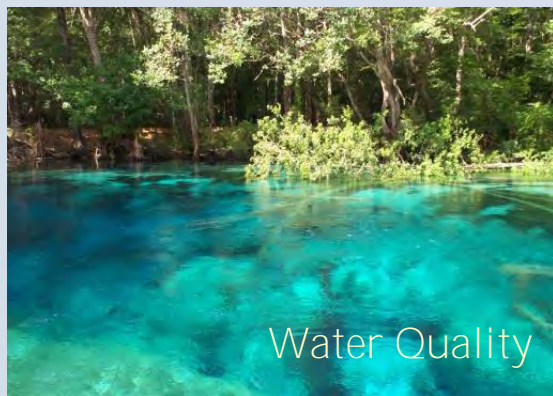


Northwest Florida Water
Management District



Strategic Water Management Plan

January 2011

Program Development Series 2010-03



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NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT

Strategic Water Management Plan

Fiscal Year 2011

JANUARY 2011



Program Development Series 2010-03

Prepared for the NWFWMD Governing Board by Ronald L. Bartel and Paul J. Thorpe

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1- INTRODUCTION

The 2010 Strategic Water Management Plan (SWMP) describes the responsibilities of the Northwest Florida Water Management District (NFWMD or “District”), as defined by Florida Statutes, and the agency’s objectives, strategies, and success criteria. This plan focuses on current strategies – those activities the District plans to undertake in the near term to accomplish its vision: to protect and manage the water resources of northwest Florida in a sustainable manner for the continued welfare of its residents and natural systems.

Strategic Priorities for 2010-2015

- ❖ **Alternative Water Supply Development (AWSD)** – Complete AWSD projects as outlined in regional water supply plans and the water resource development work program.
- ❖ **Coastal Utilities Interconnections** – Establish interconnections between coastal utilities in water supply regions II, III, and V, as identified in the District’s Interconnect Plan.
- ❖ **Consumptive Use Permitting** – Continue to implement a district-wide consumptive use permitting program to accomplish 100% compliance of all major water suppliers and users.
- ❖ **Cumulative Impacts Analysis** – Complete cumulative impacts analysis on identified priority waterbodies and implement appropriate protection strategies for each.
- ❖ **Environmental Resource Permitting (ERP)** – Fully implement ERP in northwest Florida.
- ❖ **No Net Loss of Wetland Function** – Protect wetland functions to ensure long-term water resource sustainability through implementation of ERP and the Umbrella, Watershed-based, Regional Mitigation Plan.
- ❖ **Flood Hazard Mapping** – Complete detailed flood hazard mapping for low-lying coastal communities and the populated riverine areas of the District.
- ❖ **Reuse of Reclaimed Water** – Provide for beneficial reuse of available treated wastewater from major wastewater treatment systems across the District, as outlined in the District Reuse Plan.
- ❖ **Restoration** – Accomplish watershed-scale restoration initiatives across District lands and for priority waters identified in surface water improvement and management (SWIM) and land management plans.
- ❖ **Lands Management** – Continue to enhance and manage District lands to protect water resources, and make them available for compatible public uses.

Specific implementation targets and deliverables associated with each of these strategic priorities are listed in Section 7.

MISSION:

Implement the provisions of Chapter 373, Water Resources, Florida Statutes, in a manner that best ensures the continued welfare of the residents and natural systems of northwest Florida.

AREAS OF RESPONSIBILITY:

Water Supply



GOALS:

Promote the availability of sufficient water for all existing and future reasonable-beneficial uses and natural systems.

- The District will continue to work with local governments, utilities, and state and federal agencies to plan appropriately for and ensure the availability of sufficient water supplies in a manner that meets the needs of the human community and sustains associated natural systems. -

Flood Protection and Floodplain Management



Maintain natural floodplain functions and minimize harm from flooding.

- Emphasizing a non-structural approach, including land acquisition, mapping of flood-prone areas, and dam safety regulation, the District will work to protect and, where necessary, restore natural floodplain functions, and to help protect the health, safety, and welfare of the region's residents and integrity of the region's natural systems. -

Water Quality



Protect and improve the quality of the District's water resources.

- The District will continue to work with local governments, state and federal agencies, and regional stakeholders to protect and, where necessary, restore water quality. -

Natural Systems



Protect and enhance natural systems.

- The District will continue to work in cooperation with state and federal agencies, local governments, and regional stakeholders to protect natural water resources of regional significance in a comprehensive, integrated manner, in order to preserve and restore natural systems and maintain public benefits and compatible uses. -

About the Northwest Florida Water Management District

The Northwest Florida Water Management District extends from the St. Marks River watershed in Jefferson County to the Perdido River in Escambia County. The NFWMD is one of five water management districts established by the Florida Water Resources Act of 1972 ([Chapter 373, Florida Statutes](#)). The statute sets forth four interrelated areas of responsibility (AORs) for the districts: water supply, water quality, natural systems, and flood protection and floodplain management.

The NFWMD is governed by a nine-member board appointed by the Governor and confirmed by the Senate. The agency works with federal, state, and local governments and is charged with ensuring availability of water supplies for reasonable and beneficial uses, flood protection and floodplain management, and protecting and restoring water quality and natural systems.



Figure 1. Northwest Florida Water Management District

There are over 1.4 million permanent residents in the region, with much of the population concentrated along the coastal region from Escambia through Bay counties, as well as in Tallahassee and the surrounding area. Much of the non-urban land is devoted to forestry and agriculture. Private forest lands cover much of the District, and prominent public lands include military bases, state and national forests, national wildlife refuges, and District lands.

Portions of northwest Florida are among the fastest growing areas of the state (Table 1). Substantial areas are being transformed from forested and rural in character to suburban and urban. Such change brings with it water resource challenges, including increased demand for water supplies, stormwater runoff and nonpoint source pollution, reduced groundwater recharge, and loss and fragmentation of wetlands and other sensitive habitats.



Figure 2. Generalized Land Use and Land Cover for Northwest Florida (2004)

Table 1. Estimated Population and Growth by County: 2000-2015

| Population Estimates and Projections | | | | |
|--------------------------------------|------------------|------------------|------------------|------------------|
| County | 2000 | 2005 | 2010 | 2015 |
| Bay | 148,217 | 161,700 | 171,200 | 180,900 |
| Calhoun | 13,017 | 13,900 | 14,300 | 14,700 |
| Escambia | 294,410 | 303,600 | 315,400 | 325,300 |
| Franklin | 11,057 | 10,800 | 12,400 | 13,300 |
| Gadsden | 45,087 | 47,700 | 51,900 | 54,300 |
| Gulf | 13,332 | 16,500 | 16,800 | 17,300 |
| Holmes | 18,564 | 19,200 | 20,100 | 20,700 |
| Jackson | 46,755 | 49,700 | 55,100 | 57,500 |
| Jefferson | 12,902 | 14,200 | 14,900 | 15,300 |
| Leon | 239,452 | 271,100 | 275,800 | 287,500 |
| Liberty | 7,021 | 7,600 | 8,900 | 9,500 |
| Okaloosa | 170,498 | 188,900 | 202,400 | 218,000 |
| Santa Rosa | 117,743 | 136,400 | 148,200 | 163,400 |
| Wakulla | 22,863 | 26,900 | 32,500 | 36,500 |
| Walton | 40,601 | 53,500 | 60,800 | 70,300 |
| Washington | 20,973 | 23,100 | 24,800 | 26,300 |
| Total | 1,222,492 | 1,344,800 | 1,425,500 | 1,510,800 |

Sources: University of Florida, BEBR, Florida Statistical Abstract (2009); U.S. Census Bureau (2000)

Strategic Planning Process

DEFINITION OF ISSUES, OBJECTIVES, AND MANAGEMENT STRATEGIES

Expectations for water management involve water resources availability, quality, function, and sustainability. Strategies in this plan are developed based on current resource assessments (including environmental, human, and financial resources) and are also defined by the statutory responsibilities of the District. Strengths, weaknesses, opportunities, and threats to the region's water resources are identified and evaluated in formulating strategies. Major issues facing the District, which by definition under the strategic planning process are "failures to meet expectations," are also identified in formulating plan strategies. In general, the strategic planning process requires that no strategy be identified without an associated issue, whether it is one defined by statute or by a resource constraint. Plan emphasis is placed on maintaining a proactive posture toward sustaining water resources, watershed functions, and associated public benefits, with specific action-based targets in mind. The District's objectives and strategies are measureable, with ownership given to specific departments within the district, and may be continually reevaluated to meet changing demands and resources.

PUBLIC PARTICIPATION AND INTERGOVERNMENTAL COORDINATION

To facilitate public and interagency interaction, the District's website provides staff contact information and an interface for submittal of comments, questions, and recommendations. Additional public participation and input are obtained through the subordinate plans, documents, rules, and associated processes outlined in the table below. The SWMP is updated annually and presented to the Governing Board in a publicly noticed meeting. Governing Board input and approval of this plan is, in essence, a means of obtaining direct public and private sector stakeholder involvement in development of the SWMP.

STAKEHOLDERS

The NFWFMD has a broad set of stakeholders, reflecting the diverse and interrelated functions and benefits of water and related resources. Stakeholders include residents, taxpayers, public and private utilities, and local governments. The District also has many cooperators, including local governments, state and federal agencies, private businesses, public and private watershed partners, nongovernmental organizations, and recreational users of District lands. Most, if not all, of the District's stakeholders are reached through the many sub-plans and planning processes of the District, which provide feedback for development of this SWMP. The NFWFMD also has a nine member Governing Board, which has, in effect, been selected to represent all of the stakeholders throughout the District's jurisdiction.

In recognition of the regional and intergovernmental context, as well as to promote cooperative and mutually supportive actions, consideration is given to local and state plans and programs that interact with the District's AORs. Among these are the State Comprehensive Plan ([Chapter 187, FS](#)), strategic regional policy plans, local comprehensive plans, and the operating plans and projects of numerous agencies. The District's activities are coordinated with the statewide water resource programs and policies of the [Florida Department of Environmental Protection](#) (FDEP).

OPERATIONAL PLANS AND RULES

The SWMP was developed as a functional plan to address the District's statutorily defined AORs and guide at a high level how the agency will carry out major activities. Water resource and supply development, resource regulation, watershed management and restoration, land acquisition and management, cumulative impacts analysis, regional wetland mitigation, technical assistance, and public outreach and education are some of the major activities addressed. It is important to recognize that many of these activities are operationally implemented through specific sub-plans,

adopted rules, and programs (Table 2) that essentially roll-up under the general strategies outlined in the SWMP. Thus, a coordinated and integrated response to the major water resource challenges facing the District is implemented within the framework of the SWMP.

Table 2. Operational Documents

| Plan / Regulation | Purpose (Primary Statute) | Horizon |
|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| Strategic Water Management Plan | Establish strategic priorities for a next five year period. District-wide plan for water supply, flood protection, water quality, and natural systems (373.036, FS) | Five years; updated annually |
| Incorporates: | | |
| Regional Water Supply Plans | Identify water sources, demands, and alternative water supply sources (373.709, FS) | 20 years; updated every five years |
| Water Resource Development Work Program | Development of alternative sources within regional water supply planning areas (73.709, FS) | Five years; updated annually |
| Water Supply Assessment | Estimates and projections of District-wide water demand (373.036, FS) | 20 years; updated every five years |
| Interconnect Plan | Plan for priority coastal utility interconnections (373.709, FS) | Five Years |
| Reuse Plan | District-wide plan for treatment and application of reclaimed water (373.709, FS) | Continuous |
| Florida Forever Land Acquisition Work Plan | District-wide land acquisition plan (373.199, FS) | Five years; updated annually |
| Florida Forever Capital Improvements Plan | Short-range plan for implementation of approved capital improvement projects (373.199, FS) | Five years; updated annually |
| FEMA Risk MAP and Map Modernization Business Plan | Flood map modernization plan for the Northwest Florida Water Management District (s. 373.036, FS) | Five years; updated annually |
| Umbrella, Watershed-based Regional Mitigation Plan | District-wide wetland mitigation (373.4137, FS, 33 U.S.C. 1344) | Updated annually |
| SWIM Priority List | Prioritize watersheds and waterbodies for SWIM plan development (373.453, FS) | Five years |
| SWIM Plans (multiple) | Watershed protection, management, and restoration (373.451-459, FS) | Continuous |
| Hydrologic Monitoring Plan | Surface and ground water hydrologic and water quality monitoring (373.036; 373.451-459, FS) | Continuous |
| Minimum Flows and Levels (MFLs) Priority List | Priority list for development of MFLs (373.042, FS) | Updated annually |
| Ch. 40A-1, FAC | General and Procedural (373.044, FS) | Continuous |
| Ch. 40A-2, FAC | Regulation of Consumptive Uses of Water (373.203-250, FS) | Continuous |
| Ch. 40A-21, FAC | Water Shortage Plan (373.246(1), FS) | Continuous |
| Ch. 40A-3, FAC | Regulation of Wells (373.302-342, FS) | Continuous |
| Ch. 40A-4, FAC | Management and Storage of Surface Waters (373.403-443,FS) | Continuous |
| Ch. 40A-44, FAC | Regulation of Agricultural and Forestry Surface Water Management Projects (s. 373.403-443, FS) | Continuous |
| Ch. 40A-6, FAC | Works of the District (s. 373.084-087, FS) | Continuous |
| Ch. 62-346, FAC | Environmental Resource Permitting (s. 373.4145, FS) | Continuous |

ANNUAL PROGRESS REVIEW AND STRATEGIC PLAN UPDATE

The Strategic Plan Annual Work Plan Report is incorporated in the [Consolidated Annual Report](#), released each year by March 1st. To meet the requirements of section 373.036, FS, this report includes qualitative and quantitative evaluation of the success indicators, deliverables, and milestones identified in Section 7. The Strategic Plan is updated based on these results and in consideration of emerging issues and funding.

2 – WATER SUPPLY

Promote the availability of sufficient water for all existing and future reasonable-beneficial uses and natural systems.

Ground water is the primary source of drinking water across most of northwest Florida. The only two areas of the region that currently depend on surface water sources for potable water are Bay County, served by Deer Point Lake Reservoir, and Port St. Joe, which is transitioning from ground water to surface water from the Chipola River via the St. Joe Fresh Water Canal.

The principal water bearing aquifers are the Surficial Aquifer System, which includes the Sand and Gravel Aquifer, and the Floridan Aquifer System. The Sand and Gravel Aquifer supplies most of the public water supply within Escambia and Santa Rosa counties. For the rest of the District, the Floridan Aquifer is the major water supply source.

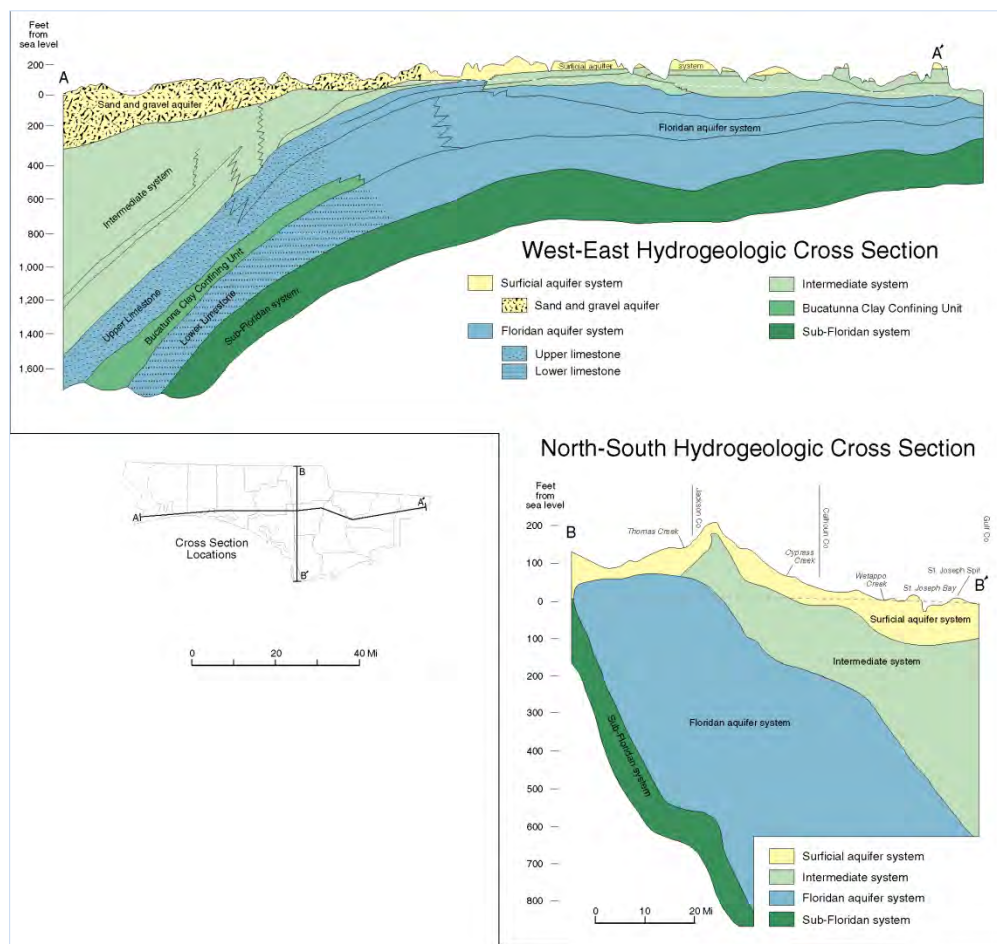


Figure 3. Major Regional Aquifers

Water use in northwest Florida was estimated at 347 MGD in 2005, with approximately 65% occurring in the western panhandle from Escambia through Bay counties and the majority of that in coastal communities. It is projected that District-wide demand will increase 43% by 2030 to 496 MGD.

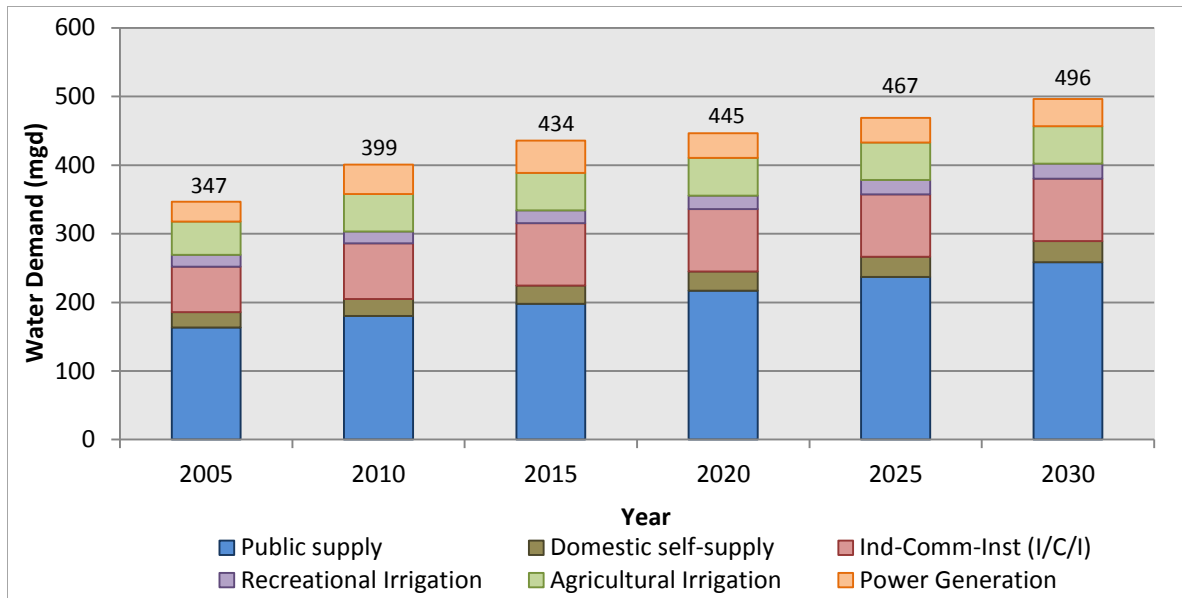


Figure 4. Estimated and Projected Water Demand by Category - 2005-2030

Source: [Water Supply Assessment Update \(2008\)](#)

The District’s water supply planning regions are defined based on county boundaries and similarity of water supply sources and challenges. County boundaries are used because population projections and other data sources are readily available at this level. Water supply conditions considered when delineating the regions included primary water sources, relative water availability, and water supply issues and constraints.

Water supplies are considered adequate across most of the District to meet current and future demands, although there is a need to develop alternative water supplies across several coastal regions. Three regions encompassing six counties have been recognized as areas where traditional water supplies must be augmented by alternative sources to meet long term demands. [Regional water supply plans \(RWSPs\)](#) have been developed to guide alternative water supply development in these areas.

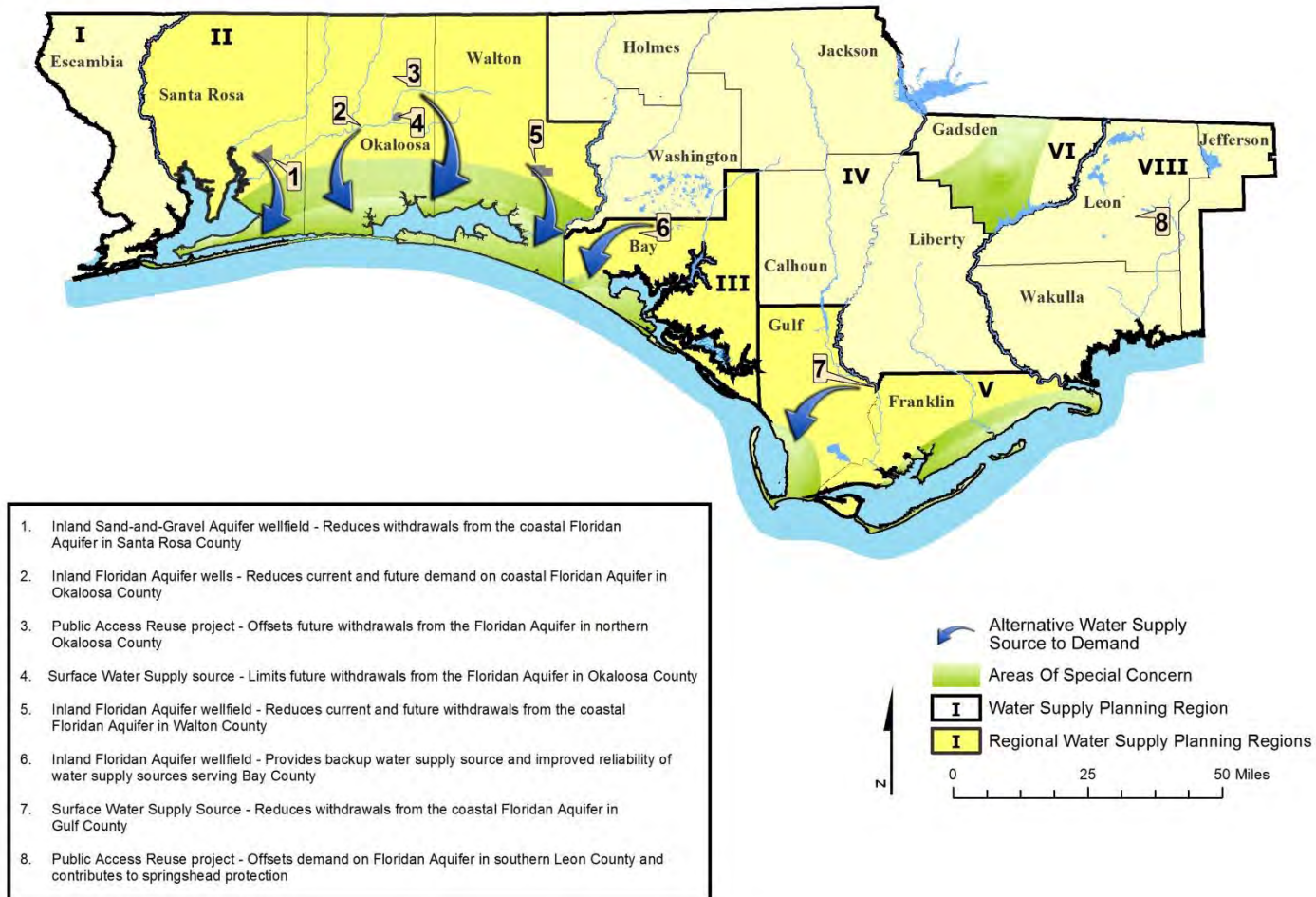


Figure 5. Water Supply Planning Regions and Alternative Water Supplies

The primary threats facing regional water supply sources include coastal salt water intrusion; periodic weather and climatic events, such as major hurricanes and droughts; and water use inefficiency (Table 3). The inadequacy of financial resources for major infrastructure needs is among the identified weaknesses.

Table 3. Water Supply

| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>STRENGTHS</i></p> <ul style="list-style-type: none"> • Partnership and cooperation with other governmental and private organizations with complementary functions and authority • Extensive water management lands and other public lands that protect water quality, recharge, and ecosystem health and productivity • Ability to leverage significant external funding • Technical capability and long-term outlook | <p><i>OPPORTUNITIES</i></p> <ul style="list-style-type: none"> • Alternative water supply sources • Potential for additional water conservation • Potential for reclaimed water to meet nonpotable demands, to provide beneficial aquifer recharge, and to enhance water quality |
| <p><i>WEAKNESSES</i></p> <ul style="list-style-type: none"> • Constitutional millage rate cap • Lack of dedicated funding sources • Infrastructure funding limitations • Hydrologic and water quality data gaps • Inefficient use of potable water sources | <p><i>THREATS</i></p> <ul style="list-style-type: none"> • Coastal salt water intrusion threatens traditional water supply sources for coastal centers of population • Periodic and discrete weather events (e.g., droughts, floods, and tropical storms) threaten water resource reliability • Potential of population growth and development to outpace infrastructure and to exceed capacity of traditional water supply sources • Surface sources of pollution, especially in surface water source basins and areas with unconfined water supply aquifers |
| <p><i>WATER SUPPLY STRATEGIC PRIORITIES</i></p> <ul style="list-style-type: none"> • Alternative Water Supply Development • Coastal Utilities Interconnection • Consumptive Use Permitting • Reuse of Reclaimed Water | |

In Region II (Santa Rosa, Okaloosa and Walton counties), declining coastal aquifer levels and the potential for salt water intrusion are being addressed through resource regulation and alternative water supply development. Similarly, alternative water supply development is being pursued in Region III (Bay County) and Region V (Gulf and Franklin counties) to increase the reliability, resiliency, and diversity of water supply sources. Regional water supply plans have been developed for these regions to facilitate water resource and alternative water supply development.

In Region VI, water supplies are naturally constrained and must be carefully managed through regulation and water supply development. In Region I and western Region II, the Sand and Gravel Aquifer is a primary water supply source. Source protection is especially important here, as in karst areas further east, to protect ground water supplies from surface sources of pollution.

More extensive and detailed resource assessments are available in the 2008 *Water Supply Assessment Update* and in the regional water supply plans for regions II, III, and V (see [Regional Water Supply Planning in Northwest Florida](#)).

3 – WATER QUALITY

Protect and improve the quality of the District's water resources.

The District approaches water quality protection and restoration from a watershed perspective. Watershed management reflects the principle that water resources are most effectively protected and managed on a landscape scale and based on hydrologic characteristics. Since all major watersheds in northwest Florida other than the St. Andrew Bay watershed are shared with Georgia or Alabama, this approach may extend across state lines.

Northwest Florida has seven major watersheds, all of which have been identified as priorities under the [Surface Water Management and Improvement \(SWIM\) program](#). Water quality protection is an underlying goal of SWIM, together with preservation and restoration of natural systems and associated public uses and benefits. The larger river basins originate in Georgia and Alabama, and these rivers and streams tend to have water quality problems caused by land uses in those states. Sedimentation and resulting turbidity and suspended solids are common, along with nutrient enrichment and chemical contamination.

Major sources of pollution in northwest Florida include both point and nonpoint sources. Point sources include domestic and industrial wastewater treatment facilities. Substantial investments in wastewater treatment have been made over many years, and important improvements are being made now. There is general consensus, however, that nonpoint source (NPS) pollution presents the major water quality challenge in this region. Among nonpoint sources of pollution are construction, agriculture, urban land uses, silviculture, and roadways. Urban stormwater runoff causes water quality problems in many areas, requiring improved stormwater treatment systems, effective regulation, and implementation of best management practices. Pollutants generated by NPS pollution include sediments, nutrients, microbial pathogens, suspended solids, plastic debris, heavy metals, and others.

The District works to protect water quality through a number of complementary programs, including SWIM (s. 451-459, FS), [Environmental Resource Permitting \(ERP\)](#) (s. 62-346, FAC), [land acquisition and management](#) (Ch. 259, FS), and [regional wetland mitigation](#) (s. 373.4137, FS). Stormwater ERP regulations became effective in 2007, and ERP wetland regulation became effective in November 2010. Environmental Resource Permitting addresses protection of water quality and flows from effects associated with new development, whereas SWIM primarily focuses on addressing historic impacts and improving current conditions.

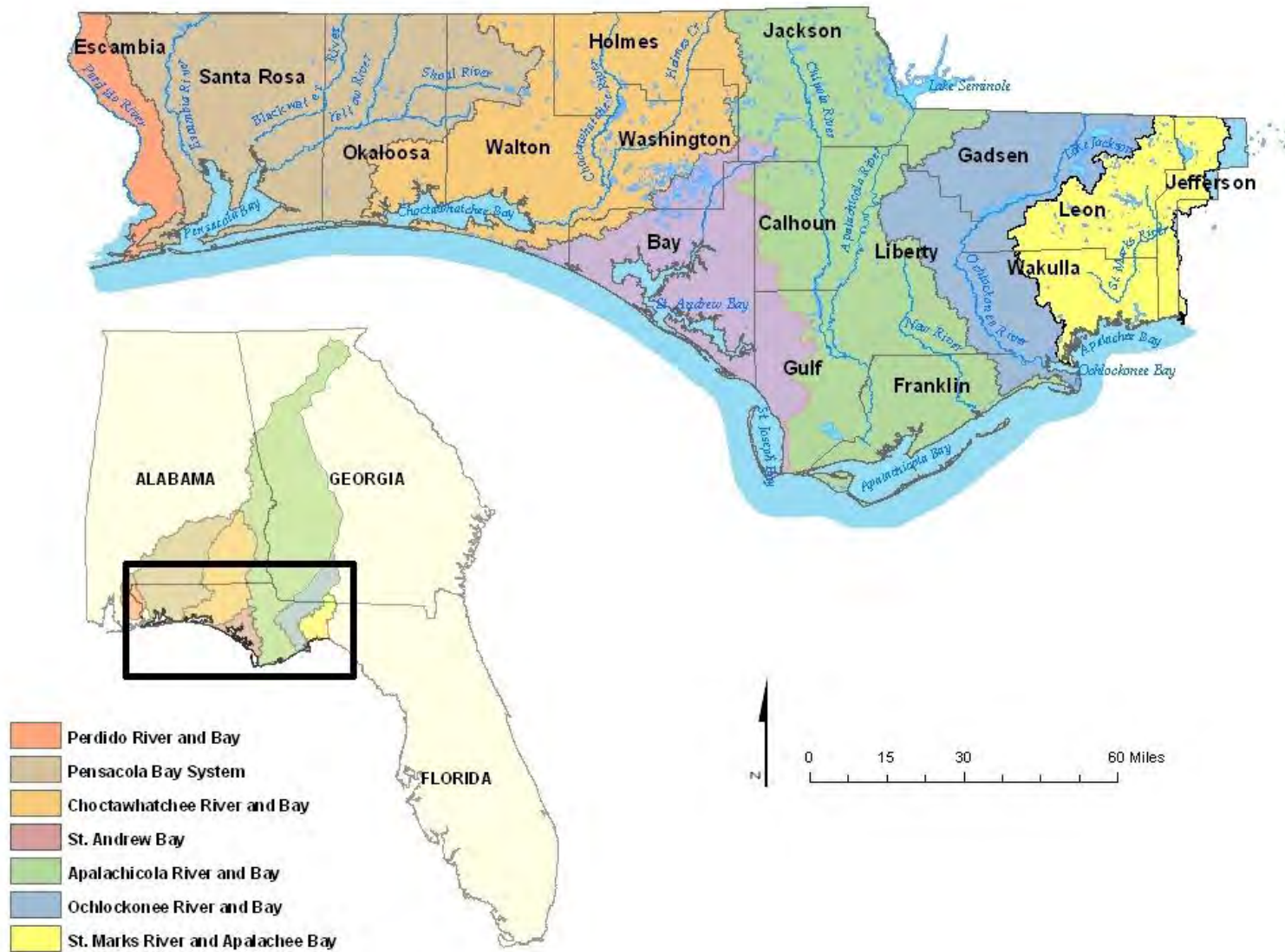


Figure 6. Major Watersheds of Northwest Florida

Current SWIM plans include the following:

- [St. Marks River and Apalachee Bay Watershed SWIM Plan](#)
- [Apalachicola River and Bay Management Plan](#) (includes [Tates Hell State Forest Hydrologic Restoration Plan](#))
- [Pensacola Bay System SWIM Plan](#)
- [Lake Jackson Management Plan](#) (Ochlockonee River watershed)
- [Choctawhatchee River and Bay System SWIM Plan](#)
- [St. Andrew Bay Watershed SWIM Plan](#)
- Ochlockonee River and Bay Watershed SWIM Plan (preliminary draft)
- Perdido River and Bay Watershed SWIM Plan (under development)

Ground water conditions are closely related to the geology of a given area. The Sand and Gravel Aquifer is near the surface and unconfined in the western Panhandle. Water quality within this aquifer is therefore vulnerable to pollution from surface sources. Much of the Floridan Aquifer, however, is overlain by relatively impervious sediments, which help to protect its water quality from surface pollution. In karst areas, however, the Floridan Aquifer can be quite susceptible to degradation from point and nonpoint source pollution. General aquifer vulnerability, including both the Floridan and Sand and Gravel aquifers, is estimated by the [Florida Aquifer Vulnerability Assessment, a project of the Florida Geological Survey of FDEP](#). Additional general information on ground water conditions in northwest Florida may be found in the publication [Hydrogeology of the Northwest Florida Water Management District](#).

Coastal salt water intrusion is considered a major water quality, as well as water supply, issue, because increasing chloride concentrations could threaten the usability of major coastal water supply aquifers. Other regionally significant threats to water quality in northwest Florida (Table 4) include point and nonpoint source pollution and upstream and out of state activities, as discussed above. Hydrologic alteration also impacts water quality through stream bank destabilization, erosion, and other processes.

Table 4. Water Quality

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>STRENGTHS</i></p> <ul style="list-style-type: none"> • Partnership and cooperation with other governmental and private organizations with complementary functions and authority • Extensive water management lands and other public lands that protect water quality, recharge, and ecosystems • Ability to leverage significant external funding • Technical capability and long-term outlook • Development density is relatively low • Environmental Resource Permitting program • Externally funded water quality data collection programs | <p><i>OPPORTUNITIES</i></p> <ul style="list-style-type: none"> • Federal and other external funding sources that can match and extend existing funds • Potential for reclaimed water to meet nonpotable demands, to provide beneficial aquifer recharge, and to enhance water quality • New technology and data sources |
| <p><i>WEAKNESSES</i></p> <ul style="list-style-type: none"> • Constitutional millage rate cap • Severe lack of dedicated funding sources • Infrastructure funding limitations, particularly on the part of financially disadvantaged small local governments | <p><i>THREATS</i></p> <ul style="list-style-type: none"> • Coastal salt water intrusion – threatens quality of coastal potable water aquifers. • Impacts of new development • Inadequate stormwater management and treatment systems in existing urban areas • Nonpoint source pollution impacts to water resources • Loss and alteration of wetlands, floodplains, and riparian habitats degrades water quality • Lack of sufficient NPS and point source pollution controls in upstream areas and outside of District jurisdiction • Intensive application of fertilizer and pesticides in some high intensity agricultural areas |
| <p><i>WATER QUALITY STRATEGIC PRIORITIES</i></p> <ul style="list-style-type: none"> • Alternative Water Supply Development • Environmental Resource Permitting • No Net Loss of Wetland Functions • Flood Hazard Mapping • Reuse of Reclaimed Water • Restoration • Lands Management | |

4 – NATURAL SYSTEMS

Protect and enhance natural systems.

Due in large measure to its wide variety of waterbodies and physiographic characteristics, northwest Florida is among the most ecologically diverse regions of the country. Many rare, threatened, and endangered species are listed by state and federal agencies as occurring within the region, and there are numerous endemic plants, animals, and habitats. Although much of northwest Florida is relatively undeveloped, many of its original natural areas have been replaced, degraded, or fragmented by urban and residential development, agriculture, and silviculture. Invasive species and widespread hydrologic alteration have also significantly impacted aquatic and wetland ecosystems and functions.

Northwest Florida has alluvial rivers and sand-bottomed and blackwater streams; karst and coastal dune lakes; Floridan Aquifer springs and spring runs; extensive alluvial floodplains; and regionally unique steephead ravines. Most of the rivers of the region are in a relatively natural state and have few major impoundments or other structures to alter their floodplains or control their flow rates. With the exception of the Apalachicola River, there is relatively little stream channelization and associated floodplain impacts. Due to the interstate nature of the major watersheds, rivers within the District are affected by alteration within Alabama and Georgia.

Habitats supported by the region's estuaries include major seagrass systems, particularly in Apalachee, St. Joseph, St. Andrew, Apalachicola, and Choctawhatchee bays. Extensive tidal wetlands, shellfish beds, and other habitats contribute greatly to ecological diversity and productivity. The region's estuaries are noteworthy for their importance to the ecological health of the Gulf of Mexico and the productivity of commercial and recreational fisheries.

The District protects over 221,000 acres and actively owns and manages over 210,000 acres of water management lands (Table 5). These include extensive floodplains, a major Floridan Aquifer recharge area, and estuarine salt marshes. District lands protect natural water resource systems, water quality, recharge, fish and wildlife, and other wetland and floodplain functions. All District-owned lands are open to public access and enjoyment.

District lands, together with other public and private conservation lands, contribute to a major regional network of green space and conservation corridors. There are nearly 2.4 million acres of public and private conservation lands in northwest Florida. Two of the largest parcels of state-owned land are the Blackwater River State Forest and Tates Hell State Forest. Large federal landholdings include Eglin AFB and other Department of Defense lands, the Apalachicola National Forest, and the St. Marks National Wildlife Refuge. The Nature Conservancy and other private landowners also acquire and manage environmentally sensitive lands.

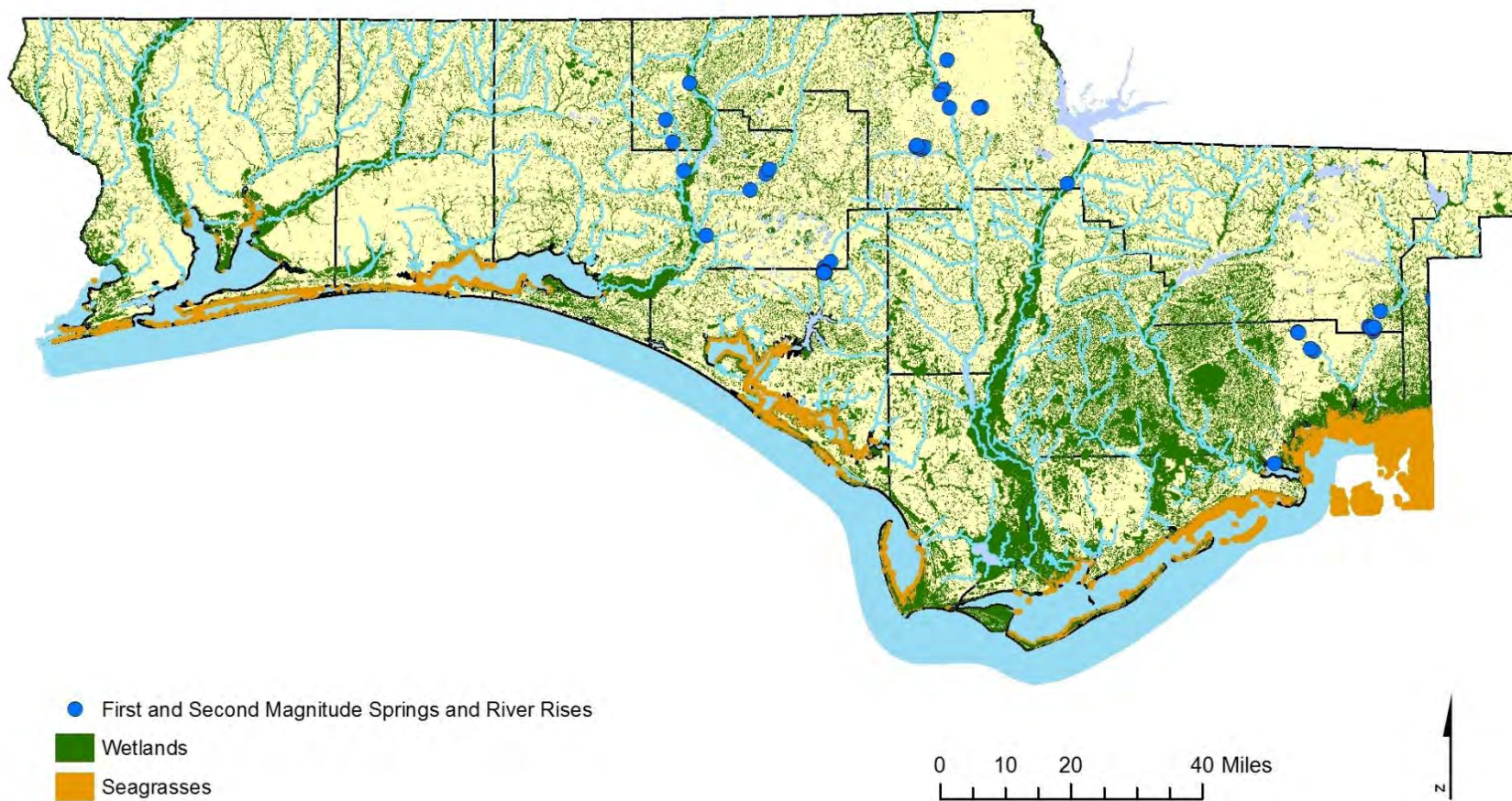


Figure 7. Major Surface Water Related Features of Northwest Florida

Table 5. NFWFMD Lands

| Water Management Area | Acres* | Water Management Area | Acres* |
|--------------------------|--------|----------------------------------|---------|
| Wakulla/St. Marks Rivers | 1,376 | Choctawhatchee River/ Holmes Cr. | 62,292 |
| Lake Jackson | 516 | Yellow River/Shoal River | 17,742 |
| Ochlockonee River Basin | 3,565 | Blackwater River | 380 |
| Apalachicola River | 37,866 | Garcon Point | 3,245 |
| Chipola River | 9,094 | Escambia River | 35,432 |
| Econfina Creek | 44,420 | Perdido River | 6,265 |
| | | Total (both columns) | 222,193 |

*Fee and less-than-fee ownership as of July 2010.

Additional information concerning land management and acquisition may be found at www.nfwfmd.state.fl.us/lands/lands.htm.



Figure 8. Northwest Florida’s Public and Conservation Lands

Regional threats to water related natural systems include degraded water quality, as described above, as well as direct and indirect habitat impacts, such as wetland loss and fragmentation, and lost and diminished wetland, floodplain, and riparian habitat functions. Cumulative effects are particularly important to consider in the protection and management of natural systems.

Table 6. Natural Systems

| | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>STRENGTHS</i></p> <ul style="list-style-type: none"> • Partnership and cooperation with other governmental and private organizations with complementary functions and authority • Extensive water management lands and other public lands that protect ecosystem health and productivity • Ability to leverage significant external funding • Technical capability • District-wide mitigation planning | <p><i>OPPORTUNITIES</i></p> <ul style="list-style-type: none"> • New technology and data sources • Federal and other external funding sources that can match and extend existing funds • Mitigation funding sources available to protect and restore large and continuous tracts of wetland habitat • Regulatory framework in place to avoid and minimize impacts to water resources |
| <p><i>WEAKNESSES</i></p> <ul style="list-style-type: none"> • Constitutional millage rate cap limits dedicated funding sources for long-term management • Hydrologic, water quality, and biological data gaps | <p><i>THREATS</i></p> <ul style="list-style-type: none"> • Loss and fragmentation of wetlands and other water related habitats cumulatively diminishes resource quality and public benefits. • Cumulative impacts of new development resulting in significant loss of wetlands and other natural resources • Upstream and out of state withdrawals and pollution impacts to aquatic ecosystems • Long-term sea level rise |
| <p style="text-align: center;"><i>NATURAL SYSTEMS STRATEGIC PRIORITIES</i></p> <ul style="list-style-type: none"> • Cumulative Impacts Analysis • Environmental Resource Permitting • No Net Loss of Wetland Function • Restoration • Lands Management | |

As with water quality, management of water related natural systems is accomplished on a watershed basis. Natural systems initiatives include [SWIM](#), [land acquisition and management](#), [regional wetland mitigation](#), and [ERP](#). To meet the requirements of section [373.042](#), FS, the District also evaluates cumulative effects of withdrawals and the fresh water needs of aquatic ecosystems. The District has also enacted reservations of water pursuant to Chapter [40A-2](#), FAC.

5 – FLOOD PROTECTION

Maintain natural floodplain functions and minimize harm from flooding.

Floodplains provide functions essential for sustaining natural systems and protecting human communities. These functions include storage and regulation of runoff, attenuation of flood energy, erosion control, and fish and wildlife habitat. Additionally, when floodwaters overtop stream banks and spread into floodplains, water velocity is diminished, allowing mobilized sediments to resettle out of the water column. Scouring and sedimentation downstream are also reduced due to diminished flood energy. In this manner, floodplains contribute greatly to the protection of water quality.

Flood prone areas are widespread across northwest Florida. The Apalachicola, Choctawhatchee, and Escambia rivers are major alluvial rivers with extensive floodplains. Other significant floodplains are along the Yellow, Shoal, Blackwater, Ochlockonee, and St. Marks rivers and numerous tributaries. Flood prone areas associated with coastal plain wetlands and intervening rivers are distributed across Bay, Gulf, Franklin, Liberty, and Wakulla counties.

There are no major flood control facilities in northwest Florida, and the District does not own or operate any flood protection structures. The major dams in the region were constructed primarily for water supply, hydropower, recreation, or navigation and have limited flood storage capacity. Because a structural approach to flood protection is more expensive, typically more detrimental to natural resources, and potentially riskier than a nonstructural strategy, the District implements nonstructural flood protection measures. These include floodplain acquisition, flood hazard map modernization in cooperation with the Federal Emergency Management Agency (FEMA), discouragement of development in flood prone areas, and regulation of certain impoundments.

The District's primary involvement in structural flood protection is through the ERP and Management and Storage of Surface Waters (MSSW) programs (chapters 62-346 and 40A-4, FAC, respectively). Through these programs, District staff ensure facilities protect water quality and hydrologic functions, and that they are safe and structurally sound. It is anticipated that flood protection will also be enhanced as wetland regulation is implemented through ERP, as this will encode complementary management and protection of interrelated wetland and floodplain functions. Additionally, the District encourages multi-purpose stormwater facilities that improve both flood protection and water quality.

The District addresses flood protection, floodplain management, and hydrologic data acquisition on a watershed basis. Flood maps are updated by the District through the Risk MAP (Mapping, Assessment, and Planning) program, a successor to the Map Modernization Program. The District is the cooperating technical partner with FEMA for performing [flood hazard mapping](#) in the Florida Panhandle. Flood insurance rate maps are being developed using high resolution aerial photography, Light Detection and Ranging (LiDAR) elevation data, and hydrologic studies, which are now available digitally. Public outreach is an important component of this initiative. Additional information may be found in the District's [Business Plan](#) for Risk MAP and Map Modernization.

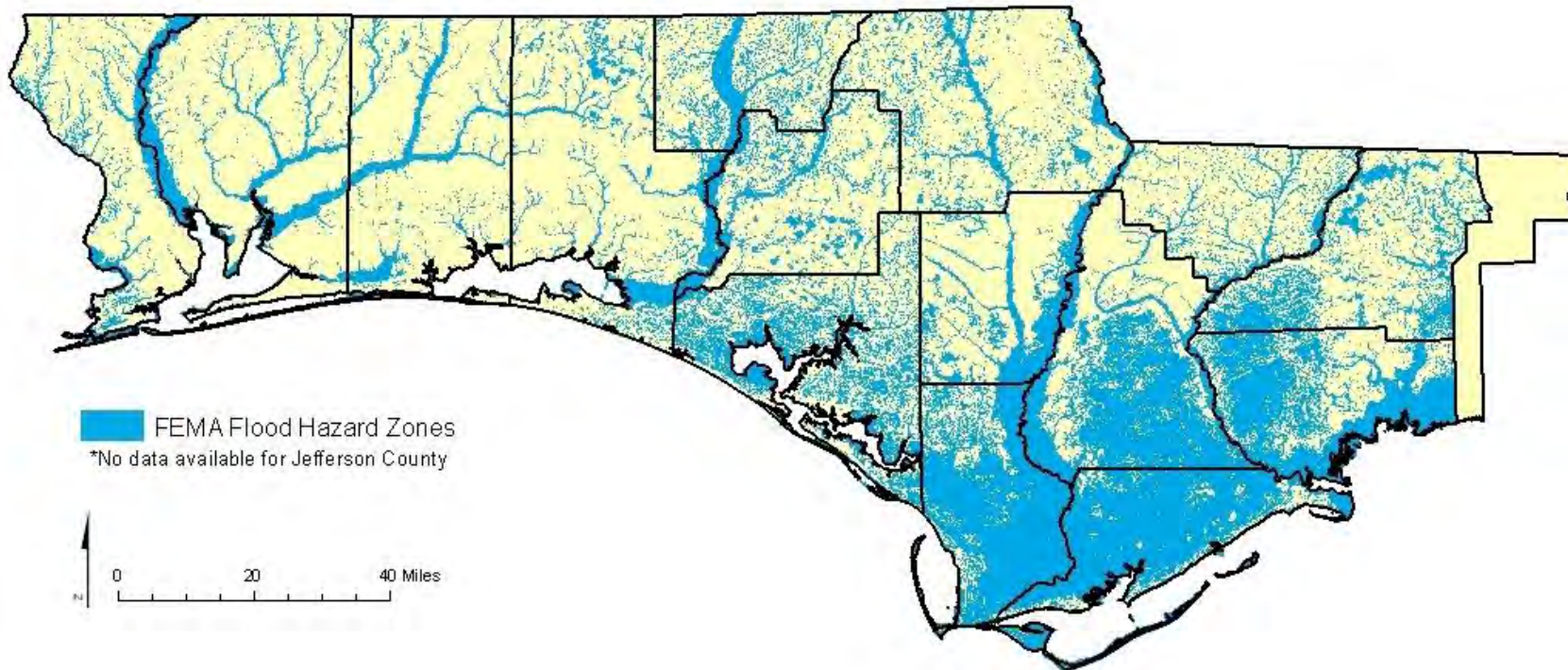


Figure 9. Flood Hazard Areas of Northwest Florida

Major regional threats to floodplain resources and functions include fragmentation and displacement of floodplains and wetlands, which reduces natural water storage and flow regulation capacity, inadequate urban stormwater infrastructure, and historically inaccurate floodplain maps. The cumulative effects of urban development also increase flow rates and peak flood elevations.

Table 7. Flood Protection and Floodplain Management

| | |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><i>STRENGTHS</i></p> <ul style="list-style-type: none"> • Public ownership of the majority of the major riverine floodplains in the Panhandle • Partnership and cooperation with other governmental and private organizations with complementary functions and authority • Dam safety regulation • Ability to leverage significant external funding • Environmental Resource Permitting program • Technical capability and long-term outlook | <p><i>OPPORTUNITIES</i></p> <ul style="list-style-type: none"> • New federal funding (FEMA) • New technology and data sources • Federal and other external funding sources that can match and extend existing funds |
| <p><i>WEAKNESSES</i></p> <ul style="list-style-type: none"> • Infrastructure funding limitations • Public access to reliable floodplain delineation and elevation data is limited. | <p><i>THREATS</i></p> <ul style="list-style-type: none"> • Storm surge from hurricanes and major tropical storms • Extreme rainfall events • Climate change and sea level rise |

FLOOD PROTECTION STRATEGIC PRIORITIES

- Environmental Resource Permitting
- Flood Hazard Mapping
- No Net Loss of Wetland Function
- Restoration
- Lands Management

6 – INTEGRATED MANAGEMENT

The District’s regulatory, land acquisition and management, and resource management programs continually implement a wide variety of water resource management activities, all oriented toward meeting statutory responsibilities and achieving the agency’s goals. These activities are inherently interrelated and interactive. For example, actions taken to protect water quality are frequently important for the sustainability of water supplies and the health of natural systems. The table on the following page describes functional relationships between the District’s strategic priorities, management activities, and statutory areas of responsibility.

Northwest Florida Water Management District program implementation is organized under the Office of the Executive Director through four divisions: Resource Management, Land Management and Acquisition, Resource Regulation, and Administration. Major program activities include:

- Resource Management – includes water supply planning and development, watershed planning, restoration, wetland mitigation, floodplain mapping, local government grants, minimum flows and levels, hydrologic monitoring, water resource assessments, data collection and analysis, emergency operations support, Districtwide planning and reporting, and technical assistance.
- Land Acquisition and Management – includes acquisition, management, restoration, and enhancement of water management lands, as well as provision and enhancement of compatible public access and recreation.
- Resource Regulation – includes water use permitting, water well permitting, well contractor licensing, environmental resource permitting, surface water permitting, dam safety inspections, compliance data reporting, permit administration and enforcement, and other delegated regulatory responsibilities.
- Management and Administration – includes governing board support; management information systems; and general counsel, human resources, finance, audit, risk management, and administrative support services.

Significant public outreach and awareness components are provided under through District programs. These include water conservation campaigns, water resource education, public information initiatives and public relations activities concerning water resources and district programs.

Table 8. Integration of Strategic Priorities, Management Activities, and AORs

| <i>Management Activities</i> | <i>Areas of Responsibility</i> | | | | <i>Strategic Priorities</i> |
|-------------------------------------|--------------------------------|----------------------|------------------------|-------------------------|-----------------------------------------------------------------------------------------------------------------------------|
| | <i>Water Supply</i> | <i>Water Quality</i> | <i>Natural Systems</i> | <i>Flood Protection</i> | |
| Water Supply Development Assistance | ✓ | | | | Alternative Water Supply Development Coastal Utilities Interconnections Reuse of Reclaimed Water |
| Consumptive Use Permitting | ✓ | ✓ | ✓ | | Consumptive Use Permitting Cumulative Impacts Analysis Reuse of Reclaimed Water |
| Water Resource Development | ✓ | ✓ | ✓ | | Alternative Water Supply Development Coastal Utilities Interconnections Cumulative Impacts Analysis |
| Reuse Planning | ✓ | ✓ | ✓ | | Reuse of Reclaimed Water |
| Reservations of Water | ✓ | ✓ | ✓ | | Cumulative Impacts Analysis |
| Fresh Water Needs Assessment | ✓ | ✓ | ✓ | | Cumulative Impacts Analysis |
| Data Collection and Assessment | ✓ | ✓ | ✓ | ✓ | Alternative Water Supply Development Cumulative Impacts Analysis Flood Hazard Mapping Reuse of Reclaimed Water |
| Technical Assistance | ✓ | ✓ | ✓ | ✓ | Alternative Water Supply Development Coastal Utilities Interconnection No Net Loss of Wetland Function Restoration |
| Land Acquisition | ✓ | ✓ | ✓ | ✓ | Lands Management Restoration No Net Loss of Wetland Functions |
| Lands Management | ✓ | ✓ | ✓ | ✓ | Lands Management Restoration No Net Loss of Wetland Functions |
| Public Outreach and Education | ✓ | ✓ | ✓ | ✓ | Alternative Water Supply Development Flood Hazard Mapping No Net Loss of Wetland Function |

Table 8. Integration of Strategic Priorities, Management Activities, and AORs

| <i>Management Activities</i> | <i>Areas of Responsibility</i> | | | | <i>Strategic Priorities</i> |
|---------------------------------------------------------|--------------------------------|----------------------|------------------------|-------------------------|-------------------------------------------------------------------------------------------------------|
| | <i>Water Supply</i> | <i>Water Quality</i> | <i>Natural Systems</i> | <i>Flood Protection</i> | |
| Environmental Resource Permitting | | ✓ | ✓ | ✓ | Environmental Resource Permitting No Net Loss of Wetland Function Flood Hazard Mapping |
| Floodplain Mapping | | ✓ | ✓ | ✓ | Flood Hazard Mapping |
| Habitat and Hydrologic Restoration | | ✓ | ✓ | ✓ | Restoration No Net Loss of Wetland Functions Lands Management |
| Regional Wetland Mitigation | | ✓ | ✓ | ✓ | No Net Loss of Wetland Function Restoration |
| Surface Water Improvement and Management (SWIM) Program | | ✓ | ✓ | ✓ | Cumulative Impacts Analysis Restoration Flood Hazard Mapping No Net Loss of Wetland Function |
| Urban Stormwater Retrofit | | ✓ | ✓ | ✓ | Restoration |
| Surface Water Regulation | | ✓ | | ✓ | Environmental Resource Permitting |
| Dam Safety Inspections | | | | ✓ | Environmental Resource Permitting |
| Regulation of Wells | ✓ | ✓ | | | Consumptive Use Permitting |

7 – MONITORING AND REPORTING

Work Plan Annual Report

As required by section 373.036, FS, the Strategic Plan provides for an annual performance review and identification of milestones and deliverables to assess plan implementation. The review will be incorporated as Chapter 1 of the NFWMD March 1st Consolidated Annual Report. Elements of the strategic plan to be addressed in the report are:

- a) Evaluation of progress toward accomplishing Strategic Priorities (Section I);
- b) Accomplishment of Milestones and Deliverables (Table 9); and
- c) Project-based accomplishments from the past fiscal year.

Success indicators and milestones (Table 9) are assigned within the District to individual divisions, which are given responsibility to accomplish corresponding strategies. Indicators serve several purposes within a strategic plan. Beyond providing accountability, the process of identifying indicators helps to clarify objectives and intended results. Evaluating measures and indicators of success provides internal and external feedback for ascertaining whether a given project is achieving intended results and whether or not the underlying strategy is appropriate or should be changed. Additionally, periodic evaluation of success indicators facilitates assignment of new or adaptive management actions and ultimately clarifies when priorities have been successfully achieved and no further action is required.

Feedback and Evaluation

Accomplishment of strategic priorities and milestones will be evaluated together with the success indicators defined above in developing each succeeding year's strategic plan and strategic priorities. Additional success indicators and monitoring results are also identified in operational plans (Table 2) and are reported where specific issues addressed are not covered by the major strategy measures identified here.

Table 9. Success Indicators, Milestones, and Deliverables

| Strategic Priority | Success Indicator | Milestones and Deliverables |
|--------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Alternative Water Supply Development | <p>Alternative Water Supply Made Available (MGD), as outlined in the RWSPs.</p> <p><u>Target:</u> 71 MGD within regions II, III, and V.</p> <p><u>Measure:</u> Percent complete</p> | <ul style="list-style-type: none"> • RWSP updates <ul style="list-style-type: none"> ○ Region II: 2011 ○ Region V: 2012 ○ Region III: 2013 • Walton County Inland Wellfield facility expansion (2011) • Bay County Inland Wellfield construction (2012) • Okaloosa Co. Surface Reservoir designed and permitted (2015) |
| Coastal Utilities Interconnection | <p>Establishment of priority interconnections in regions II, III, and V.</p> <p><u>Target:</u> Miles of pipeline constructed per the Interconnection Plan</p> <p><u>Measure:</u> Percent complete</p> | <ul style="list-style-type: none"> • Coastal utility interconnections plan (2011) documents |
| Consumptive Use Permitting | <p>Consumptive use demand permitted District-wide</p> <p><u>Target:</u> 100% of projected demand</p> <p><u>Measure:</u> Percent of projected water demand under permit</p> | <ul style="list-style-type: none"> • Water Supply Assessment Update (2013) |
| Cumulative Impacts Analysis | <p>Complete cumulative impacts analysis on priority waterbodies and implement appropriate protection strategies for each.</p> <p><u>Target:</u> Completion of analysis for five priority waterbodies by 2015.</p> <p><u>Measure:</u> Percent of target</p> | <ul style="list-style-type: none"> • Inland Sand & Gravel Aquifer (2015) • Wakulla Springs (model analysis complete, 2012) • Jackson Blue Springs (model analysis complete, 2012) • Morrison Spring (2015) • Deer Point Lake Reservoir (2015) |
| Environmental Resource Permitting | <p>Full ERP implementation by 2010.</p> <p><u>Target:</u> Timely issuance of qualified permits</p> <p><u>Measure:</u> Percent of permits timely issued</p> | <ul style="list-style-type: none"> • ERP Phase II Live (November 2010) |
| No Net Loss of Wetland Function | <p>Credits developed per the UWRMP.</p> <p><u>Target:</u> 520 credits</p> <p><u>Measure:</u> Percent of Target</p> | <ul style="list-style-type: none"> • Umbrella Mitigation Plan Update (Annual) |

Table 9. Success Indicators, Milestones, and Deliverables

| Strategic Priority | Success Indicator | Milestones and Deliverables |
|---------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Flood Hazard Mapping | <p>Update of flood hazard maps for low-lying coastal and riverine communities.</p> <p><u>Target:</u> All new map panels adopted.</p> <p><u>Measure:</u> Percent of map panels adopted.</p> | <ul style="list-style-type: none"> • Business Plan Update (2012) • Flood map completion and update: <ul style="list-style-type: none"> ○ Jefferson County (2012) ○ Liberty County (2012) ○ Franklin County (2012) ○ Wakulla County (2012) ○ Bay County update (2013) ○ Gulf County update (2013) ○ Walton County (2013) ○ Okaloosa County (2013) ○ Escambia County (2013) ○ Santa Rosa County (2013) |
| Reuse of Reclaimed Water | <p>Beneficial reuse of available treated wastewater from major treatment systems across the District.</p> <p><u>Target:</u> 30 MGD additional beneficial reuse from priority facilities, as identified in the District Reuse Plan</p> <p><u>Measure:</u> Percent complete</p> | <ul style="list-style-type: none"> • Wakulla County Reuse Facility Complete (2012) • Reuse Plan document (2011) |
| Restoration | <p>Accomplish watershed-scale restoration initiatives across District lands and for priority waters identified in SWIM and land management plans</p> <p><u>Target:</u> 30,000 acres restored between 2010 and 2015</p> <p><u>Measure:</u> Percent complete</p> | <ul style="list-style-type: none"> • Ochlockonee SWIM Plan (2011) • Perdido SWIM Plan (2011) • SWIM Priority List Update (2011) • Pensacola Bay System SWIM Plan Update (2012) • Apalachicola SWIM Plan Update (2013) • St. Andrew Bay SWIM Plan Update (2015) |
| Lands Management | <p>Continue to manage District lands to protect water resources while making them available for compatible public uses.</p> <p><u>Target:</u> 50,000 acres active management over five years</p> <p><u>Measure:</u> Percent of Target</p> | <ul style="list-style-type: none"> • Springs restoration (2011) |

8 – FINANCIAL RESOURCES

This plan identifies financial resources available and projected to implement the District’s strategic priorities. It is a requirement of Florida Statutes to describe these finances as part of the strategic plan. Perhaps more importantly, the description of District financing provides an understanding of the practical limits of what the District can do with existing funds. Furthermore, this section identifies those activities that may generate future income and the District’s ability to leverage funding from multiple sources, including ad valorem tax, state and federal grants, permit fees, wetlands mitigation, timber sales, and other local sources of funding.

At the highest level, a proportional breakdown of the District’s budget with funding allocated by AOR is shown in Figure 10. To illustrate the budget breakdown with the AOR or strategic priority level pie diagrams shown below, some discretion was needed because funding serves multiple purposes. Detailed line item budget figures are extracted from the District’s budget database. Budgets in the near future are not expected to change significantly due to modest economic growth projections. District-wide population projections abstracted from Table 1 shown in Figure 11, are indicative of this economic projection which has slowed significantly in the region since 2006.

FY 2010-2011
\$117,072,542

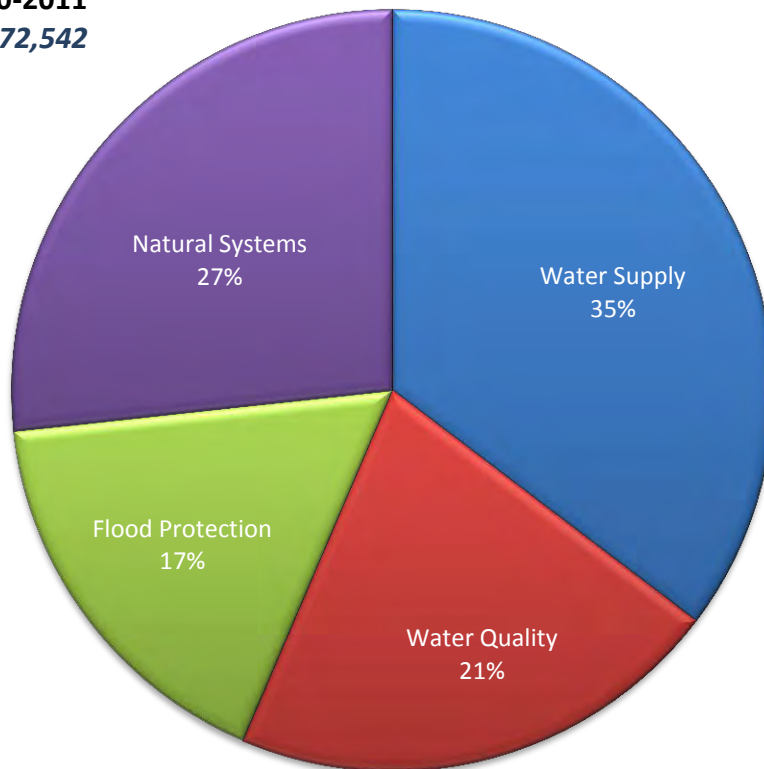


Figure 10. NFWMD Budget Breakdown by AOR

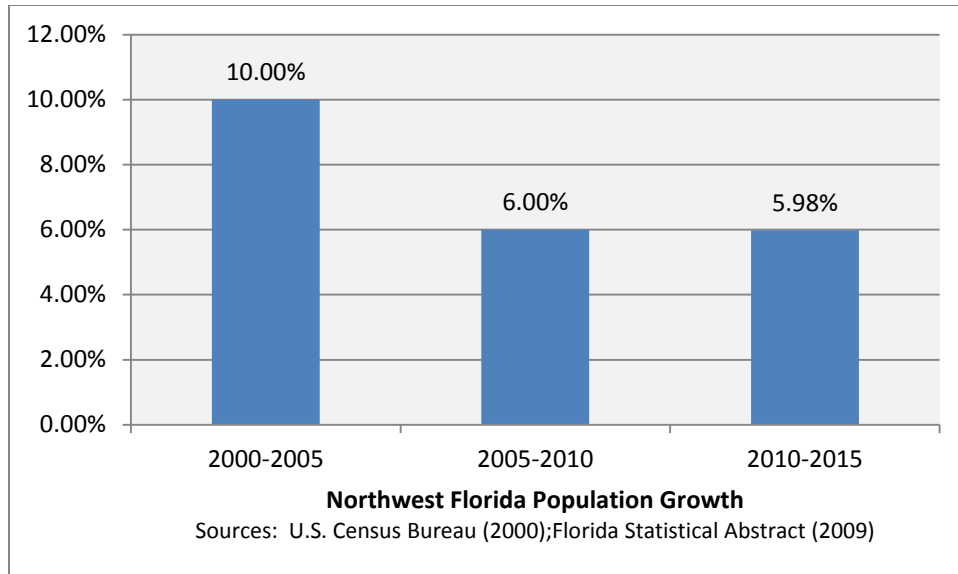


Figure 11. District-wide Population Growth Trends and Projections

Current Year Operational Funding

Current funding levels broken down by priority strategy are shown in Figure 12. Estimates of administrative support or overhead type expense have been distributed across all strategies in this figure. The identified funds represent the anticipated operating expenditures over the current fiscal year. Descriptions of the major funding sources follow. A projection of future funding through the remainder of the five year planning horizon follows. Existing reserve funds are also described.

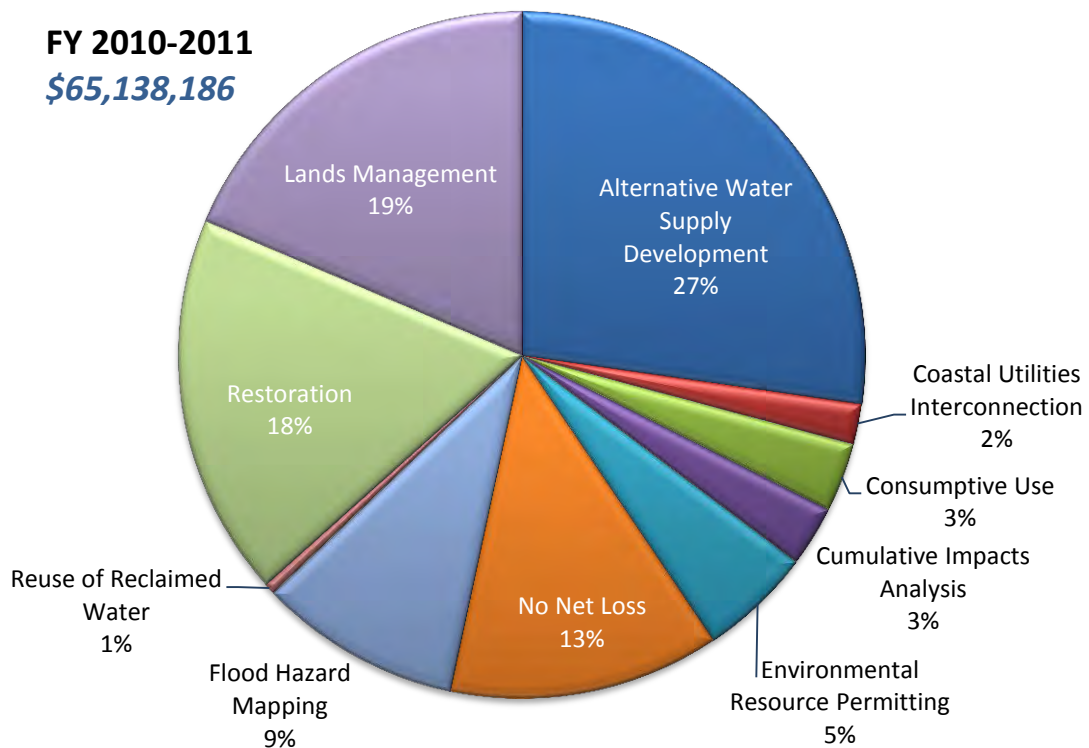


Figure 12. FY 2010-1011 Operating Budget Allocations by Strategic Priority

Major Funding Sources

Funding for NFWMD programs comes from a combination of sources, including ad valorem taxes, general revenue appropriations from the Florida Legislature, trust funds, other state programs and grants, federal agency grants, contractual services to local governments, and other sources. Funding sources are reviewed below. Current year revenues are indicated.

AD VALOREM TAXES (recurring annually, \$3,954,369 in FY 2010-2011)

While Florida's five water management districts have similar responsibilities, available financial resources vary considerably between them. A constitutional and statutory millage cap of 0.05 mil, as compared to 1.0 mil in other districts, is unique to northwest Florida. Financial resources for district programs and activities are therefore constrained and substantially dependent upon non-dedicated and nonrecurring funding sources. Consequently, the District relies heavily on state, federal, and other sources to conduct its programs and is unable to implement some of the programs the other districts implement. A small percentage of the General Fund is used to match state and federal grants when the funding to water resource benefit ratios are good.

WATER MANAGEMENT LANDS TRUST FUND (\$21,109,395)

The Water Management Lands Trust Fund (WMLTF, section 373.59, FS) supports management, maintenance, and capital improvements on District-owned lands; payment-in-lieu-of-taxes to qualified counties; the SWIM Program; and regional water supply planning and water resource development. The state has also recently appropriated funding from the Water Management Lands Trust Fund for the Environmental Resource Permitting (ERP) program. Future income from this fund is somewhat uncertain, because it is dependent upon housing growth (documentary stamps) and the state appropriations process. The Legislature has substantial discretion in the allocation of WMLTF revenues to the District. If they remain constant, however, it can be anticipated that the District would receive approximately \$80 million from the WMLTF from fiscal year 2012 through 2015. The WMLTF may be leveraged for projects such as water resources development or SWIM as long as there is a candidate source of match funding available and when utilized to meet the statutory purposes of the fund.

FLORIDA FOREVER TRUST FUND (\$4,735,500)

The Florida Forever Trust Fund has provided a primary resource for District land acquisition and construction funding for capital improvement projects. Funding for the Florida Forever program has been substantially reduced after the 2008-2009 fiscal year. Without continuation or new bond funds appropriated, future land acquisition and capital improvements will be severely limited.

FDOT MITIGATION FUND (\$12,207,266)

Funding provided by the Florida Department of Transportation (FDOT) provides for compensatory mitigation of wetland impacts incurred by state transportation projects. Mitigation is accomplished through implementation of the Umbrella Regional Wetland Mitigation Plan (URWMP). The URWMP is currently being designed per U.S. Army Corps of Engineers guidance to facilitate development of mitigation credits that serve private as well as public needs. This includes development and sale of mitigation credits from the plan and the Sand Hill Lakes Mitigation Bank. The development of mitigation credits requires long term restoration expense as well as perpetual maintenance of lands acquired for mitigation. Therefore, a portion of the FDOT mitigation funding is placed in reserves until needed for this purpose. The remaining funds are used to develop new mitigation projects or banks to meet future no net loss demands as well as to fund other water resources restoration

activities of the District. New revenues are expected in the future as the District releases mitigation credits through the URWMP and as FDOT wetland mitigation needs are met. Future revenues through 2015 which are based upon wetland credits developed are projected to be \$25 million to \$50 million depending upon when the mitigation credits will actually be needed for transportation improvements or other development.

WATER PROTECTION AND SUSTAINABILITY PROGRAM TRUST FUND (\$5,892,867)

The Water Protection and Sustainability Program Trust Fund (WPSPTF) was established in 2005 pursuant to sections 403.890 and 373.707, FS, as a major source of funding for alternative water supply development, as well as water resource development, springs protection, and SWIM. The Legislature funded this program through the 2008-2009 fiscal year. Due to the economic downturn, no new funds have since been appropriated. District expenditures under the Water Protection and Sustainability Program are thus limited to completion of projects approved using previously appropriated funds. Future funding through this fund is uncertain but will continue to be sought. A long term projection through remainder of the five-year planning horizon, assuming a favorable Florida economic trend, is approximately \$15 million. This would be applied primarily for alternative water supply and reuse. Under Florida Statutes as currently written, the District and/or local utilities would normally have to provide 60% match toward this funding.

ECOSYSTEM MANAGEMENT AND RESTORATION TRUST FUND (\$3,599,624)

The Ecosystem Management and Restoration Trust Fund (EMRTF) is used for funds appropriated by the Legislature for the purposes of the SWIM program (s. 373.451-459, FS). Allowable uses of these funds include detailed planning and project implementation for designated SWIM priority waterbodies. District activities funded through this primarily include surface water restoration projects for the Apalachicola, Pensacola, St. Andrew Bay, and Choctawhatchee watersheds.

OTHER STATE, LOCAL, AND PRIVATE FUNDING SOURCES (\$2,518,593)

State agencies and local governments often contract with the District for technical services and assistance to cooperatively monitor or improve water resource management. District activities are funded by the contracting agencies or local governments. The District on occasion also receives grant funding from private institutions or sporadic local cooperative match. However, most of its local and state funds have been long term contracts, and it is therefore anticipated that this level of funding can be counted on through the next five years. The services the District provides in utilizing these funds are very contract specific.

FEDERAL REVENUE (FEMA, DOD, NOAA, and EPA, \$7,121,449)

The Department of Environmental Protection and other state agencies often use federal funds in contracts with the District. These funds are granted to the state agency and disbursed to the District as pass-through or sub-grantee funds. The District also receives funds directly from federal agencies through grant programs and contracts. Federal funding is often obtained on a competitive basis requiring matching funds. Federal funds, therefore, leverage District, state, and local resources. Future FEMA funding is also anticipated over the next 5 years as the District enters into the Risk MAP phase of the FEMA flood insurance program. Future anticipated revenues are approximately \$1,000,000 year and the District is expected to continue to provide 25% in-kind match, including local government sources. Additional funds budgeted include a grant from the Department of Defense Readiness and Environment Initiative for acquisition of a conservation easement that helps implement the Northwest Florida Greenway Corridor, water quality monitoring funding from the U.S. Environmental Protection Agency, and funding from the National Oceanic and Atmospheric Administration to evaluate potential effects of sea level rise in northwest Florida through 2050.

OTHER DISTRICT REVENUES (\$3,728,915)

Other District revenue sources include regulatory fees and penalties, interest, timber sales, and apiary leases. The District establishes its regulatory fees and has the ability to adjust them. Timber Sales are market driven, as well as resource driven when the forest area requires thinning or harvesting for water resource restoration purposes. For planning purposes, future funding can be expected to remain constant, although actual revenues will depend on economic conditions and specific resource needs.

Future Funding

Future funding projections through 2015, as discussed above, are shown broken down by strategic priority in Figure 13. Annually, projected funding based on all sources is approximately \$49 million. Among the assumptions applied in generating this projection is that the Florida Forever and Water Protection and Sustainability trust funds would recover as funding sources during the latter two years within the planning horizon. This includes funding encumbered by FDEP for District programs. Additional encumbrances, such as those held by FEMA, are not included. As ad valorem tax is the only consistent dedicated recurring funding source, there is always uncertainty in these projections. This funding inequity requires the District to carefully prioritize its efforts to ensure that the water management issues of the greatest regional importance are addressed. If there is a funding shortfall or elimination of a source, a reduced level of effort in the program area associated with the source is likely. However, as discussed below, the District holds some revenue in reserve which at least over the short term is sufficient to counteract such shortfalls.

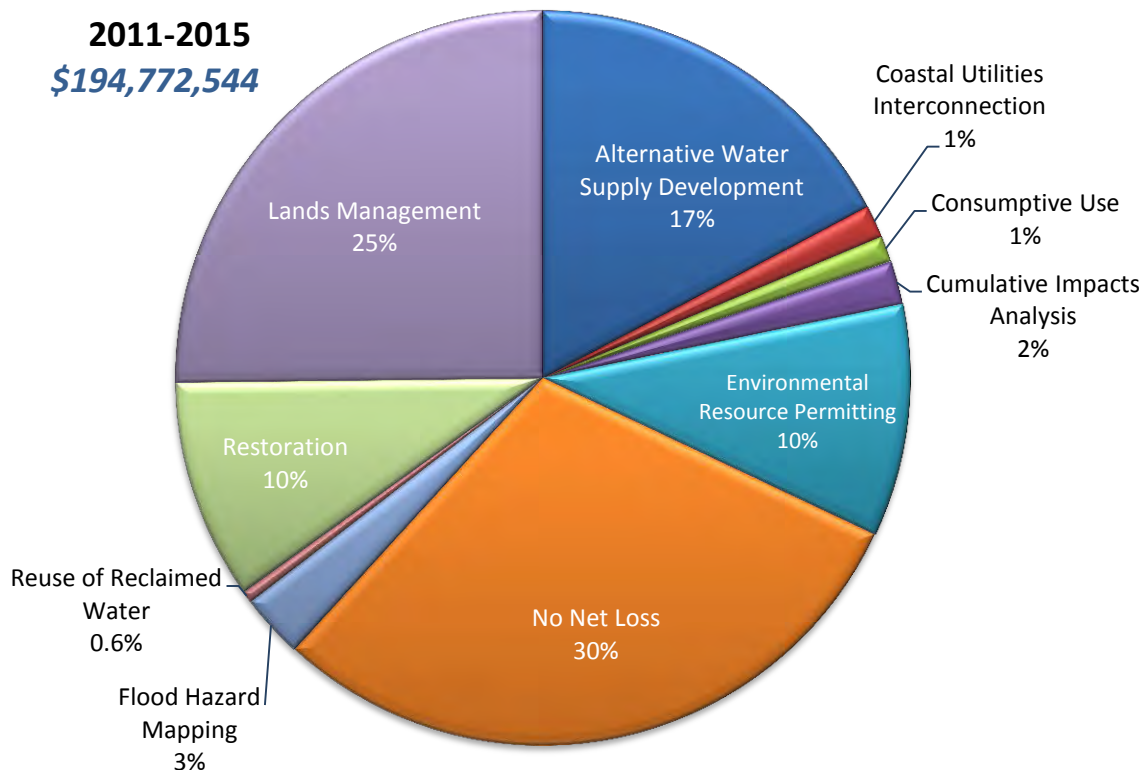


Figure 13. Anticipated Future Operating Revenues, 2011-2015

Reserve Funds

The District has a number of dedicated reserve accounts (sinking funds) to accumulate money for necessary large expenditures and to support ongoing programs should an unanticipated revenue shortfall occur. These include reserve accounts for minimum flows and levels, water supply planning, water resource and supply development, land acquisition and management, resource regulation, surface water projects, mitigation, administrative and facilities support, and others. The District also has a budget stabilization reserve, based on the state model, to access in the event that combined revenues become insufficient to fund District obligations. The total reserve as identified in the District budget is \$51,934,356. The distribution of reserves as currently budgeted is shown by strategic priority in Figure 14. When distributed as shown, it is clear that these funds would not last too long if they were used to supplant projected income by strategic priority shown previously in Figure 12. However all of these reserves are essentially unrestricted in their use. This gives the Governing Board maximum latitude to redirect funding where shortfalls occur or to apply it to other high priority issues. Also, the total annual income the District is projected to receive, as discussed previously, is roughly equivalent to the total amount currently in reserves.

FY 2010-2011
\$51,934,356

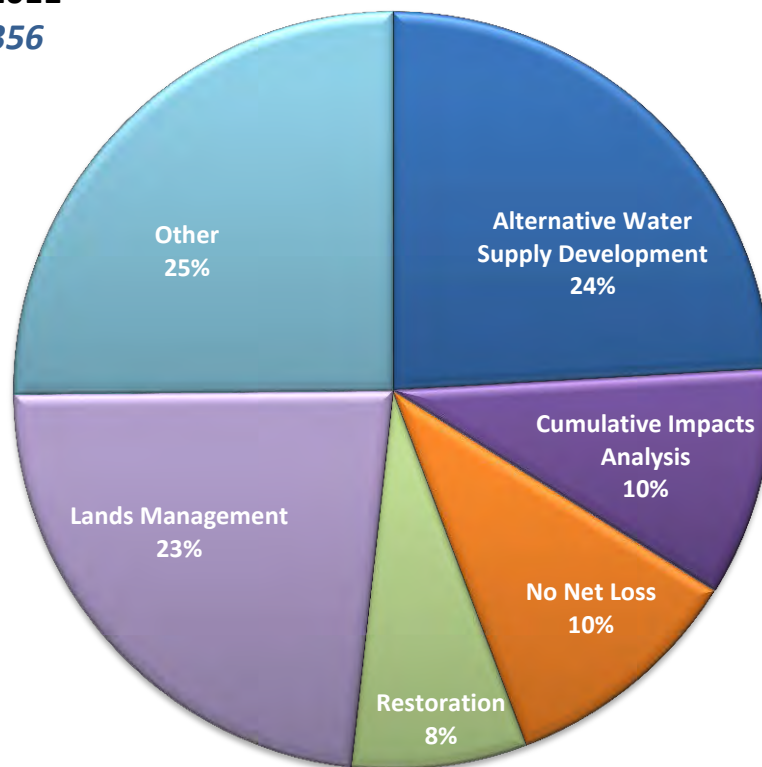


Figure 14. FY 2010-1011 Reserve Allocations by Strategic Priority

* “Other” represents non-designated cash carryover and reserve funds for facility operations and administrative expenses not assigned to a specific strategic priority.

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