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southwest Florida Water Management District 2011–2015 Strategic Plan



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### Message From the Chair: Strategic Planning - Now More Than Ever

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ffectively managing our water resources in west-central Florida requires careful planning. Past efforts in water supply planning and water shortage preparation are helping the region weather the current three-year drought. In future years, too much rain may fall rather than too little, so we must have sound plans for flood protection as well. In addition, water quality must be maintained and natural systems protected to ensure a continuation of the quality of life enjoyed by the 4.7 million residents of the District's 16-county area. It all adds up to our primary goal as a water management district: superior stewardship of Florida's precious water resources.

While a well-thought-out plan is essential to our success, it is not enough. We must continually evaluate our progress and make changes to stay on course. This version of the Strategic Plan includes the introduction of a web-based "scorecard" to track progress in meeting the primary success indicators for each of the plan's 12 strategic initiatives. This scorecard will serve as a tool to keep us focused on our priorities and also will provide a means to ensure accountability to the taxpayers — our stakeholders — and the Legislature.

The issues we face are technically challenging, but with a highly skilled workforce and cutting-edge technology, the District is well equipped to solve these difficult problems. Recently, other factors have complicated our planning process. The current recessionary economic conditions make it difficult to forecast revenues, develop a budget and fund critical initiatives. The current fiscal year District budget is 20 percent lower than last year's, which was 5 percent lower than the year before; projections show another decline in revenues for the coming budget year. These financial conditions only make sound planning even more critical. We must do more with less and efficiently apply limited resources to our highest priorities. Climate change is another factor introducing uncertainty into our planning, necessitating a "monitor and adapt" approach by keeping up to date on the latest research and making appropriate policy and operational adjustments.

The District is responsible for implementing this Strategic Plan. But to be successful, we will need the cooperation of many stakeholders. This includes cooperative funding of projects to leverage investment from local governments, water supply authorities and other public and private partners. We will also need to continue to work with other agencies in the acquisition and management of conservation lands and with the federal government and the counties to improve flood mapping. Individual citizens, too, are partners who make significant contributions to water management by conserving water, volunteering for habitat restoration and land management activities, and helping to protect watersheds.

This Strategic Plan provides the necessary guidance to achieve our regional water management goals and to continually measure our progress. I invite you to join us in our efforts to

protect and sustain water resources and to keep our region a wonderful place to live, work and play.



Todd Pressman Governing Board Chair

# **District Areas of Responsibility**

## Water Supply

**Goal:** Ensure an adequate supply of the water resource to provide for all existing and future reasonable and beneficial uses while protecting and maintaining water resources and related natural systems.

#### 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.

- Alternative Water Supplies: Increase development of alternative sources of water to ensure groundwater and surface water sustainability.
- **Reclaimed Water:** Maximize beneficial use of reclaimed water to offset potable-quality water supplies.
- **Conservation:** Enhance efficiencies in all water use sectors to reduce demands on all water supplies.

## 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 assist in determining regional 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 (MFLs) Data Collection and Establishment: Collect and analyze data essential to establish MFLs to ensure maintenance of the hydrology necessary to prevent significant harm to natural systems.
- Minimum Flows and Levels Recovery:

Develop and implement recovery plans for MFLs where needed.

Natural Systems Identification and

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

Natural Systems Conservation and

**Restoration:** 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.

### **Flood Protection**

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

- **Floodplain Management:** Develop better floodplain information and apply in the implementation of floodplain management programs to maintain storage and conveyance and to minimize flood damage.
- **Emergency Flood Response:** Operate District flood control and water conservation structures, providing effective and efficient assistance to state and local governments and the public to minimize flood damage during and after major storm events.

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, water quality, natural systems and flood protection.

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.



## About the District

#### **GOVERNING BOARD**

**TODD PRESSMAN** Chair, Pinellas

**RONALD E. OAKLEY** Vice Chair, Pasco

HUGH M. GRAMLING Secretary, Hillsborough

> SALLIE PARKS Treasurer, Pinellas

CARLOS BERUFF Manatee

BRYAN K. BESWICK DeSoto

JENNIFER E. CLOSSHEY Hillsborough

> NEIL COMBEE Polk

ALBERT G. JOERGER Sarasota

MARITZA ROVIRA-FORINO Hillsborough

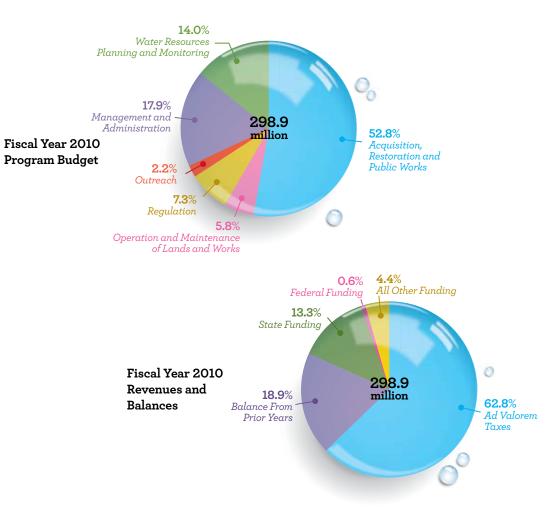
> H. PAUL SENFT, JR. Polk

> DOUGLAS B. THARP Sumter

JUDY C. WHITEHEAD Hernando

The Governing Board establishes policies for the District. Board members are unpaid citizen volunteers appointed by the Governor and confirmed by the Florida Senate. The Southwest Florida Water Management District (District) is responsible for managing and protecting water resources in west-central Florida. The District's job is to ensure there are adequate water supplies to meet the needs of current and future users while protecting 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 2008 of more than 4.7 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 one mill taxing capability of the District is divided evenly between the Governing Board (0.5000 mill) and the District's seven Basin Boards (0.5000 mill). The Governing Board millage for fiscal year 2010 is 0.3866 mill.

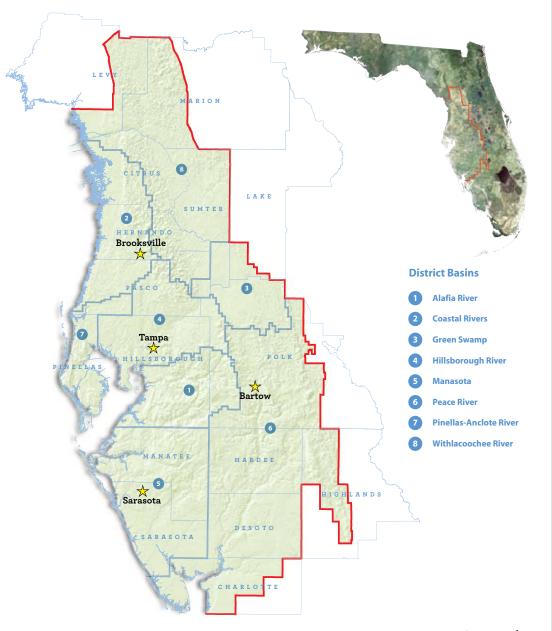


#### **BASIN BOARDS**

The District is further divided into eight basins based on watershed or geographic boundaries. Seven of the District's basins are administered by local Basin Boards to ensure that local concerns are addressed effectively; the eighth encompasses the Green Swamp and is managed by the District's Governing Board because of its hydrologic significance.

In accordance with Florida Statutes, a minimum of 29 local Basin Board members are appointed

by the Governor and serve three-year terms as unpaid volunteers. The District is the only state water management district with this form of Basin Board system. Working with local governments and other partners, these Boards identify water-related issues in their basins and fund innovative projects that address water supply, water quality, natural systems and flood protection issues in its watershed. The Basin Board members serve as stewards of one-half the District's millage capacity; the Basin millage rates for fiscal year 2010 range from 0.1484 to 0.3200.





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

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

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

### Message From the Executive Director: Rising to the Challenge

#### **MISSION STATEMENT**

The mission of the District is to manage water and related natural resources to ensure their continued availability while maximizina 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.

n the past decade, this District has faced immense issues and, in response, has implemented workable solutions to solve them. We have been able to end the "water wars" in the Tampa Bay area, create a viable recovery strategy for the Southern Water Use Caution Area, fund cutting-edge alternative water source facilities, and facilitate the development of one of the most extensive reclaimed water systems in the world. Looking forward, new and different challenges lie ahead that will require innovative solutions, creative thinking, optimal technology and a highly trained staff. The strategic planning process will be more important than ever to manage these resources and ensure that we fulfill our mission of providing superior stewardship of Florida's precious water resources.

While we continue to work on continuing priorities such as recovery of minimum flows and levels in the Northern Tampa Bay and Southern water use caution areas, updating flood hazard maps, funding water conservation and alternative water sources, and restoring wetland and upland ecosystems, we are also shaping strategies for emerging issues. Of particular importance are the need to assist inland areas with water conservation and alternative water supplies and the development of preventive strategies in the northern District counties to meet projected water supply needs while protecting the area's sensitive environment.

This Strategic Plan lays out some of the initiatives that will help us address these and other new challenges. They include innovative public-private partnerships such as the FARMS cost-share program with the agricultural community and the Regional Reclaimed Water Partnership project, which will result in the efficient use of reclaimed water to enable industrial expansion while improving water quality. In addition, further research is being conducted on the promising concept of aquifer recharge with reclaimed water to inhibit saltwater intrusion and enhance water supplies in our most deficient areas.

The District, like state and local governments, has had to face budget cuts in recent years, but because our Governing Board's long-standing policy has been to operate on a pay-as-you-go basis without incurring bonded debt, we have been able to continue our important role in the development of water supplies and protection and restoration of our natural resources. Between project cost sharing and human resource initiatives, the District will outsource approximately \$178.1 million, or 60 percent of its fiscal year 2010 budget, into the economy of the 16-county region. The District will do this with attention toward promoting diversity and increasing individual work responsibilities. The number of full-time, Board-authorized staff has not increased since the early 1990s.

Our strategic planning is dynamic and we strive for continuous improvement. The addition of a web-based scorecard to this year's plan to track our key success indicators will help us stay on track and ensure accountability. Such performance measurement will also help us to monitor and adapt to the uncertainty of climate change in the future. With

this robust Strategic Plan, I am confident we can meet our continuing needs, take on the new challenges before us and deliver superior environmental stewardship.

David L. Moore Executive Director



## **Running the Business**

All the various functions of the District have been evaluated and categorized 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 comprehensive water 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 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 and financial, legal counsel and audit services.

Southwest Florida Water Management District 2011-2015 Strategic Plan

#### OFFICE OF EXECUTIVE DIRECTOR

**DAVID L. MOORE** *Executive Director* 

WILLIAM BILENKY Office of General Counsel

**LOU KAVOURAS** Deputy Executive Director Division of 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

# Water Supply



he District's regional water supply planning effort is based on a provision of Chapter 373, Florida Statutes, requiring the 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. 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. Recently the District's Governing Board voted to expand the RWSP to include the northern six counties; therefore, the 2010 updated RWSP includes the entire District. While water supply is adequate in the near term for the northern area, the District is addressing the long-range water supply needs of those counties through a preventative strategy of diligently monitoring conditions, introducing regulatory incentives to conserve, and deploying comprehensive water supply planning.

The RWSP is 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.

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 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 District — 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 flow diversions, reclaimed water and seawater desalination. Predicted impacts due to ongoing pumpage may be mitigated with retired water use permits, due to land-use transitions, with a portion of the future water supply contributing to environmental recovery. Conservation will also be critical.

In 2009, the District initiated the Utility Outreach Program (UOP), which is intended to further familiarize water supply utilities with the District's regulatory process. Prior to the renewal of a water use permit, District and utility staff will meet to discuss District-funded assistance available to local governments concerning population projection, conservations plans, groundwater withdrawal impact modeling, and other aspects of the permit application/renewal process. The program is designed to identify issues early in the process, lessen the potential financial burden on the municipalities, and increase the efficiency of the renewal procedure.

The developing issue of climate change may create additional challenges to water supply planning. District water managers may need to **GOAL STATEMENT:** Identify, communicate and promote consensus on the strategies and resources necessary to meet future reasonable and beneficial water supply needs.

plan for potential increased variability in precipitation regimes and storm events, rising sea levels and migrating habitats. Significant differences from historical patterns are likely to result in changes in the amount of freshwater resources and land available to sustain healthy natural systems. Planning and acting sooner rather than later can significantly lessen impacts and reduce the costs needed to adapt to changes as they occur. As the impacts of climate change have been difficult to quantify to date, the District is assuming a "monitor and adapt" position. This adaptive management approach is a sequential decision making process aimed at allowing for the flexibility of alternative courses of action over time as new information becomes available. The District will continue its diverse data collection and water monitoring efforts to ensure adequate information is available if hydrologic conditions change. Continued involvement in local, state and national discussions on these issues will also accommodate timely and effective responses to climate changes as they become evident.

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 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
- Incorporate adaptive management processes in water supply planning
- Coordinate with other water management districts on water supply and regulation approaches

- Proactively coordinate with water supply utilities
- Demonstrate the District's financial commitment to assist in the development of regional water supply needs

#### Primary Success Indicator

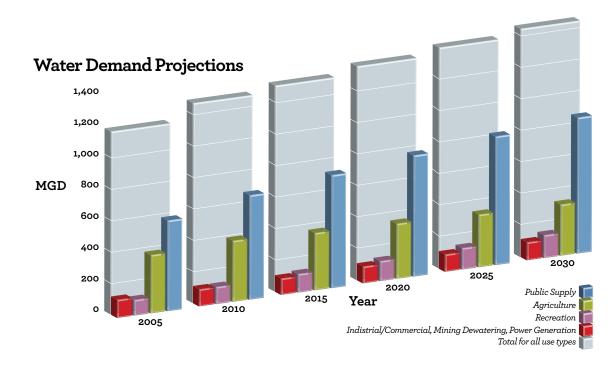
• Twenty-year projected demand versus supply sources identified

#### 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

#### Also see page 36:

Regional Water Supply Planning - Milestones



SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT 2011-2015 Strategic Plan

# Water Supply

## Strategic Initiative: Alternative Water Supplies

Reclaimed water supply (AWS) 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 AWS, 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 the withdrawal of additional surface water during mid-level flow periods from the Hillsborough River and Tampa Bypass Canal and expanding its surface water treatment plant. Later configurations will investigate the potential for additional withdrawals from the Alafia River and construction of an additional off-stream reservoir. Each of these projects is critical to meeting future water supply needs. The District's AWS 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.

The District uses its regulatory program as an incentive to encourage the development of alternative supplies. A water use permit holder will be granted an extended 20-year permit if they develop an alternative supply to meet new demands or, within ten years, develop an alternative source to offset current groundwater use. The District will also issue a 20-year permit if a FARMS project, within 10 years, offsets 50 percent of existing water use and improves downstream water quality. While there are other criteria within the 20-year permit program targeted toward other goals, these AWS permitting goals are intended to offer incentive for water use permit holders to develop alternative supplies.

To maximize the effectiveness of AWS 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 **GOAL STATEMENT:** Increase development of alternative sources of water to ensure groundwater and surface water sustainability.

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 AWS development through the efficient use of the resources available from its seven 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 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

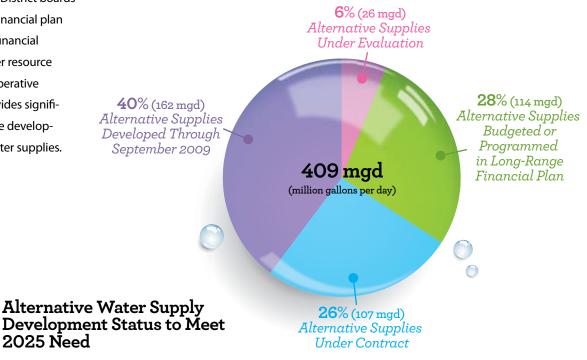
• Percentage of total water use supplied by alternative sources

#### Supporting Success Indicators

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

#### Also see page 36:

 $Alternative \ Water \ Supplies - Milestones$ 



# Water Supply



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 disinfection 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.

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 reclaimed water supply, 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-quality uses. Since 1987, the District has budgeted more than \$298 million in matching grants for 288 reclaimed water projects with more than 55 cooperators. This investment has leveraged projects that collectively will cost more than \$862 million to construct and when complete will result in 959 miles of reclaimed water pipeline, 238 million gallons per day (mgd) of reclaimed water supply and 2.13 billion gallons of reclaimed water storage. These reclaimed water projects will provide an offset of 154 mgd of traditional water supplies that would have otherwise been used to meet demand.

The District is committed to maintaining its technical expertise and promoting the beneficial use of reclaimed water. District staff participates in more than a dozen regional and reclaimed water industry related committees and work groups. By participating with organizations such as the Florida Reuse Coordination Committee, the Florida 2030 Reclaimed Water Committee and the WateReuse Foundation, the District can enhance it awareness of innovative uses and developing issues while promoting the benefits of reclaimed water use throughout the region.

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 2030. One such project is the reuse portion of the Regional Reclaimed Water Partnership Initiative. The project consists of transmission pumps, pipelines and storage to move nearly 6 million gallons of reclaimed water from the City of Lakeland to Tampa Electric Company's (TECO) Polk Power Station. This phase has begun with preliminary design and is expected to be constructed and ready for operation in 2013. The project represents the most efficient use of reclaimed water because it provides a 100 percent offset to groundwater use associated with TECO's facilities.

To explore innovative approaches to water reuse, the District has investigated the feasibility of using reclaimed water for direct and indirect aquifer recharge in the Tampa Bay area. A study was developed to maximize the beneficial use of reclaimed water flows and assess possible water level improvements in southern Hillsborough and western Polk counties. To further assess aquifer recharge, the District is co-funding feasibility analyses of two direct and two indirect aquifer recharge projects in the Tampa Bay area. These feasibility studies will expand upon the District's work and assess sitespecific hydrogeologic conditions.

The District Division of Resource Regulation's water use permit program promotes the appropriate and efficient use of reclaimed water. Where available and determined to be environmentally, technically and 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 publications for agencies and other parties interested in developing and expanding reclaimed water systems. The District's Reclaimed Water Guide highlights realworld examples of ordinances, policies, petitions and rate structures and is available at no cost. The District has developed a comprehensive reclaimed water web site that 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 programs to increase beneficial use and offsets

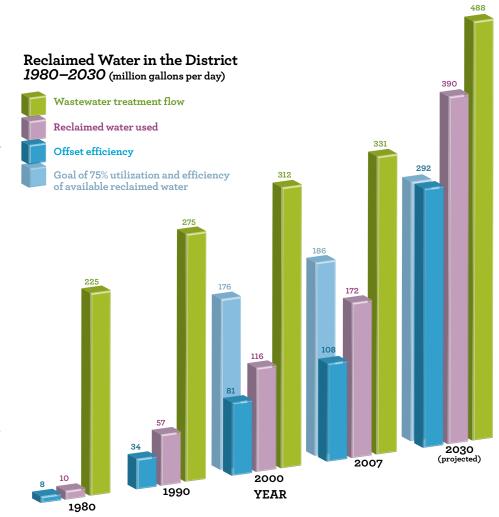
#### Primary Success Indicator

• Quantity of potable quality supply offset by reclaimed water

#### Supporting Success Indicators

- Utilization: Percentage of reclaimed water used versus total domestic wastewater treated
- Offset efficiency: Efficiency of reclaimed water used (gallons offset/ gallons reused)

Also see page 36: Reclaimed Water – Milestones



# Water Supply

### Strategic Initiative: Conservation

The District recognizes conservation as a critical water 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 homeschool 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. A new program targeting home builders is the Florida Water Star<sup>™</sup> Gold initiative. This program is a voluntary certification program for builders and encourages water efficiency in household appliances, plumbing fixtures, irrigation systems and landscapes.

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, including drought surcharges, 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 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 water use permit program also includes public supply regulations that require utilities to develop 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
- Promote water-conserving rate structures

- Utilize regulatory program to establish effective conservation practices
- Utilize financial incentives to further encourage effective conservation practices

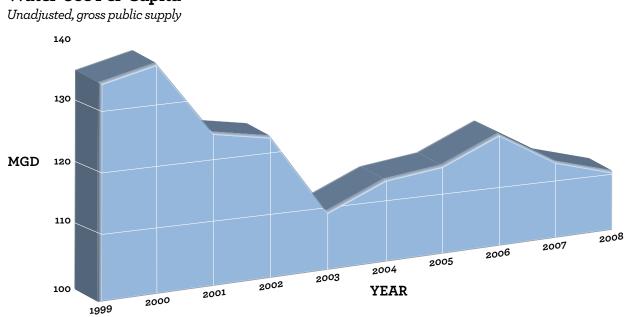
#### Primary Success Indicator

• Decreasing trends in per capita water use

#### Supporting Success Indicators

- Increasing trends in public and wateruser awareness
- Percentage of utilities with a waterconserving rate structure
- Gallons saved through District-funded conservation projects
- Percentage of local governments with Florida-friendly landscape ordinances
- Number of Florida Water Star Gold certified properties

Also see page 37: Conservation – Milestones



## Water Use Per Capita

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT 2011-2015 Strategic Plan

# <sup>16</sup>Water Quality

## Strategic Initiative: Water Quality Monitoring

he sustainability of Florida's natural systems, economy and quality of life depends on good water guality. Protecting and maintaining water guality 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 guality monitoring networks to track existing water quality, identify trends and proactively manage water quality challenges as they arise. 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 saline groundwater intrusion and the intrusion of poor water quality into major aguifers. This information is supplemented with data from the Water Use Permit Water Quality Network to ensure adequate spatial coverage and reduce data collection costs to both taxpayers and permit holders. District staff collect more than 2,400 water quality samples per year from 360 wells for chloride, sulfate and other key parameters. Data collected indicates that over half 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 this 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. Additionally, a complimentary network of permitted wells is being monitored to identify and evaluate wells that may be at risk of impacts from saltwater intrusion. This sampling and monitoring effort is intended to help permitted water users to maintain a viable water supply.

The District's Springs Network focuses on monitoring water quality of 60 springs throughout the central and northern regions of the District. Diagnostics performed by District staff include interpretation of water quality trends for parameters such as chloride, sulfate and nitrate in ground water discharging from springs. Also, a network of 84 wells are being sampled annually for the Upper Floridan Aquifer Nutrient Monitoring Network to evaluate groundwater quality in spring recharge basins and identify sources of nutrient loading into ground water. This information is necessary to assist in tracking 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 by District staff include determining pollutant load reduction goals and identifying areas of concern for elevated nutrient inputs to the aquifer, springs, spring runs and estuaries.

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. Data is provided to the Florida Department of Environmental Protection (FDEP) for use in total maximum daily load (TMDL) assessments. These assessments

# **GOAL STATEMENT:** Collect and analyze water quality data to assist in determining regional water quality status and trends.

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 efforts 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 been successful in improving water quality.

The District is committed to reviewing its monitoring programs for all possible efficiencies through its Scientific and Regulatory Data Authority. 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. The efficiency reviews will 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 make the best use of limited funding while maximizing the District's ability to acquire meaningful water quality data for our resource monitoring objectives.

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 long-term Water
   Quality Monitoring Networks
- Coastal Groundwater Quality and Water Use
   Permit Monitoring Networks
- Springs and Nutrient Monitoring Networks
- Surface Water Quality Monitoring Network
- Continue to consider cost when identifying goals of data collection efforts
- 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

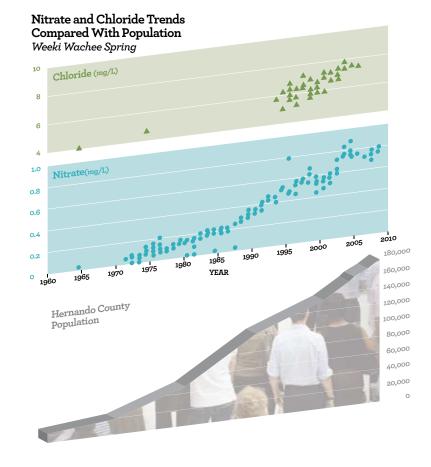
• Effectiveness of data collection and laboratory analysis

#### Supporting Success Indicators

- Accuracy of laboratory analysis
- Efficiency of water quality sample collection programs
- Compliance with state and federal data reporting requirements

#### Also see page 37:

 $Water \ Quality \ Monitoring - Milestones$ 



# Water Quality

## Strategic Initiative: Water Quality Maintenance and Improvement

The District develops and implements projects, programs and regulations to maintain and improve water guality. 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 ecological problems in the water body 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 (BMPs), such as stormwater retrofits, to improve environmental conditions and 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 is a public-private partnership that promotes agricultural BMPs to 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 assists landowners with abandoned wellplugging 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 wetlands and also upland environments, which are areas of high groundwater recharge. These areas are of particular interest because 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 new development to properly treat and attenuate stormwater runoff, compensate for any losses in floodplain storage, minimize potential wetland impacts, and mitigate 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 **GOAL STATEMENT:** Develop and implement programs, projects and regulations to maintain and improve water quality.

(TMDLs), the maximum level of pollutants a water body can receive before it becomes 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

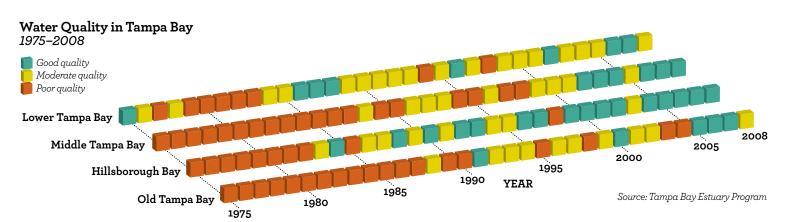
#### Primary Success Indicator

• Percentage of assessed water resources showing stable or improved water quality

#### Supporting Success Indicators

- Nutrient removal achieved by Districtfunded projects
- Acres of watersheds treated by Districtfunded stormwater retrofit projects
- Water quality trends in saltwater intrusion monitoring networks

Also see page 37: Water Quality Maintenance and Improvement – Milestones



# Natural Systems



💳 lorida law (Chapter 373.042, Florida Statutes) requires the state water management districts or the Department of Environmental Protection to establish minimum flows and levels (MFLs) 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 aguifers. 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 MFLs 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 establishment process for MFLs 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 allows 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 MFLs or pursue further analyses and possible revision. If actual conditions are below the established MFLs, the District develops a recovery strategy.

Surface and groundwater monitoring is a major component of the MFLs initiative. Monitoring of water elevations or flows is conducted throughout the District on a monthly, or more frequent, basis at approximately 1,418 well sites and at 1,022 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 MFLs program has made substantial progress with the anticipated establishment of 178 MFLs for key water bodies by the end of 2009 (105 lakes, 41 wetlands, 15 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 **GOAL STATEMENT:** Collect and analyze data essential to establish MFLs to ensure maintenance of the hydrology necessary to prevent significant harm to natural systems.

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. MFLs are, or will be, established for every major river system in the District and all firstand 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 MFLs 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



• Percentage of listed water bodies with MFLs established on schedule

#### Supporting Success Indicators

• Percentage of MFLs established with peer review

Also see page 38: Minimum Flows and Levels Data Collection and Establishment – Milestones





# Natural Systems

## Strategic Initiative: Minimum Flows and Levels Recovery

he District's responsibilities to establish minimum flows and levels (MFLs) do not end with adoption and monitoring. In accordance with state law (Chapter 373.0421, Florida Statutes), if actual flows and levels are expected to drop below established minimum flows and 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 MFLs. 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 Area

The District's recovery strategy for restoring water resources impacted by wellfield withdrawals involves reductions in pumping from regional well fields and provision of financial incentives for development of alternative water supplies. 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, which remains in effect until December 31, 2010, also calls for the District Basin Boards in the northern Tampa Bay area to continue funding conservation and reuse projects. With these conservation, reuse and alternative supply projects in place, Tampa Bay Water reached the required pumping reduction (90 mgd), on schedule, by December 31, 2008. The District is currently working with interested parties to develop a second phase of the recovery for impacted water bodies in the northern Tampa Bay area.

#### Lower Hillsborough River

In August 2007, the Governing Board led a cooperative effort, including the City of Tampa, Tampa Bay Water and various citizen groups, to adopt minimum flows and an associated recovery strategy for the lower Hillsborough River. 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 are to be completed by October 1, 2017. Costs for the recovery projects, not to exceed \$44.5 million in total, will be funded by the District and the City of Tampa. In December 2007, the District began pumping 11 cubic feet per second of water from the Tampa Bypass Canal to the Hillsborough River Reservoir, and the City of Tampa has been supplying 10 cubic feet per second of flow from Sulphur Springs to the base of the City of Tampa dam, as initial projects of the recovery strategy.

#### Southern Water Use Caution Area

In 2006, the Governing Board approved the Southern Water Use Caution Area (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 system 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 provides 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, which 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 MFLs recovery and prevention strategies into the Regional Water Supply Plan development

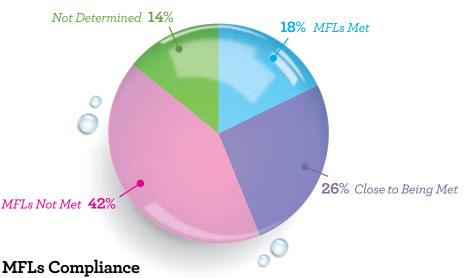
#### Primary Success Indicator

• Progress towards meeting MFLs recovery strategy goals

#### Supporting Success Indicators

- Progress in implementing the SWUCA recovery strategy
- Progress in recovering water levels in lakes and wetlands in the Northern Tampa Bay Water Use Caution Area
- Progress in recovering minimum flows in the lower Hillsborough River

Also see page 38: Minimum Flows and Levels Recovery – Milestones



## Percentages of water bodies (includes aquifer systems) based on an evaluation period through 2008, which included two major droughts.

# <sup>24</sup>Natural Systems

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## Strategic Initiative: Natural Systems Identification and Monitoring

s 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; initially the District collected hydrologic and biologic data at approximately 150 wetlands, mostly in the central part of the District. Today, the District partners with several water supply utilities to expand coverage to about 350 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.

The District also maps and monitors seagrass distribution in five estuaries and along the Springs Coast using aerial surveys. The ongoing objective is to document the status of seagrass resources and track changes or trends in coverage. The project results in GIS coverage data and provides estimates of total seagrass area within each of the estuaries and the Springs Coast. The information is available to the public and is used by the three southwest Florida national estuary programs to create seagrass targets that act as measures of coastal ecosystem health and water quality improvement for each of their systems.

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 by reviewing and commenting upon local governments' developments of regional impact (DRIs) and comprehensive plan amendments, the District provides **GOAL STATEMENT:** Identify and monitor critical environmental lands to promote awareness and facilitate policy-making decisions about the region's natural systems.

state growth management agencies and the public with important information on pending land-use decisions and the potential impacts on Florida's water resources and natural systems.

• Update orthoimagery and land-use/

• Continue to use regulation to minimize

Continue wetland, lake and river monitoring

land-cover mapping annually

**Strategies** 

and analysis

- Implement ERP program using future land-use transition data
- Emphasize outreach and water resources planning

#### Primary Success Indicator

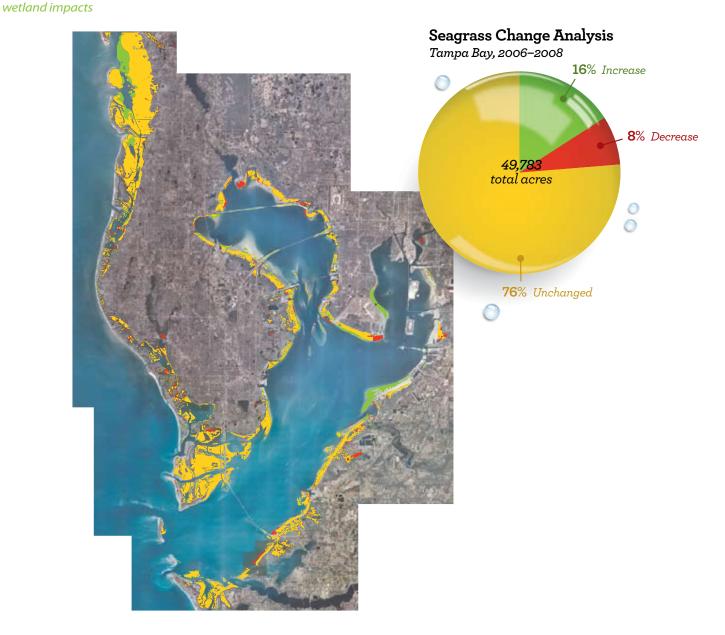
Monitoring of land-use trends

#### Supporting Success Indicators

• Orthoimages collected and published for current fiscal year

- Number of DRI and Comprehensive Plan reviews completed annually
- Land use/land cover updated for prior fiscal year
- Seagrass mapping completed on biennual basis

Also see page 38: Natural Systems Identification and Monitoring – Milestones



# <sup>26</sup>Natural Systems



## 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.

Every year, about 2.5 million people visit public conservation lands obtained by the Southwest Florida Water Management District and its partners to protect Florida's water resources. The District is committed to offering recreational activities that give everyone the opportunity to appreciate the environment while protecting the natural resources that make District lands such great places to visit. To reinforce its commitment to public access and further encourage recreational use of its lands, the District launched its "Get Outside!" campaign. The initiative is intended to focus more attention on the fact the lands are open to the public for family activities such as hiking, bicycling, hunting, horseback riding, fishing, camping, paddling, picnicking and studying nature.

The continuing success of the program depends on available financial resources from the state's

Florida Forever program. In 2008, the Legislature renewed the Florida Forever program; however, the declining economic conditions compelled the 2009 Legislature to postpone funding of the program. While the District currently has Florida Forever funds in reserve, these funds are expected to be expended in 2010, leaving a challenging future for land acquisition moving forward.

Acquiring the land is only the first step. Conservation lands must be restored and managed to maintain the ecologic functions that define Florida's guality 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. Unfortunately, the declining economic conditions also had an impact on the Water Management Lands Trust Fund (WMLTF), which has been the primary funding source of the District's land management and public-use programs since the mid-1980s. During the 2009 legislative session, no WMLTF funds were appropriated to the District. As with Florida Forever, during FY2010 the District will fund its land management and public-use activities with prior year WMLTF funds; however, if state funding is not restored, the District must find an alternative source of funding beginning in FY2011.

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 **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.

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 guality and biological monitoring to identify and characterize the water quality-related issues in the watershed, develop water quality and pollutant load reduction goals, and 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. Much like the land management program, the SWIM initiative is dependent upon the WMLTF for funding. Should the reduced funding become a trend, the SWIM Program will also require an alternative source of financial support.

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 minimizes 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. Through the Efficient Transportation Decision Making program, the District also partners with the Florida Department of Transportation to identify and restore large-scale ecosystem projects to compensate for the impacts associated with roadway development.

#### **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 system 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 protected vs. the acres of land in Florida Forever Plan
- Acres of land restored by Districtfunded projects

Also see page 38: Natural Systems Conservation and Restoration – Milestones

LAKE



- Wetland Projects
- Upland Projects
- FDOT Mitigation Projects
- SWIM Projects

# **Flood Protection**

SPÉED LIMIT

## *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 improved floodplain information so that the District and local governments can maintain, preserve and protect 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-prone areas and flood-related problems
- The development of watershed models and plans to identify potential projects or BMPs that will resolve or mitigate identified flood-related problems
- The implementation of BMPs to resolve flooding 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 identified projects in 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 floodplain encroachment.

The District's environmental resource permit (ERP) program ensures new development compensates for losses in floodplain and historic basin storage and does not increase the rate of stormwater runoff onto neighboring properties. While the District's ERP rules continue to account for single storm events up to a 100-year storm level, the District recently updated its rules to consider multi-day storm durations within single storm events to more completely address potential offsite runoff issues.

Land acquisition and management contribute significantly to achieving the District's flood protection goals and responsibilities. The strategic acquisition of land fulfills a variety of needs such as reducing the risk of flooding, 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. **GOAL STATEMENT:** Develop better floodplain information and apply in the implementation of floodplain management programs to maintain storage and conveyance and to minimize flood damage.

The District maintains and operates 4 major canal and conveyance systems and 81 flood control and water conservation structures as an important strategy in floodplain management. Extensive areas of the District depend upon the maintenance and operation of these facilities. The Tampa Bypass Canal and Lower Hillsborough Flood Detention Area are the largest and most visible of the District's flood protection facilities. 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. Combined canal and conveyance 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.

As a technical partner with FEMA, the District assists with modernization of maps informing the public of flood risks associated with floodplain encroachment. At right, an inset from a typical flood insurance rate map (FIRM).

#### **Strategies**

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



#### Primary Success Indicator

 Percentage of District watersheds (as area) with watershed management plans under development and percentage completed

#### Supporting Success Indicators

- Trending of floodplain encroachment in ERPs
- Percentage of available floodplain data on web site

## Also see page 39:

 $Flood plain \, Management - Milestones$ 

# **Flood Protection**



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 its Tampa or Bartow service offices or, through a memorandum of understanding 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 (EOO). During an

emergency activation at the District, the organization assumes their command roles and manages the event through the EOC.

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 federal and local governments and the public. District regulatory flood investigation teams assist local governments and federal responders 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 enhancement of District water management structures and related facilities includes automation and upgrading of water conservation and flood control structures for remote control (utilizing the District's Supervisory Control and Data Acquisition [SCADA] system) and equipping mission critical structures with digital video monitoring. The structure upgrades include **GOAL STATEMENT:** Operate District flood control and water conservation structures, providing effective and efficient assistance to state and local governments and the public to minimize flood damage during and after major storm events.

adding redundant 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. The District's upgraded two-way radio system provides Districtwide coverage, including those remote areas outside of cellular telephone service. New and improved technology allows for a proactive approach before storm events occur, such as remotely lowering lake levels to create storage.

#### **Strategies**

- Maintain multiple alternative EOC sites
- Continue to implement NIMS/ICS as the District's incident management system
- Maintain NIMS consistency
- Establish redundant systems for all mission-critical functions (e.g., communications, SCADA)

The District stands ready as a member of the State Emergency Response Team with equipment and staff. Redundant structure control and remote operation improves response time in preparing for emergency storm events.

- Use technology to the fullest extent to ensure optimal response capabilities
- Train staff in NIMS/ICS structure and exercise the District's CEMP
- Provide emergency assistance to local governments and agencies as requested

#### Primary Success Indicator

• Emergency preparation consistent with the District's CEMP

#### Supporting Success Indicators

 Percent of District EOO with incident management training at the appropriate level

- Tampa and Bartow facilities available as alternative EOC sites
- SCADA system backup servers at Tampa and Bartow facilities
- Digital two-way radio system as communications backup
- Number of emergency response training exercises completed

Also see page 39: Emergency Flood Response — Milestones







## **Mission Support**

Mission support serves as the cornerstone of fiscal responsibility, employee development, technology solutions, environmental sustainability and facility resources to achieve the District's strategic initiatives. Using these critical mission support strategies, the District's mission support ensures 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. Importantly, the District leverages its own funds with those of other public and private sector cooperators to carry out local and regional water supply development, restoration, land management and other mission goals for which funding would not otherwise be available. For fiscal year 2010 the District will contribute \$127.7 million, or 43 percent, of its budget toward projects intended to enhance both water supply and the environment.

Through careful and continuous review of workload and staffing needs, the District ensures its level of staffing is appropriate to carry out mission-essential functions as the economy and project demands fluctuate over time. Although the District's statutory responsibilities have more than doubled, the District's staffing level has not increased in more than ten years. The District strives to attract, develop and retain diverse, well-gualified staff and commits to developing those individuals as their responsibilities increase in difficulty. With an average 12-year tenure, District employees bring competence, stability and knowledge to carrying out the District's important and complex mission.

The District invests in technology to support staff, streamline processes 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 efficient 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 and automated integration with District financial systems. The District's Enterprise Content Management (ECM) system will provide electronic archiving of documents, facilitate public records requests and minimize the need for paper document retention. Technology solutions provide a key means for the District to continue to meet its statutory responsibilities while holding staffing levels stable.

The District's solutions-focused culture assures sound decision making and business continuity under adverse conditions. The District completed a comprehensive Continuity of Operations Plan (COOP) that establishes policy and guidance to minimize business interruption and ensure the execution of our organization's mission-essential functions under emergency circumstances.

The District's Environmental Stewardship Initiative directly supports Florida Governor Charlie Crist's call to reduce greenhouse gas emissions and use smart building and operational practices to minimize the carbon footprint of state government agencies. This initiative is more than a standalone program;

# **GOAL STATEMENT:** Ensure the continuous alignment of resources with the strategic goals and objectives of the District.

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 and community responsibility.

To help meet the Governor's expectations, a dedicated project team routinely examines the agency's operations — facilities, fleet management, technology improvements, internal operational enhancements and many other activities in which the District may be able to achieve improved efficiencies. The goals of the initiative are to reduce energy consumption and carbon output, implement environmentally sustainable practices, promote efficiency, achieve cost reductions and continue to serve as a leading example of smart, efficient and environmentally wise practices.

The District's mission support strategies ensure District operations remain strategically aligned, people-oriented, science- and databased, and fiscally and ethically responsible.

# 

#### **Strategies**

- Maintain appropriate financial reserves
- Retain stable millage rates and equitable cost-based fees
- Continue debt-free operations
- Grow partnering revenue
- Recruit and retain a highly qualified, diverse workforce
- Ensure business continuity
- Invest responsibly in technology, facilities and equipment
- Meet highest budgetary and reporting standards to demonstrate financial integrity and statutory accountability

#### Primary Success Indicator

• Compliance with state operational and reporting requirements

#### Supporting Success Indicators

- Budget managed within established
   millage rates
- Turnover rate less than comparable market indicators
- Percentage of Information Resource
   projects on plan with system portfolio
   schedule
- Percent of District budget going toward administrative costs
- Conformance with Executive Order
  7-126 Reduction in Greenhouse Gas
  Emissions

Also see page 39: Mission Support – Milestones



Technology investments support District programs and offer staff and the public convenient web access to data and other helpful communications for engaging in community responsibility.



## **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 initiatives 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



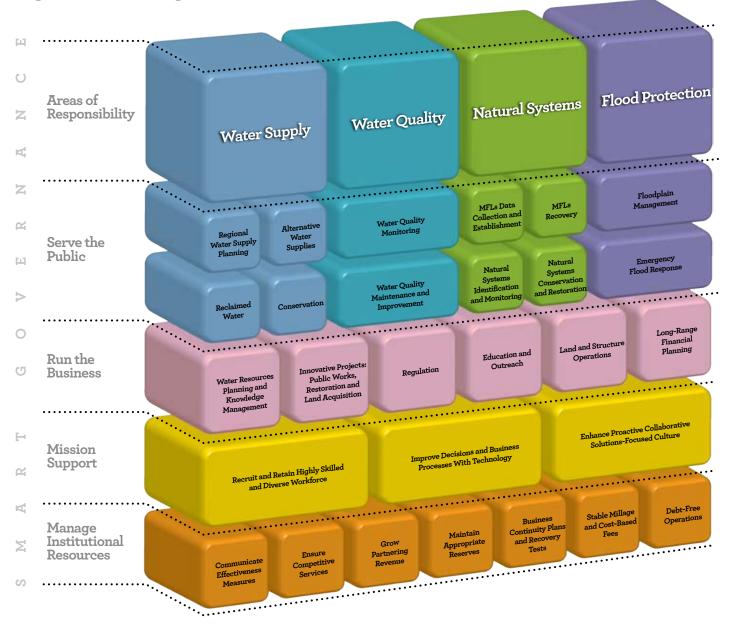
Governing Board and District management determine further agency strategic initiatives and whether staff and financial resources need to be realigned to achieve strategic objectives.

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 at right 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 water resource responsibilities. **STRATEGY MAP** – At top 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."



## Superior Stewardship of Florida's Precious Water Resources

# Water Supply Milestones

#### Regional Water Supply Planning - Milestones

Program/Strategy	2011	2012	2013	2014	2015
Update RWSP			Initiate Update		Complete Update
Population and Demand Projections	Annual Update	Annual Update	Annual Update	Annual Update	
Inter-District Coordination CFCA	Initiate Rule Making				
Utility Outreach Program	Ongoing				$\rightarrow$
Climate Change	Monitor and Adapt				
Standing Advisory Committees	Ongoing				

Funding sources: Ad valorem, cooperative funding

#### Alternative Water Supply — Milestones

Program/Strategy	2011	2012	2013	2014	2015
Tampa Bay Water Configuration II Tampa Bay Water Configuration III	Complete Construction		Identify Final Project List	Initiate Projects Preliminary Design	Initiate Design and Permitting
Southwest Regional Projects					
PRMRWSA Regional Resource Development	Phase I Implementation	Phase I Implementation	Phase I Implementation	Phase 2 Implementation	Phase 2 Implementation
Myakka Watershed Initiative	Management Plan Complete				
PRMRWSA Regional Integrated Loop System	Phase 3A Completed	Phase 1A Completed	Phase 2 Complete		
ASR Research	Complete Pilot Test Data Assessment				
	Funding sol	irces. Ad valorem	cooperative fundi	na state and feder	al appropriations

: Ad valorem, cooperative funding, state and federal appropriations, State Water Protection and Sustainability Trust Funds

#### Recalimed Water Supply - Milestones

Program/Strategy	2011	2012	2013	2014	2015
Regional Reclaimed Water Partnership Initiative Reuse Project Recharge Project	Complete Design, Begin Construction Surface Water Enhancement and Recharge Study Project Completed		Construction Completed	Initiate Phase II	
Wet-Weather Storage		Pasco/Boyette Reclaimed Reservoir Construction complete			
Education and Technical Support	Ongoing				$\rightarrow$

Funding sources: Ad valorem, cooperative funding, state appropriations

#### **Conservation** — *Milestones*

Program/Strategy	2011	2012	2013	2014	2015
Education	Continuous				$\rightarrow$
Program Florida Yards & Neighborhoods Program Water CHAMP Water PRO Florida Water Star Gold Toilet Retrofit Rebate	Continuous 70% of All Hotel Rooms in District 400 Establishments 200 Homes Continuous				
Technical Support Florida-Friendly Landscaping Ordinances CONSERVE Florida	Continuous Continuous				
FARMS Program Public Awareness Surveys	15–18 Projects Continuous	15–18 Projects	15–18 Projects	15–18 Projects	15–18 Projects

Funding sources: Ad valorem, cooperative funding, Florida Department of Agriculture and Consumer Services

# Water Quality Milestones

#### Water Quality Monitoring — Milestones

Program/Strategy	2011	2012	2013	2014	2015
Water Quality Monitoring Networks:	All Ongoing				
Coastal Groundwater and Water Use Permit				Internal Program Review	· ·
Springs	Internal Program Review		Internal Program Review		Internal Program Review
Surface Water		Internal Program Review		Internal Program Review	
Upper Floridan Aquifer Nitrate	Internal Program Review		Internal Program Review		Internal Program Review

Funding sources: Ad valorem

#### Water Quality Maintenance and Improvement — Milestones

Program/Strategy	2011	2012	2013	2014	2015
Lake Hancock Water Outfall Treatment System	Initiate Construction		Complete Construction		
Sawgrass Lake Project	Complete Construction				
Clam Bayou Stormwater Treatment	Phase 3 Complete				
Quality of Water Improvement Project	200 Wells/Year				
Shell, Prairie/Joshua Creek RA Plan Performance Monitoring		DEP and EPA Update		DEP and EPA Update	

Funding sources: Ad valorem, State Water Protection and Sustainability Trust Fund, cooperative funding, Florida Department of Transportation

# Natural Systems Milestones

#### Minimum Flows and Levels Data Collection and Establishment — Milestones

Program/Strategy	2011	2012	2013	2014	2015
Surface and Groundwater Monitoring	Ongoing				
MFLs Peer Review and Establishment	Lower Withlacoochee Brooker Creek Upper Peace River Lake Bonable Little Lake Bonable Tiger Lake	Charlie Creek Horse Creek N. Prong Alafia River S. Prong Alafia River	Prairie Creek Shell Creek Tooke Lake Whitehurst Pond		

Funding sources: Ad valorem

#### Minimum Flows & Levels Recovery — Milestones

Program/Strategy	2011	2012	2013	2014	2015
Northern Tampa Bay	Renewed Tampa Bay Water Consolidated Permit Begins				
	Impact Assessment	Ongoing			5-Year Plan Review
	Blue Sink Project Online	Morris Bridge Sink On line			
Lower Hillsborough River	McKay Bay Reuse Online				
Southern Water Use Caution Area	Upper Peace River Watershed Restoration Initiative Completed	5-Year Plan Review of SWUCA Plan			
	Lake Hancock Water Level Modification Completed	Upper Peace River Resource Development Project Completed			
	Implementation of Ridge Lakes Restoration Activities	Completion of Ridge Lakes Restoration Activities			
Funding sources: Ad valorem,	State Water Protec	tion and Sustaina	bility Trust Fund, s	tate appropriatior	ns, Florida Forever

#### Natural Systems Identification and Monitoring — Milestones

Program/Strategy	2011	2012	2013	2014	2015
Aerial/Land-Use Mapping Orthophotography Land-Use/Land-Cover Maps	Ongoing 2010 Mapping Layer Complete	2011 Mapping Layer Complete	2012 Mapping Layer Complete	2013 Mapping Layer Complete	2014 Mapping Layer Complete
Wetland Monitoring	Ongoing				$\rightarrow$
Comprehensive Plan and DRI Reviews	Ongoing				
Seagrass Mapping Estuary Springs Coastal	2010 Mapping Complete		2012 Mapping Complete 2012 Mapping Complete		2014 Mapping Complete
			Funding source	es: Ad valorem, sto	te appropriations

#### Natural Systems Conservation and Restoration — Milestones

Program/Strategy	2011	2012	2013	2014	2015
Prescribed Burn Program	25,000 Acres/Year	25,000 Acres/Year	25,000 Acres/Year	25,000 Acres/Year	25,000 Acres/Year
Restoration Projects	Rock Ponds Ecosystem Uplands Restoration Complete Coral Creek Ecosystem Restoration Phase 1 Clam Bayou Habitat Restoration Phase 3	MacDill Air Force Base Ecosystem Restoration Phase 3 Alligator Creek (Charlotte Harbor) Restoration Phase 3			Rock Ponds Ecosystem Wetlands Restoration Complete
Hydrologic Restoration of District Lands Initiative	Green Swamp Preserve Restoration Complete	Myakka Prairie, Deep Creek and Schewe Tract Restoration Complete		Little Manatee River and Alafia River Restoration Complete	Hanover Tract Restoration Complete
Lake Wales Ridge Lakes Initiative	Lake Isis and Lake Tulane Restoration Complete		Lake Wales Restoration Complete		
Outreach and Recreational Programs	Master Recreation Plan Implementation	Ongoing			$\rightarrow$

Funding sources: Ad valorem, State Water Protection and Sustainability Trust Fund, Water Management Lands Trust Fund, cooperative funding, state appropriations, Department of Transportation mitigation funds

# Flood Protection Milestones

#### Floodplain Management — Milestones

Program/Strategy	2011	2012	2013	2014	2015
Watershed Management Program (WMP)					
DFIRMs Submitted to FEMA	Sarasota County	Sumter County			
WMP Maintenance	Continuous				
Land Acquisition	Continuous				$\rightarrow$
Water Control Structure Operation and Maintenance	Continuous				

Funding Sources: Ad valorum taxes, FEMA map modernization funding, Florida Forever, local matching cooperative funding

#### Emergency Flood Response — Milestones

Program/Strategy	2011	2012	2013	2014	2015			
Comprehensive Emergency Management Plan (CEMP)	Update CEMP and Annexes		Update CEMP and Annexes		Update CEMP and Annexes			
Training	100% EOO NIMS/ICS 100% EOO Training on Incident Management Software Emergency Action Plans	Continuous Continuous						
Unified Communications	Interoperability With Regional Communication Systems	Continuous						
Structure Emergency Action Plans (EAPs)	High-Hazard EAPs Exercised	Continuous			$\rightarrow$			
Funding sources: Ad valorum taxes, FEMA pre- and post-disaster mitigation funding								

# Mission Support Milestones

#### Mission Support — Milestones

Program/Strategy	2011	2012	2013	2014	2015
Staff Recruitment and Retention	Annual Diversity Report				$\rightarrow$
Emergency Management	Update the COOP and CEMP		Update CEMP		Update CEMP
Environmental Stewardship		10% Reduction Greenhouse Gas Emissions From 2006 Levels			
Budget Operations	Annual Budget Development Annual Governing and Basin Boards Millage Review Capital Improvement Program Technology Plan Update Water Supply and Resource Development Funding				
Information Resource Product Portfolio	Unified Messaging Implementation Complete	ECM Total Implementation Complete	Unified Messaging Implementation Complete		

Funding sources: Ad valorem

SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT 2011-2015 Strategic Plan