

A photograph of a sunset over a body of water. The sky is a gradient of orange and yellow, with the sun low on the horizon. In the foreground, a silhouette of a heron stands in the water among reeds. The water reflects the sunset colors. The text "2012-2016 Strategic Plan" is overlaid on the right side of the image.

*2012-2016*  
**Strategic Plan**

Southwest Florida  
*Water Management District*



## Message From the Chair

Today, uncertainty surrounds us. But with uncertainty comes opportunity. Through strategic innovation and adaptation, the District seeks continuous improvement in our business processes to ensure that our human and financial resources are aligned to achieve our mission of balancing water needs and protecting water resources. With a sound strategic planning program, we are prepared to weather current conditions and emerge as a stronger organization.

Our Strategic Plan is the product of a collaborative process — an ongoing conversation that weaves together visions of the challenges that lie ahead for the District and the broad range of activities necessary to meet those challenges head-on. This planning process allows us to reflect on what we are doing and how we can do it better. It defines the direction of our organization and charts a course of action over the next five years. If we strategically plan for change, yet remain flexible to respond to the immediate needs of our community, we can ensure that our mission of balancing water needs while protecting water resources will be fulfilled.

Our conservative fiscal approach has been instrumental in constructing an organizational culture that is well suited to change. The District, like state and local governments, has had to face reduced budgets in recent years, but the Governing Board's long-standing policy to operate on a pay-as-you-go basis without incurring bonded debt has enabled us to accomplish mission-critical work and contribute to the local economy. This coming year we will support communities throughout the 16-county region by investing \$166 million (nearly 60 percent of our total budget) through planned direct outsourcing and cooperatively funded projects. This amount will be leveraged with an estimated match of \$87 million by our cooperator partners, resulting in a total investment of \$253 million substantially benefiting the private sector. In these difficult economic times, the District supports expedited, coordinated financial investment working together with cooperators and partners — federal, state, local and private sectors. We have also lessened our burden to taxpayers by reducing the millage rates of the Governing Board and two Basin Boards.

The District is also committed to conducting performance audits, including staff and budget analyses, to identify better ways to achieve priority objectives. Together, these business philosophies encourage a nimble approach to staffing and resource distribution.

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Ongoing efforts to evaluate the most effective and efficient approach to staff services and asset allocation form part of an overall strategy to assign valuable capital to the most pressing emerging issues.

A struggling economy is just one of the issues the District faces. In January 2010 the District experienced an unprecedented 11-day freeze in eastern Hillsborough County. Due to groundwater pumping for crop protection, there was a substantial drop in the aquifer level and 750 wells were temporarily impacted. The District responded by engaging stakeholders and implementing an innovative, flexible regulatory approach that works with existing incentive-based funding programs. This exemplifies the District's ability to direct staff and money to resource issues as they arise and to adapt and improve policies and processes going forward.

At the District, strategic planning is not as much about the plan on paper as it is about the program that the plan commemorates. The web-based scorecard introduced in the previous Strategic Plan has been in place for one year. This scorecard lays out a transparent process for measuring progress and adapting resources to meet the expectations laid out by the primary indicators of success for each of the District's 12 strategic initiatives. It illustrates some of our greatest accomplishments, including providing for a sustainable, stable water supply throughout the region, and indicates programmatic areas primed for future success when attention and resources are directed accordingly.

The Strategic Plan is a decision support tool we use to work through known problems and anticipate those challenges that are still before us. Both the plan and the scorecard direct our focus on a set of clearly defined priorities identified by the Governing Board, and they provide for accountability to the public as we endeavor to protect and manage water resources in ways that are consistent with that guiding framework. With the Strategic Plan as our guidepost, we can be confident that we are on a path toward providing superior stewardship of water resources in west-central Florida.

*Ronald E. Oakley*

**Ronald E. Oakley**  
Governing Board Chair



# About the Southwest Florida Water Management District

## GOVERNING BOARD

**Ronald E. Oakley**  
Chair  
Pasco County

**Hugh M. Gramling**  
Vice Chair  
Hillsborough County

**H. Paul Senft, Jr.**  
Secretary  
Polk County

**Douglas B. Tharp**  
Treasurer  
Sumter County

**Jeffrey Adams**  
Pinellas County

**Carlos Beruff**  
Manatee County

**Bryan K. Beswick**  
DeSoto County

**Jennifer E. Closshey**  
Hillsborough County

**Neil Combee**  
Polk County

**Albert G. Joerger**  
Sarasota County

**Todd Pressman**  
Pinellas County

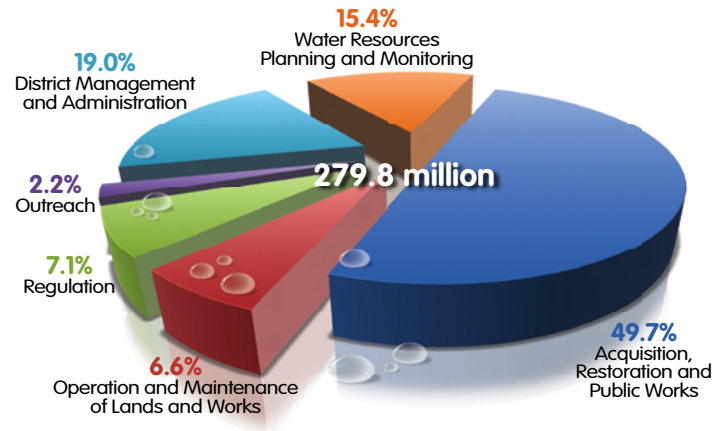
**Judy Whitehead**  
Hernando County

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

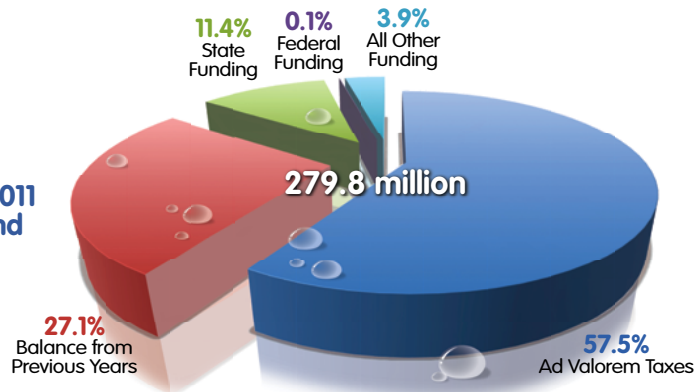
The Southwest Florida Water Management District (District) is responsible for managing and protecting water resources in west-central Florida. The District's job is to ensure there are adequate water supplies to meet the needs of current and future users while protecting and restoring water and related 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 the highlands of Central Florida. The District contains 98 local governments spread over approximately 10,000 square miles, with total population projected to be 4.7 million in 2010. 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 2011 is 0.377 mill.

**Fiscal Year 2011 Program Budget**



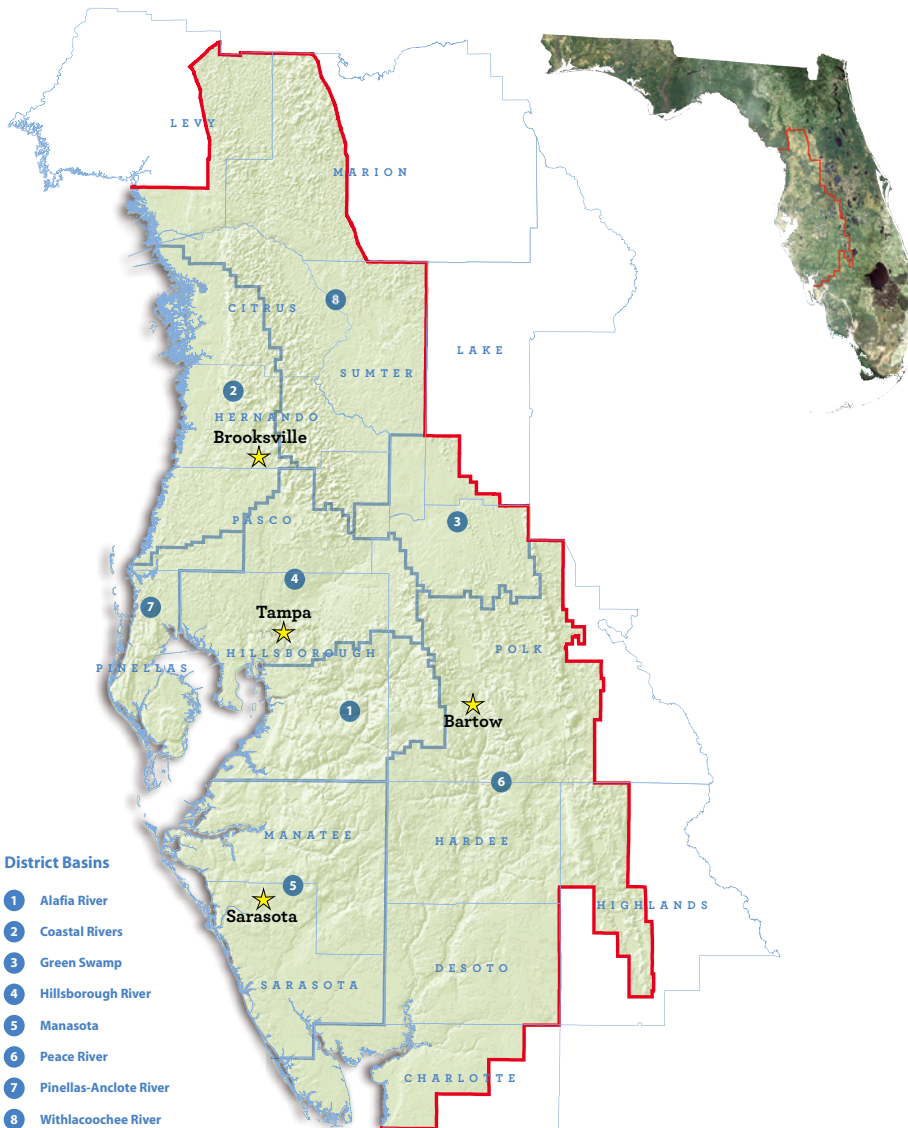
**Fiscal Year 2011 Revenues and Balances**



## 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 their watersheds. The Basin Board members serve as stewards of one-half the District's millage capacity; the Basin millage rates for fiscal year 2011 range from 0.1484 to 0.0026.



*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 of responsibility, along with strategic initiatives designed to meet those goals.*

*Additional information on these strategic initiatives is presented on later pages in this document.*

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Bartow, FL 33830-7700  
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### Sarasota Service Office

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7601 Highway 301 North  
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## MISSION STATEMENT

*The mission of the District is to manage water and related natural resources to ensure their continued availability while maximizing environmental, economic and recreational benefits. Central to the mission is maintaining the balance between the water needs of current and future users while protecting and maintaining water and related natural resources which provide the District with its existing and future water supply.*

## 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

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

#### Alternative Water Supplies

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

#### Reclaimed Water

**Goal:** Maximize beneficial use of reclaimed water to offset or recharge potable-quality water supplies.

#### Conservation

**Goal:** 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 Assessment and Planning

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

#### Water Quality Maintenance and Improvement

**Goal:** 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) Establishment and Recovery

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

#### Conservation and Restoration

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

### Flood Protection

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

#### Strategic Initiatives:

#### Floodplain Management

**Goal:** 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

**Goal:** 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.

## 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** 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.

**Knowledge Management** is the process of systematically and actively managing and leveraging an organization's information. As the region's knowledge leader for water resources information, the District collects a variety of scientific and socio-economic data to support its strategic initiatives. An internal committee of the key data stewards, the Scientific and Regulatory Data Authority, works closely with project managers and Information Technology staff to ensure that data are collected, managed and used in a way that effectively supports the strategic initiatives in a cost-efficient manner. While the focus of knowledge management activities is on meeting and supporting the District's strategic initiatives, it is recognized that many public and private stakeholders also rely on this information to meet their business needs.

### 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 & Ombudsman*

**RICHARD OWEN**  
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*Division of Resource Regulation*

**EUGENE SCHILLER**  
*Deputy Executive Director*  
*Division of Management Services*

**BRUCE WIRTH**  
*Deputy Executive Director*  
*Division of Resource Management*

## *Strategic Initiative:*

## **Regional Water Supply Planning**

The 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 two previous RWSPs encompass a 10-county area that comprises the southern two-thirds of the District. The 2010 RWSP includes all sixteen counties. 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 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 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 an assortment of supplies, such as wet-season river flow diversions, reclaimed water, seawater desalination, aquifer storage and recovery, intermediate aquifer groundwater, Floridan aquifer groundwater and land-use transitions. 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, conservation 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.



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

The developing issue of climate change creates additional challenges to water supply planning. District water managers need to 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, 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 groundwater.

## 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*

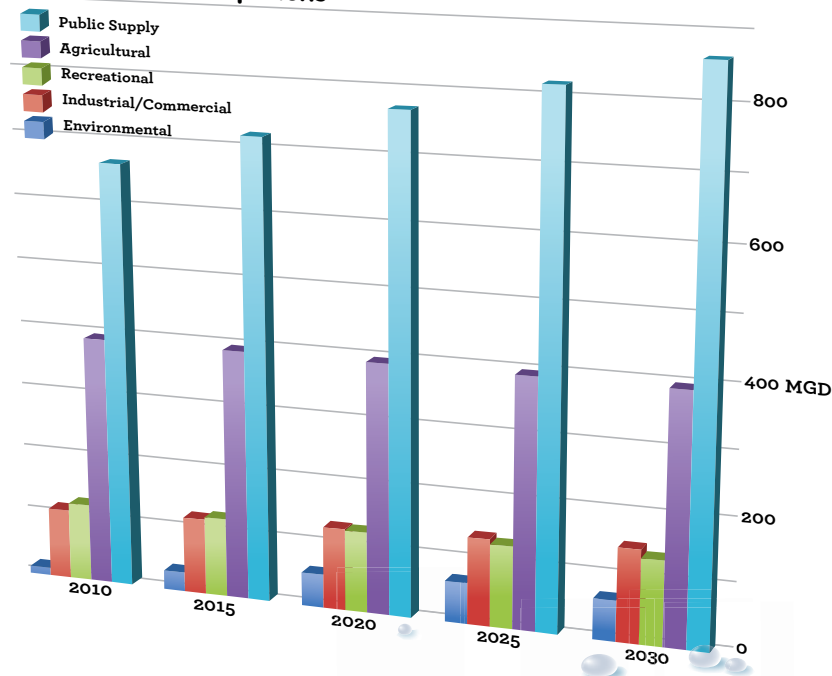
## Primary Success Indicator

- *Percent of utilities with at least 10 years of permitted supply*

## 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 by new supply and/or offset by conservation measures through District incentive-based funding*

**Water Demand Projections**



# Water Supply



## *Strategic Initiative:*

## **Alternative Water Supplies**

**A**lternative water supply (AWS) refers to any nontraditional source of water that reduces the region's dependency upon fresh groundwater. 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 used to augment or offset our region's demand and use of fresh groundwater. 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, construction of the new, above-ground reservoir to store surface water captured during high flows, and regional interconnections among the authority, its member governments and other water suppliers.

In the Tampa Bay area, Tampa Bay Water's Configuration II Project involves withdrawing additional surface water 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 or an expansion of its existing 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 an alternative supply is developed to meet new demands or, within 10 years, an alternative source to offset current groundwater use is developed. 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

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

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

The District advances regional AWS development through the efficient use of the resources available from its eight Basin Boards, the Governing Board and the Florida Legislature. District boards manage the District’s long-range financial plan to ensure that all entities commit financial resources to help the region’s water resource challenges. Then, through its Cooperative Funding Initiative, the District provides significant funding as an incentive for the development of sustainable alternative water supplies. In addition, District staff provides extensive technical assistance to ensure development of the most economically feasible and environmentally sustainable projects.

**Strategies**

- Develop surface water capture, desalination and brackish groundwater 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**

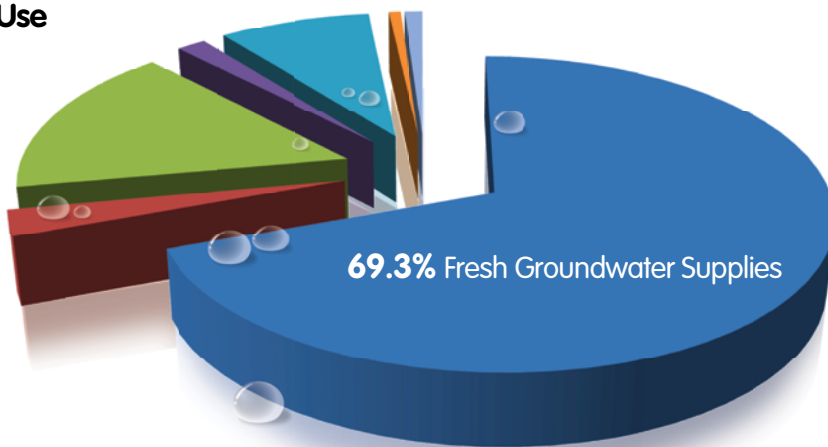
- Quantity of alternative water supply developed through District-funded projects
- Quantity of groundwater withdrawal offset by FARMS Program

**Percentage of Total Water Use Supplied/Offset by Alternative Sources**

2008 Estimated Water Use Report  
Offsets from conservation calculated from 1995 to 2008

- 2.7% Treated Brackish Groundwater
- 16% Surface Water Gross Use
- 1.6% Seawater Desalination
- 8.6% Reclaimed Water Offset
- 0.8% Conservation Offset
- 1.0% FARMS Program Offset

**30.7% Alternative Water Supplies**



# Water Supply

## *Strategic Initiative:* **Reclaimed Water**

The District encourages the use of reclaimed water for nonpotable purposes as an alternative to groundwater 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 groundwater and surface water, this alternative water source reduces stress on environmental systems, provides economic benefits by delaying costly water system expansions and reduces the need to discharge wastewater effluent to surface waters.

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 and through FY2010, the District has budgeted more than \$321 million in matching grants for 297 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 956 miles of reclaimed water pipeline, 221 million gallons per day (mgd) of reclaimed water supply and 1.15 billion gallons of reclaimed water storage. These reclaimed water projects will provide an offset of 148 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 Research Foundation, the District can enhance its awareness of innovative uses and developing issues while promoting the benefits of reclaimed water use throughout the region.

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

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

and three indirect aquifer recharge projects in the Tampa Bay area and Polk County. These feasibility studies will expand upon the District’s work and assess site-specific 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 an applicant to connect to a reclaimed system as a requirement of the 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. One publication is the District’s *Reclaimed Water Guide*, which highlights real-world examples of ordinances, policies, petitions and rate structures and is available at no cost. The District has also 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

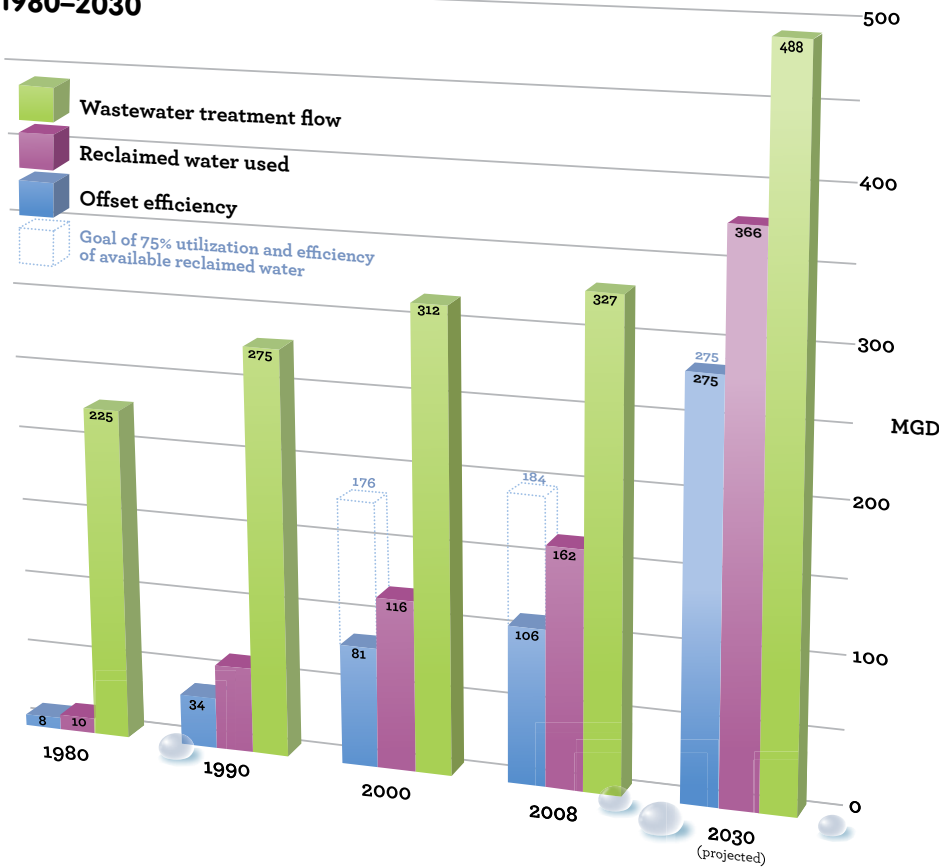
**Primary Success Indicator**

- Quantity of potable supply offset or recharged 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)

**Reclaimed Water 1980–2030**



# 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.

Three additional water conservation education programs offered by the District are the Water Conservation Hotel and Motel Program (Water CHAMP), Water Program for Restaurant Outreach (Water PRO) and Florida Water Star<sup>SM</sup> (FWS). Water CHAMP promotes reusing linens and towels and educates hotel/motel management, staff and guests on conserving water. An estimated 186 million gallons of water per year is being conserved by participating hotels. This figure is based upon current participation rates, average occupancy rates and water use survey data. Water PRO promotes water conservation in restaurants. Participating restaurants receive high-efficiency spray nozzles, faucet aerators and educational materials for staff as well as table tents, coasters and placemats that educate customers about water conservation. FWS is a voluntary certification program for residential and commercial builders and remodelers that encourages water efficiency in household appliances, plumbing fixtures, irrigation systems and landscapes.

**Goal Statement:** *Enhance efficiencies in all water use sectors to reduce demands on all water supplies.*

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 are one such example that provides 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, water-saving irrigation technology rebates, landscape irrigation evaluations, community education and new water-conserving technology research. Since the District's inception, it has awarded in excess of \$23 million toward cooperative funding assistance for water conservation projects.

The District provides several regulatory programs to protect water resources and encourage conservation. For example, the Agricultural Ground and Surface Water Management (AGSWM) program assists agricultural operations with the permitting process. AGSWM teams also 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, set limits on per capita usage, and adopt water-conserving rate structures.

To ensure utilities, in particular, are familiar with the District's water conservation programs and resources, the Utility Outreach Program (UOP) was developed. The UOP is intended to improve relations with the 190 public water supply utilities within the District to better align District programs/resources to achieve water supply planning and water conservation goals. One such goal is achieving a per capita water use of 150 gallons per capita per day or less across the District using water conservation and alternative water supplies.

## Strategies

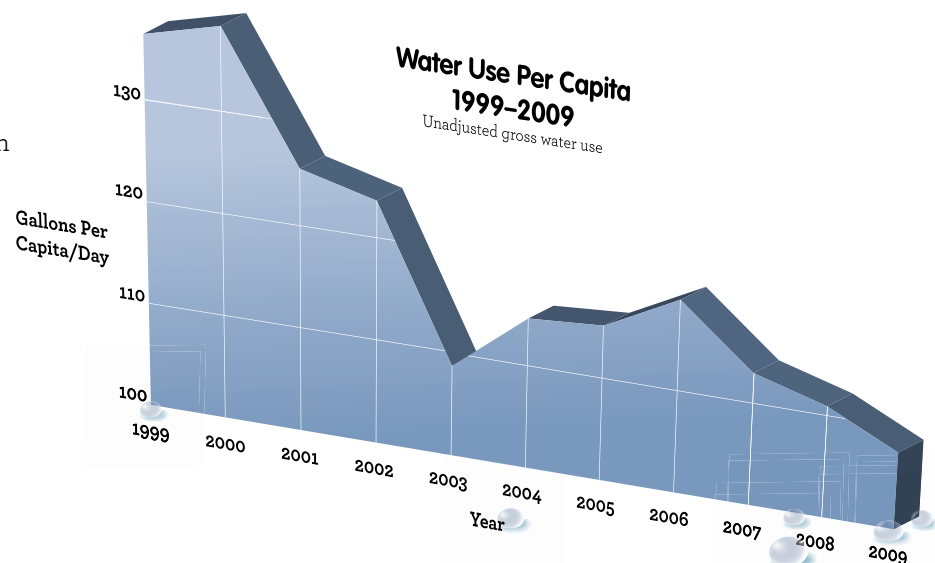
- *Promote water conservation through education*
- *Support research and implementation of conservation techniques and practices*
- *Promote water-conserving rate structures*
- *Utilize regulatory program to establish effective conservation practices*
- *Utilize financial incentives to further encourage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

## Primary Success Indicator

- *Decreasing trends in per capita water use*

## Supporting Success Indicators

- *Increasing trends in public and water-user awareness*
- *Percentage of utilities with a water-conserving rate structure*
- *Gallons saved through District-funded conservation projects*
- *Percentage of local governments with Florida-Friendly Landscaping ordinances*
- *Number of Florida Water Star<sup>SM</sup> certified properties*



## *Strategic Initiative:*

## **Water Quality Assessment and Planning**

The sustainability of Florida's natural systems, economy and quality of life depends on good water quality. Protecting and maintaining water quality will become increasingly challenging because of the state's unique geology and pressures to encourage development. To meet these challenges, 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 long-term monitoring networks to assess existing water quality conditions, identify trends and proactively manage emerging concerns. These networks focus on the major water resource issues of saltwater intrusion, nutrient enrichment, mineralization of surface waters and springs protection. The District uses water quality and biological monitoring data to identify and characterize ecological problems, set water quality and pollutant load reduction goals and develop watershed management priorities and plans. Close coordination occurs with state and local governments and other entities to share information and prevent duplication of efforts.

Each year approximately 2,400 groundwater quality samples are collected for the Coastal Groundwater and Water Use Permit Networks in the most impacted area of the Southern Water Use Caution Area (SWUCA). Using this information, the District can track the occurrence and movement of saline groundwater intrusion and the upwelling of poor water quality into major aquifers. These results identified saltwater intrusion as one of the primary resource concerns in the southern portion of the District, and the findings were used to develop an action plan contained in the District's SWUCA recovery strategy. These data also support water supply planning and regulatory permitting decisions for well construction and water use.

In the early 1990s the District authorized investigations of nutrient contamination in groundwater discharging to Surface Water Improvement and Management (SWIM) Program priority water bodies. The District's long-term Springs Networks, established as a result of these investigations, focus on identifying concentrations and sources of nutrient loading into groundwater, which ultimately can impact spring-fed rivers and estuarine ecosystems. Tracking long-term nutrient trends in spring recharge areas is necessary to determine the success of management actions and public outreach efforts in effectively managing fertilizer use and other sources of nutrients that can impact groundwater in springsheds. These data are also used by District staff to determine pollutant load reduction goals, plan for restoration and land acquisition initiatives and support Cooperative Funding Initiative projects. In order to track, coordinate and broaden these efforts, a Springs Protection Initiative Group was established to promote protection of springs through conservation, restoration and public education and to identify resource management concerns within our spring basins.

Concern for the overall ecological health of the District's surface waters resulted in the adoption of SWIM plans for each of its priority water bodies. These efforts have resulted in a better understanding of the extent and underlying basis for concerns associated

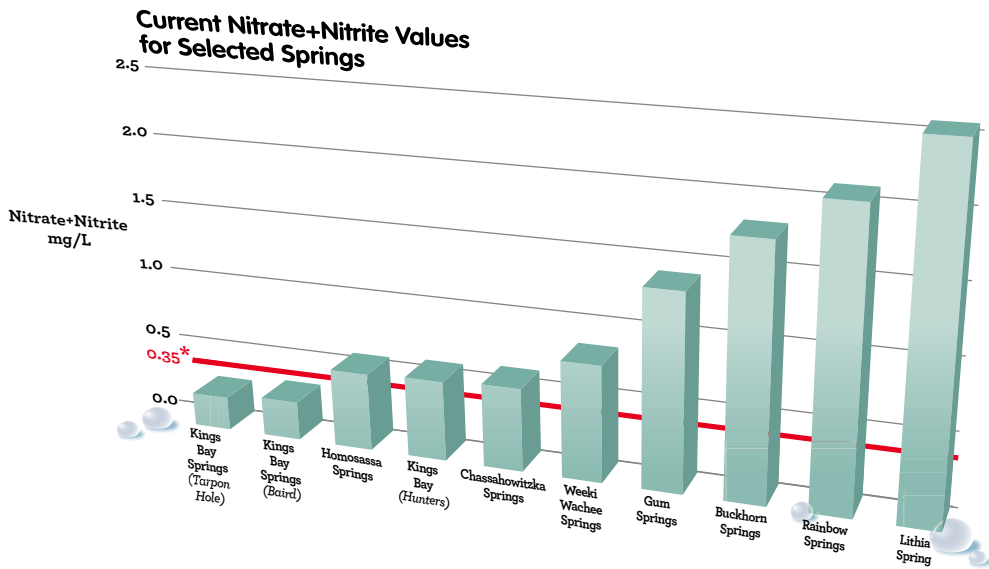


**Goal Statement:** *Collect and analyze data to determine local and regional water quality status and trends in order to support resource management decisions and restoration initiatives.*

with the problems of hydrologic alterations, water quality degradation and habitat loss. To support these efforts, the District established several surface water networks that monitor water quality at 86 river and stream locations and more than 300 lake locations. Information from these networks document long-term water quality trends and provide information to determine water quality targets and nutrient loading estimates.

The District also maintains several specialized water quality networks. These critical monitoring efforts improve the understanding of water quality concerns and measure the success of implemented projects, programs and cooperatively funded initiatives. As an example, the Shell, Prairie and Joshua Creek Monitoring Network was established under a Reasonable Assurance Plan to measure the success of management actions that have been put in place to improve surface water quality impacted through the irrigation of agricultural lands with mineralized groundwater. Another example is water quality monitoring that is performed for the Upper Myakka Watershed Management Initiative which assists the District and potential users with planning for alternative water supply use.

For decades, excessive nutrients have consistently ranked as one of the top causes of degradation in streams and rivers. The Florida Department of Environmental Protection (FDEP) is the lead agency in the development of total maximum daily loads (TMDLs), the maximum level of pollutants a water body can receive before it becomes impaired. The District assists by sharing existing plans, data and information. If water quality data show 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.



\* Threshold of 0.35 mg/L represents numeric nutrient criteria derived for nitrate concentrations in Florida's springs and clear streams by the U.S. Environmental Protection Agency.

## Strategies

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

## Primary Success Indicator

- Water quality restoration initiatives in place to address impacted water resources

## Supporting Success Indicators

- Restoration plans in place to address impacted water resources
- Efficiency of water quality monitoring networks
- Compliance with state and federal data reporting requirements



# Water Quality

## *Strategic Initiative:*

## **Water Quality Maintenance and Improvement**

The District develops and implements projects, programs and regulations to maintain and improve water quality. The Surface Water Improvement and Management (SWIM) Program provides one of the primary means by which the District accomplishes water quality protection and restoration. The SWIM Program develops plans to protect and restore priority water bodies of regional or statewide significance. The District has identified 10 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 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 well-plugging requirements detailed in the Florida Statutes. The District's land acquisition program also helps maintain water quality in the region through conservation and protection of 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.

The District partners on numerous projects that provide water quality benefits. Projects are cooperatively funded to capture and provide treatment of stormwater using proven BMPs that provide a measurable reduction in nutrients and other stormwater pollutants. Some District programs are primarily focused on other areas of responsibility but provide water quality benefits as well. The Watershed Management Program evaluates the capacity of a watershed to protect, enhance and restore water quality and collaborates with local government partners to implement BMPs that accomplish this. Many restoration projects contain a water quality component. The principal elements of the Sawgrass Lake Restoration project will result in water quality improvements that will reduce nutrient loadings to Tampa Bay, and the Lake Hancock Outfall Treatment project will improve water quality in the upper Peace River.

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

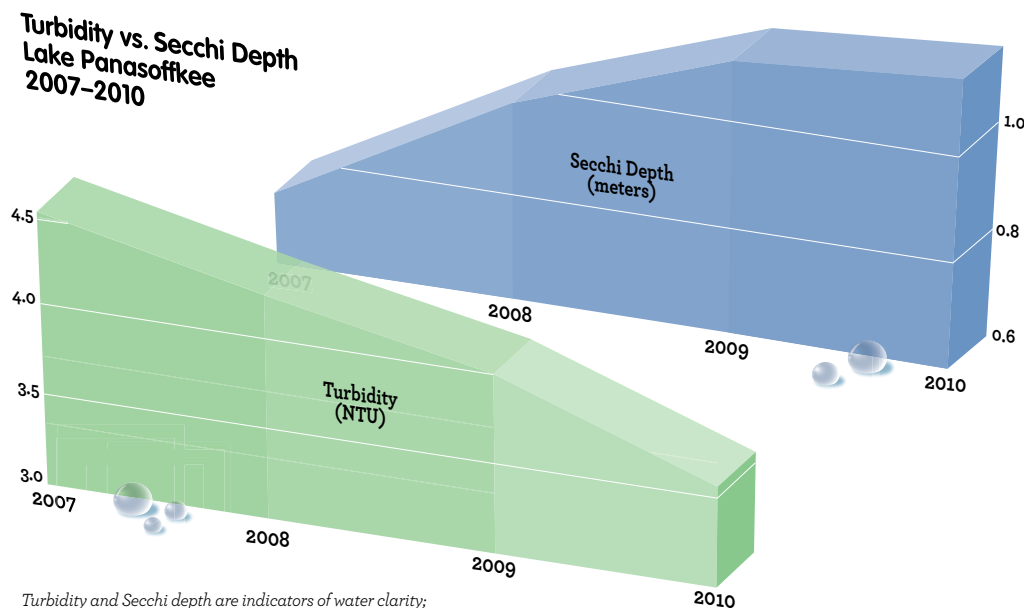
**Goal Statement:** *Develop and implement programs, projects and regulations to maintain and improve water quality.*

(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.

Activities of other agencies may play a role in the District's water quality efforts in the future. The USEPA is in the process of proposing new water quality standards, known as numeric nutrient criteria, which will be used to determine total maximum daily load (TMDL) water body impairments. This new criteria may result in the establishment of numerous TMDLs and substantially increase the effort of local governments to address the root causes.

The Florida Department of Environmental Protection (FDEP) is the lead agency in the development of 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 have been exceeded, basin management action plans (BMAPs) are developed by FDEP 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 USEPA is in the process of proposing new water quality standards, known as numeric nutrient criteria, that will be used to determine TMDL water body impairments. This new criteria may result in the establishment of numerous TMDLs and substantially increase the effort of local governments to address the root causes.

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*
- *Continue to monitor the USEPA Numeric Nutrient Criteria process*
- *Promote Florida-Friendly Landscaping™ principles and other behaviors that help protect water quality*
- *Participate in the development and implementation of the statewide stormwater management criteria to enhance an active 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 District-funded projects*
- *Acres of watersheds treated by District-funded stormwater retrofit projects*
- *Water quality trends in saltwater intrusion monitoring networks*

## *Strategic Initiative:*

## **Minimum Flows and Levels Establishment and Recovery**

Florida law (Chapter 373.042, Florida Statutes) requires the state water management districts 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 and springs require minimum flows, while minimum levels are set for lakes, wetlands and aquifers. MFLs create hydrologic and ecological standards that can be used for permitting or planning decisions concerning how much water may be safely withdrawn from a water body.

By the end of 2010, the District anticipates the establishment of 197 MFLs for key water bodies (107 lakes, 41 wetlands, 22 river segments, 19 springs or springs groups, 7 wells in northern Tampa Bay and 1 aquifer system in the most impacted area of the Southern Water Use Caution Area). The District's process for establishing MFLs includes an independent scientific peer review and an opportunity for interested stakeholders to participate in a public review, both of which are considered by the Governing Board when deciding whether to adopt a proposed MFL.

The District's responsibilities to establish MFLs do not end with adoption. The monitoring program also provides data for evaluating compliance with the adopted MFLs, determining the need for recovery strategies and analyzing the recovery of water bodies where significant harm has been established. To date, the District has developed two regional recovery strategies and two water body-specific plans that cover all water resources currently known to not meet established MFLs.

### **Northern Tampa Bay Water Use Caution Area**

The first phase of the District's recovery strategy for restoring water resources adversely affected by water withdrawals in this area called for reductions in pumping from regional wellfields and the provision of financial incentives for development of alternative water supplies. Although significant hydrologic recovery has resulted from these reductions, the information currently available is insufficient for fully evaluating the effects of the reductions on MFLs' recovery. Therefore, the District initiated a second phase of the recovery strategy through adoption of a comprehensive plan that addresses the renewal of Tampa Bay Water's (TBW) consolidated permit, a required wellfield operations plan, environmental data collection and analysis, the evaluation and implementation of environmental mitigation for withdrawal impacts, the water conservation activities of TBW's member governments, limitations on further impacts caused by other water use permittees, and a "Reservoir Renovation Exception Period" that addresses the potential to temporarily exceed the 90 mgd withdrawal limit under specific circumstances.

### **Lower Hillsborough River**

The recovery strategy for the lower Hillsborough River calls for the augmentation of the river from a variety of sources, including Sulphur Springs, Blue Sink, Morris Bridge Sink and the Tampa Bypass Canal. Since December 2007 the District has transferred

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

11 cubic feet per second of water from the Tampa Bypass Canal to the Hillsborough River Reservoir and pumped 75 percent of this volume over the City of Tampa dam when necessary. To further support recovery of the lower river, the City of Tampa has been supplying 10 cubic feet per second of flow from Sulphur Springs to the base of the City of Tampa dam.

### Lower Alafia River

The recovery strategy for the lower Alafia River system addresses conditions in which river flows may drop below the minimum due to permitted withdrawals made by Mosaic Fertilizer, LLC, from Lithia and Buckhorn Springs. To recover these flows, the District developed permit conditions that require augmentation of the South Prong of the Alafia River to offset withdrawals from the springs during periods of low flow. Recovery includes a phased schedule for compliance and will be funded in full by the current permittee.

### Southern Water Use Caution Area (SWUCA)

The SWUCA recovery strategy was adopted to restore actual flows and levels to their adopted minimums by 2025 and ensure adequate water supplies for all reasonable and beneficial uses in the area. The strategy addresses potential water use reductions from land-use transitions, the development of alternative water supplies, and cooperative efforts with existing legal users to reduce average daily groundwater use in the Floridan aquifer system by 50 million gallons over the next 20 years. The recovery strategy also includes an adaptive approach to restore flows to the upper Peace River, including a project to raise water levels on Lake Hancock to provide a significant portion of the additional flows needed to meet the established minimum. Following implementation of the Lake Hancock project, the District will monitor flows and determine if additional projects are needed to achieve the minimum low flow for the upper Peace River as described in the recovery strategy.

Most work to date has addressed priority water bodies in water use caution areas where withdrawals have already resulted in significant harm. However, a number of MFLs have been adopted for water bodies in the northern portion of the District, and significant data collection and analysis are under way in anticipation of establishing additional MFLs in this region. MFLs are, or will be, established for every major river system in the District and all first- and second-magnitude springs on publicly owned conservation lands. The District has aligned its existing staff and financial resources to expedite establishing MFLs for various water resources considered potential supply sources.

### Strategies

- Update 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
- 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

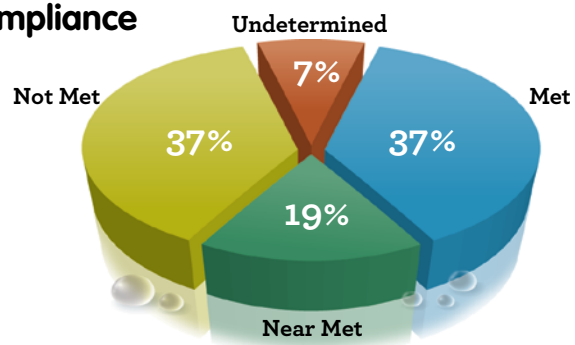
### Primary Success Indicator

- Percentage of listed water bodies with MFLs established on schedule

### Supporting Success Indicators

- Progress toward meeting MFLs' recovery strategy goals

### Minimum Flows and Levels Compliance



# Natural Systems

## *Strategic Initiative:*

## **Conservation and Restoration**

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

Acquisition of land has long been recognized as a critical component of protecting Florida's fragile ecosystems in a rapidly urbanizing state. Protecting ecosystems is critical to protecting water resources. To date, the District, along with its many partners, has protected more than 440,000 acres of conservation lands, and a significant number of lands are identified as eligible for protection through the District's Florida Forever Work Plan. The continued success of the program depends on available financial resources from the state's Florida Forever program and availability of partnership funding. Acquiring the land is only the first step. Conservation lands must be restored and managed to maintain the ecologic and hydrologic functions, including habitat for indigenous species, high water quality, and protection from floods and storms. 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; implementing multiple-use management activities such as timber management and cattle grazing; restoring previously altered uplands and wetlands; and providing for public outreach and recreation.

As Florida's population grows, expansive native ecosystems, both uplands and wetlands, are altered or lost to urbanization, transportation, agriculture, mining and industry. To gauge the effects of land alterations, the District monitors several key areas: land-use conversions, habitat fragmentation, wetland conditions 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, the District identifies where the greatest stress is being placed on natural habitats and where the greatest opportunity for natural systems investments may reside. 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. The District also maps seagrass distribution in five estuaries and along the Springs Coast. The ongoing objective is to track changes or trends in seagrass coverage with the end goal of measuring coastal ecosystem health.

The District monitors proposed land development impacts by reviewing local governments' developments of regional impact (DRIs) and comprehensive plan amendments. The District provides state growth management agencies and the public with important information on pending land-use decisions and the potential impacts to Florida's water resources and natural systems.

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

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

Protecting ecosystems does not stop at acquiring, managing, evaluating and restoring lands. To be successful, watershed protection needs to be embedded in the values of our communities. Every year, an estimated 2.5 million people visit public conservation lands owned by the District and its partners. The District promotes these values through its land recreation and environmental education efforts. Recreation on these natural lands provides a positive connection between people and the values of protecting natural resources. To reinforce its commitment to provide recreation on conservation lands, the District launched its “Get Outside!” campaign. The initiative is intended to raise awareness that the lands are open to the public for family activities such as hiking, bicycling, hunting, horseback riding, fishing, camping, paddling, picnicking and studying nature. Through these recreational opportunities, visitors gain an appreciation for and become better stewards of the land. In addition to recreation opportunities, 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 avoids or, if not possible, minimizes potential impacts to wetlands and other surface waters whenever practicable and appropriately mitigates remaining impacts. 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

- Evaluate acquisition opportunities, placing priority on ecological value, inholdings, additions, core conservation areas, realistic landowner expectations, and leveraging partnership dollars
- Develop and implement innovative restoration projects and partnerships
- Promote conservation of land through recreation and education opportunities
- Regulate to avoid impacts or minimize and mitigate unavoidable impacts
- Update orthoimagery and land-use/land-cover mapping annually
- Continue wetland, lake and river monitoring and analysis

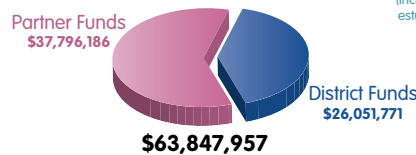
## Primary Success Indicator

- Acres of land protected or restored by District-funded initiatives

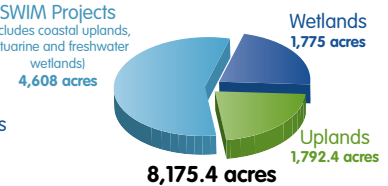
## Supporting Success Indicators

- Orthoimages collected and published for current fiscal year
- Number of DRIs and comprehensive plan reviews completed annually
- Land use/land cover updated for prior fiscal year
- Seagrass mapping completed on biennial basis

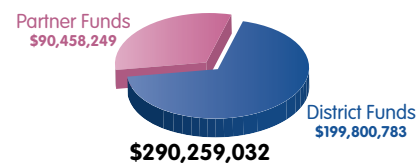
### Restoration Projects 2004–2009



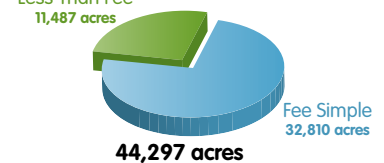
SWIM Projects  
(includes coastal uplands,  
estuarine and freshwater  
wetlands)



### Land Protection (Acquisition) 2004–2009



Less Than Fee  
11,487 acres



# Flood Protection

## 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 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 use this information for planning and land use. 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 Mod (Map Modernization) and Risk MAP (Mapping, Assessment and Planning) programs 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 multiday 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





**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.*

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.

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.



*The Tampa Bypass Canal (above) can detain, store and divert floodwaters around the cities of Temple Terrace and Tampa. The Watershed Management Program provides data to minimize flood risks and identify flood-prone areas.*



## Strategies

- *Implement the WMP, collect and analyze data and develop and distribute accurate floodplain information*
- *Implement the ERP program using WMP floodplain information*
- *Identify floodplain management 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*



# Flood Protection

## *Strategic Initiative:*

## **Emergency Flood Response**

**T**hrough 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 an emergency weather 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 the Tampa or Bartow service offices or, through memorandums of understanding with Hernando County and Tampa Bay Water, to their respective EOCs. 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 EOO assumes their command roles and manages the event through the EOC.

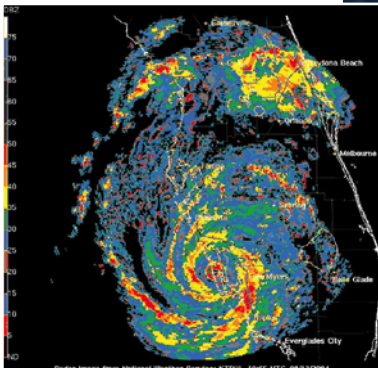
All water management districts are members of the State Emergency Response Team and, as such, serve as support agencies to the state. Since water management districts span multiple jurisdictions and can provide resources and services to support other government entities in times of disaster, the State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

The District provides emergency assistance to local governments and the public. District regulatory flood investigation teams assist local governments with emergency construction authorizations, equipment and staff and help to determine and implement solutions to flooding problems. Examples of typical projects include providing emergency pumping facilities, installing 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.

**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.

The enhancement and modernization of District water management facilities includes the 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 adding redundant structure controls and communication capabilities to improve the management of these facilities, especially during emergency situations. Emergency notification sirens have been installed at two high-hazard District water control facilities — Medard Reservoir and G-90, in Hillsborough and Highlands counties, respectively. In this way, downstream residents can be warned to evacuate should failure conditions develop at either of the facilities.

As technology improves, so does District response time to flooding conditions. The District’s upgraded digital 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 promote NIMS/ICS as the District’s incident management system
- Establish redundant control systems for all mission-critical infrastructures (e.g., radio, telephone and IP modems)
- 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

- Weather event 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
- Ability of EOO to collaborate and operate facilities even if the network is down



## 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 has maintained a constant or declining millage rate for over the past decade 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 2011 the District will contribute a projected \$87 million, or 31 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. The District strives to attract, develop and retain diverse, well-qualified staff and commits to developing those individuals as their responsibilities increase in difficulty. With an average 12.5-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 maintaining staffing levels commensurate with the District's budget and workload.

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.

Through its Environmental Stewardship Initiative, the District seeks to reduce greenhouse gas emissions and use smart building and operational practices to minimize the District’s carbon footprint. This initiative is more than a standalone program — it is the way the District does business. Placing an emphasis on energy and fuel efficiency in the District’s daily operations makes good business sense and fits well with its focus on environmental protection and community responsibility.

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 data-based, 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*



## 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.



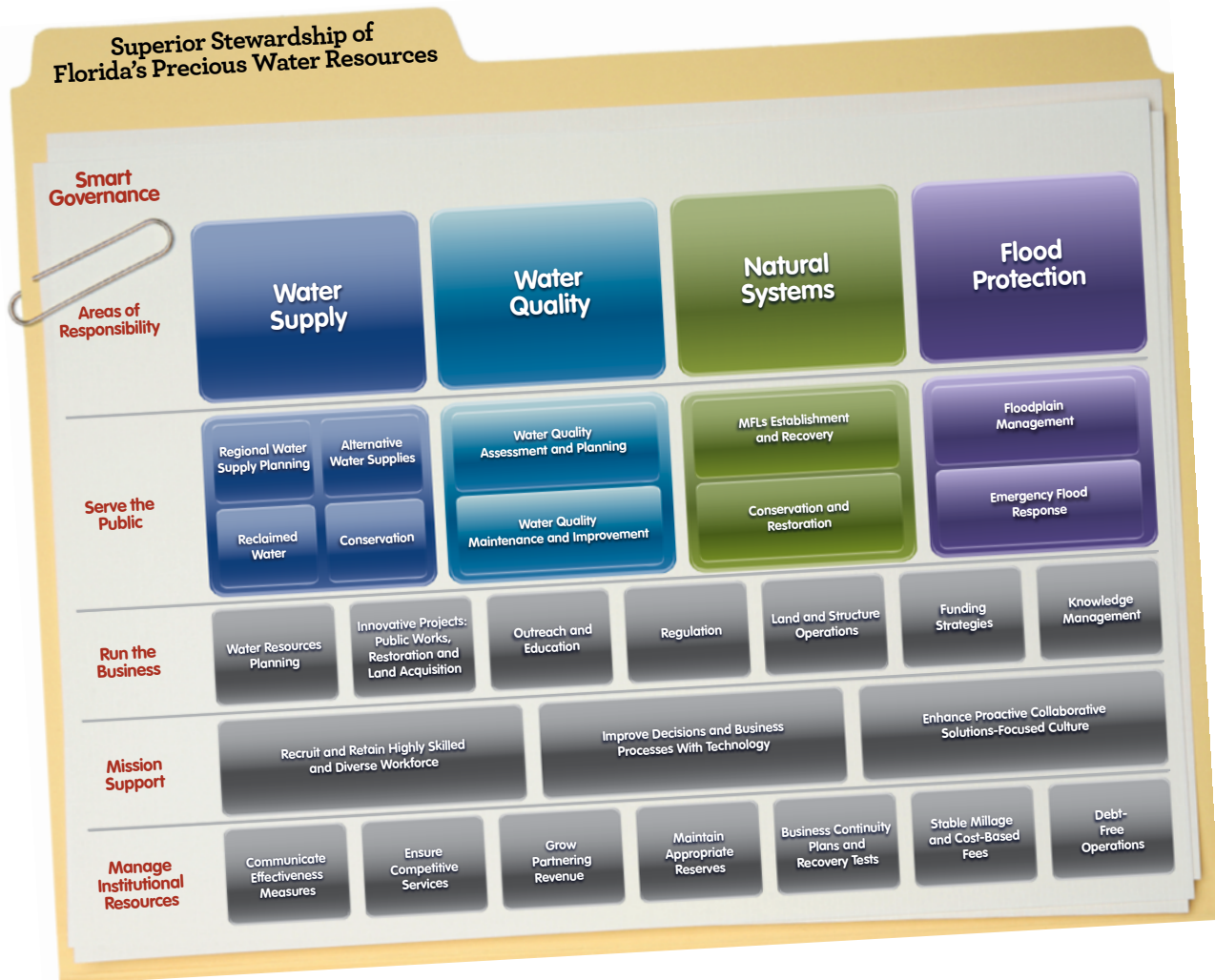
# Mapping the Strategic Plan

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

## Strategy Map

*The District’s overriding goal is “Superior Stewardship of Florida’s Precious Water Resources.” Our four areas of responsibility drive the strategic initiatives that serve the public. At the next level are the programmatic elements necessary to “run the business” and for the initiatives to succeed. Mission support shows necessary management services, followed by basic institutional resources needed for the organization to function effectively and efficiently. As a whole, the result is “smart governance,” whereby we stay strategically aligned, people-oriented, science- and data-based, fiscally and ethically responsible, and technologically sharp.*



# Water Supply Milestones

## Regional Water Supply Planning – Milestones

Program/Strategy	2011	2012	2013	2014	2015	2016
RWSP Update				Initiate Update		Complete Update
Population & Demand Projections	Annual Update	Annual Update	Annual Update	Annual Update	Annual Update	Annual Update
Inter-District Coordination CFCA	Finalize Groundwater Availability Estimate	Complete Rule making				
Initiate Rule Making						
Utility Outreach Program	Ongoing					
Climate Change	Monitor & Adapt					
Standing Advisory Committees	Ongoing					

Funding Sources: Ad Valorem, Cooperative Funding

## Alternative Water Supplies – Milestones

Program/Strategy	2011	2012	2013	2014	2015	2016
Tampa Bay Water Configuration II	Complete Construction					
Tampa Bay Water Configuration III	Future Needs Analysis Complete					
Southwest Regional Projects						
PRMRWSA Regional Resource Development	Phase 1 Implementation	Phase 1 Implementation	Phase 1 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 Completed			
ASR Research	Complete Pilot Test Data Assessment					

Funding Sources: Ad Valorem, Cooperative Funding, State and Federal Appropriations, State Water Protection and Sustainability Trust Funds

## Reclaimed Water – Milestones

Program/Strategy	2011	2012	2013	2014	2015	2016
Southwest Polk County/ Tampa Electric Reclaimed Water Project	Complete Design, Begin Infrastructure Construction		Construction Completed			
Recharge Feasibility Projects	Clearwater, Winter Haven, Polk, Pasco and Hillsborough Projects					
Wet Weather Storage	Pasco/Boyette Reclaimed Reservoir Construction Complete					
Education & Technical Support	Ongoing					

Funding Sources: Ad Valorem, Cooperative Funding, State Appropriations

## Conservation – Milestones

Program/Strategy	2011	2012	2013	2014	2015	2016
Education	Continuous					
Programming						
Florida Yards & Neighborhoods Program	Continuous					
Water CHAMP	70% of All Hotel Rooms in District	Continuous				
Water Pro	400 Establishments	20% Increase in Establishments	Continuous			
Florida Water Star	200 Homes	100-125 Homes or Buildings	Continuous			
Toilet Retrofit Rebate	Continuous					
Technical Support						
Florida-Friendly Landscaping Ordinances	Continuous					
CONSERVE Florida	Continuous					
Research	Continuous					
FARMS Program	18-20 Projects	18-20 Projects	18-20 Projects	18-20 Projects	18-20 Projects	18-20 Projects
Public Awareness Surveys	Continuous					

Funding Sources: Ad Valorem, Florida Department of Agriculture and Consumer Services, Cooperative Funding




# Water Quality Milestones

## Water Quality Assessment and Planning – Milestones

Program/Strategy	2011	2012	2013	2014	2015	2016
Water Quality Monitoring Networks:	All Ongoing 					
Coastal Groundwater & Water Use Permit	Internal Program Review					
Springs	Internal Program Review		Internal Program Review		Internal Program Review	
Surface Water	Internal Program Review			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	2016
Lake Hancock Water Outfall Treatment System	Initiate Construction		Complete Construction			
Sawgrass Lake Project		Complete Construction				
Clam Bayou Stormwater Treatment	Complete Construction					
Quality of Water Improvement Project	200 Wells/Year 					
Shell, Prairie, Joshua Creek RA Plan Performance Monitoring		DEP and EPA Update		DEP and EPA Update	Project Complete	
McKay Bay Dredge Hole Feasibility Study		Completed				
Old Tampa Bay Assessment & Action Plan				Completed		

Funding Sources: Ad Valorem, State Water Protection and Sustainability Trust Fund, Cooperative Funding, Department of Transportation

# Natural Systems Milestones

## MFLs Establishment and Recovery – Milestones

Program/Strategy	2011	2012	2013	2014	2015	2016
MFL Peer Review & Establishment	Lower Withlacoochee Crystal River System Kings Bay Spring Brooker Creek Gum Springs Lake Carroll Lake Hooker Lake Raleigh Rogers Lake Starvation Lake Lake Wimauma Little Manatee River Upper Peace River Manatee R. System Pithlachascotee River Lake Bonable Little Lake Bonable Tiger Lake Lake Lowery Lake Hancock Rainbow R. & Springs Shell Creek Estuary	Charlie Creek Horse Creek N. Prong Alafia R. S. Prong Alafia R. Lake Kell Lake Keene Lake Hanna Lake Amoret Lake Aurora Little Lake Aurora Lake Bonnet Easy Lake Lake Effie Josephine Lake	Prairie Creek Shell Creek Tooke Lake Whitehurst Pond Lake Damon Lake Pioneer Lake Pythias Lake Viola Trout Lake	Cypress Creek Bullfrog Creek	Lower Peace River Re-Evaluation	
Northern Tampa Bay	Renewed Tampa Bay Water Consolidated Permit Begins  Impact Assessment	Ongoing			5-Year Plan Review	
Lower Hillsborough River	McKay Bay Reuse Online	Morris Bridge Sink Online	Blue Sink Online			
Southern Water Use Caution Area	Upper Peace River Watershed Restoration Initiative Completed  Lake Hancock Water Level Modification Completed  Implementation of Ridge Lakes Restoration Activities	5-Year Review of SWUCA Plan  Upper Peace River Resource Development Project Completed  Completion of Ridge Lakes Restoration Activities				
Lower Alafia River	River Augmentation (if necessary)					

Funding Sources: Ad Valorem, State Water Protection and Sustainability Trust Fund, Florida Forever

## Conservation and Restoration – Milestones

Program/Strategy	2011	2012	2013	2014	2015	2016
Prescribed Burn Program	25,000 acres/year	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 Completed  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 Completed	
Hydrologic Restoration of District Lands Initiative	Green Swamp Preserve Restoration Complete Restoration Complete	Myakka Prairie, Deep Creek and Schewe Tract		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 & Recreational Programs	Master Recreation Plan Implementation	Ongoing				
Aerial/Land-Use Mapping						
Orthophotography	Ongoing					
Land-Use/Land-Cover Maps	2010 Mapping Layer Complete	2011 Mapping Layer Complete	2012 Mapping Layer Complete	2013 Mapping Layer Complete	2014 Mapping Layer Complete	2015 Mapping Layer Complete
Wetland Monitoring	Ongoing					
Comprehensive Plan & DRI Reviews	Ongoing					
Seagrass Mapping						
Estuary	2010 Mapping Complete		2012 Mapping Complete		2014 Mapping Complete	
Springs Coast			2012 Mapping Complete			

Funding Sources: Ad Valorem, 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	2016
Watershed Management Program (WMP)						
DFIRMs Submitted to FEMA	Sarasota County Pasco County DeSoto County Highlands County Hardee County Citrus County	Sumter County Polk County				
WMP Maintenance	Continuous					
Land Acquisition	Continuous					
Water Control Structure Operation and Maintenance	Continuous					

Funding Sources: Ad Valorem, FEMA Map Modernization Funding, Florida Forever, Local Matching Cooperative Funding

## Emergency Flood Response – Milestones

Program/Strategy	2011	2012	2013	2014	2015	2016
Comprehensive Emergency Management Plan (CEMP)	Update CEMP and Annexes 100% EOO NIMS/ICS		Update CEMP and Annexes		Update CEMP and Annexes	
Training	100% EOO Training on Incident Management Software	Continuous				
	Emergency Action Plans	Continuous				
Unified Communications	Inter-Operability with Regional Communication Systems	Continuous				
Structure Emergency Action Plans	High-Hazard EAPS Exercised	Continuous				

Funding Sources: Ad Valorem, FEMA Post-Disaster Mitigation Funding

Southwest Florida  
*Water Management District*

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