storm level.

Land acquisition and management contribute significantly to achieving the District's flood protection responsibilities. The strategic acquisition of land fulfills a variety of needs such as reducing the risk of flooding,



*Floodwaters bypass Temple Terrace and Tampa through a structure on the Tampa Bypass Canal.*

protecting and improving water quality, developing water supplies, protecting recharge areas and restoring and protecting ecosystems. Protection of these lands also preserves the natural Florida landscape for the enjoyment of future generations.

The District maintains and operates 4 major canal and conveyance systems and 78 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. The Tampa Bypass Canal and Lower Hillsborough Flood Detention Area are the largest and most

visible of the District's flood protection facilities. These combined systems consist of approximately 16,000 acres, 5 miles of earthen levee, 16 miles of canal, 7 major flood control structures and more than 80 secondary drainage structures. Through effective management, the District can detain, store and divert floodwaters around the cities of Temple Terrace and Tampa, preventing flood damage along the lower reaches of the Hillsborough River.

## Strategies

- Implement WMP to collect, analyze and distribute best available floodplain information
- Implement ERP program using WMP data
- Identify floodplain management value of land acquisition opportunities
- Operate, maintain and upgrade water management structures and associated facilities
- Increase public awareness of floodplains

## Primary Success Indicator

- Percentage of watershed management plans under development and percent completed

## Supporting Success Indicators

- Trending of floodplain encroachment
- Percentage of water management structures automated for remote control or monitoring
- Percentage of available floodplain data on web site



# Flood Protection:

## Goal Statement

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

## Strategic Initiative

# Emergency Flood Response

Through its emergency flood response initiative, the District prepares for, responds to, recovers from and mitigates the impacts of a critical flooding incident.

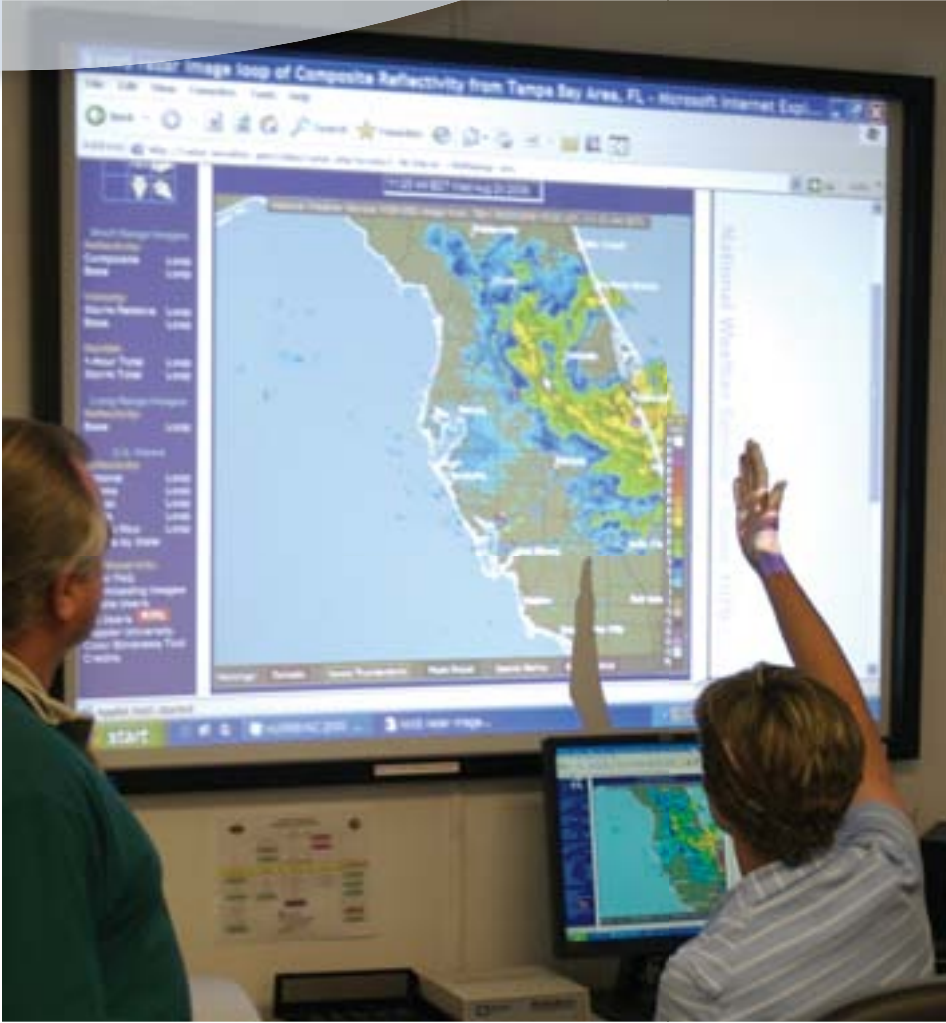
To ensure adequate preparation, the District maintains a Comprehensive Emergency Management Plan (CEMP) in accordance with Chapter 252, Florida Statutes. While the CEMP provides emergency planning guidance to staff based on an “all-hazards” approach, the plan specifically addresses pre-incident preparation, post-incident response and recovery, deployment of resources, communications and warning systems, and annual exercises related to hurricane and critical flooding events. The CEMP is consistent with the National Incident Management System (NIMS) and Incident Command System (ICS) framework and criteria. The District Governing Board, in 2005, formally adopted NIMS and ICS as the standard for incident management at the District. Annual training has been conducted since 2005.

The District’s Emergency Operations Center (EOC) provides direction and control during any type of disastrous event. The EOC coordinates on-scene response, communications, resource dispatch and tracking, and information collection, analysis and dissemination. Headquartered in Brooksville, the EOC, if necessary, can move operations to other District service offices or, through an agreement with the county, to the Hernando County EOC. Selected

staff from many departments, chosen for their professional expertise and leadership skills, have been trained in NIMS/ICS protocols and are members of the District’s Emergency Operations Organization (EEO). During an emergency activation at the District, the organization assumes their command roles and activates and manages the operations center.

All water management districts are members of the State Emergency Response Team and, as such, serve as support agencies to the state. Since water management districts span multiple jurisdictions and can provide resources and services to support other government entities in times of disaster, the State Division of Emergency Management, pursuant to the state CEMP and statutes, may request the District respond to emergencies within, as well as outside, District boundaries.

The District also 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. Examples of typical projects include providing emergency pumping facilities, installing stormwater culverts, constructing temporary outfall ditches and removing debris and excess sediments in swales, ditches, creeks and streams. All District employees may be subject to being called to duty for emergency response efforts.



*The District's Emergency Operations Center monitors Tropical Storm Fay as it safely bypasses west-central Florida and exits at the eastern coastline.*

The enhancement of District water management structures and related facilities includes automation and upgrading of water conservation and flood control structures. The structure upgrades include adding backup structure controls and communication capabilities to improve the management of these facilities, especially during emergency situations. As technology improves, so does District response time to flooding conditions. New and

improved technology allows for a proactive approach before storm events occur, such as remotely lowering lake levels to create storage.

### **Strategies**

- Establish alternative EOC sites
- Implement NIMS/ICS as the District's incident management system


- Establish backup systems for all mission-critical functions
- Use technology to the fullest extent to ensure optimal response capabilities
- Train staff and exercise the District's CEMP
- Provide emergency assistance to local governments and agencies as requested

### **Primary Success Indicator**

- Emergency preparation completed per the District's Comprehensive Emergency Management Plan

### **Supporting Success Indicators**

- Percent of District EOO with incident management training at the appropriate level
- Tampa and Bartow facilities available as alternative EOC sites
- Number of emergency response training exercises completed



**Goal Statement**  
*Ensure the continuous alignment of resources with the strategic goals and objectives of the District.*

## Mission Support

Mission support develops and equips our employees so they can achieve the District's strategic initiatives in a cost-efficient and effective manner. The District's seven mission support strategies ensure District operations remain strategically aligned, people-oriented, science- and data-based, and fiscally and ethically responsible.

Although the District's statutory responsibilities have more than doubled, the District's staffing level has not increased in more than 10 years. The District strives to attract, develop and retain diverse, well-qualified staff and trains those individuals as their responsibilities increase in difficulty. With an average 12-year tenure, District employees bring competence and knowledge to carrying out the District's important and complex mission.

The District invests in technology to support staff and provide data access to the public. The District's Water Management Information System (WMIS) will make available to the public the District's extensive regulatory and scientific databases as well as ensure consistent approaches to analyzing water resource issues. On the administrative side, the Project Information Management System (PIMS) has replaced the existing project management database, providing more comprehensive project profiles, simplified administration, automated processes and integration with District financial systems.

The District's solutions-focused culture assures the ability of the organization

to continue operations under adverse conditions. The District has completed a comprehensive Continuity of Operations Plan (COOP). This plan establishes policy and guidance to ensure the execution of our organization's mission-essential functions in any event/emergency, that requires the relocation of personnel and functions to an alternate facility.

In July 2007, Florida Governor Charlie Crist signed an order seeking reduction in greenhouse gas emissions as well as the use of smart building and operational practices to reduce the carbon footprint of state government agencies. The District's approach to the state's climate change initiative has been named the Environmental Stewardship Initiative. This initiative is more than a standalone program; it is the way the District does business. Placing an emphasis on energy and fuel efficiency in the District's daily operations makes good business sense and fits well with its focus on environmental protection, sustainable growth and community responsibility. The goal of the initiative is to voluntarily meet the Governor's expectations and continue to serve as a leading example of smart, efficient and environmentally wise practices.

The District has established a project team to examine the agency's operations — facilities, construction, fleet management, internal process enhancements and many other activities in which the District may be able to achieve improved efficiencies. Through



these efforts, the District seeks to reduce its energy consumption and carbon output to implement more environmentally sustainable practices and, where possible, to achieve efficiency and cost reductions in District operations. The District produces quarterly energy consumption reports, in coordination with the Department of Environmental Protection and the Department of Management Services, that are incorporated into a carbon scorecard for the state of Florida.

The District's Mission Support aims to implement effective and efficient operations. The District maintains a constant or declining millage rate while operating debt-free on a pay-as-you-go basis — one of the few public entities its size in the country to do so. The Boards and District management have reduced the amount of millage allocated for operational expenditures and have directed those resources toward water supply and resource development and other water resource management projects.

### Strategies

- Recruit and retain a highly qualified and diverse workforce to optimize our business processes and meet our regional community needs

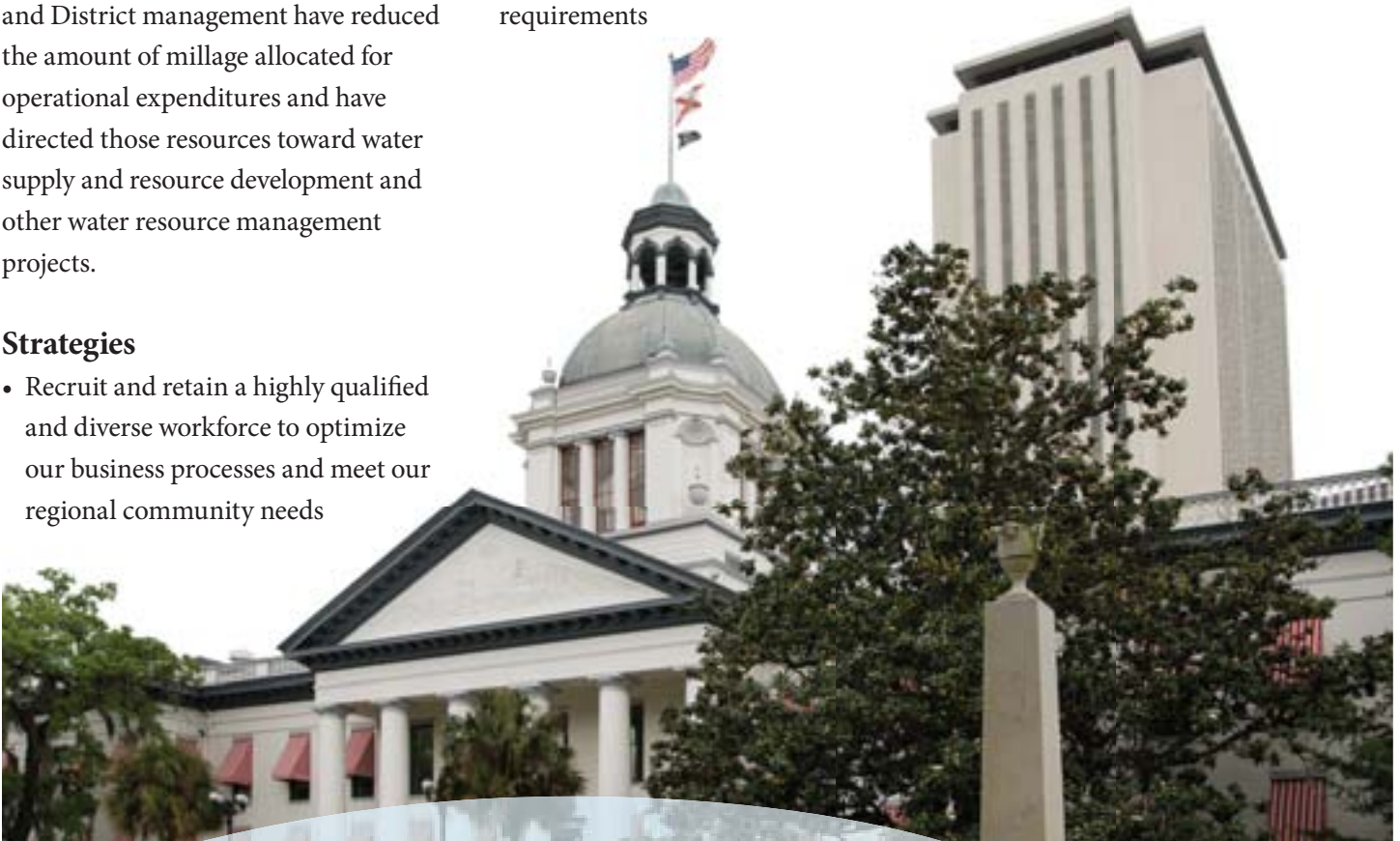
- Use technology, facilities and equipment to improve decisions and service, increase operational efficiencies and control costs
- Use the Governing and Basin Board structure to advance collaborative, responsible multijurisdictional solutions
- Grow partnering revenue
- Maintain appropriate reserves
- Retain stable millage rates and equitable cost-based fees
- Continue debt-free operations
- Meet highest budgetary and reporting standards to demonstrate financial integrity and statutory accountability

### Primary Success Indicator

- 100 percent compliance with state operational and reporting requirements

### Supporting Success Indicators

- Turnover ratios and trends in workers' compensation claims, leave use and applicant pools
- Return on investment on information technology projects
- Customer interaction and satisfaction with new systems and approaches to data management
- No District-bonded debt required to finance capital projects
- Meet funding priorities for Regional Water Supply Plan and Strategic Plan in partnership with local governments and private entities while complying with legislated property tax revenue reductions
- 100 percent compliance with Governor's climate change initiative and reporting requirements





## Business Cycle

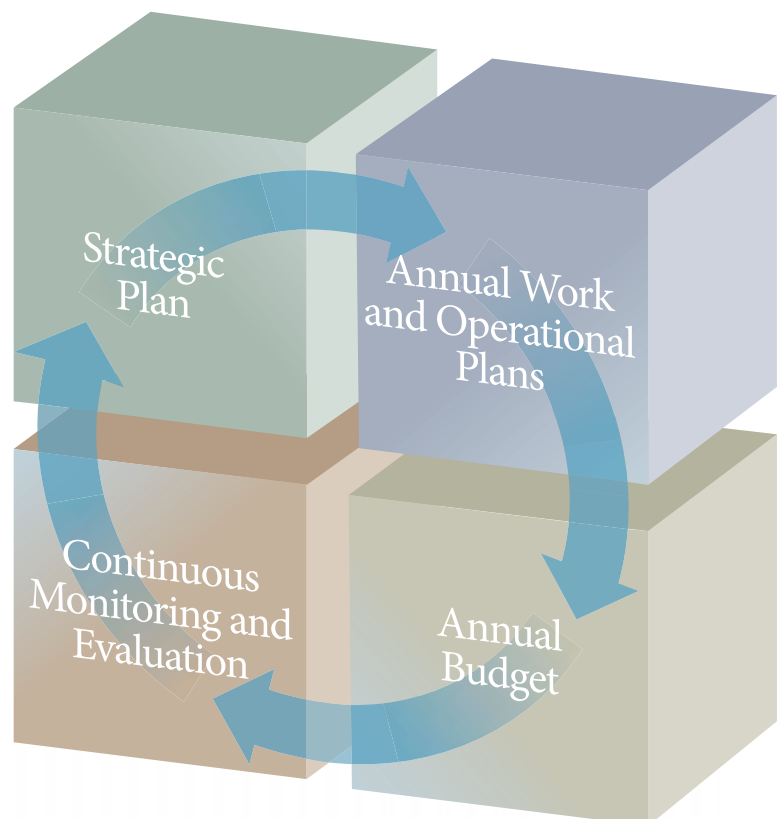
### Putting Strategic Initiatives Into Action

The Strategic Plan provides direction for each year's process of planning, budgeting, implementation, continuous monitoring and evaluation. More detailed work plans for many of the District's programs and activities are also updated annually. The District further evaluates components during the annual budget development and approval process. Between the Governing Board and eight Basin Boards, the District holds approximately 60 public meetings in the development and approval of its budget, further demonstrating a commitment to public accountability.

The Strategic Plan explains the overall policy direction and strategic initia-

tives established by the Governing Board. District management develops the strategies, programs and activities necessary to efficiently and effectively implement this Governing Board direction. As part of the annual planning and budgeting process, programs are analyzed for project scope, schedule and compliance with budget direction. Based on this analysis, the Governing Board and District management determine further agency strategic initiatives and whether staff and financial resources need to be realigned to achieve strategic objectives.

The Strategic Plan reinforces a cycle of continuous analysis and improvement that ensures employee efforts are aligned with Governing Board direction.



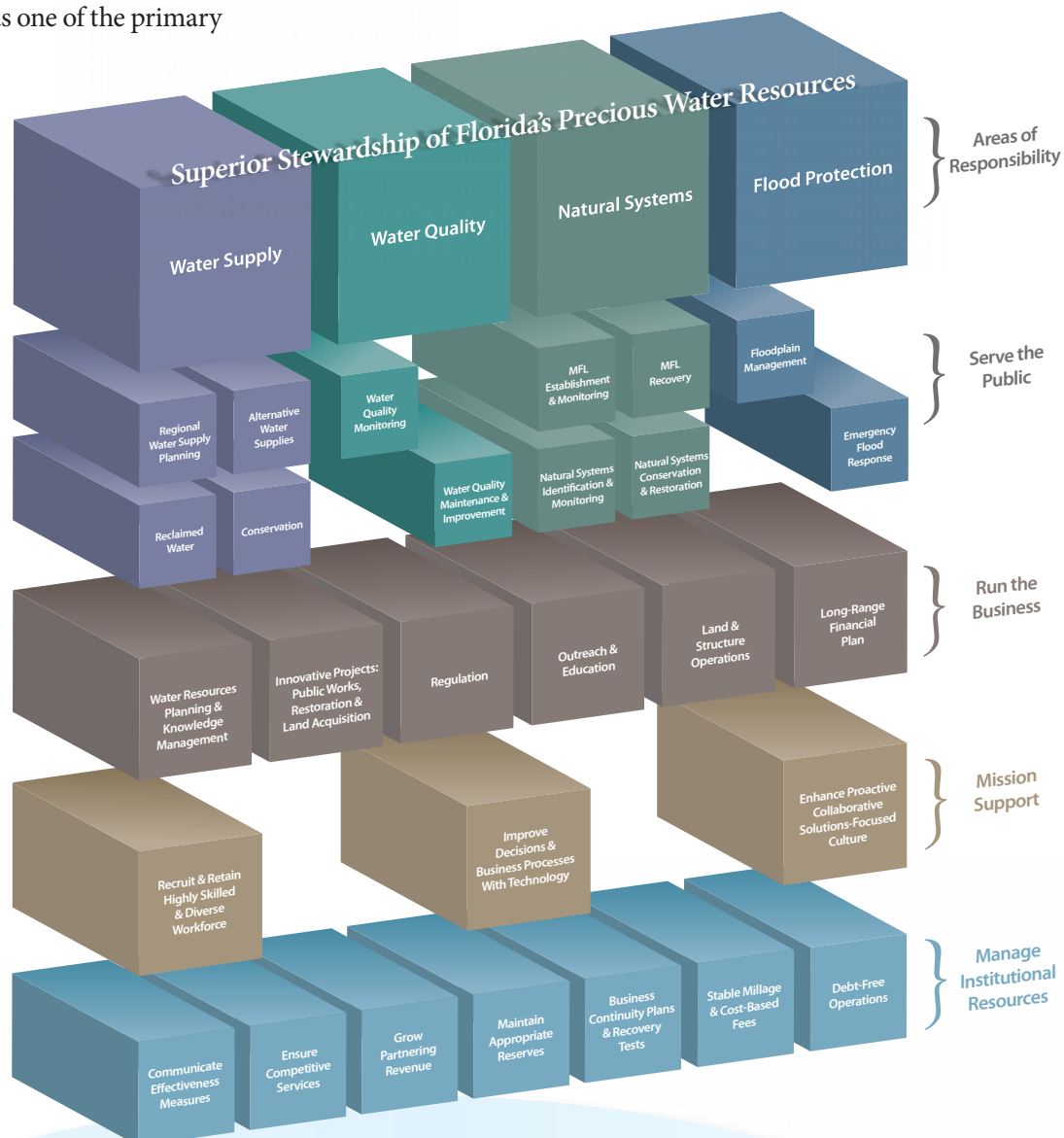
# Mapping the Strategic Plan

To develop this year's Strategic Plan, the District assembled a diverse team of staff members representing many disciplines. Overseen by a steering committee and executive sponsors, the Strategic Team was tasked with evaluating the District's goals and responsibilities to produce a document providing strategic direction, District priorities and success measures. Bringing together staff members with very different experiences and expertise to address the multitude of water resource issues as a team presented many challenges. The strategy map shown below was one of the primary

tools used by the Strategic Team to organize and unify its efforts and to demonstrate the interconnections among the various District departments and its water resource responsibilities.

At the top of the map is the District's overriding goal, "Superior Stewardship of Florida's Precious Water Resources." The first row lists the District's four areas of responsibility (AOR). Below that are the strategic initiatives designed to meet our AOR goals. At the next level are those programmatic elements

necessary for the strategic initiatives to succeed. The mission support level shows the necessary management services, followed by basic institutional practices that are needed for the organization to function effectively and efficiently. Finally, if the map as a whole is implemented, the result is smart governance, defined as "Stay strategically aligned, people-oriented, science- and data-based, fiscally and ethically responsible, and technologically sharp."



Southwest Florida  
Water Management District



WATERMATTERS.ORG · 1-800-423-1476

**Brooksville Headquarters**

2379 Broad Street  
Brooksville, Florida 34604-6899  
(352) 796-7211 or  
1-800-423-1476 (FL only)

**Tampa Service Office**

7601 Highway 301 North  
Tampa, Florida 33637-6759  
(813) 985-7481 or  
1-800-836-0797 (FL only)

**Bartow Service Office**

170 Century Boulevard  
Bartow, Florida 33830-7700  
(863) 534-1448 or  
1-800-492-7862 (FL only)

**Sarasota Service Office**

6750 Fruitville Road  
Sarasota, Florida 34240-9711  
(941) 377-3722 or  
1-800-320-3503 (FL only)

**Lecanto Service Office**

Suite 226  
3600 West Sovereign Path  
Lecanto, Florida 34461-8070  
(352) 527-8131

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