

Northwest Florida Water Management District

Consolidated Annual Report

March 1, 2010
Annual Report 2010-02

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Cover photos of 2008-2009 activities include (from left): the new Fillingim Landing Canoe Launch (Perdido Water Management Area); Sharer Road Stormwater Improvement Project (City of Tallahassee); District Field Representative Mark Ihlefeld performing water quality sampling at Hole-in-the-Wall Spring in Merritts Mill Pond (Jackson County); and Look-N-Tremble Rapids, land acquisition in the Chipola River Water Management Area.

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Executive Summary

This Consolidated Annual Report fulfills the requirement of section 373.036(7)(a), Florida Statutes (F.S.), that the Northwest Florida Water Management District (NWFWMD or District) annually submit a report on management of water resources to the Governor, the President of the Senate, the Speaker of the House, and the Department of Environmental Protection (DEP). Copies of the report must also be provided to the chairs of legislative committees having substantive or fiscal jurisdiction over water management districts and the governing boards of all counties having jurisdiction or deriving funds for operations of the District. Each report must also be made available to the public in either a printed or electronic format.

The March 1, 2010, NWFWMD Consolidated Annual Report includes seven required reports, as specified in Section 373.036(7)(b), F.S. These are:

- The District Water Management Plan Annual Report;
- The Minimum Flows and Levels Annual Priority List (per s. 373.042(2), F.S.);
- The annual Five-Year Capital Improvement Plan (s. 373.536(6)(a)3, F.S.);
- The final annual Five-Year Water Resource Development Work Program (s.373.536(6)(a)4, F.S.);
- The Alternative Water Supplies Annual Report (s. 373.1961(3)(n), F.S.);
- The Florida Forever Water Management District Work Plan Annual Report (s.373.199(7), F.S.); and
- The Mitigation Donation Annual Report (s.373.414(1)(b)2, F.S.).

In addition to the required sections, each district may also include additional information on the status or management of water resources as deemed appropriate. This report includes one optional element, a Surface Water Improvement and Management Program and Watershed Restoration Summary Report. The summary report focuses on project implementation under the framework of the Surface Water Improvement and Management (SWIM) program.

These reports are provided in the following chapters and provide a current status of a number of District programs, including land acquisition and management, watershed restoration, water resource development, and alternative water supply development. Among the programs and accomplishments reported are the following:

- The District continues implementation of the Environmental Resource Permitting (ERP) program for northwest Florida. During the second year of Phase I (stormwater) ending in September 2009, District staff issued 419 permits. Also during 2009, several public workshops were held throughout northwest Florida on the proposed Phase II (wetland permitting) rule as well as best management practices for stormwater implementation. Phase II, enhancing protection for wetlands connected to other surface waters, and isolated wetlands not previously protected by state law in northwest Florida, is expected to be implemented in 2010. www.nwfwmd.state.fl.us/permits/permits-ERP.html **(District Water Management Plan Annual Report).**

- The District completed an updated water supply assessment in May 2009. The assessment includes demand projections and a resource assessment through 2030. Total water use is projected to increase by 43% during the 2005-2030 planning horizon to approximately 496 MGD by 2030. The Water Supply Assessment Update recommends continued water supply planning efforts in regions II, III and V and does not identify any new regions that need a regional water supply plan. The water demand

projections will be updated again in 2013. **(District Water Management Plan Annual Report, Water Supply)**

- The District is developing plans to interconnect water utilities in coastal communities from Gulf Breeze to Port St. Joe (Santa Rosa County through Gulf County). The project will provide planning, engineering, modeling, design, permitting, and construction services for the implementation of regional water system interconnects with the objective of increasing water supply reliability coastal panhandle communities in the event of water shortages resulting from environmental emergencies, natural disasters, or system failures. In April, the District hired a contractor through a competitive selection process to provide the services for implementation of the project. **(District Water Management Plan Annual Report, Water Supply)**

- During 2009, the District acquired over 1,600 acres to protect the Chipola River. The middle Chipola River corridor consists of 3.5 miles of river frontage, including the Look-N-Tremble rapids, located north and south of County Road 274 in Calhoun County. The acquisition includes three perennial streams and seven diverse upland and wetland habitat types. The District plans to make the area available for recreation activities, subject to public input. These may include canoeing, tubing, hiking, fishing, hunting, birding, primitive camping and nature appreciation. **(District Water Management Plan Annual Report; Florida Forever Five Year Work Plan)**

- Through the end of 2009, the District has acquired 221,697 of the 380,160 acres identified in the 2009 Florida Forever Land Acquisition Work Plan through fee and less-than-fee purchases and donation. Of this, 172,997 acres of floodplain have been acquired of 286,738 floodplain acres identified. This comprises 60 percent of the area identified as vulnerable to flooding and represents significant progress by the District in floodplain protection. **(District Water Management Plan Annual Report; Florida Forever Five Year Work Plan)**

- Work continues on the Flood Map Modernization program implemented in cooperation with the Federal Emergency Management Agency (FEMA). During FY 2008-2009, final effective digital flood insurance rate maps (DFIRMs) were completed for Bay, Gadsden, and Leon counties. Previously completed final effective DFIRMs have been completed for Escambia, Santa Rosa, and Gulf counties. Preliminary DFIRMS have been completed in Calhoun, Holmes, Jackson, Washington, and Walton counties, and work continues on updating maps in Franklin, Jefferson, Liberty and Wakulla counties. www.nwfwmdfloodmaps.com **(District Water Management Plan Annual Report, Flood Protection and Floodplain Management)**

- The Governing Board approved an update to the St. Marks River SWIM Plan in August 2009. The plan presents strategies to sustain watershed resources and ecosystems from Lake Miccosukee to Apalachee Bay. Improving stormwater treatment continues to be a priority, along with protection of springs and their ground water contribution areas. Other priorities include assessment of estuarine fresh water needs, habitat restoration, and education and outreach. The plan provides a framework for District management actions and local government grant-funded projects to protect and improve water and habitat quality in the watershed. (**District Water Management Plan Annual Report, Water Quality)**

- The District has completed acquisition of detailed elevation data, acquired through use of Light Detection and Ranging (LiDAR) technology, for nearly the entire District. This process has been a cooperative effort involving federal, state, and local governments. The District is continuing to process these data and, with local government support, is seeking efficient and effective ways to distribute it via the internet for public use. **(District Water Management Plan Annual Report)**

- District-wide, ten alternative water supply development and water resource development projects have been approved for funding through the Water Protection and Sustainability Program. Over $21 million dollars in grant funding have been awarded for projects that are expected to provide over 35 MGD of alternative water supplies. **(Alternative Water Supplies Annual Report)**

- The District continues to assist local governments with previously approved capital improvement projects that will provide water quality and aquatic and wetland ecosystem benefits. To date, over $21.8 million in grant funding have been awarded for implementation of stormwater retrofit, nonpoint source pollution abatement and habitat restoration projects in twelve counties. New grant cycles of the Florida Forever Capital Improvement Grant Program have been postponed until at least the 2010-2011 fiscal year due to legislative budgetary constraints with the Florida Forever Trust Fund. **(District Water Management Plan Annual Report; Florida Forever Five Year Work Plan)**

- During the past fiscal year, District staff continued to implement and develop its mitigation plan and in-lieu fee program under its agreement with the U.S. Army Corps of Engineers (USACOE) and Chapter 373.4137, Florida Statutes, to provide compensatory wetland mitigation for impacts incurred for several Florida Department of Transportation (DOT) projects. During the coming year, continued emphasis will be placed on implementing mitigation projects meeting the new USACOE permit rules regarding in-lieu fee and banking instruments, as well as identifying future mitigation efforts under our mitigation plan. The mitigation plan and additional information are available at www.nwfwmdwetlands.com. **(District Water Management Plan Annual Report, Natural Systems)**

- Implementation of the District's mitigation plan also continued through restoration and management of the Sand Hill Lakes Mitigation Bank in Washington County. Removal of sand pine plantations, shrub reduction, re-planting of wiregrass and longleaf pines, native and exotic species surveys, fire management, water level monitoring, and exotics removal all continue on the property. More information on the mitigation bank can be found at www.nwfwmdwetlands.com. **(District Water Management Plan Annual Report, Natural Systems)**

- Land management and restoration activities on District lands during 2008-2009 included prescribed burns, native species planting and timber harvesting across the District's 210,497 managed acres. Restoration was completed on 1,602 acres of District lands, including the planting of approximately 557,500 longleaf pines, 14,520 slash pines, and 909,920 wiregrass tubelings. Public access was enhanced through construction of a new canoe/kayak launching facility at Fillingim Landing on the Perdido River. Additionally, two wooden suspension bridges across Econfina Creek were constructed in cooperation with the Florida Trail Association, the Florida Office of Greenways and Trails, and the U.S. Forest Service. **(District Water Management Plan Annual Report; Florida Forever Five Year Work Plan)**

- Under the framework of the SWIM Program, priority watershed restoration activities are in progress across the District. These include approximately 51 construction projects implemented within seven watersheds, funded through special appropriation and other complementary SWIM programs and in cooperation with local governments and state and federal agencies. The current projects represent long-term watershed resource restoration encompassing over 40,000 acres District-wide. **(SWIM Program and Watershed Restoration Summary Report)**

This consolidated annual report is available through the District's web site at www.nwfwmd.state.fl.us/pubs/consolidatedAR/consolAR.html.

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Overview

Chapter 2005-36, Laws of Florida, as enacted through 2005 House Bill 727, implemented statewide a consolidation of legislatively mandated plans and reports regarding the status of water management district programs and water resources within each district's jurisdiction. Beginning March 1, 2006, and annually thereafter, a consolidated annual report is submitted to the Governor, the President of the Senate, the Speaker of the House, and the Department of Environmental Protection (DEP). Copies of the report are provided to the chairs of all legislative committees having substantive or fiscal jurisdiction over water management districts, as well as the governing boards of all counties having jurisdiction or deriving any funds for operations of the appropriate district. The report is also made readily available to the public.

As provided under s. 373.036(7)(b), Florida Statutes (F.S.), the consolidated annual report must include the following elements:

- A District Water Management Plan annual report or an annual work plan report on strategic plan implementation;
- The DEP approved Minimum Flows and Levels annual priority list (per s.373.042(2), F.S.);
- The annual 5-year Capital Improvement Plan (s. 373.536(6)(a)3, F.S.);
- The Alternative Water Supplies Annual Report (s. 373.1961(3)(n), F.S.);
- The final annual 5-Year Water Resource Development Work Program (s.373.536(6)(a)4, F.S.);
- The Florida Forever Water Management District Work Plan Annual Report (s.373.199(7), F.S.); and
- The Mitigation Donation Annual Report (s.373.414(1)(b)2, F.S.).

Each of the aforementioned requirements must be addressed in separate chapters, although elements common to more than one requirement may be consolidated where appropriate. In addition to the required chapters, the statute provides that districts may include additional information on the status or management of water resources as deemed appropriate. This report includes one optional element, a Surface Water Improvement and Management Program and Watershed Restoration Summary Report that focuses on project implementation under the framework of the Surface Water Improvement and Management (SWIM) program. Inclusion of this element is appropriate given the importance of the SWIM program for the Northwest Florida Water Management District (NWFWMD). Since this program encompasses watershed management District-wide, it provides the planning context for identifying, prioritizing, and implementing cooperative watershed protection and restoration projects.

Together these reports provide the status of NWFWMD programs including land acquisition and management, watershed restoration, water resource development, alternative water supply development, and minimum flows and levels. Information relating to the status of other important District programs may be found through the following sources:

- Environmental Resource Permitting for northwest Florida (s. 373.4145, F.S. – www.nwfwmd.state.fl.us/permits/permits-ERP.html.
- Regional Mitigation for wetland impacts incurred by Florida Department of Transportation impacts (s. 373.4137, F.S) – www.nwfwmdwetlands.com.
- Northwest Florida Flood Hazard Map Modernization in cooperation with the Federal Emergency Management Agency – www.nwfwmdfloodmaps.com.

Report Organization

The required and optional elements are organized in this report as follows:

Chapter 1. Introduction

Chapter 2. District Water Management Plan Annual Report

Chapter 3. Minimum Flows and Levels Annual Priority List

Chapter 4. Annual Five-Year Capital Improvements Plan

Chapter 5. Water Supply

- 5.1 Annual Five-Year Water Resource Development Work Program
- 5.2 Alternative Water Supplies Annual Report

Chapter 6. Florida Forever Water Management District Work Plan Annual Report

- 6.1 Land Acquisition Five Year Work Plan
- 6.2 Land Acquisition Work Plan Annual Report
- 6.3 Florida Forever Capital Improvement Work Plan

Chapter 7. Mitigation Donation Annual Report

Chapter 8. Surface Water Improvement and Management Program and Watershed Restoration Summary Report

Chapter 9. References

2 District Water Management Plan Annual Report

Introduction

The second update of the Northwest Florida Water Management District's District Water Management Plan (DWMP) was approved by the Governing Board in September 2005. The 2005 update describes recent initiatives together with continuing long-term programs. Additionally, the plan describes how a broad array of plans and programs fit within an integrated framework so as to address the District's statutorily-defined areas of responsibility (AORs): water supply, flood protection and floodplain management, water quality, and natural systems. The plan is scheduled to be updated again in 2010.

Provisions of Chapter 62-40.520, Florida Administrative Code (F.A.C.), require the District to include within the DWMP a procedure for evaluating progress toward implementing the plan on an annual basis. The DWMP is organized to address District programs and projects across the above-mentioned AORs. It should be noted that most issues and programs span two or more of these interrelated AORs, and it is customary to approach specific programs and projects in an interdisciplinary, holistic manner. For reporting purposes, however, accomplishments and priorities listed below are primarily described within one category. Individual tasks are also compiled into Table 2.1 under the sub-heading of District-Wide Activities. The table lists tasks, activities, and status during fiscal year 2008-2009, and it notes AORs addressed by each task. Appendix A provides updated values applicable to standardized statewide performance measures.

Water Supply

Over the past year, the District has made noteworthy efforts and accomplishments in regional water supply planning, water resource assessments, water conservation, water supply facilities, and alternative water supply development. Much of the funding for alternative water supply projects comes from the Water Protection and Sustainability Program Trust Fund, established by the Florida Legislature in 2005. Funding for water supply projects also comes from the District's ad valorem tax revenues, regulatory revenues, legislative special appropriations, local government contributions, and federal grants.

Recent Accomplishments

- A regional water supply plan was developed and approved by the Governing Board for Region III, which consists of Bay County. The plan includes water resource and water supply development components and recommends alternative water supply development projects. Information has also been provided to local governments to assist in the development of new local water supply sources and facilities. Further information is provided in Section 5.1 and the plan is available at http://www.nwfwmd.state.fl.us/rmd/water_supply_planning/region_III_wsp.html.
- Implementation of the updated regional water supply plan for Region II (Santa Rosa, Okaloosa, and Walton counties) and the regional water supply plan for Region V (Franklin and Gulf counties) continues. Both plans recommend alternative water supply projects and support water resource development projects. Further information is provided in Section 5.1. Additional information on water supply planning efforts in the NWFWMD can be found at http://www.nwfwmd.state.fl.us/rmd/water_supply_planning/regional_water_supply_planning.html.
- The District completed an updated water supply assessment in May 2009. The assessment includes demand projections and a resource assessment through 2030. Total water use is projected to increase by 43% during the 2005-2030 planning horizon to approximately 496 MGD by 2030. The Water Supply Assessment Update recommends continued water supply planning efforts in regions II, III and V and does not identify any new regions that need a regional water supply plan. The water demand projections will be updated again in 2013.

- The District is developing plans to interconnect water utilities in coastal communities from Gulf Breeze to Port St. Joe (Santa Rosa County through Gulf County). The project will provide planning, engineering, modeling, design, permitting, and construction services for the implementation of regional water system interconnects with the objective of increasing water supply reliability coastal panhandle communities in the event of water shortages resulting from environmental emergencies, natural disasters, or system failures. In April, the District hired a contractor through a competitive selection process to provide the services for implementation of the project.
- The District has initiated development of a District-wide reuse plan. The project will identify opportunities for future reuse projects that enhance resource sustainability and provide environmental benefits such as improving surface water quality by reducing effluent disposal, offsetting ground or surface water withdrawals from potable supplies, recharging regionally significant aquifers, and enhancing the sustainability of water resources and related natural systems.
- During FY 2008-2009, $270,000 was appropriated through the Water Protection and Sustainability Program Trust Fund. To date, the District has received over $21 million in funding through this program. Grants awarded include $5.47 million to Bay County for development of an inland ground water source; $4 million to the City of Port St. Joe for construction of a surface water treatment plant, $500,000 to the City of Chipley for construction of a reuse system, $500,000 to Wakulla County for construction of a reuse system, $350,000 to Bay County for water resource development activities, $1,350,000 to the City of Tallahassee for construction of the Tram Road public access reuse facility; and an additional $500,000 for the City of Tallahassee for construction of advanced wastewater treatment and reclaimed water systems.
- In January 2009, the Governing Board approved a $2.1 million grant to Bay County to assist in the development of an inland ground water source as an alternative water source to exclusive reliance on Deer Point Lake Reservoir. These funds will augment the WPSPTF grant identified above. The inland ground water source development project was identified as the preferred alternative water supply project in the Regional Water Supply Plan for Region III. The project includes construction of up to six Floridan Aquifer public supply wells and associated distribution infrastructure. Total construction costs for the new potable supply source are estimated at $15 million.
- Also in January, the District awarded a $750,000 grant to the City of Freeport to construct a water transmission line between Portland and Choctaw Beach. The 12-inch water main will also interconnect the city's main water system to its North Bay system. This initiative will improve the reliability of public water supply and help drought-proof a designated Water Resource Caution Area. The City will lay approximately 35,900 feet of water line at an estimated cost of $1.3-1.7 million. This project is expected to complement long-term efforts by the District and local governments to protect water resources throughout the region.
- The City of Carrabelle has been awarded a $100,000 grant to develop a potable water system interconnection with Alligator Point Water Resources District. This grant will allow Carrabelle to evaluate the current water system and plan an interconnection that will benefit both systems. The project will also include a water rate study that supports enactment of a conservation rate structure.
- A $59,330 grant was awarded to the Eastpoint Water and Sewer District for alternative water supply planning. The agreement provides funding for development of a ground water model to examine the increase of withdrawals over the next five to ten years. The project will also include an assessment of impacts from with projected demands and the long term sustainability of the ground water supply.
- In October 2009, a project to extend a 16-inch water main from Callaway through the Allanton Peninsula was completed. The District provided $100,000 in grant funding to help the City of Callaway extend water and wastewater service east of the city limits. Approximately 1,300 residences are expected to receive water and sewer as a result of this project and associated sewer line

extension. These actions will help ensure sustainable water resources for residents in the area and also help prevent a proliferation of septic tanks close to East Bay.

- In November, the Governing Board approved a rule change to allow the use of shallow wells for all non-potable uses, such as irrigation, in coastal Gulf and Franklin counties. The rule was amended to help preserve the Floridan Aquifer water for human consumption. The amendment expands an existing exemption that encourages the use of the shallow Surficial Aquifer for non-potable uses.
- In June 2009, the Governing Board awarded an additional $500,000 grant to Regional Utilities of Walton County to implement the Regional Water Supply Phase II project. This grant is in addition to a $1,000,000 awarded last fiscal year, to further develop inland ground water as an alternative water supply for coastal Walton County.
- For the past five years, the District has supported the operation of a Mobile Irrigation Lab (MIL) in Northwest Florida, serving Calhoun, Gadsden, and Jackson counties. Agricultural irrigation systems are evaluated and recommendations made to increase water use efficiency. The work is in cooperation with the Florida Department of Agriculture and Community Services, the United States Department of Agriculture, Natural Resources Conservation Service, and the West Florida Resource and Conservation Development Council. The District contributes $50,000 towards the $104,000 annual operating cost of the lab. Past evaluations conducted by the MIL found a potential water savings of 840.8 million gallons per year and actual water savings of 251.2 million gallons per year—or an actual savings amount that is roughly equal to the annual water use of a medium size community. In addition to water savings, implementing the MIL's recommendations result in increased crop production at lower costs and reduced potential for ground water pollution.
- The District continues to provide educational brochures and guidance documents on water conservation to water utilities, local governments, and interested citizens. Over 80,270 such brochures and documents were distributed through fiscal year 2008-2009. As of September 2009, 30 hotels are participating in the Conservation Hotel and Motel Program (CHAMP) District-wide. The program promotes water and energy conservation by requesting guests to consider having towels and linens laundered less frequently than daily. Participating hotels report water use data from before and after the program for documentation and evaluation. In addition to these activities, the District continued distribution of WaterWise Florida Landscapes, a four-color, 64 page publication distributed to county extension offices, water utilities, and the public.
- In cooperation with Bay County, the District continues operating the monitoring network for stream flow and rainfall within the Deer Point Lake Reservoir watershed.
- Work continued on the Franklin County aquifer testing program designed to evaluate the ability of inland ground water sources to help meet future water supply needs while limiting the threat of salt water intrusion.
- The District continues to provide hydrologic condition data through its website. Data are posted for major waterbodies, watersheds, and aquifers. Included are accumulated rainfall amounts, drought conditions, stream flows, lake levels, and ground water levels.
- In July 2009, the Governing Board passed a resolution recognizing and supporting the commitment of Gulf Power Company to use reclaimed water at the James F. Crist Electric Generating Plant in Escambia County. The company is installing a new scrubber system to reduce the emissions of sulfur dioxide and mercury. This system requires substantial amounts of water to remove pollutants prior to release. Gulf Power has committed to using reclaimed water from Emerald Coast Utility Authority's new Central Water Reclamation Facility rather than surface and ground water resources.
- An agreement with DEP to implement the well permitting requirements of Chapter 62-524, F.A.C., has been in place since 1991 and has continued each subsequent year. The program addresses potable

well construction in delineated areas including portions of Escambia, Jackson, Leon and Santa Rosa counties and will be effective through June 2011. Geospatial well location data are being added to the database. Water well contractors, other agencies, and the public are provided with reliable data and information.

- The District continues to work on implementing e-permitting under its Resource Regulation Division, Bureau of Ground Water. Elements of the comprehensive e-permitting system are expected to include: (1) an e-compliance module that allows permittees to enter pumpage, water level and water quality as required by the conditions of their permits and (2) a well completion report entry system that will allow all contractors to enter well completion reports on-line.
- The District's Regulation of Wells Program continues to promote the proper plugging and abandonment of wells throughout Northwest Florida with over 788 wells plugged during the reporting period. This program includes a grant program for plugging wells that are unused or unsuitable for their intended purpose, and that pose a threat to ground water resources. Through FY 2008-2009, the District provided grants totaling $1,600 to properly plug four wells.

Water Supply Priorities for FY 2009-2010

- Complete the Coastal Water Systems Interconnect Project and continue to work in cooperation with local governments and utilities to explore and develop possibilities for interconnection of water supply systems. The significant investments in development of alternative water supplies—from both ground and surface water sources—have resulted in a diverse base of water supply sources. The interconnection of water supply systems will significantly advance the goal of drought-proofing the coastal area of the District by allowing short-term transfer of water between utilities.
- Continue to work with Bay County to develop a new inland ground water source. Bay County currently relies on surface water from Deer Point Lake Reservoir. As outlined in the Region III RWSP, the District and the County are working together to develop an inland ground water source as an alternative water supply that will serve as back-up for the surface water source and provide needed additional source capacity for future growth. Development of this alternative supply source will also help reduce the long-term vulnerability of the county to the effects of drought and major hurricanes.
- Continue to implement regional water supply plans, as approved by the Governing Board, for Regions II, III, and V. Implementation includes construction of alternative water supply development projects, water resource development, providing water conservation information to utilities and the public, and providing technical assistance to local governments for the development of local water supply comprehensive plan amendments.
- Complete the District-wide reuse plan in cooperation with utilities and local governments.
- Implement alternative water supply development and water resource development projects through the Water Protection and Sustainability Program, in accordance with Governing Board resolutions and as detailed in Chapter 5.2.
- Continue to assist Walton County utilities with development of the inland wellfield and associated infrastructure to serve as an alternative water supply source for coastal Walton County.
- Continue to work with Okaloosa County to identify and develop alternative sources including reuse, inland ground water, and inland surface water sources.
- Continue to apply the Floridan Aquifer sustainability model as a tool to evaluate current and proposed ground water withdrawals.

- In cooperation with the Eastpoint Water and Sewer District, complete development of a salt water intrusion model to assess the sustainability of the local ground water supply. Withdrawals in Eastpoint provide the potable water supply for both Eastpoint and St. George Island.
- Collect additional water quality data and finalize the Franklin County inland wellfield model analysis.
- In cooperation with utilities, maintain and, where necessary, expand the monitoring network for surface water flow and quality and ground water level and quality to support water supply development planning in critical areas.
- Continue to provide water conservation educational information to utilities, local governments and residents with emphasis on regions II, III and V.

Flood Protection and Floodplain Management

Flood protection and floodplain management are a major focus of multiple District activities. As such, these efforts are coordinated under a number of District programs, including flood hazard mapping, land acquisition, resource regulation, water quality improvement planning, and several other programs and projects. Funding is provided from several sources, including state SWIM appropriations, the Florida Forever Trust Fund, the Water Management Lands Trust Fund, legislative special appropriations, local government contributions, and federal grants.

Recent Accomplishments

- Phase I (stormwater) of the Environmental Resource Permitting (ERP) program began in October 2007, and the District began issuing stormwater permits to address water quality and flow from construction and development. Phase II (wetland permitting) is expected to begin in 2010. Phase II will enhance protection of wetlands connected to other surface waters and isolated wetlands not previously protected by state law in Northwest Florida.
- The District has implemented e-permitting under its Phase I ERP program. Applicants are now able to (1) automatically check to see if a particular project or activity is exempt from permitting, (2) electronically submit an application and supporting documentation for an environmental resource permit, and (3) have access to the status of the permit with the online tracking system. The e-permitting website is available at http://www.nwfwmd.state.fl.us/permits/erp/epermit_home.html.
- Work continues on the Flood Map Modernization program implemented in cooperation with the Federal Emergency Management Agency (FEMA). During FY 2008-2009, final effective digital flood insurance rate maps (DFIRMs) were completed for Bay, Gadsden and Leon counties. Previously completed final effective DFIRMs have been completed for Escambia, Santa Rosa, and Gulf counties. Preliminary DFIRMS have been completed in Calhoun, Holmes, Jackson, Washington and Walton counties, and work continues on updating maps in Franklin, Jefferson, Liberty and Wakulla counties.
- The District continues to provide hydrologic condition data through its website. Data are posted for major water bodies, watersheds, and aquifers. Included are accumulated rainfall, drought conditions, stream flows, lake levels, and ground water levels.
- The District continues operation of real-time stage and rainfall data collection via GOES satellite at five stations: Yellow River at SR2 in Okaloosa County (surface water level), FAF #47 (ground water level) in Walton County, St. Marks River at San Marcos de Apalachee State Park in Wakulla County (surface water level, conductivity, and temperature), Clark Sand (ground and surface levels) in Escambia County, and Bear Creek at U.S. 331 in Bay County (rainfall, surface water level, and discharge). Data are displayed at the District's website.

- An agreement with Bay County to continue a monitoring program for the Deer Point Lake Reservoir watershed was approved in September. The District has operated and maintained this monitoring network for the county since 1998. The monitoring program includes six discharge stations and three rainfall stations. These monitoring stations measure continuous discharge, rainfall and stage levels. These data provide the major stream flows into Deer Point Lake and are used to manage water resources and identify areas that may require acquisition or additional protection.
- An agreement with the City of Tallahassee and Leon County to continue a stormwater flow monitoring program was approved in September. The program includes the operation of 51 surface water and rainfall data collection stations. The District has operated this stormwater monitoring network for 20 years. The agreement also provides a real-time radio telemetry flood warning network that is a cooperative program involving the District, Leon County and the National Weather Service (NWS). It includes 14 stream and rainfall stations that help identify developing flood conditions for emergency management staff. The District and the NWS cooperate on the management and operation of Leon County's flood warning network.
- The District has completed acquisition of detailed elevation data, acquired through use of Light Detection and Ranging (LiDAR) technology, for nearly the entire District. Efforts continue to process, utilize, and distribute the data in partnership with the National Oceanic Atmospheric Administration, the Florida Department of Emergency Management and local governments.
- In partnership with the Federal Emergency Management Agency, work continues on a coastal analysis project to develop more accurate flood hazard maps of the Florida panhandle. The project involves utilizing previously acquired LiDAR data, and performing hydrologic and storm surge modeling to produce more detailed DFIRMs for local governments. Work on Wakulla, Franklin, and Jefferson counties was previously started, and work on Escambia, Santa Rosa, Okaloosa, Walton, Bay and Gulf counties is now underway.
- During FY 2008-2009, the District protected over 2,900 acres through fee simple and less-than-fee acquisition. To date, 221,697 acres of land have been protected for water resource purposes through the land acquisition efforts of the District. Of this, 173,782 acres are floodplain. These acquisitions provide long-term protection of floodplain functions, as well as water quality, natural systems, and public access.
- The District continues implementation of the dam safety program through the Chapter 40A-4, F.A.C., Management and Storage of Surface Waters (MSSW) program as well as the MSSW rule for agriculture and forestry, Chapter 40A-44, F.A.C., Regulation of Agricultural and Forestry Projects.

Flood Protection and Floodplain Management Priorities for FY 2009-2010

- The District will continue to emphasize nonstructural flood protection including land acquisition, floodplain map modernization, and technical assistance to local governments, as well as implementation of stormwater components of Environmental Resource Permitting.
- It is anticipated that wetland resource regulation aspects of Environmental Resource Permitting will be implemented in 2010.
- The District will continue to operate a flood warning and monitoring network in cooperation with local governments and federal agencies for flood protection and water resource management.
- It is anticipated that the availability of hydrologic data on the NWFWMD website will continue to be enhanced.
- The District will continue operation of real-time stage and rainfall data collection via GOES satellite at the five stations described above, as well as an additional two new stations to be installed during

FY 2009-2010. Operation of real-time data collection stations continues at other locations throughout the District and data are displayed on the District's website.

- The District will continue efforts with FEMA to implement the district-wide floodplain map modernization program, including updating the DFIRM database with the storm surge modeling efforts in the coastal counties.
- The District will continue acquisition and management of LiDAR data, including integration and distribution of the data to local governments.
- Acquisition of floodplain lands to protect water resources will continue.
- The District will continue oversight of structural flood protection (facilities) through the District's Management and Storage of Surface Waters rule (Chapter 40A-4, F.A.C.).
- The District will distribute brochures and informational handouts to increase permittee understanding of issues and restrictions associated with the construction of permitted water management systems.

Water Quality

The District's surface water quality protection efforts are primarily coordinated under the auspices of the Surface Water Improvement and Management (SWIM) program, as well as resource regulation under ERP. Sources of funding for SWIM plan development and implementation include the Water Management Lands Trust Fund, legislative appropriations, Florida Forever Trust Fund, local government contributions, and state and federal grants. Limited state and federal funding is also provided for the Integrated Water Resource Monitoring (IWRM) Network and the Springs Initiative program.

Recent Accomplishments

- As described above, ERP Phase I was initiated in October 2007 and Phase II is anticipated in 2010. Implementation of ERP in Northwest Florida is expected to result in long-term benefits for water quality, flood protection, and natural systems.
- The Governing Board approved an update to the St. Marks River SWIM Plan in August 2009. The plan presents strategies to sustain watershed resources and ecosystems from Lake Miccosukee to Apalachee Bay. Improving stormwater treatment continues to be a priority, along with protection of springs and their ground water contribution areas. Other priorities include assessment of estuarine fresh water needs, habitat restoration, and education and outreach. The plan provides a framework for District management actions and local government grant-funded projects to protect and improve water and habitat quality in the watershed.
- In coordination with the St. Marks SWIM Plan Update, a new brochure, *Looking at the Big Picture: St. Marks River and Apalachee Bay Watershed,* was completed and made available to the public. Additionally, the District developed an educational poster for distribution at area schools. Both publications feature the basin's unique hydrogeological characteristics and the District's role in watershed protection.
- Grant recipients have made substantial progress in completing Florida Forever capital improvement projects with water quality benefits. Those completed over the past year include Sharer Road stormwater improvements (City of Tallahassee); Fourth Street stormwater retrofit (City of Port St. Joe); Deer Point Lake dirt road stabilization (Bay County); Iola Road dirt road stabilization (Gulf County); Blue Pit Ecosystem and Second & Sunset water quality improvement projects (Escambia County); Vernon stormwater retrofit (City of Vernon); Chain Lake Road and Rolling Pines Road dirt road stabilization projects (Washington County); and the St. Andrew Bay Yacht Club stormwater retrofit (Panama City).

- In partnership with Leon County, work continues on the construction of the Okeeheepkee Prairie Regional Stormwater Treatment Facility adjacent to Meginnis Arm of Lake Jackson. The facility will be a wetland treatment system that will reduce nutrients, pesticides, greases, oils, sediments and other pollutants in runoff before it enters the lake. The District and Leon County will share the cost of construction. Leon County owns the property and will manage the facility upon completion.
- Work is continuing on development of a stormwater master plan for the Eastpoint community in coastal Franklin County.
- With District grant funding, the Friends of St. Andrew Bay/Bay Environmental Study Team continues to progress in development of a basin-wide stormwater management plan, project implementation, and public outreach and education activities. Funding is provided by the St. Andrew Bay SWIM program. Additional SWIM grant funding is helping the St. Andrew Bay Resource Management Association (RMA) continue and enhance long-term water quality and ecosystem monitoring and analysis.
- With $80,000 in technical assistance funding approved by the Governing Board in November 2009, the City of Quincy will evaluate stormwater and flooding conditions in the Tanyard Branch Basin of the Ochlockonee River watershed. The project will identify feasible project alternatives and funding strategies for construction of stormwater facilities to reduce flooding and reduce pollutant loads. Open creeks, ditches, stormwater pipes and drains will be evaluated. The district will also provide LiDAR elevation data to help the City identify cross-sections, grades and flood boundaries.
- The District provided the Choctawhatchee Basin Alliance with $50,000 grant for programmatic activities during 2009. The funding will help the CBA maintain its important water quality improvement projects, monitoring and public outreach activities.
- The District continues to assist Escambia County in a project to improve water quality and estuarine habitat in Bayou Chico. Dredging of the channel was completed by the U.S. Army Corps of Engineers in April 2008. The District continues to conduct post-dredging water quality monitoring through funding from the Pensacola Bay SWIM program.
- The District rehabilitated the 10-acre, three-cell artificial marsh at the Lake Jackson Regional Stormwater Facility by removing invasive plants and planting approximately 35,000 native wetland plants. The artificial marsh provides nutrient removal before stormwater runoff enters Lake Jackson. In cooperation with Leon County, routine maintenance activities continued at the stormwater facility with invasive plant removal, brush removal, mowing, and channel maintenance activities.
- Through the Florida Springs Initiative and an agreement approved in September with the DEP, the District monitors water quality and discharge from springs located in Merritt's Mill Pond.
- The District and the DEP renewed an ongoing agreement to participate in the Integrated Water Resources Monitoring Status Program. This program provides for ground and surface water sampling at a network of sites around the District. Through the statewide monitoring program, water quality data from confined and unconfined aquifers, rivers, streams and lakes are collected and interpreted. In FY 2008-2009, 160 water quality samples were collected from water resources in the NWFWMD for the IWRM program. The data are also used by the DEP for its TMDL (Total Maximum Daily Load) Program.
- The District renewed its agreement with the DEP to continue monitoring under the Surface Water and Ground Water Temporal Variability programs. These programs provide long-term water quality trends for 25 major streams and rivers and eight ground water sites within the District's 16 counties. Data obtained are used by DEP and the District to develop management strategies to improve surface water quality and to characterize the quality of our surface and ground water resources.

- Bay County continued its contract with the District to provide operation, maintenance, and technical assistance of stormwater system monitoring equipment at four sites in Bay County.

Water Quality Priorities for FY 2009-2010

- District efforts will continue to focus on implementation of SWIM plans and related projects to address existing and potential water quality issues. Planning efforts will include updating and streamlining SWIM plans where watershed needs have been identified and where priorities need to be reassessed.
- It is anticipated that the District will complete an update of the Ochlockonee River and Bay Watershed SWIM Plan.
- The District will continue monitoring ambient surface and ground water quality through the IWRM Status monitoring network and Surface Water and Ground Water Temporal Variability monitoring networks. The District will continue to sample 17 sites in the Econfina Creek watershed monthly to monitor water quality for recreation purposes.
- The District will continue to monitor discharge from Jackson Blue Spring and Wakulla Spring using continuous monitoring equipment.
- The District will conduct quarterly discharge measurements at several major springs: Wakulla, St. Marks, Jackson Blue, Gainer, and Cypress.
- Stormwater retrofit planning will continue for the community of Eastpoint, on Apalachicola Bay in Franklin County.
- The District will continue to work in cooperation with local governments to implement capital improvement projects through the Florida Forever Capital Improvement Grant Program.

Natural Systems

Recent Accomplishments

- During the past fiscal year, District staff continued to implement and develop its mitigation plan and in-lieu fee program under its agreement with the U.S. Army Corps of Engineers (USACOE) and Chapter 373.4137, Florida Statutes, to provide compensatory wetland mitigation for impacts incurred for several Florida Department of Transportation (DOT) projects. During the coming year, continued emphasis will be placed on implementing mitigation projects meeting the new USACOE permit rules regarding in-lieu fee and banking instruments, as well as identifying future mitigation efforts under our mitigation plan. The mitigation plan and additional information are available at www.nwfwmdwetlands.com.
- The District has continued land acquisition and restoration efforts through the Florida Forever and DOT mitigation programs. Through the end of FY 2009, the District has acquired, through fee and less-than-fee acquisition and donation, 221,697 acres of the 382,047 acres identified in the District's 2010 Florida Forever Land Acquisition Work Plan to protect water quality, natural systems, and floodplain functions.
- In January, the Governing Board approved the purchase of 820 acres on Perdido Bay in Escambia County. The property lies west of Saufley Field, south of Redfish Point and north of Ramsey Beach. The western parcel borders Eleven Mile Creek and will protect approximately one mile of Perdido Bay shoreline and one mile of the eastern bank of the creek. This property will provide mitigation for DOT improvements on U.S. Highway 98 and Blue Angel Parkway.

- In March 2009, the District acquired 338.7 acres in Jackson County along the Chipola River. The property is located on the east side of the river and consists primarily of mixed bottomland hardwood habitat associated with the floodplain. The property includes over 1.5 miles of river frontage and the northern most spring of the Baltzell Spring Group. It is directly across the river from Christoff Landing on the District's Chipola River Water Management Area and is accessible to the public by boat.
- An additional 40 acres was acquired and added to the Live Oak Point mitigation area in August 2009. The property is located north of Hogtown Bayou in southern Walton County and consists almost entirely of estuarine march habitat. Combined with other mitigation sites on Live Oak Point, this property will be used to address DOT mitigation needs and enhance water resource protection of the Choctawhatchee Bay.
- A conservation easement on 194.5 acres adjacent to Black Creek Swamp was approved in March and acquired in June 2009. The parcel is located on the south side of McCracken Road in northeast Leon County. This easement was acquired in partnership with Blueprint 2000 Intergovernmental Agency and will preserve the mesic upland hardwood, mixed bottomland hardwood and cypress dome habitats from future development.
- In late October, the District purchased 121.5 acres on Holmes Creek in Washington County. This property, known as the Plum Creek on Holmes Creek parcel, will be used as a DOT mitigation parcel for two bridge replacements on Highway 79. The parcel is adjacent to existing District property and will provide public access for District lands north of Holmes Creek. More information on the property is available at www.nwfwmdwetlands.com.
- In December, the District acquired an additional 160.1-acre inholding in the Econfina Water Management Area. The property is located in north of Highway 20 near the Econfina Creek Canoe Livery. The property consists of xeric sandhill uplands and is an important addition to protecting this high ground water recharge area of the Floridan aquifer.
- Also in December, an additional 1,378 acres in the Chipola River Water Management Area were acquired using Florida Forever funds. The middle Chipola River corridor consists of 3.5 miles of river frontage, including Look-N-Tremble rapids, located north and south of County Road 274 in Calhoun County. The acquisition includes three perennial streams and seven diverse upland and wetland habitat types. The property will be open for a variety of recreational activities at a later date.
- In the Econfina Water Management Area, volunteers led by the Florida Trail Association and the USDA Forest Service completed the second of two wooden suspension bridges across Econfina Creek. Funding from FDEP's Office of Greenways and Trails and the U.S. Forest Service paid for the project. The two completed bridges replace old, make-shift crossings, allowing this portion of the Florida National Scenic Trail more accessible and safe for public use. For a video of the construction process, visit http://www.youtube.com/watch?v=0Hs75dtkZG8.
- Work continued to enhance public access to Florida River Island in Liberty County, a popular portion of the Apalachicola River WMA. The District completed a bridge replacement and primary road stabilization in 2008, which provides public access to approximately 6,000 acres of floodplain lands with excellent hunting, fishing, and hiking opportunities. The District continues to work on stabilizing the remaining primary roads on the island and install low water crossings. The District will also provide funding assistance to Liberty County for operation and maintenance activities once the project is complete.
- Implementation of the District's mitigation plan also continued through restoration and management of the Sand Hill Lakes Mitigation Bank in Washington County. Removal of sand pine plantations, shrub reduction, re-planting of wiregrass and longleaf pines, native and exotic species surveys, fire

management, water level monitoring, and exotics removal all continue on the property. More information on the mitigation bank can be found at www.nwfwmdwetlands.com.

- Habitat restoration was undertaken for 215 acres of non-District owned public lands in Escambia, Franklin, Leon, Santa Rosa, and Washington counties. Native hardwood tree species were planted in Escambia and Santa Rosa counties, and herbaceous wetland species were planted at two sites in Franklin and Leon counties as part of the DOT mitigation projects. The Lake Jackson treatment marshes on Meginnis Arm will also be replanted after the removal of sediment from I-10 road work.
- Construction of the Fillingim Landing canoe launch was completed in 2009. The canoe launch provides the public with access to the Perdido River within the District's Perdido River WMA.
- Nuisance shrub and exotic grasses were treated at five DOT mitigation sites, including Perdido River Phase II, Yellow River Ranch, Lafayette Creek, Sand Hill Lakes Mitigation Bank and Ward Creek West. The work occurred on approximately 781 acres targeted nuisance wetland shrubs and exotic pasture grass using herbicide treatment to remove targeted species without disturbing the native vegetation.
- During FY 2008-2009, habitat restoration was completed on 1,602 acres of District lands. Approximately 557,500 longleaf pines, 14,520 slash pines, and 909,920 wiregrass tubelings were planted on District-owned properties.
- District staff continue to work with equestrian users to evaluate and develop horse trails on the Econfina Creek and Perdido River WMAs.
- Beginning in 2007, the District began a planning process to address resource protection and recreation facility issues affecting Pitt, Sylvan, and Williford springs on Econfina Creek. Proposed changes include replacing the retaining wall at Pitt Spring with natural limestone and vegetation, enhancing the canoe dock with ladders, adding a tube launch dock with ladders, constructing decks to overlook spring pools, extending boardwalks over sensitive natural areas, building an elevated observation deck at Williford, installing a composting restroom facility and more. This process continued through 2009, with a bid for Phase I - Pitt and Sylvan Springs, awarded in January 2010.
- The District awarded an $118,000 grant to help Walton County acquire Natural Bridge Rise and surrounding property. This purchase is expected to provide numerous public benefits including water quality and flood protection, fish and wildlife habitat, and recreational resources. Natural Bridge Creek, in northern Walton County, flows northeasterly toward the Choctawhatchee River. At several places the creek disappears into swallets and reappears further downstream. The creek rises west of Natural Bridge Road, flows a short distance, and enters a swallet that takes the flow under the road. It emerges on the other side of the road as an eight foot spring window known as Natural Bridge Rise. Included in the proposed purchase are the rise, part of the creek, and adjacent lands that provide a protective buffer for the waterway. The creek and rise have been impacted by erosion and sedimentation from nearby dirt roads and property. The District will work with Walton County to restore this important environmental resource.
- The District, in conjunction with The Quest Foundation, released a film on the St. Andrew Bay Watershed. The film highlights the District's water supply and water resource protection mission as well as land management, habitat restoration and public access and recreation in the 41,000 acre Econfina Creek Water Management Area. It includes sections on the geology of the area, wildlife, trails and springs. The film was distributed to middle and high schools in the St. Andrew Bay Watershed and was aired on the Florida Education Channel. The film was judged and recently received a Gold Award from the Association of Marketing and Communication Professionals.
- The District continues development of a Hydrologic Restoration Plan for Tates Hell State Forest. This project involves: (1) identifying and prioritizing areas for hydrologic restoration, (2) developing

conceptual engineering designs for high priority restoration projects (to be implemented as funds become available), (3) developing recommendations for environmental monitoring and maintenance, and (4) clarifying agency roles and responsibilities. The Hydrologic Restoration Plan will be completed in 2010.

- The District continued work on the Whiskey George Basin Hydrologic Restoration Project, which will restore historic drainage patterns, enhance wetland function, and improve the quality of surface water discharged from the Tate's Hell State Forest to East Bay and the Apalachicola Bay system. The project involves the removal of six miles of dirt logging roads and adjacent ditches, the installation of six low water crossings and several ditch plugs, and culvert improvements. The project is expected to be complete by August 2010.
- As described previously, implementation of ERP Phase I (stormwater) was initiated in October 2007, and work is proceeding toward implementation of ERP Phase II (wetland resource protection). Implementation of this program is expected to result in long-term benefits for water quality, flood protection, and natural systems.
- The District continued to assist DOT through implementation of the Efficient Transportation Decision Making (ETDM) process. This process improves linkages between land use, transportation and environmental resource planning initiatives. The District's role includes evaluation of proposed projects with regard to potential water resource, floodplain, and wetland impacts and the development of related data and information.

Natural Systems Priorities for FY 2009-2010

- Since nearly all acquisition appropriations have been expended, major acquisitions have effectively ceased until such time as new funding is restore or acquired. Thus, during the coming year, any acquisition funds that remain are expected to be focused on inholdings and additions within the existing water management areas.
- The District will continue to implement wetland restoration and enhancement projects as mitigation for DOT activities in accordance with the ongoing development and updates of Umbrella, Watershed-based, Regional Mitigation Plan.
- The District will continue to focus on restoration and management of the 2,155-acre Sand Hill Lakes Mitigation Bank in Washington County.
- The District will continue to make improvements for public access and recreation on its lands including restoration at Pitt and Sylvan springs, construction of access improvements at Dead River Landing on the Choctawhatchee River and Spurling and Live Oak landings on Holmes Creek, installation of two bridges in the Whirlpool Road area of the Escambia River WMA, and erosion control at Devil's Hole, Sea Shell and Bluff campsite areas in the Econfina WMA.
- The District will construct a new field office for the Western Region Land Management staff on a District-owned property in Milton.
- The District will continue restoration and management of its public lands, including prescribed fire, public access enhancements, habitat restoration, and land preparation activities on any new acquisitions.
- Efforts will continue to focus on implementation of SWIM plans and related projects to protect and improve aquatic habitat, wetland, and riparian habitat quality, as well as watershed resource functions of contributing upland areas. In addition to project implementation, SWIM planning efforts will include updating and streamlining SWIM plans where watershed needs have been identified and where priorities need to be reassessed.

- The District will continue to work in cooperation with local governments to implement priority capital improvement projects through the Florida Forever Capital Improvement Grant Program. These include projects within the Apalachicola, Choctawhatchee, Pensacola, Perdido, St. Andrew/St. Joe and St. Marks watersheds.
- It is anticipated that the hydrologic restoration plan for Tates Hell State Forest will be completed during fiscal year 2009-2010. Implementation may be accomplished through the SWIM and DOT Mitigation programs.

District-Wide Activities

Major tasks have been compiled into Table 2.1 with description of recent activities and status during fiscal year 2008-2009 (October 1, 2008 through September 30, 2009). The tasks are subdivided into water management program areas. Project status is denoted by 'Ongoing' (O) and 'Completed' (C). The 'Ongoing' designation has been applied to on-going, day-to-day programs, such as regulatory activities, plan implementation, intergovernmental coordination, and multi-year projects which, combined, account for the majority of District activities. The 'Completed' designation is applied to discrete projects that have been completed. The Areas of Responsibility (AOR) are water supply (WS), flood protection and floodplain management (FP), water quality (WQ), and natural systems (NS).

Table 2.1 District-Wide Activities

TASK	RECENT ACTIVITY	STATUS	RELATED AOR			
Water Resource Planning and Monitoring Program			**WS**	**FP**	**WQ**	**NS**
Water Supply Assessment	The initial *Water Supply Assessment* was completed in 1998 and updated in 2003. The 2008 Update was completed and distributed in May 2009. Demand projections were extended to 2030.	**C**	√			
Regional Water Supply Plan – Region II	The Governing Board approved the updated Regional Water Supply Plan (RWSP) in October 2006. A number of Water Resource Development Work Program (WRDWP) projects are being implemented, as well as water supply development assistance in support of the RWSP. Coordination with local governments to assist in related comprehensive plan requirements is ongoing.	**O**	√			
Regional Water Supply Plan – Region III	The Governing Board approved the RWSP in August 2008. A number of WRDWP projects are being implemented, as well as water supply development assistance in support of the RWSP. Coordination with local governments to assist in related comprehensive plan requirements is ongoing.	**O**	√			
Regional Water Supply Plan – Region V	The Governing Board approved the RWSP in January 2007. A number of WRDWP projects are being implemented, as well as water supply development assistance in support of the RWSP. Coordination with local governments to assist in related comprehensive plan requirements is ongoing.	**O**	√			
Floridan Aquifer Sustainability Modeling Project	Model development and calibration have been completed. Ongoing work is focused on model application.	**O**	√			√
Ground Water Quality Special Projects	The District continued springs inventory updates and the ground water temporal variability network sampling. The District will continue to monitor water quality and discharge in Merritt's Mill Pond.	**O**	√		√	√
Water Quality and Quantity Monitoring	This program continued according to schedules established in agreements with DEP and local governments for ongoing data collection and research efforts.	**O**	√		√	√
Water Flows and Levels Monitoring	Monitoring programs continue with USGS, DEP, and local governments to collect stream flow and water level data on a limited number of streams and lakes, as well as water levels in the Sand-and-Gravel and Floridan aquifers.	**O**	√	√	√	√
Surface Water Monitoring Program	The trend monitoring program continued with DEP in order to monitor 25 surface water stations and eight ground water stations throughout the District, and programs continued through agreements with Tallahassee, Leon and Bay counties to measure continuous rainfall, water levels and stream flow. Additional project-specific data collection and analysis were undertaken. The District renewed involvement in Status Network, a statewide water quality program, which includes sampling 120 randomly chosen sites annually.	**O**	√	√	√	√
Update/Revise SWIM Priority List	The SWIM priority list was updated in 2006 and will be updated again in 2011.	**C**		√	√	√
SWIM Plan Development, Implementation, Assessment, and Revision	Implementation of SWIM plans continued. St. Marks SWIM Plan Update completed and work continues on developing a plan for the Ochlockonee River & Bay watershed. Work continues on resource characterizations of East Bay and Perdido Bay.	**O**		√	√	√
Flood Hazard Map Modernization	This activity includes project scoping, DFIRM development, development of project proposals for FEMA funding, and development of interagency funding agreements with FEMA.	**O**		√	√	√
Acquisition, Restoration, and Public Works Program			**WS**	**FP**	**WQ**	**NS**
Land Acquisition and Management	In calendar year 2009, 2,946.46 acres of land were protected through the Florida Forever and DOT mitigation programs. Management is in place for all 221,697.37 acres.	**O**	√	√	√	√
Abandoned Well Plugging	During FY 2008-2009, 788 abandoned wells were plugged.	**O**	√		√	

TASK	RECENT ACTIVITY	STATUS	RELATED AOR			
Floodplain Land Acquisition and Restoration	Approximately 180,000 acres along the Perdido, Escambia, Blackwater, Choctawhatchee, Chipola, Apalachicola, and Ochlockonee rivers, Econfina and Holmes Creeks, and Garcon Point are managed to protect and restore natural floodplain and hydrologic functions.	O		√	√	√
Restoration Projects	The District continued work to restore the natural flow and hydroperiod within Tates Hell Swamp. Restoration work also included efforts to restore floodplain and sloughs on the Apalachicola River and implementation of wetland mitigation projects for DOT.	O	√	√	√	√
Operation and Maintenance of Lands and Works Program			**WS**	**FP**	**WQ**	**NS**
Management of District-Owned Lands	The 221,697 acres of District-owned lands are managed to protect water resources including natural floodplain functions, ground water recharge and water quality. This includes restoration and maintenance of upland habitat. The District planted approximately 557,500 longleaf pines, 14,520 slash pines, and 909,920 wiregrass tubelings during FY 08-09.	O	√	√	√	√
Operation and Maintenance of Lake Jackson Stormwater Facility	Improvements and maintenance of the stormwater facility are ongoing.	O		√	√	√
Regulation Program			**WS**	**FP**	**WQ**	**NS**
Consumptive Uses of Water Regulatory Program (Chapter 40A-2, F.A.C.)	Administration and enforcement for consumptive use of water is an ongoing regulatory program that is meeting the objectives of Chapter 40A-2, F.A.C. During FY 2008-2009, 79 Individual Water Use Permits were issued.	O	√		√	√
Well Construction Regulatory Program (Chapter 40A-3, F.A.C.)	Rule administration and enforcement is a fully implemented regulatory activity. During FY 2008-2009, 3,732 well construction permits were issued.	O	√		√	
Regulation of Agricultural and Forestry Surface Water Management Projects (Chapter 40A-44, F.A.C.)	20 Agriculture and Forestry surface water permits/authorizations were issued during 2008-2009.	O	√	√	√	√
Management and Storage of Surface Waters (Chapter 40A-4, F.A.C.)	The District processed 8 MSSW permits during FY 2008-2009.	O	√	√	√	√
Environmental Resource Permitting (Chapter 62-346, F.A.C.)	Stormwater management aspects of ERP was implemented in October 2007. Implementation of wetland resource protection ERP is anticipated to begin in 2010.	O	√	√	√	√
Outreach Program			**WS**	**FP**	**WQ**	**NS**
WaterWays Education Program	Development and production of materials has been completed; distribution of materials is a continuing responsibility.	O	√	√	√	√
Participation on Interagency Hazard Mitigation Team, State Emergency Operations, and Annual State Hurricane Exercise	The District participates in a statewide program with EOC to prepare for and respond to hurricanes in northwest Florida. The District continued to monitor rivers and streams and provide information to the state, EOC, counties, National Weather Service, and the public. The District also works with Leon County on the real time Capital Area Flood Warning Network.	O	√	√		
Technical Assistance and Intergovernmental Coordination	The District performed 12 reviews, with multiple alternatives, under the ETDM program during FY 2008-2009. Additionally, District staff reviewed Northwest Florida Transportation Corridor Authority (NWFTCA) plans, local government comprehensive plan amendments, developments of regional impact (DRIs), sector plans, external permits, and clearinghouse issues. The District continued to maintain a library of FEMA and USGS flood prone area maps.	O	√	√	√	√

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3 Minimum Flows and Levels Annual Priority List

Requirements for the establishment of minimum flows and levels (MFLs) are specified in section 373.042, F.S. Minimum flows and levels are defined as the limit at which further withdrawals of ground or surface water would be significantly harmful to the water resources or ecology of the area (s. 373.042(1)(a)-(b), F.S.). A priority list and schedule for the development of MFLs are submitted to DEP for review and approval each November. The final list is incorporated as this chapter within the Consolidated Annual Report.

In accordance with statutory requirements, the priority list and schedule is developed based on the importance of the waters to the state or region and the potential for significant harm to the water resources or ecology of the state or region. The list also includes first magnitude springs and second magnitude springs within state or federally-owned conservation lands. The schedule for establishment of spring minimum flows and levels is planned so as to be commensurate with the existing or potential threat to spring flow from consumptive uses. The Northwest Florida Water Management District Minimum Flows and Levels priority list may be found in Table 3.1 below and at: http://www.nwfwmd.state.fl.us/rmd/mfl/mfl.htm.

Table 3.1 Northwest Florida Water Management District MFL Priority List (2009)

#	Waterbody	WB Type	County	2008 List	2009 List	Date Est.	Peer Rev.	Reason for Schedule Change	Existence of or Potential for Significant Harm
1	Floridan Aquifer	A	Coastal Portions of Santa Rosa, Okaloosa, Walton	2010	2010		N		Potential migration of saline water due to significant drawdown of Floridan Aquifer in coastal portions of these counties.
2	Inland Sand and Gravel Aquifer	A	Santa Rosa, Okaloosa	2010	2010		N		Identified in Regional Water Supply as likely future water supply. Monitoring and Hydrologic modeling is ongoing to consider potential for harm.
3	Deer Point Lake	E/L	Bay	2015	2015		N		Potential increase in withdrawals greater than currently projected that result in reduced discharge to North Bay.
4	Wakulla Spring	S	Wakulla	2012	2012		N	Need for additional model analysis and data to quantify uncertainty.	Scheduling of first order magnitude springs is a Requirement of Chapter 373.042, F.S. Monitoring and technical analyses to determine hydrology and aquatic resource needs are ongoing.
5	Jackson Blue Spring	S	Jackson	2012	2012		N	Need for additional model analysis and data to quantify uncertainty.	Scheduling of first order magnitude springs is a Requirement of Chapter 373.042, F.S. Monitoring and technical analyses to determine hydrology and aquatic resources needs are ongoing.
6	Yellow River	R	Santa Rosa, Okaloosa	2010	2010		N		Monitoring and Technical analyses to determine consumptive demands, hydrology and aquatic ecosystem needs are ongoing.
7	Morrison Spring	S	Walton	2015	2015		N		Scheduling of first order magnitude springs is a Requirement of Chapter 373.042, F.S. Monitoring and technical analyses to determine hydrology and aquatic resource needs are ongoing.

WB Type: A=Aquifer, Fl=Floridan, E=Estuary, L=Lake, R=River, S=Spring, W=Wetland; 2009 List=anticipated MFL establishment date proposed in October 2009; Peer Rev.=voluntary peer review of MFL; * MFL in rule making; ** MFL rule challenged.

4 Annual Five-Year Capital Improvements Plan

Introduction

The five-year capital improvements plan (CIP) includes projected revenues and expenditures for capital improvements from fiscal years 2009-2010 through 2013-2014. As directed by Section 373.536(6)(a)(3), Florida Statutes, the CIP has been prepared in a manner comparable to the fixed capital outlay format set forth in Section 216.043, Florida Statutes. The format for this plan is drawn from the standard budget reporting format prescribed by the Executive Office of the Governor. Capital improvement projects may be budgeted in either of two standard program categories. Those programs and their activities and sub-activities are represented below:

2.0 Acquisition, Restoration and Public Works

- 2.1 Land Acquisition
- 2.2 Water Source Development
  - 2.2.1 Water Resource Development Projects
  - 2.2.2 Water Supply Development Assistance
  - 2.2.3 Other Water Source Development Activities
- 2.3 Surface Water Projects
- 2.4 Other Cooperative Projects
- 2.5 Facilities Construction & Major Renovations
- 2.6 Other Acquisition and Restoration Activities

3.0 Operation and Maintenance of Lands and Works

- 3.1 Land Management
- 3.2 Works
- 3.3 Facilities
- 3.4 Invasive Plant Control
- 3.5 Other Operation and Maintenance Activities

The only activities and sub-activities under program *2.0 Acquisition, Restoration and Public Works* that may include capital improvement projects are: 2.1 Land Acquisition, 2.2.1 Water Resource Development Projects, 2.2.3 Other Water Source Development Activities, 2.3 Surface Water Projects, and 2.5 Facilities Construction and Major Renovations. The Northwest Florida Water Management District has projects in each of these categories.

The only activities under program *3.0 Operation and Maintenance of Lands and Works* that may include capital improvement projects are: 3.1 Land Management and 3.2 Works. Of these, the Northwest Florida Water Management District only has capital improvement projects in activity 3.1.

The CIP includes expenditures for basic construction costs (permits, inspections, site development, etc.) and other project costs (land, survey, existing facility acquisition, professional services, etc.).

A district's CIP contains only those projects that will be owned and capitalized as fixed assets by the district. The District does not capitalize construction projects having a total project cost of less than $50,000.

Five-Year Capital Improvements Plan

The purpose of the Five-Year Capital Improvements Plan (CIP) is to project future needs and anticipate future funding requirements to meet those needs. The CIP includes expenditures for basic construction costs (permits, inspections, site development, etc.), other project costs (land, survey, existing facility acquisition, professional services, etc.) and anticipated changes in program costs, changes in maintenance costs and changes in utility costs. The development and construction of all capital projects are budgeted either under program heading *2.0 Acquisition, Restoration and Public Works* or under program heading *3.0 Operation and Maintenance of Lands and Work*s.

The District's capital improvements projects are categorized according to the following activities:

- Land Acquisition;
- Surface Water Projects;
- Facilities Construction and Major Renovations; and
- Land Management.

The District's Florida Forever Work Plan, Land Acquisition Plan, Five-year Water Resource Development Work Plan, Land Management Plan and Northwest Florida Umbrella, Watershed-based, Regional Mitigation Plan may also provide valuable insight to the District's long range capital improvements plan.

Table 4.1 NWFWMD Five Year Capital Improvements Plan, Fiscal Years 2009-2014

2.0 ACQUISITION, RESTORATION AND PUBLIC WORKS

2.1 Land Acquisition

Revenues ($)	Fiscal Year				
	2009-10	2010-11	2011-12	2012-13	2013-14
Water Management Lands Trust Fund	251,831	100,000	250,000	300,000	350,000
Florida Forever	6,625,000	625,000	2,375,000	2,375,000	2,375,000
District Land Acquisition Reserve	3,872,059	3,988,221	4,107,867	4,231,103	4,358,037
TOTAL	**10,497,059**	**4,713,221**	**6,732,867**	**6,906,103**	**7,083,037**

Expenditures ($)	Fiscal Year				
	2009-10	2010-11	2011-12	2012-13	2013-14
Florida Forever - Land Acquisitions	6,625,000	625,000	2,375,000	2,375,000	2,375,000
Land Acquisition	3,872,059	3,988,221	4,107,867	4,231,103	4,358,037
BluePrint 2000	0	0	0	0	0
Water Management Lands Trust Fund	251,831	100,000	250,000	300,000	350,000
TOTAL	**10,497,059**	**4,713,221**	**6,732,867**	**6,906,103**	**7,083,037**

2.2 Water Source Development

Revenues ($)	Fiscal Year				
	2009-10	2010-11	2011-12	2012-13	2013-14
Florida Forever	500,000	500,000	500,000	500,000	500,000
TOTAL	**500,000**	**500,000**	**500,000**	**500,000**	**500,000**

Expenditures ($)	Fiscal Year				
	2009-10	2010-11	2011-12	2012-13	2013-14
Florida Forever - Land Acquisitions	500,000	500,000	500,000	500,000	500,000

TOTAL	**500,000**	**500,000**	**500,000**	**500,000**	**500,000**

2.3 Surface Water Projects

Revenues ($)	Fiscal Year				
	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
DOT Mitigation Funds	10,385,235	7,200,000	7,200,000	7,200,000	7,200,000
TOTAL	**10,385,235**	**7,200,000**	**7,200,000**	**7,200,000**	**7,200,000**

Expenditures ($)	Fiscal Year				
	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
DOT Mitigation Funds	10,385,235	7,200,000	7,200,000	7,200,000	7,200,000
TOTAL	**10,385,235**	**7,200,000**	**7,200,000**	**7,200,000**	**7,200,000**

2.5 Facilities Construction and Major Renovations

Revenues ($)	Fiscal Year				
	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Water Management Lands Trust Fund	625,000	0	0	0	100,000
TOTAL	**625,000**	**0**	**0**	**0**	**100,000**

Expenditures ($)	Fiscal Year				
	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Land Management Field Office – Western Region	625,000	0	0	0	100,000
TOTAL	**625,000**	**0**	**0**	**0**	**100,000**

3.0 OPERATION AND MAINTENANCE OF LANDS AND WORKS

3.1 Land Management

Revenues ($)	Fiscal Year				
	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Water Management Lands Trust Fund	1,675,000	625,000	1,450,000	450,000	1,000,000
Florida Forever	0	0	0	0	0
TOTAL	**1,675,000**	**625,000**	**1,450,000**	**450,000**	**1,000,000**

Expenditures ($)	Fiscal Year				
	2009-10	**2010-11**	**2011-12**	**2012-13**	**2013-14**
Public/Land Management Access Bridges	175,000	175,000	300,000	300,000	300,000
Canoe/Small Boat Launch	0	50,000	0	0	50,000
Spring Restoration	1,000,000	0	1,000,000	0	500,000
Public Recreation – Coop. with Local Govts.	400,000	250,000	0	100,000	0
Public Access Road Construction	50,000	100,000	150,000	0	150,000
Creek Bank and Solution Hole Stabilization	50,000	50,000	0	50,000	0
TOTAL	**1,675,000**	**625,000**	**1,450,000**	**450,000**	**1,000,000**

TOTAL CAPITAL EXPENDITURES ($)	**23,682,294**	**13,038,221**	**15,882,867**	**15,056,103**	**15,883,037**

Project Descriptions

The following pages provide a brief description of each capital improvements plan activity.

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS

ACTIVITY: 2.1 LAND ACQUISITION

Project Title: Save Our Rivers, Preservation 2000 and Florida Forever Land Purchases

Type: Unimproved Land

Physical Location: Undetermined - Within the District's 16-county boundaries

Square Footage/Physical Description: N/A

Expected Completion Date: N/A

Historical Background/Need for Project: To protect and preserve the water resources within the District's 16-county boundaries.

Plan Linkages: Florida Forever Work Plan

Area(s) of Responsibility: Water Supply, Water Quality, Flood Protection and Natural Systems

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): Purchase price of land is unknown at this time.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other.): Land acquisition ancillary costs are unknown at this time.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): N/A

Anticipated Additional Operating Costs/Continuing: Varied. Maintenance costs to be determined based on the locations and types of lands ultimately acquired.

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS

ACTIVITY: 2.2 WATER SOURCE DEVELOPMENT

Project Title: Save Our Rivers and Florida Forever Land Purchases

Type: Unimproved Land

Physical Location: Undetermined - Within the District's 16-county boundaries

Square Footage/Physical Description: N/A

Expected Completion Date: N/A

Historical Background/Need for Project: To protect and preserve the water resources within the District's 16-county boundaries.

Plan Linkages: Florida Forever Work Plan

Area(s) of Responsibility: Water Supply, Water Quality, Flood Protection and Natural Systems

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): Purchase price of land is unknown at this time.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other.): Land acquisition ancillary costs are unknown at this time.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): N/A

Anticipated Additional Operating Costs/Continuing: Varied. Maintenance costs to be determined based on the locations and types of lands ultimately acquired.

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS

ACTIVITY: 2.3 SURFACE WATER PROJECTS

Project Title: Regional Mitigation for DOT Wetlands Impacts

Type: Wetlands that qualify as mitigation for DOT wetland impacts

Physical Location: Undetermined - Watersheds within the District

Square Footage/Physical Description: Land purchases and/or construction of various capital restoration structures (e.g. bridges, low water crossings, water control structures, etc.).

Expected Completion Date: Program is ongoing, year-to-year.

Historical Background/Need for Project: S. 373.4137, Florida Statutes provides that the Districts mitigate for DOT wetland impacts to the extent that funding is available from the Department.

Plan Linkages: Northwest Florida Umbrella, Watershed-based, Regional Mitigation Plan, Florida Forever Work Plan, SWIM plans.

Area(s) of Responsibility: Water Quality, Flood Protection and Natural Systems.

Alternative(s): Upon agreement of all parties (District and DOT) specific mitigation projects may be deferred to the DOT.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): Unknown at this time. Multiple projects. Costs are determined by project type (land acquisition, bridge construction, low water crossing, etc.).

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): An amount equal to 15 percent of the total construction and land acquisition costs are estimated for engineering design work, surveying, land appraisals, environmental audits, etc.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None.

Anticipated Additional Operating Costs/Continuing: Undetermined.

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS

ACTIVITY: 2.5 FACILITIES CONSTRUCTION AND MAJOR RENOVATIONS

Project Title: Land Management Field Office—Western Region

Type: Steel superstructure, siding and roof; with three office cubicles, enclosed materials storage/shop, and open covered storage

Physical Location: 5453 Davidson Rd., Milton, FL 32583

Square Footage/Physical Description: 1,200 sq. ft. Land Management Field Office; 1,200 sq. ft. of covered materials storage/shop; 2,400 sq. ft. of open covered equipment storage; plus site work, utilities, and fencing.

Expected Completion Date: July 30, 2010

Historical Background/Need for Project: The current Western Region Land Management Field Office is located in a rented residential house in west Pensacola (Escambia County). The landlord has notified the District that the house will be sold and demolished in the near future for a development project. Land management field offices require somewhat unique building and storage components, most of which are not typically available on the rental market. The staff who work out of the Western Region Land Management Field Office are responsible for over 62,500 acres of District land in Escambia, Santa Rosa and Okaloosa counties and a more central location in the Milton (Santa Rosa County) area will result in efficiencies when deploying equipment and personnel to the various work locations. A site already owned by the District in Milton was selected for development of a permanent field office with the appropriate configuration for housing of staff, vehicles, equipment (dozer, tractors, boats, ATV's, trailers, fire support vehicles, etc.), and materials that are used to manage these properties. The District has contracted with the Florida Department of Management Services to implement the project management, design, and construction.

Plan Linkages: Florida Forever Work Plan, District Water Management Plan, District Budget

Area(s) of Responsibility: Water Supply, Water Quality, Flood Protection and Natural Systems

Alternative(s): Rent a different location; build in an alternative location.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): $625,000

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): $50,000 expended in FY 07-08 for design, survey, soils, project management. $125,000+ expended in FY 08-09 for professional (architectural/engineering/DMS) services.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): Shop Equipment and Furniture – cost to be determined.

Anticipated Additional Operating Costs/Continuing: Undetermined – maintenance and utilities.

PROGRAM: 3.0 OPERATION AND MAINTENANCE OF LANDS AND WORKS

ACTIVITY: 3.1 LAND MANAGEMENT

Project Title: Public/Land Management Access Bridges

Type: Single Lane Steel Bailey Bridges (50-year life)

Physical Location: Whirlpool Road Public Access – Escambia River Water Management Area

Square Footage/Physical Description: Two proposed single-lane steel bridges utilizing refurbished Bailey bridge sections (12.5 x 45 feet) across two sloughs associated with the floodplain of the Escambia River, subject to engineering design.

Expected Completion Date: September 30, 2010

Historical Background/Need for Project: To provide public/land management access to approximately 750 acres of District property in the Escambia River Water Management Area.

Plan Linkages: District's Florida Forever Work Plan

Area(s) of Responsibility: Water Supply, Water Quality, Flood Protection and Natural Systems

Alternative(s): The current bridges were used for logging purposes, have deteriorated and are unsafe. None of the bridges have a DOT load rating. In addition, road fill was placed across these sloughs adversely impacting hydrology. The District intends to restore natural hydrologic function to the Escambia River floodplain by removing logging road fill and installing two bridges, subject to site conditions. NWFWMD could delay the project, which would prevent vehicular access by the public for recreational use of the property, prevent land management/maintenance access to District property for habitat restoration, erosion control, prescribed burning, etc. activities. Lack of access prevents law enforcement/emergency vehicles from the property. Division of Forestry (DOF) or District equipment cannot access the property to suppress wildfire. FWC cannot adequately enforce fish and wildlife rules and regulations. Lack of adequate access adversely impacts public safety. Bridge engineering designs have been completed and bridge spans are undergoing strengthening before installation. Project scheduled for completion by September 30, 2010.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): Estimated at $175,000 for two bridges.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other.): Actual engineering design services to date are $37,810.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: $1,500 annually

PROGRAM: 3.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS

ACTIVITY: 3.1 FACILITIES CONSTRUCTION AND MAJOR RENOVATIONS

Project Title: Econfina Springs Complex – Restoration and Protection

Type: Multiple Spring Restoration and Protection Project

Physical Location: Econfina Creek Water Management Area

Square Footage/Physical Description: Proposed restoration and protection of Pitt, Sylvan and Williford springs. The District intends to work with DEP's Spring Restoration Committee (SRC) to develop a comprehensive spring restoration/protection plan for the Econfina Creek Springs Complex located at the junction of Econfina Creek and Hwy. 20. Project will consist of a three step process, i.e. drafting and evaluating a "conceptual design," review/approval by the Spring Restoration Committee and by the Public and Board approval of a final design and restoration and protection (construction) measures. Final designs have been completed for Phase I – Pitt/Sylvan Springs. Shortlist firms that will be allowed to submit bids will be approved January 2010. Approval of construction bids is scheduled for March 2010. Construction and landscape grown-in expected to take 12 to 18 months. Restricted access measures for canoeists may be proposed for Phase II - Williford Spring (2^{nd} Magnitude), subject to Board of Trustees (BOT) sovereign land exception. Design concepts and design sketches are complete as of March, 2007. Site surveying has been completed. Review/approval of concepts/sketches by the SRC/Public/Governing Board was completed in late 2007.

Expected Completion Date: Phase I - September 30, 2010

Historical Background/Need for Project: Project will prevent erosion/sedimentation/water quality impacts to one significant 2^{nd} Magnitude spring and two 3^{rd} Magnitude springs.

Plan Linkages: District's Florida Forever Work Plan

Area(s) of Responsibility: Water Supply, Water Quality, Flood Protection and Natural Systems

Alternative(s): NWFWMD could delay the project, which would adversely impact the water quality of Econfina Creek (a Class I Waterbody).

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): $1,000,000, subject to final architecture/engineering design/permitting and bidding.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other.): Phase I - $142,000 for final architectural/engineering design/$73,000 – preconstruction/construction engineering services.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: Weekly site clean-up, law enforcement, misc. maintenance/services- $25,000+ annually

PROGRAM: 3.0 OPERATION AND MAINTENANCE OF LANDS AND WORKS

ACTIVITY: 3.1 LAND MANAGEMENT

Project Title: Public/Land Management Access Road Construction (Materials Only)

Type: Double Lane Paved Public Access Road (Approx. 30-foot wide)

Physical Location: Davis Road, East Milton, Fl. – Blackwater River Water Management Area

Square Footage/Physical Description: Asphalt Davis Road – approx. 40,000 square feet

Expected Completion Date: September 30, 2010.

Historical Background/Need for Project: Davis Road is currently clay that experiences considerable erosion during heavy rainfall events. Paving the road will lessen erosion and provide enhanced public/land management access to a portion of the Blackwater River WMA and to the new West Region Field Office.

Plan Linkages: District's Florida Forever Work Plan

Area(s) of Responsibility: Water Supply, Water Quality, Flood Protection and Natural Systems

Alternative(s): NWFWMD could delay the project, which would allow the road to continue to erode and impact a nearby drain, hinder vehicular access by the public to District lands, hinder access by staff to the West Region Field Office.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): Cooperative project with Santa Rosa County - $50,000 for asphalt only. County will provide all labor and equipment.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other.): N/A.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None

Anticipated Additional Operating Costs/Continuing: County responsibility.

PROGRAM: 3.0 OPERATION AND MAINTENANCE OF LANDS AND WORKS

ACTIVITY: 3.1 LAND MANAGEMENT

Project Title: Devil's Hole, Sea Shell and Bluff Campsite Areas

Type: Erosion Control Stabilization/Structures

Physical Location: Devil's Hole, Sea Shell and Bluff Campsite Areas –Econfina Creek Water Management Area

Square Footage/Physical Description: Erosion Control Stabilization/Structures, etc., subject to engineering design.

Expected Completion Date: September 30, 2010

Historical Background/Need for Project: Devil's Hole, Sea Shell and Bluff Campsite areas are experiencing erosion due to adverse impacts caused by unregulated public use on sensitive slope areas and adjacent to a within bank spring. The project will stabilize highly erodible slopes and creek banks while providing for public/recreational access to these three campsite areas on the Econfina Creek WMA.

Plan Linkages: District's Florida Forever Work Plan

Area(s) of Responsibility: Water Supply, Water Quality, Flood Protection and Natural Systems

Alternative(s): District could delay the project, which may lead to further degradation of one swallet hole (Devil's Hole) and further degrade the creek bank at Sea Shell and Bluff campsite areas which may cause these areas to be closed to public use.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): Estimated at $50,000.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other.): Estimated at $20,000 for engineering design services.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): $0

Anticipated Additional Operating Costs/Continuing: $1,000 + annually for site cleanup and maintenance

PROGRAM: 3.0 OPERATION AND MAINTENANCE OF LANDS AND WORKS

ACTIVITY: 3.1 LAND MANAGEMENT

Project Title: Public Recreation Site Development/Improvement – 1) River Landing and Dead River Landing Boat Launch and Campsite Areas (Cooperative Agreement - Walton County), and; 2) Hightower, Spurling and Live Oak Landings Boat Launch, Stream bank Stabilization, and Other Recreational Facilities (Cooperative Agreement - Washington County)

Type: Public Recreation Site Development/Improvement

Physical Location: 1) River Landing and Dead River Landing Boat Launch and Campsite Areas – Walton County, Choctawhatchee River Water Management Area, and; 2 Hightower, Spurling and Live Oak Landings Boat Launch, Stream bank Stabilization, and Other Recreational Facilities, Holmes Creek Water Management Area

Square Footage/Physical Description: Public Recreation Site Development/Improvement, subject to engineering design.

Expected Completion Date: All locations, subject to final engineering designs and permitting – September 30, 2010.

Historical Background/Need for Project: All boat landings/campsites are experiencing heavy use and abuse by the recreational public. In addition, all landings need additional site development and improvements to regulate parking, stormwater and camping. Boat launch improvements, parking lot stabilization, erosion control and weather pavilions/kiosks may also be constructed, subject to engineering design. Bank fishing piers and/or boardwalks may also be considered.

Plan Linkages: District's Florida Forever Work Plan

Area(s) of Responsibility: Water Supply, Water Quality, Flood Protection and Natural Systems

Alternative(s): District could delay the project, which may lead to further degradation of these popular public access and recreation sites.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): 1) Estimated at $200,000 – Walton County sites, and; 2) Estimated at $200,000 – Washington County sites (Local Govts. will furnish engineering designs, labor and equipment, subject to approved agreements.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other.): 1) $15,000 – rail fencing and other District provided materials per agreement, and 2) $10,000 - rail fencing and other District provided materials per agreement -

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): $0

Anticipated Additional Operating Costs/Continuing: Estimated at $10,000 annually

Chapter IV Appendix

Water Management District Standard Format Program Definitions for Programs and Activities Found in the Northwest Florida Water Management District's Capital Improvements Plan

2.0 Acquisition, Restoration and Public Works

This program includes the development and construction of all capital projects (except for those contained in Program 3.0), including water resource development projects/water supply development assistance, water control projects, and support and administrative facilities construction; cooperative projects; land acquisition (including Save Our Rivers/Preservation 2000/Florida Forever) and the restoration of lands and water bodies.

2.1 Land Acquisition: The acquisition of land and facilities for the protection and management of water resources. This activity category does not include land acquisition components of "water resource development projects," "surface water projects," or "other cooperative projects."

2.2 Water Source Development: The acquisition of land and facilities for the protection and management of water resources. This activity category includes land acquisition components of "water resource development projects," "water supply development assistance projects," or "other water source development activities."

2.3 Surface Water Projects: Those projects that restore or protect surface water quality, flood protection, or surface-water related resources through the acquisition and improvement of land, construction of public works, and other activities.

2.5 Facilities Construction and Major Renovations: Design, construction, and significant renovation of all district support and administrative facilities.

3.0 Operation and Maintenance of Lands and Works

This program includes all operation and maintenance of facilities, flood control and water supply structures, lands, and other works authorized by Chapter 373, Florida Statutes.

3.1 Land Management (P2000/Save Our Rivers/Florida Forever): Maintenance, custodial, public use improvements, and restoration efforts for lands acquired through Save Our Rivers, Preservation 2000, Florida Forever or other land acquisition programs.

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5 Water Supply

5.1 Five-Year Water Resource Development Work Program: FY 2009-2010 Update

Introduction

In 1997, the Florida Legislature amended the Florida Water Resources Act (Chapter 373, F.S.) to provide direction to the state's five water management districts on regional water supply planning. This amendment provided a two-step process that involves: (1) dividing the jurisdictions of each water management district into water supply planning regions and assessing the water supply needs and sources of each region; and (2) developing regional water supply plans for those regions identified as either having, or being likely to develop, future water supply constraints.

Each water management district is required by Section 373.536(6)(a)4, Florida Statutes (F.S.), to prepare a Five-Year Water Resource Development Work Program to describe strategies for implementing the water resource development components of each approved regional water supply plan (RWSP) developed or revised under Section 373.0361, F.S. In accordance with the statute, the Work Program is submitted to the Governor, the President of the Senate, the Speaker of the House of Representatives, the Secretary of the Department of Environmental Protection, the chairs of legislative committees with substantive or fiscal jurisdiction over the districts, and the counties constituting each of the five districts. The Department of Environmental Protection (DEP) then conducts a review of the Work Program, to include a "written evaluation of the program's consistency with the furtherance of the district's approved regional water supply plans, and the adequacy of proposed expenditures."

Regional Water Supply Planning in Northwest Florida

The Northwest Florida Water Management District (NWFWMD or District) established seven water supply planning regions (Figure 5.1) in 1998. The initial District Water Supply Assessment (WSA) (NWFWMD 1998) evaluated whether supplies would be sufficient to meet demands projected out 20 years to 2020. It was determined at that time that only Region II (Santa Rosa, Okaloosa, and Walton counties) required a RWSP. The primary resource concern in Region II is in the coastal area where long-term pumping from Floridan Aquifer wells caused a pronounced drawdown in the coastal Floridan Aquifer that could result in significant saltwater intrusion and damage to public water supply wells. In 2003, the demand projections were updated through 2025. In 2006, the NWFWMD Governing Board determined that the need for planning alternative surface water development in Gulf County and Franklin County (Region V) warranted development of a RWSP. Similarly, in 2008, the Governing Board determined that the need for additional source redundancy and sustainability warranted development of a RWSP for Region III (Bay County).

A District-wide Water Supply Assessment update was completed in 2008 (approved May 2009), extending water demand projections and evaluation of sources through 2030 (NWFWMD 2008a). The 2008 WSA confirmed that no additional RWSPs are presently required, and that water supply planning and implementation efforts should continue in regions II, III, and V (NWFWMD 2008a).

As required by Section 373.0361(2)(a)1, F.S., the level of certainty planning goal for identifying water supply needs of existing and future reasonable-beneficial uses in the RWSPs was based on meeting such needs for a 1-in-10 year drought event. Water demand can be expected to increase during drought conditions for certain water uses, such as agricultural irrigation and outdoor water use. A more thorough discussion of the quantification of these demands may be found in the 2008 Water Supply Assessment Update (NWFWMD 2008a). A focus of many of the District's water resource development (WRD)

activities is to help drought-proof northwest Florida communities through development and interconnection of alternative water supplies.

Implementation of the strategies detailed in the Water Resource Development Work Program (WRDWP) has resulted in identification of additional water that will be available for reasonable-beneficial uses through the planning period. Sources of water include the inland Floridan Aquifer, Sand-and-Gravel Aquifer, reuse of reclaimed water, and surface water sources. Water conservation is also stressed as a means of improving water use efficiency and further ensuring long-term water resource sustainability. It should also be noted that future water demands, including considering 1-in-10 year drought and seasonal water demand fluctuations, are also addressed through the consumptive use permitting program.

Figure 5.1 Water Supply Planning Regions

Region II

The primary water supply issue in Region II is attributable to demands for potable water by public supply water utilities withdrawing water from the Floridan Aquifer along the coastal fringe of Santa Rosa, Okaloosa, and Walton counties. Long-term pumping has caused formation of a substantial cone of depression in the coastal Floridan Aquifer. Public supply water use in the region is currently projected to increase 57 percent from 44.91 million gallons per day (MGD) in 2005, to 70.60 MGD in 2030, with a large portion of this increase estimated to serve demand in the coastal region. Public supply is the use category of paramount concern as it represents 66 percent of the total projected demand for 2030 (NWFWMD 2008a). Water supply planning and resource management activities have focused on this issue during the past two decades, and the District has developed a close working relationship with local governments and utilities in the region to monitor water resources and develop solutions to meet future demands.

The first regional water supply plan developed in northwest Florida under section 373.0361, F.S., was approved for Santa Rosa, Okaloosa and Walton counties in February 2001 (NWFWMD 2001). The RWSP was developed to address the regional water supply planning requirements over a 20-year planning horizon, extending through the year 2020. It described the region's water supply needs, identified existing and alternative water sources, and analyzed the ability of these sources to meet future demands. The RWSP also discussed alternatives to address unmet demands and to sustain the water resources and related natural systems.

An update to the Region II RWSP was approved by the Governing Board in October 2006 (NWFWMD 2006). The plan incorporates updated and revised water resource development and water supply development components, specific alternative water supply development projects, and other elements as described in the statute.

Region III

Bay County is the latest region to be addressed with a RWSP. The coastal area in the vicinity of Panama City Beach is an Area of Special Concern due to historic salt water intrusion in the upper portion of the Floridan Aquifer. While coastal ground water withdrawals have largely been replaced by surface water from Deer Point Lake Reservoir, there remain concerns about the long-term sustainability of water supply resources within the region. Public supply water use in Region III is currently projected to nearly double from 28.92 MGD in 2005 to 56.94 MGD in 2030. This represents approximately 44 percent of the total 2030 projected demand within the region.

In February 2008, the Governing Board directed staff to develop a RWSP for Region III that would diversify long-term public supply, drought-proof the region, and minimize vulnerability of the Deer Point Lake Reservoir to hurricane storm surge. The Governing Board approved the Region III RWSP in August 2008 (NWFWMD 2008b).

Region V

Within Region V, the primary concern identified is saltwater intrusion into the upper Floridan Aquifer within the coastal Area of Special Concern. This has implications for the long-term sustainability of coastal ground water supplies within both Franklin and Gulf counties. Public supply water use in the region is projected to increase from 3.85 MGD in 2005, to 6.31 MGD in 2030. Public supply represents two-thirds of the total projected demand for 2030. To meet projected demands associated with permanent and seasonal population growth, focus has been placed on identification of a sustainable inland ground water source within Franklin County and development of a surface water source for the City of Port St. Joe and vicinity (Gulf County).

The Region V RWSP was developed concurrently with the Region II RWSP update and was approved by the Governing Board in January 2007 (NWFWMD 2007).

Work Program Implementation

Region II

To date, model development and calibration have been completed for both the Floridan Aquifer Sustainability Model and the Inland Sand and Gravel Aquifer Model. Additionally, a major analysis and feasibility assessment was completed for surface water sources in Okaloosa County. Implementation of other strategies, including Water Reuse Coordination, Water Conservation, and Hydrologic Data Collection and Analysis, are ongoing.

The current Region II WRDWP, as incorporated within the 2006 RWSP update, includes nine projects that build upon the accomplishments of the original RWSP:

1. Floridan Aquifer Sustainability Model Applications and Support;
2. Inland Sand-and-Gravel Aquifer Sustainability Model;
3. Development of Feasible Surface Water Sources;

4. Aquifer Storage and Recovery Feasibility;
5. Water Reuse Coordination;
6. Water Conservation Coordination;
7. Regional Water Supply Planning Strategies;
8. Hydrologic Data Collection and Analysis; and
9. Abandoned Well Plugging.

Region III

Three water resource development (WRD) projects support development of alternative water supplies for Bay County:

1. Hydrologic and Water Quality Data Collection, Monitoring, and Analysis;
2. Water Reuse and Conservation Assistance; and
3. Regional Water Supply Coordination and Technical Assistance.

Region V

The WRD component of the Region V RWSP consists of four projects that support development of sustainable alternative water supplies for Franklin and Gulf counties:

1. Hydrologic and Water Quality Data Collection, Monitoring, and Analysis;
2. Regional Water Supply Coordination, Source Protection, and Engineering and Technical Assistance;
3. Water Reuse and Conservation Assistance; and
4. Regional Water Supply Plan Implementation.

Project descriptions and anticipated funding requirements are provided by region below.

Funding for Water Resource Development

Since the state constitution limits the NWFWMD to only 1/20th of the *ad valorem* taxing authority afforded the other four districts, legislative mandates for water supply planning and WRD have required the NWFWMD to use other sources of revenue and to seek grant funds for addressing water supply issues. To date, the District has identified or secured funding for WRD and supply development from numerous sources, including the following:

- Water Management Lands Trust Fund;
- Florida Forever (limited water reuse construction only);
- District General Fund;
- Legislative special appropriations;
- Federal grants;
- Local government and water supply utility cost-sharing; and
- Water Protection and Sustainability Program Trust Fund.

The Water Protection and Sustainability Program Trust Fund (WPSPTF) was established by the 2005 Florida Legislature to provide a dedicated source of revenue for alternative water supply (AWS) development and WRD projects. When fully funded, the WPSPTF allows the District to provide cost-share assistance for construction of AWS development projects that may have otherwise been delayed or placed in competition with other projects for limited funds. Additionally, priority WRD and springs protection activities may be funded given sufficient annual appropriations. Projects funded under the WPSPTF are included in the March 1 Consolidated Annual Report as required by section 373.036(7), F.S. No new funding has been appropriated by the Legislature for the WPSPTF or Florida Forever Trust Fund for FY 2009-2010. Because of this, new capital project funding from the District has been greatly diminished and WRD funding resources have been substantially reduced.

Water resource development activities and support functions will continue to be funded with the Water Management Lands Trust Fund (WMLTF), grant funds, and other sources as available. The District has also set aside reserves that may be necessary to fund WRD efforts and water supply assistance, including possible funding for other regions in the future. Major District expenditures for land acquisition and protection of important recharge lands should also be recognized. Future acquisitions, however, are constrained by the availability of Florida Forever funding.

The District assists with priority WRD activities in other regions when those efforts help to prevent or address emerging water supply and water resource problems. Current projects include public access reuse projects for the cities of Chipley and Tallahassee and for Wakulla County, as well as assistance in the extension of water systems within central Gadsden County.

Funding budgeted for WRD is listed within the project descriptions below and in summary tables for regions II, III and V (Table 5.10, Table 5.14, and Table 5.19, respectively). The total proposed FY 2009-2010 WRDWP budget is $1,935,000. This amount will adequately fund the planned WRD programs for regions II, III and V for the year. It represents a significant increase from the previous year, reflecting implementation of new coastal water system interconnection and reclaimed water initiatives as discussed below. Additional budgeted funds have been reserved to provide financial assistance for WRD or water supply development projects in other regions and for future projects as needed.

Water Supply Development Project Assistance

While this report is focused on the WRD component of the approved regional water supply plans, a brief description of the District's technical and financial assistance for water supply development helps illustrate how the combined components of the RWSP work together to ensure sustainable long-term water supplies. A primary purpose of WRD is to support and facilitate future alternative water supply development. The District is, by statutory definition, primarily responsible for WRD projects, while water supply development is primarily the responsibility of local governments, water supply authorities, and utilities. However, the District also provides technical and financial assistance to local governments for water supply development. A basic distinction that can be drawn between the two levels of projects is that WRD projects are typically regional and broad in scope, while water supply development projects are more localized and deal with treatment, storage, and delivery to end users.

Significant AWS development projects constructed to date in Region II have included development of inland water sources for coastal utilities in Santa Rosa (inland Sand and Gravel Aquifer project), Okaloosa (inland Floridan Aquifer wells and transmission facilities), and Walton (Rock Hill inland wellfield development and transmission facilities) counties. Construction of reuse facilities is also helping reduce the use of potable-quality water for landscape irrigation. Funding assistance for the expansion of the Rock Hill wellfield has been provided by the WPSPTF and direct legislative appropriation. Additional water supply development assistance has recently been provided to the City of

Freeport to extend water transmission lines and interconnect service areas of the unincorporated communities of Portland and Choctaw. It is anticipated that this work will be completed in 2010.

In Region III, water supply development assistance grant funding was provided to the City of Callaway to help extend the water transmission system down the developing Allanton Peninsula. In Region V, development of an alternative surface water source in Port St. Joe has been funded in part through the WPSPTF. Current projects funded through the WPSPTF are listed in Table 5.20.

All of these efforts complement dedicated regulatory efforts to ensure the long-term sustainability of water resources. Within the coastal Water Resource Caution Area (WRCA) in particular, stringent conservation and reporting requirements are applied, and new allocations of potable Floridan Aquifer water for non-potable uses are prohibited.

Water Resource Development Projects – Region II: Santa Rosa, Okaloosa, and Walton Counties

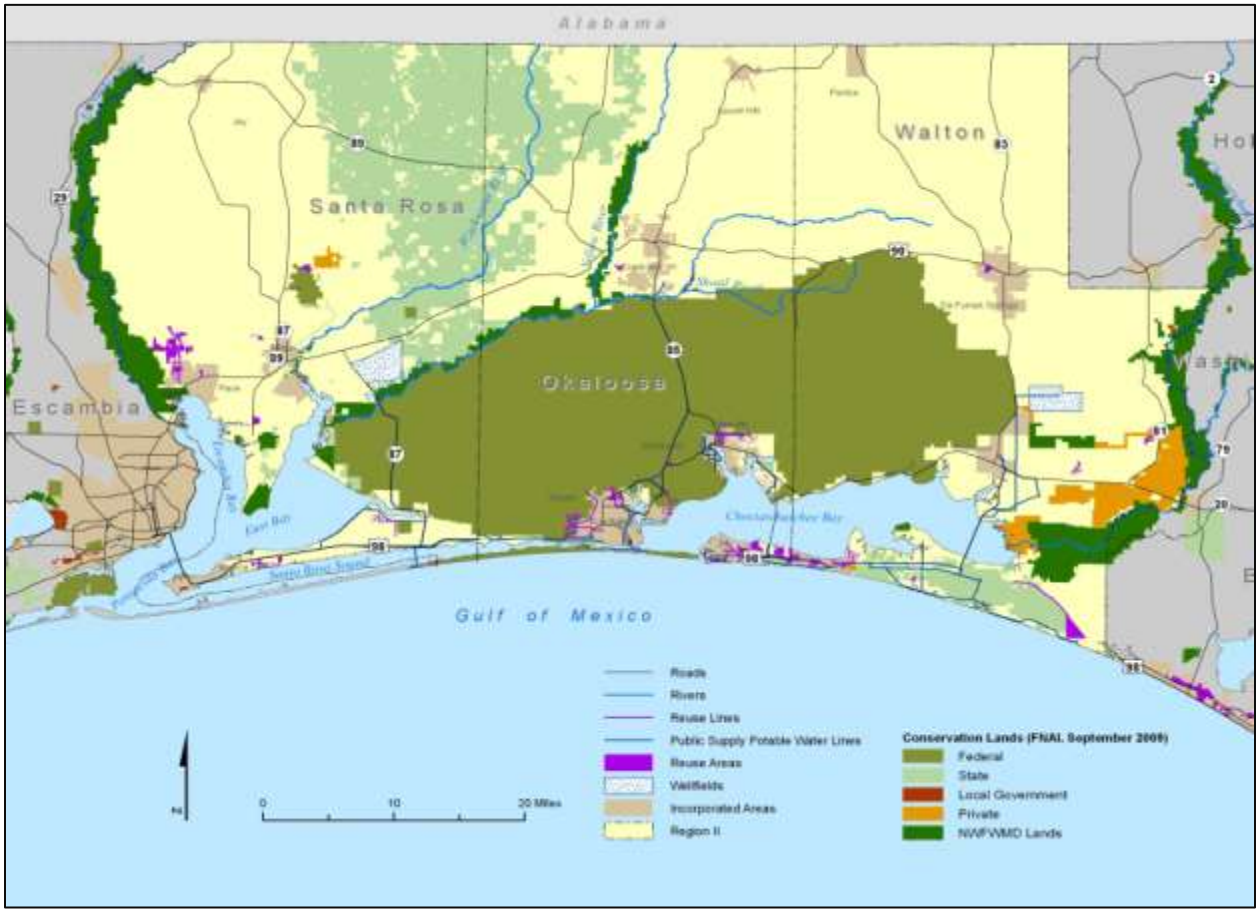

Figure 5.2 Water Supply Planning Region II

Strategy 1.0 Floridan Aquifer Sustainability Model Applications and Support

The solute transport model required for analyzing saltwater intrusion into the Region II Floridan Aquifer was developed with two distinct domains, western and eastern, to more accurately portray hydrogeologic characteristics and to make the massive, complex data sets manageable. These models, along with the regional ground water flow model (HydroGeoLogic, Inc., 2000), have been applied to analyze water supply alternatives, cumulative impacts, consumptive use permit applications and water supply planning strategies.

The model for the western domain is applicable to the major coastal utilities in Santa Rosa and western Okaloosa counties. These include the Holley-Navarre Water System (WS), Midway WS, Santa Rosa County (Navarre Beach), Okaloosa County West WS, Hurlburt Field, the City of Mary Esther, the City of Fort Walton Beach, Okaloosa County Garnier WS, and Eglin Air Force Base (AFB) Main and Housing WS. Results from the western sub-region model are summarized in the report "Saltwater Intrusion in the Floridan Aquifer in Walton, Okaloosa, and Santa Rosa Counties, Florida: Western Domain Model Final Report" (HydroGeoLogic, Inc. 2005). The report has been distributed to interested utilities and is available from the District or via the District website.[1]

[1] www.nwfwmd.state.fl.us/pubs/hgl_western_domain/hgl_western_domain.html

The eastern domain sub-region model is applicable to major coastal utilities in Walton and eastern Okaloosa counties. These include Destin Water Users, South Walton Utility Company, the City of Freeport, and Regional Utilities of Walton County. Results are summarized in the report "Saltwater Intrusion in the Floridan Aquifer in Walton, Okaloosa, and Santa Rosa Counties, Florida: Eastern Domain Model Final Report" (HydroGeoLogic, Inc. 2007). The report is also available via the District's website.[2]

Model results indicate that saltwater intrusion into potable portions of the Floridan Aquifer is occurring at a very slow and manageable rate. Principal pathways of saline water intrusion identified include lateral intrusion within the upper Floridan Aquifer from beneath the Gulf of Mexico, lateral intrusion from the lower to the upper Floridan Aquifer around the edge of the Bucatunna Clay confining unit, intrusion from saline waters of the lower Floridan Aquifer where the Bucatunna Clay confining unit is not present (easternmost Choctawhatchee Bay area) to the upper Floridan Aquifer, and downward vertical leakage through the intermediate system.

Based on evaluation of the data and models cited above, the estimated sustainable amount of water withdrawal from the coastal Floridan Aquifer identified is approximately 30 MGD. Future work accomplished through this project will be directed to model application through additional resource assessments, model uncertainty analysis, consumptive use permit application evaluation, withdrawal scenario development, and investigating alternative approaches to establishment of minimum aquifer levels or water reservations. Current funding expectations are listed in Table 5.1. Project funding will be provided by the WMLTF.

Table 5.1 Floridan Aquifer Sustainability Model Applications and Support

Implementing Agency:	NWFWMD
Proposed FY Expense (FY 09-10):	$192,000
Estimated 5-Year Cost (FY 09-14):	$262,000
Potential Funding Sources:	WMLTF
Quantity of Water Made Available:	30 MGD
Project Status:	Ongoing

Strategy 2.0 Inland Sand-and-Gravel Aquifer Sustainability Model

Due to its high recharge rate, the Inland Sand-and-Gravel Aquifer in Santa Rosa County is capable of providing regionally-significant quantities of water. Through this project, a ground water flow model was developed to assess and identify the volume of water available from the aquifer. The study area for this effort is that portion of Santa Rosa and Okaloosa counties lying between the Blackwater and Yellow rivers. In previous years, significant data were gathered, which involved constructing project-specific monitoring wells, determining aquifer hydraulic properties, mapping aquifer unit thicknesses, and measuring ground-water levels and stream discharge. An aquifer model was then developed and calibrated. The model is currently being updated to include the transient response of the aquifer to the recent drought and to incorporate LiDAR elevation data.

A pipeline from the inland Sand-and-Gravel Aquifer wellfield to the coastal area was completed in late 2003. Since then, potable water withdrawals from the wellfield have increased to nearly four MGD. This water is being conveyed south to alleviate pumping demand from the Floridan Aquifer along the coast. Based on this work and continuing development of the inland wellfield, it is anticipated that the regional

[2] www.nwfwmd.state.fl.us/pubs/hgl_eastern_domain/hgl_eastern_domain.html

and county utilities will continue to increase withdrawals from the Sand-and-Gravel Aquifer, thereby limiting coastal Floridan Aquifer withdrawals.

Table 5.2 Inland Sand-and-Gravel Aquifer Sustainability Model

Implementing Agency:	NWFWMD
Proposed FY Expense (FY 09-10):	$ 74,000
Estimated 5-Year Cost (FY 09-14):	$144,000
Potential Funding Sources:	WMLTF, Utilities
Quantity of Water Made Available:	18 MGD
Project Status:	Ongoing

Project funding for District activities has been provided by the WMLTF. Additionally, local utility contributions and approximately $3 million in federal grant funding have been applied to development of the inland wellfield.

Strategy 3.0 Development of Feasible Surface Water Sources

Surface water has been identified as a potential source of AWS to meet future demands beyond 2020, particularly within Okaloosa County. Initial efforts conducted under this water resource development project included collection of hydrologic and water quality data needed to analyze the viability of potential surface water sources. In 2006, the District and its water supply consultants prepared an analysis of potential surface water supply sources in Okaloosa County, presented in the report "Conceptual Alternative Water Supply Development Projects and Planning Level Cost Estimates" (PBS&J 2006)[3]. This report lays the groundwork for several potential AWS development projects. Alternatives considered technically and economically feasible include direct river withdrawal, potentially with offline tributary surface impoundments, and riverbank filtration. In the process of the analysis, the District also conducted an evaluation of the county's Yellow River Reservoir proposal. The resulting report indicated that this proposal is not economically feasible, and its implementation would result in significant environmental impacts and mitigation requirements.

It is anticipated that District and county staff will continue to investigate direct withdrawal and alternative surface water supply sources on the Shoal River to narrow down the list of identified feasible alternatives and focus on the most preferred alternatives. Technical assistance to Okaloosa County will continue, such as detailed field assessments of environmental and technical characteristics within potential project areas and more detailed evaluation of potential surface water project sites. Associated with these activities, the District may evaluate needs and opportunities for watershed resource protection, including land acquisition and restoration.

Table 5.3 Development of Feasible Surface Water Resources

Implementing Agency:	NWFWMD
Proposed FY Expense (FY 09-10):	$ 80,000
Estimated 5-Year Cost (FY 09-14):	$300,000
Potential Funding Sources:	WMLTF, WPSPTF, Local Governments, Utilities
Quantity of Water Made Available:	25 MGD
Project Status:	Ongoing

[3] www.nwfwmd.state.fl.us/pubs/final_%20water_Report/Final%20Water%20Supply%20Study%20Report.pdf

Strategy 4.0 Aquifer Storage and Recovery Feasibility

Large-scale District-funded aquifer storage and recovery (ASR) operations have not been implemented for storing freshwater supplies due to economic feasibility, water quality, and other technical considerations. There is potential for this option in the future and, as discussed below, it is being explored further by utilities within the region. The District will work cooperatively with interested parties wherever viable ASR opportunities exist and may include technical, financial, and educational assistance. Associated activities may also be coordinated closely with ongoing aquifer sustainability efforts and surface water source alternatives analyses. Aquifer storage, when available or where feasible, could be used to store large quantities of water at low cost more effectively than above ground storage facilities. Possible funding sources for ASR testing and development as a water resource development project include the WPSPTF, WMLTF, federal funds, and coastal public utilities interested in pursuing this alternative.

The District is coordinating with DEP and utilities regarding ASR permitting activities. Currently Destin Water Users is testing the feasibility of storing treated wastewater in the lower portion of the Surficial Aquifer. If successful, this would facilitate additional reuse of their treated wastewater. In future years, in coordination with evaluations of surface water supply alternatives, the District may conduct preliminary ground water model analyses of the feasibility of additional ASR activities within Region II.

Table 5.4 Aquifer Storage and Recovery (ASR) Feasibility

Implementing Agency:	NWFWMD, Local governments, Utilities
Proposed FY Expense (FY 09-10):	$ 4,000
Estimated 5-Year Cost (FY 09-14):	$ 24,000
Potential Funding Sources:	NWFWMD, Utilities, Local Governments
Quantity of Water Made Available:	TBD
Project Status:	Ongoing

Strategy 5.0 Water Reuse Coordination

As of 2007, an estimated 9.65 MGD of reclaimed water was used for public access reuse in Region II (FDEP 2009). This includes irrigation of an estimated 1,500 residences, 17 golf courses, five parks, one school and one cemetery. The total area irrigated for public access reuse within the region is estimated at over 3,570 acres (FDEP 2009).

Reuse projects under construction in the region include expansion of the Okaloosa County Bob Sikes Water Reclamation Facility, which will provide an estimated 1.0 MGD of reuse water for public access irrigation in the vicinity of Crestview. The City of Freeport completed construction of a wastewater reuse system during the past year including distribution lines, storage facilities, and associated equipment. The system will provide approximately 0.4 MGD of public access reuse water. The City of Fort Walton Beach is also developing a reuse water system in cooperation with Hurlburt Field. This project would initially provide approximately 30,000 gallons per day for irrigation of a cemetery (now irrigated with Floridan Aquifer water), as well as water for various uses on Hurlburt Field. The system will likely be expanded to area schools and additional uses within an industrial park. Ultimately, the project is expected to provide up to 1.0 MGD of reclaimed wastewater for reuse, treated to advanced wastewater, public access standards. This project will also benefit the Gap Creek, Cinco Bayou basin (Choctawhatchee Bay), which now receives the wastewater discharge. Additionally, as described under Strategy 4.0, the ASR initiative of Destin Water Users has the potential to significantly increase the water reuse capability of that utility.

Also noteworthy is an ongoing water reuse initiative of the Niceville, Valparaiso, Okaloosa County Regional Sewer Board (NVOC). The NVOC owns and operates a 3.5 MGD wastewater treatment plant that is located on State Road 85 in Niceville. The NVOC recently completed improvements that tripled the reclaimed water capacity from 1.0 to 3.0 MGD. The improvements also included construction of a 19 million gallon holding basin on Eglin AFB, as well as a new high volume pumping station. The reclaimed water system supplies water to the Rocky Bayou Golf Course, Heritage Gardens Cemetery, the Rocky Bayou Christian School, and the Swift Creek residential subdivision. Plans include supplying reclaimed water to two new residential apartment complexes.

The District has initiated development of a District-wide reuse plan. It is anticipated that this effort will result in identification of future projects that will support RWSP implementation and help enhance the sustainability of water resources throughout northwest Florida. Related products are expected to include a detailed compilation of existing reuse systems, projected wastewater flows through 2030, and an evaluation of current and future growth patterns. It is also anticipated that among the results will be an estimate of ground water offsets. The work is currently in the initial stages of development, including data collection.

District staff also continue to emphasize reuse and conservation in both resource regulation and in reviewing proposed comprehensive plan amendments and developments of regional impact (DRIs) District-wide. In response to regulatory and cooperative planning efforts, significant investments in reuse have been made in coastal areas of the region, particularly irrigation of golf courses.

Table 5.5 Water Reuse Coordination

Implementing Agency:	NWFWMD
Proposed FY Expense (FY 09-10):	$ 25,000
Estimated 5-Year Cost (FY 09-14):	$165,000
Potential Funding Sources:	WMLTF, Local Governments, Utilities
Quantity of Water Made Available:	5 MGD
Project Status:	Ongoing

Table 5.5 shows the estimated cost for coordination of this effort, including working cooperatively with local governments and utilities to plan and implement new projects, is $25,000 in FY 2009-2010. Additional construction funding assistance has been made available through the WPSPTF (Table 5.20) and may also be provided on a competitive basis through the Florida Forever Trust Fund. Coordination and assessment funding is provided through the WMLTF.

Strategy 6.0 Water Conservation Coordination

A significant effort at water conservation has been taking place in Region II for some time, substantially due to regulatory requirements and incentives established within the coastal WRCA. As a result, additional potential for conservation to offset current potable water use is relatively low (estimated previously at 2.5 MGD) (PBS&J 2000a). Water conservation remains a priority within Region II, both to sustain and build upon gains made in water efficiency and to ensure that future growth is established in such a way as to maximize long-term water use efficiency and resource sustainability.

District staff therefore continue to emphasize conservation education and awareness. In 2004, a concerted effort began to distribute water conservation brochures to Region II utilities, with 26,350 brochures distributed over the last three years. These numbers do not reflect continued distribution of *WaterWise Florida Landscapes*, a four-color, 64-page statewide publication distributed to county extension offices, utilities, and the public District-wide. It should be noted that other District-wide support activities are

ongoing through the Water Resource Education program. For example, the District participates in a number of public events where water conservation and other water resource information is distributed.

During FY 2004-2005, the District initiated the Water Conservation Hotel and Motel Program (Water CHAMP) in northwest Florida, with a focus on Region II. This is a towel and linen reuse program through which hotel guests are asked to forego having linens changed daily and to hang up towels that do not need washing. As of August 2009, 30 hotels are participating in the program, including ten in Region II. Newsletters are regularly distributed to recognize participants and encourage new participation. Participating hotels are providing positive feedback on the program and reporting water and cost savings.

In cooperation with other water management districts statewide, the District participated in the statewide study of the effects of water rate pricing structures on public supply water demand (Whitcomb 2005). To act on the findings of this study, the NWFWMD coordinates distribution of the associated water rates model in cooperation with the author. Since FY 2006-2007, requests for the model have been sent on to Dr. Whitcomb for 30 utilities.

As with water reuse, District staff emphasize water conservation measures in both resource regulation and in reviewing proposed comprehensive plan amendments and DRIs. In response to consistent emphasis by the District and other state and regional agencies, most large comprehensive plan amendments and DRIs, particularly within Region II, incorporate water conservation requirements. These typically include drought-tolerant vegetation in landscaping and installation of high efficiency, low volume plumbing fixtures. District staff also encourage local governments to require connection to reclaimed water systems for uses not requiring potable quality water.

Due to recent statutory revisions, District staff are assisting local governments and state agencies in reviewing local water supply facility work plans and associated comprehensive plan amendments. The sufficiency of water conservation policies is a focus of these reviews. Additionally, in concert with a District-wide water reuse initiative, District staff are compiling and evaluating data on the scope of water conservation efforts among utilities, with the objective of identifying those where improvements can be made.

These efforts complement measures established under the District's Regulatory program for the coastal WRCA. Under this program, new uses of the Floridan Aquifer for non-potable uses are not permitted. Additionally, in response to resource limitations, cooperative planning, and regulatory requirements and incentives, numerous utilities implement water conservation measures that include inclining block rates, conservation plans, and enhanced use of reclaimed water. Examples include Regional Utilities, South Walton Utility Company, the City of Fort Walton Beach, and Okaloosa County Water and Sewer, among many others.

Table 5.6 Water Conservation Coordination

Implementing Agency:	NWFWMD
Proposed FY Expense (FY 09-10):	$ 10,000
Estimated 5-Year Cost (FY 09-14):	$ 50,000
Potential Funding Sources:	Local Governments, Utilities, WMLTF
Quantity of Water Made Available:	2.5 MGD
Project Status:	Ongoing

Funding for water conservation efforts is provided through the WMLTF, as well as local sources. Ongoing conservation efforts will continue through and beyond the RWSP's 20-year planning horizon.

As other projects are determined to be viable and cost-effective, increased funding may be made available for implementation.

Strategy 7.0 Regional Water Supply Planning Strategies

Development and refinement of regional strategies, project development, and RWSP update are essential components of the WRDWP. Related activities include coordination with and technical support for local governments and utilities to ensure a regional focus in the planning and development of AWS projects. This may include assistance with hydrogeology and related engineering work for development of unused or underused water sources, including the inland Floridan Aquifer, Sand-and-Gravel Aquifer, reclaimed water, and potential surface water sources. Associated administrative activities include project and funding management, coordination with DEP and other agencies, and progress reporting.

A major new District priority is the coastal water systems interconnection initiative. Through this effort, the District will work in cooperation with local utilities to explore and develop possibilities for the interconnection of water supply systems. Significant investments in alternative water supplies in the coastal regions have resulted in a diverse base of water supply sources. Interconnection of water supply systems is expected to significantly enhance the resilience of the coastal water systems by enabling transfer of water between utilities if necessary due to future droughts or other contingencies.

An initial interconnect reconnaissance study was completed in January 2009. This study resulted in development of a conceptual implementation plan and schedule, identification of candidate utilities from Gulf to Escambia counties, and identification of key issues and challenges. Subsequent work is expected to result in development of alternative alignments, preliminary designs, and cost estimates. Completion of this work will complement the reuse evaluation discussed in Strategy 5.0 in providing a foundation for future RWSP updates.

Also, as discussed in the reuse and conservation sections, District staff work with local governments and state and regional agencies to enhance coordination of land use and water supply planning. District staff distributed guidelines and provided technical assistance to local governments for preparing water supply comprehensive plan amendments and water supply facilities work plans. In cooperation with Department of Community Affairs (DCA) and DEP, District staff reviewed water supply facility work plans submitted by local governments as amendments to their comprehensive plans. To date in Region II, reviews have been conducted for the cities of DeFuniak Springs, Destin, Freeport, Fort Walton Beach, Jay, Mary Esther, Milton and Niceville, and for Okaloosa and Santa Rosa counties.

During the past year, the District also completed the District-wide Water Supply Assessment Update (required under section 373.036, F.S.) and continued RWSP and WPSP implementation tracking and coordination of program funding sources and contracts.

Table 5.7 Regional Water Supply Planning Strategies

Implementing Agency:	NWFWMD
Proposed FY Expense (FY 09-10):	$528,000
Estimated 5-Year Cost (FY 09-14):	TBD
Potential Funding Sources:	WMLTF
Quantity of Water Made Available:	N/A
Project Status:	Ongoing

The funding identified in Table 5.7 represents a substantial increase from previous estimates. This increase reflects the new coastal interconnection initiative described above. It is possible that additional funding may be needed for further investigation into AWS development options, including hydrogeologic

data collection and analysis and preliminary engineering feasibility analyses. Such further investigations may lead to additional AWS development assistance or water resource development projects that support dependable and sustainable supplies of water.

Strategy 8.0 Hydrologic Data Collection and Analysis

The NWFWMD has a limited long-term hydrologic data collection network of stream gauges and monitoring wells in Region II. As part of the regional water supply planning process and implementation of the RWSP, the District has enhanced its ground and surface water monitoring capabilities. This includes monitoring operations in cooperation with the U.S. Geological Survey surface water gauging network.

The District will continue to deploy gauging stations on tributaries in the region, including within the Yellow and Choctawhatchee river basins. Ground water quality monitoring for saltwater intrusion and aquifer level monitoring will also continue. The enhanced monitoring network will continue to be useful for long-term water supply planning, refining ground water models used to make management decisions, and developing water management strategies.

Table 5.8 Hydrologic Data Collection and Analysis

Implementing Agency:	NWFWMD
Proposed FY Expense (FY 09-10):	$173,000
Estimated 5-Year Cost (FY 09-14):	$623,000
Potential Funding Sources:	WMLTF, WPSPTF
Quantity of Water Made Available:	N/A
Project Status:	Ongoing

The District anticipates that this will be an ongoing project, both up to and beyond the RWSP's 20-year planning horizon. Funding is primarily expected from the WMLTF. Other possible sources include the District's General Fund, federal funding, and local governments.

Strategy 9.0 Abandoned Well Plugging

Through September 2009, the District has facilitated the plugging of approximately 3,781 abandoned wells within Region II. The overall goal of this program is to protect available ground water resources from aging, uncontrolled or improperly constructed wells that are no longer in use. During FY 08-09, the District permitted the proper plugging of 270 wells in Santa Rosa, Okaloosa, and Walton counties. The District achieves proper abandonment of such wells through two methods: requiring contractors to plug abandoned wells found on site during new well construction or initiating a well abandonment contract with a well owner or local government.

District staff also provide technical assistance to utilities in the plugging of abandoned wells identified as having the potential to adversely affect ground water quality. This is an ongoing project and it is likely that many more wells will be identified for plugging in the future. The District intends to implement this project through regulatory programs to the extent possible.

Table 5.9 Abandoned Well Plugging

Implementing Agency:	NWFWMD
Proposed FY Expense (FY 09-10):	$ 30,000
Estimated 5-Year Cost (FY 09-14):	$150,000
Potential Funding Sources:	NWFWMD, WMLTF, Local Governments, Utilities
Quantity of Water Made Available:	N/A
Project Status:	Ongoing

This project supports District efforts to sustain coastal water supply sources. Technical assistance may be funded using the District's General Fund or the WMLTF. Additional sources for funding abandoned well plugging include federal or state grant funding, individual well owners, and local governments. The District anticipates continued use of these sources to fund well plugging that is not associated with regulatory requirements.

Table 5.10 2009-2014 Region II WRDWP Project Funding

	Region II Water Resource Development Projects	RWSP Page #	FY 08-09* Expenditures	*Plan Implementation Costs*					*Estimated Five-Year Cost*
				FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	(FY 09/10 – FY 13/14)
1	Floridan Aquifer Sustainability Model	21	$165,898	$192,000	$30,000	$20,000	$10,000	$10,000	$262,000
2	Inland Sand-and-Gravel Aquifer Sustainability Model	21	$37,053	$74,000	$30,000	$20,000	$10,000	$10,000	$144,000
3	Development of Feasible Surface Water Sources	22	$22,796	$80,000	$80,000	$80,000	$40,000	$20,000	$300,000
4	Aquifer Storage and Recovery Feasibility	23	$3,799	$4,000	$5,000	$5,000	$5,000	$5,000	$24,000
5	Water Reuse Coordination	24	$24,695	$25,000	$50,000	$50,000	$20,000	$20,000	$165,000
6	Water Conservation Coordination	24	$9,498	$10,000	$10,000	$10,000	$10,000	$10,000	$50,000
7	Regional Water Supply Planning Strategies	25	$86,801	$528,000	TBD	TBD	TBD	TBD	TBD
8	Hydrologic Data Collection & Analysis	26	$111,160	$173,000	$150,000	$100,000	$100,000	$100,000	$623,000
9	Abandoned Well Plugging	27	$5,200	$30,000	$30,000	$30,000	$30,000	$30,000	$150,000
	TOTAL		**$466,899**	**$1,116,000**	**$385,000+**	**$315,000+**	**$225,000+**	**$205,000+**	**$2,246,000+**

* Preliminary cost figures; final cost distribution information was unavailable at the time this report was prepared. .

Water Resource Development Projects – Region III: Bay County

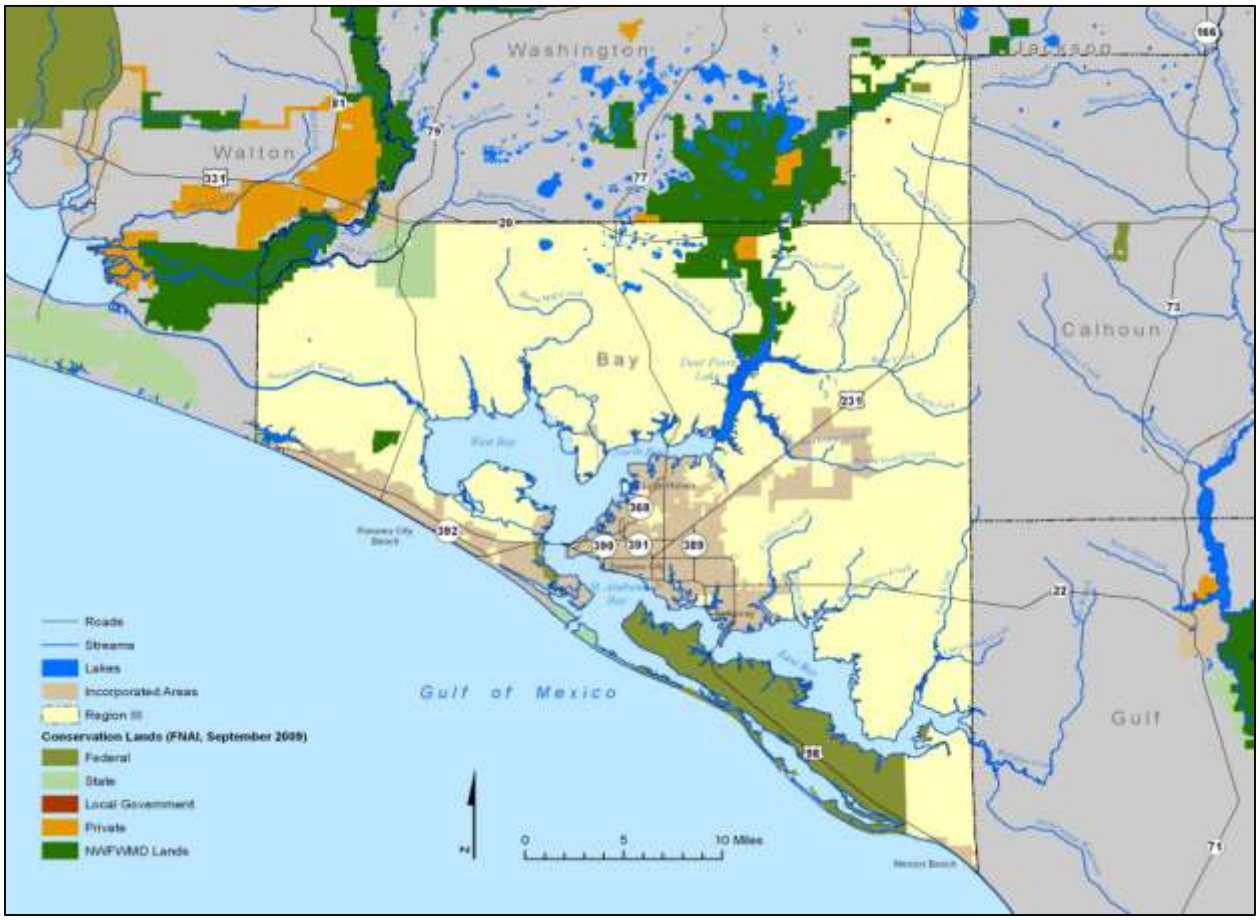

Figure 5.3 Water Supply Planning Region III

Strategy 1.0 Hydrologic and Water Quality Data Collection, Monitoring, and Analysis

This project supports development of an inland ground water supply source in cooperation with Bay County Utilities to serve all Region III communities. Implementation of this project provides essential water resource data, analysis, and modeling for determining the location, distribution, and physical characteristics of potential future inland production wells and other alternative water supply sources. The project also provides the monitoring necessary to ensure impacts related to new production wells and other withdrawals are managed to protect the water resource and associated natural systems.

In cooperation with the District, Bay County has been conducting hydrologic and water quality data collection and analysis since 2006. Inland test wells at three locations have been installed. Multi-well aquifer testing and analysis at these sites has been completed. The evaluation of the hydraulic properties of the Floridan Aquifer in northwest Bay County is being applied to the design, distribution, and operation of production wells so as to provide an alternative water supply while sustaining the water resource and protecting wetlands and other natural systems.

Ground water level monitoring throughout the area was also enhanced this past year with the installation of six continuous water level recorders. Monitoring of lake levels and stream flows will be expanded in the upcoming year.

Table 5.11 Hydrologic and Water Quality Data Collection, Monitoring, and Analysis

Implementing Agency:	Bay County, NWFWMD
Proposed FY Expense (FY 09-10):	$ 25,000
Estimated 5-Year Cost (FY 09-14):	$105,000
Potential Funding Sources:	WMLTF, WPSPTF, Bay County
Quantity of Water Made Available:	10 MGD
Project Status:	Ongoing

Other potential sources of funding include local governments and utilities, District general revenue funds, legislative grants and appropriations, and other state and federal grant programs.

Strategy 2.0 Water Reuse and Conservation Assistance

Reuse is an important component of the regional water supply strategy to reduce demand for potable water, improve water use efficiency, and otherwise sustainably manage water resources. The District's role in developing public access beneficial reuse includes coordinating among local utilities and providing technical and financial assistance for cost-effective reuse projects, including those that provide wastewater treated to public access standards and treated stormwater. District staff also coordinate with DEP as that agency carries out its reuse regulation responsibilities. As of 2007, an estimated 3.56 MGD of reclaimed water was used for public access reuse in Region III (FDEP 2009). This includes irrigation of an estimated 600 residences, five golf courses, four parks and one school. The total area irrigated for public access reuse is estimated at over 900 acres (FDEP 2009).

As described under Region II, a District-wide evaluation of reuse needs and opportunities has been initiated. This effort is expected to result in identification of priority future projects that help sustain water resources and support RWSP implementation. Related products are expected to include a detailed compilation of existing reuse systems, projected wastewater flows through 2030, and an evaluation of current and future growth patterns. The work is currently in the initial stages, including data collection and methodology development.

Water conservation opportunities exist that may reduce both current water use and long-term demand. Application of conservation rate structures, conservation measures in local building codes and ordinances, consumptive use permitting conditions, and outreach and education associated with nontraditional source development projects will help constrain future growth in demand. As one example, there is opportunity within the rental lodging sector serving tourists and seasonal residents to increase water use efficiency. The District has expanded the Water CHAMP program to Region III and has nine participating hotels in Bay County. Over the past two years, the District has distributed approximately 3,900 water conservation brochures to utilities and local governments in the county.

Additionally, District staff continue to review local government comprehensive plan amendments and water supply facility work plans and submit recommendations, as necessary, to local governments and DCA for fully implementing water conservation and reuse opportunities in both existing and newly developing areas. In particular, it is noted that the substantial future development proposed for Bay County provides an opportunity to develop both reclaimed water infrastructure and requirements and to promote water conservation at the earliest stages of community development.

Table 5.12 Water Reuse and Conservation Assistance

Implementing Agency:	NWFWMD
Proposed FY Expense (FY 09-10):	$ 32,000
Estimated 5-Year Cost (FY 09-14):	$112,000
Potential Funding Sources:	WMLTF
Quantity of Water Made Available:	TBD
Project Status:	Ongoing

Strategy 3.0 Regional Water Supply Coordination and Technical Assistance

Through this strategy, the District provides technical assistance to local governments and water suppliers. Local governments in regions covered by a RWSP must abide by state requirements to more directly link land use and water planning. Such local governments are required to amend their comprehensive plans to ensure that water supply will be planned and developed to meet future growth in a manner that is consistent with the RWSP. Comprehensive plans are also required to incorporate alternative water supply sources and projects in furtherance of the RWSP. In cooperation with DCA and DEP, District staff review and provide comments as appropriate on local government water supply facility work plan and comprehensive plan amendments.

District staff have also provided extensive technical assistance and guidance to Bay County utilities for aquifer testing and modeling in support of the inland wellfield alternative water supply development project.

The coastal water systems interconnection initiative described under Strategy 7.0 of Region II will also incorporate Region III. In cooperation with local governments and utilities, the District will explore and develop potential projects to interconnect water supply systems. These interconnections, in concert with continued development of alternative water supply sources, will enhance the resilience of water supplies within the coastal regions in the face of future droughts, major storms, and other possible events. The initial reconnaissance study was completed in 2009. Continuing work is expected to result in a conceptual implementation plan and schedule, evaluation of key issues and challenges to be addressed, and development of alternative preliminary designs and cost estimates. This work will complement the reuse evaluation discussed above and alternative water supply development in providing a foundation for future RWSP updates.

Table 5.13 Regional Water Supply Coordination and Technical Assistance

Implementing Agency:	NWFWMD
Proposed FY Expense (FY 09-10):	$331,000
Estimated 5-Year Cost (FY 09-14):	TBD
Potential Funding Sources:	WMLTF, NWFWMD General Fund
Quantity of Water Made Available:	TBD
Project Status:	Ongoing

Table 5.14 2009-2014 Region III WRDWP Project Funding

	Region III Water Resource Development Projects	RWSP Page #	FY 08-09* Expenditures	*Plan Implementation Costs*					Estimated Five-Year Cost
				FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	(FY 09/10 – FY 13/14)
1	Hydrologic and Water Quality Data Collection and Analysis	10	$19,828	$25,000	$20,000	$20,000	$20,000	$20,000	$105,000
2	Water Reuse and Conservation Assistance	10	$3,966	$32,000	$30,000	$20,000	$20,000	$10,000	$112,000
3	Coordination and Technical Assistance	10	$55,003	$331,000	TBD	TBD	TBD	TBD	$331,000
	TOTAL		**$78,797**	**$388,000**	**$50,000**	**$40,000**	**$40,000**	**$30,000**	**$548,000+**

* Preliminary cost figures; final cost distribution information was unavailable at the time this report was prepared.

Water Resource Development Projects – Region V: Gulf and Franklin Counties

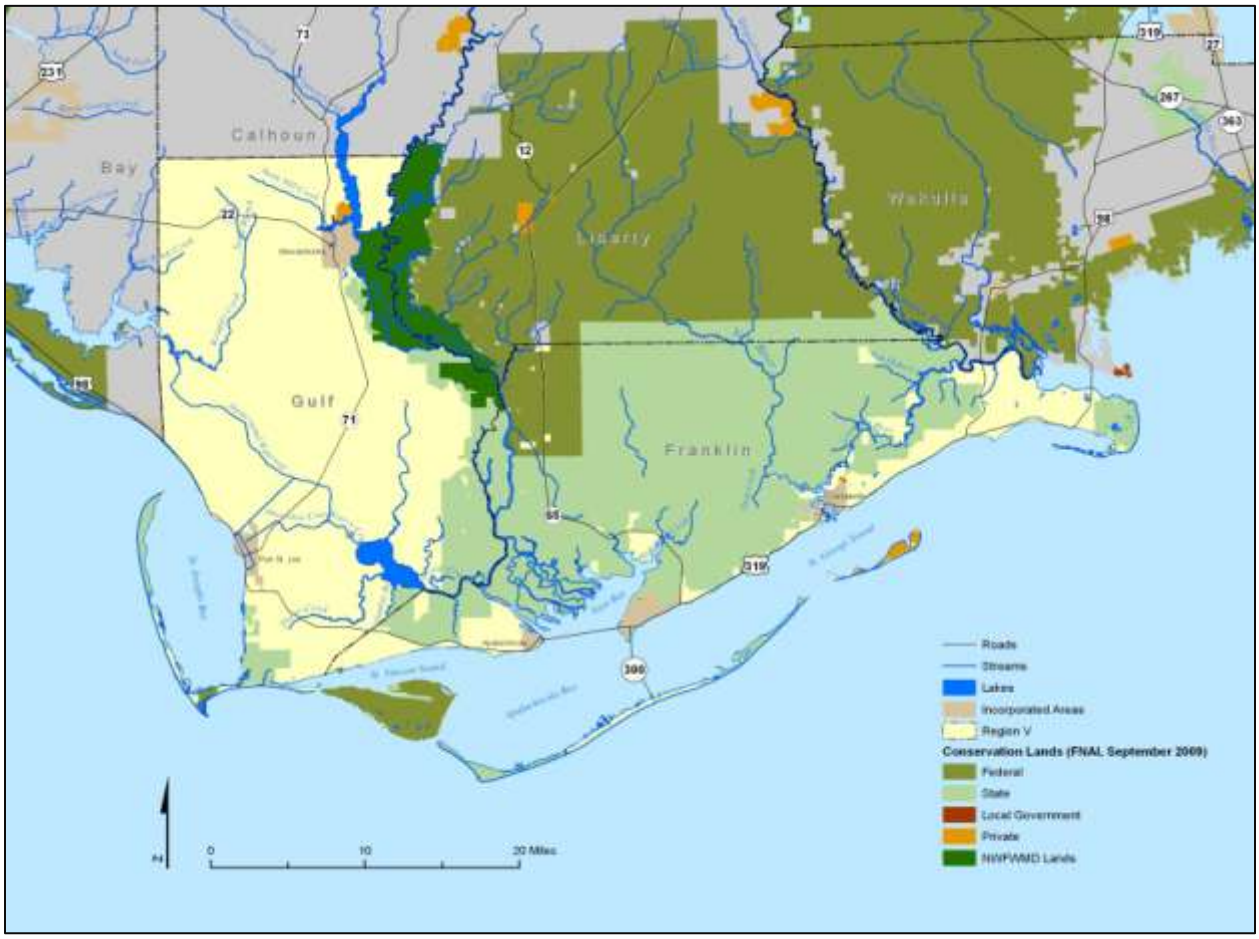

Figure 5.4 Water Supply Planning Region V

Strategy 1.0 Hydrologic and Water Quality Data Collection and Analysis

This activity provides for essential water resource data collection, analysis, and modeling to determine the location and distribution of potential future production wells and other water supply sources. The scope of the project is inclusive of water resource development in support of identifying and developing alternative sources of water supply to serve all Region V communities. Tasks include ground water modeling, water quality sampling and analysis, hydrologic monitoring and analysis, and preliminary well and facility design for regional AWS development. Longer-term monitoring tasks over the next five years may also include water quality and hydrologic monitoring to manage and protect water resources.

The District has conducted significant data collection and analysis to evaluate the feasibility of an inland ground water source for Franklin County. The work includes test well development, water quality analysis, and aquifer testing. A District consultant has developed a ground water model to support the project. Work is ongoing to complete the initial data collection and analysis effort. The District has also assisted the Eastpoint Water and Sewer District in test well development and aquifer performance testing. This information is currently being used by their consultant to develop a ground water model to assess the long term sustainability of projected ground water withdrawals in the Eastpoint area.

Table 5.15 Hydrologic and Water Quality Data Collection and Analysis

Implementing Agency:	NWFWMD
Proposed FY Expense (FY 09-10):	$ 42,000
Estimated 5-Year Cost (FY 09-14):	$172,000
Potential Funding Sources:	WMLTF
Quantity of Water Made Available:	3 MGD
Project Status:	Ongoing

It is estimated that up to three MGD of sustainable water supply may be identified and supported through inland ground water source development for Franklin County. Funding is provided from the WMLTF. Additional water resource development funding has previously been provided through the WPSPTF (Table 5.20). District general funds could also be used for this purpose.

Strategy 2.0 Regional Water Supply Source Protection, Coordination, and Engineering and Technical Assistance

District staff provide technical assistance to help local governments and utilities meet water supply-related source protection, project design and engineering requirements. The District will help support regional coordination and planning on the part of regional water supply entities and local governments. Assistance includes activities related to protection of ground and surface water sources, water resource engineering, coordination with other resource protection and management agencies, and other technical assistance.

As discussed for regions II and III, a major District priority is the coastal water systems interconnection initiative, focused on coastal utilities from Gulf through Escambia counties. Through this effort, the District will explore and develop potential projects to interconnect water supply systems. These interconnections, in concert with continued development of alternative water supply sources, will enhance the resilience of water supplies within the coastal regions in the face of future droughts, major storms, and other possible events.

The initial reconnaissance study was completed in 2009. Continuing work is expected to result in a conceptual implementation plan and schedule, evaluation of key issues and challenges to be addressed, and development of alternative preliminary designs and cost estimates. This work will complement the reuse evaluation discussed above in providing a foundation for future RWSP updates.

Additionally, the District has initiated work with the City of Carrabelle to develop preliminary engineering for a potential interconnection with the Alligator Point Water Resources District. Completion of this interconnection would assist in regional drought-proofing and in ensuring system reliability through summer and holiday heavy use periods. It is expected that the water system will enact a conservation-oriented rate structure in the process, thereby improving water use efficiency, particularly for new development. Additional technical assistance has also been provided to the Eastpoint Water and Sewer District and the City of Wewahitchka for inland test well development.

Table 5.16 Coordination, Source Protection, and Engineering and Technical Assistance

Implementing Agency:	NWFWMD
Proposed FY Expense (FY 08-09):	$359,000
Estimated 5-Year Cost (FY 08-13):	TBD
Potential Funding Sources:	WMLTF
Quantity of Water Made Available:	N/A
Project Status:	Ongoing

While this project does not directly provide water, the efforts encompassed do support long-term development and protection of AWS sources, including the approximately nine MGD estimated to be provided across the region through development of alternative surface water and inland ground water sources. These include up to three MGD from the Franklin County inland ground water source described previously, and up to six MGD from the Port St. Joe alternative surface water source constructed with assistance from the WPSPTF (Table 5.20).

Strategy 3.0 Water Reuse and Conservation Coordination Assistance

Water reuse is an important component of the long-term regional water supply strategy and is included wherever feasible in Region V as a way to reduce current demand and limit long-term growth in demand for potable water. The District's role in developing public access beneficial reuse includes coordinating among local utilities, inventorying existing and potential beneficial reuse sources and uses, and providing technical and financial assistance for specific reuse projects. As of 2007, an estimated 0.07 MGD of reclaimed water was used for public access reuse in Region V (FDEP 2009). This includes irrigation for one golf course with an estimated irrigated area of 81 acres.

As described above, the District has initiated a District-wide assessment of reuse needs and opportunities. This effort is expected to result in identification of priority future projects that help sustain water resources and support RWSP implementation. Related products are expected to include a detailed compilation of existing reuse systems, projected wastewater flows through 2030, and an evaluation of current and future growth patterns. The work is currently in the initial stages of development, including data collection and methodology development.

District staff also review local comprehensive plan amendments and development proposals to assist in local reuse and conservation planning, provide consumptive use permit review and issuance, and coordinate with DEP's reuse regulation responsibilities. In reviewing comprehensive plan amendments and proposed DRIs, District staff continue to emphasize both reuse and conservation measures.

Other conservation assistance provided by the District to Region V has been distribution of the water rates model (Whitcomb 2005) to several utilities in the region, and significant dedication of District staff resources to water education and outreach during the last year. The Water CHAMPS initiative has been extended to Region V, with one hotel in Port St. Joe participating as of August 2009.

Table 5.17 Water Reuse and Conservation Coordination and Assistance

Implementing Agency:	NWFWMD, Local Governments, Utilities
Proposed FY Expense (FY 09-10):	$ 24,000
Estimated 5-Year Cost (FY 09-14):	$ 59,000
Potential Funding Sources:	WMLTF, WPSPTF
Quantity of Water Made Available:	TBD
Project Status:	Ongoing

Funding may be provided from the WMLTF and, for construction of approved reuse facilities, the WPSPTF. Funding assistance is also made available on a competitive basis through the Florida Forever Capital Improvement grant program for construction of eligible reuse facilities.

Strategy 4.0 Regional Water Supply Plan Implementation

Implementing the RWSP for Region V encompasses coordinating, managing and tracking projects, completing administrative tasks, fulfilling statutory reporting requirements, and related activities. This strategy also allows for technical assistance to local governments and water suppliers. Working cooperatively with utilities and local governments, District coordination indirectly helps to attain the up to nine MGD of AWS estimated as being available during the planning period.

During the past year, the District continued RWSP implementation tracking, project planning and coordination of program funding sources and contracts. The WRDWP Annual Report and District-wide Water Supply Assessment Update (required under section 373.036, F.S.) were completed. District staff coordinated funding assistance through the WPSPTF to the City of Port St. Joe for construction of its surface water facility.

As discussed in the reuse and conservation sections, District staff also work with local governments and state and regional agencies to improve coordination of land use and water supply planning. District staff worked with DEP, DCA, and local governments to develop and distribute updated guidelines as well as conduct technical workshops for preparing water supply comprehensive plan amendments and water supply facility work plans. Additionally, in cooperation with DCA, District staff reviewed the water supply facility work plan prepared by Gulf County as an amendment to its comprehensive plan, as well as two draft amendments from Franklin County and the City of Port St. Joe.

Table 5.18 RWSP Implementation

Implementing Agency:	NWFWMD
Proposed FY Expense (FY 09-10):	$ 6,000
Estimated 5-Year Cost (FY 09-14):	$ 29,000
Potential Funding Sources:	WMLTF
Quantity of Water Made Available:	N/A
Project Status:	Ongoing

While this project does not directly provide water, the efforts encompassed do support the long-term development of AWS sources, including the approximately nine MGD estimated to be provided across the region through development of alternative surface water and inland ground water sources. It is anticipated that funding for this project will continue to be provided primarily through the WMLTF.

Table 5.19 2009-2014 Region V WRDWP Project Funding

	Region V Water Resource Development Projects	RWSP Page #	FY 08-09* Expenditures	*Plan Implementation Costs*					Estimated Five-Year Cost
				FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	(FY 09/10 – FY 13/14)
1	Hydrologic and Water Quality Data Collection and Analysis	10	$50,557	$42,000	$40,000	$30,000	$30,000	$30,000	$172,000
2	Source Protection, Coordination, and Engineering and Technical Assistance	11	$22,685	$359,000	TBD	TBD	TBD	TBD	$359,000
3	Water Reuse and Conservation Coordination and Assistance	11	$4,398	$24,000	$15,000	$10,000	$5,000	$5,000	$59,000
4	Regional Water Supply Plan Implementation	11	$3,665	$6,000	$3,000	$5,000	$10,000	$5,000	$29,000
	TOTAL		**$81,305**	**$431,000**	**$58,000**	**$45,000**	**$45,000**	**$40,000**	**$619,000+**

* Preliminary cost figures; final cost distribution information was unavailable at the time this report was prepared.

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5.2 Alternative Water Supplies Annual Report

Each water management district is required under Section 373.1961(3)(n), F.S., to submit as part of the consolidated annual report a chapter or section that:

- Accounts for the disbursal of all budgeted amounts pursuant to Section 373.1961, F.S.;
- Describes all alternative water supply projects funded;
- Describes the quantity of new water to be created as a result of such projects;
- Accounts separately for any other funding provided through grants, matching grants, revolving loans, and the use of district land or facilities to implement regional water supply plans.

Beginning in 2006, the District began funding a series of Alternative Water Supply Development projects and Water Resource Development projects funded through the Water Protection and Sustainability Program Trust Fund (WPSPTF). A number of these projects help implement past, long-term efforts of the District and local utilities to identify and develop alternative water supplies through dedicated water resource development efforts. It should also be noted that substantial water supply development assistance was provided to local governments and utilities prior to enactment of the WPSPTF. This includes facilitation of a $3.1 million federal grant for development of the Fairpoint Regional Utility System inland Sand and Gravel Aquifer wellfield and provision of $750,000 in assistance to the City of Crestview for repairs to an existing inland public supply well and construction of another.

Planning during the year was focused on continued development and implementation of a series of Alternative Water Supply Development and Water Resource Development projects pursuant to the Water Protection and Sustainability Program and the Region II, III and V RWSPs. Table 5.20 provides summary information on these projects.

Table 5.20 NWFWMD Water Protection and Sustainability Program Trust Fund Projects

Project	Local Sponsor	Activity	Status	WPSPTF Fiscal Year Appropriation	Anticipated Water (MGD)	WPSPTF Contribution	Local Contribution	Total	Local %
Area-wide Alternative Water Supply Source Expansion	Regional Utilities, South Walton Utility Co., City of Freeport	Inland wellfield expansion	Construction	FY 2006	9.0	$6,500,000	$9,991,891	$16,491,891	61%
Tram Road Public Access Reuse Facility	City of Tallahassee	Water reuse/ spring protection	Complete	FY 2006; FY 2007	1.2	$1,350,000	$5,250,000	$6,600,000	80%
Bob Sikes Reuse Project	Okaloosa County	Water reuse	Construction	FY 2006	1.0	$2,000,000	$4,000,000	$6,000,000	67%
Inland Floridan Aquifer Source - WRD	NWFWMD; Franklin County Utilities	Inland source evaluation	Complete	FY 2006	3.0	$300,000	$0	$300,000	0%
Ground Water Modeling & Aquifer Testing - WRD	Bay County	Inland source evaluation	In progress	FY 2006; FY 2007	*	$350,000	$800,000	$1,150,000	70%
Surface Water Treatment Plant	Port St. Joe	Surface water	Complete	FY 2007	6.0	$4,000,000	$16,000,000	$20,000,000	80%
City of Chipley Reuse Project	Chipley	Water reuse	Complete	FY 2007	0.83	$500,000	$4,500,000	$5,000,000	90%
Wakulla County Reuse Project	Wakulla County	Water reuse	Construction	FY 2007	0.35	$500,000	$750,000	$1,250,000	60%
Advanced Wastewater Treatment & Water Reuse Facilities	City of Tallahassee	Water resource development/ springs protection	Construction	FY 2007	4.5	$500,000	$5,800,000	$6,300,000	92%
Inland Ground Water Source Development	Bay County	Inland source development	In progress	FY 2008	10.0	$5,470,000	$9,530,000	$15,000,000	64%
			Total		**35.88**	**$21,470,000**	**$56,621,891**	**$78,091,891**	**66%**

*Ground Water Modeling and Aquifer Testing was used to determine that about 10.0 mgd of water may be available for the Inland Ground Water Source Development project.
Local construction costs for the Chipley and Wakulla County facilities are inclusive of anticipated State Revolving Fund contributions, to be repaid by the local governments.

6 Florida Forever Water Management District Work Plan Annual Report

Section 373.199(7), F.S. requires the Northwest Florida Water Management District to update annually the Florida Forever Work Plan. To date, this is the ninth annual update of the 2001 Florida Forever Work Plan, and since 2006 this plan has been presented as a separate chapter in the Consolidated Annual Report as required by section 373.036(7), F.S. This plan contains information on projects eligible to receive funding under the Florida Forever Act and also reports on land management activities, lands surplused and the progress of funding, staffing and resource management of projects for which the district is responsible.

In 1999 the Florida Legislature passed the Florida Forever Act (Section 259.105, F.S.) which continues the state's long-term commitment to environmental land acquisition, restoration of degraded natural areas, and high-quality outdoor recreation opportunities. The Florida Forever Program authorizes issuance of up to $300 million annually in bonds over a ten-year period to several state agencies and the five water management districts (WMDs). In 2008, the Florida Legislature reauthorized the Florida Forever Act for an additional ten years, to 2018. As part of the reauthorization, the water management districts allocation was reduced from $105 million to $90 million annually (Table 6.1).

Table 6.1 Florida Forever Trust Fund Funding Allocations by Water Management District

Water Management District	Percent to Each WMD	Estimated Amount
South Florida	35.0%	$31,500,000
Southwest Florida	25.0%	$22,500,000
St. Johns River	25.0%	$22,500,000
Suwannee River	7.5%	$6,750,000
Northwest Florida	7.5%	$6,750,000

While the previous programs focused almost exclusively on the acquisition of environmentally sensitive lands, the Florida Forever program is somewhat different in that it authorizes the use of up to half of the program funding for certain types of capital improvement projects. Eligible uses of the "discretionary" funds include water resource development, stormwater management projects, water body restoration, recreation facilities, public access improvements, and removing invasive plants, among others. The remaining fifty percent must be spent on land acquisition.

6.1 Land Acquisition Five Year Work Plan

Since the inception of the District's land acquisition program, the goal has been to bring as much floodplain as possible of our major rivers and creeks under public ownership and protection. The Florida Forever Land Acquisition Program continues to increase the acres of wetland, floodplain and aquifer recharge areas acquired by the District. To date, over 221,000 acres have been protected for water resource purposes through the land acquisition efforts of the District either in fee simple or through conservation easements. A summary of the acquisitions and surplusing completed by the District in 2009 is provided below.

Table 6.2 Summary of Acquisitions and Surplusing Completed in 2009

Property	Date Purchased	Acres	Cost	Funding Source(s)	Water Management Area
Fee Simple Acquisitions					
Herndon	01/28/09	.45	Exchange	N/A	Perdido River
Bellamy	03/31/09	338.70	$297,000	Florida Forever	Chipola River
Dutex	06/12/09	809.85	$1,930,795.77	Florida Forever	Perdido River
Woolley	08/27/09	40	$104,500	DOT Mitigation	Choctawhatchee River/ Holmes Creek
Plum Creek	10/23/09	121.50	$304,300	Florida Forever	Choctawhatchee River/ Holmes Creek
Plum Creek	12/18/09	160.10	$232,000	Florida Forever	Econfina Creek
Chipola Timberlands	12/23/09	1,377.76	$5,235,488	Florida Forever	Chipola River
	SUB-TOTAL	**2,848.36**	**$8,104,083.77**		
Less-Than-Fee Acquisitions					
Herndon	01/27/09	4.20	Exchange	N/A	Perdido River
Billingsley *	06/12/09	194.50	$440,000	Florida Forever	St. Marks River
	SUB-TOTAL	**198.70**	**$440,000**		
***The District paid one-half of the cost or $440,000.**					
Surplused Lands					
Washington County School Board	01/29/09	(96.20)	Donation	N/A	Econfina Creek
FDOT	10/05/09	(.20)	$700.00	FDOT paid $700	Yellow River
Mt. Pleasant Cemetery	11/18/09	(1.0)	Donation	N/A	Econfina Creek
	SUB-TOTAL	**(97.40)**	**$700.00**		
	GRAND TOTAL	**2,949.66**	**$8,544,083.77**		

Acquisition Planning

The District employs a watershed approach to select and prioritize the important water resource and natural systems within the major river basins of northwest Florida. Primary among the considerations in this process are how specific floodplain or buffer areas help satisfy the District's water resources and

natural system protection objectives, the availability of funds, the seller's willingness, how different areas fit into the District's land management scheme, as well as the size, accessibility and overall condition of each property. Recommendations from interest groups, landowners, local governments, agency representatives and other interested parties are always welcome and are given full consideration in the acquisition process.

Subject to receiving funding for Florida Forever, the District's acquisition efforts this year will focus on the purchase of inholdings and additions to the existing water management areas (WMAs) as well as Conservation Easements in each of the existing WMA's. Existing WMAs include the Perdido River, Escambia River, Blackwater River, Yellow River, Garcon Point, Choctawhatchee River/Holmes Creek, Econfina Creek, Chipola River, and Apalachicola River. All of these WMAs will be high priority areas for the acquisition of additions and inholdings. Acquisition efforts will be directed toward acquiring those properties which the District adjoins on one, two or three sides (additions) or those parcels which the District surrounds on all sides (inholdings).

In developing the annual update to the District's Florida Forever Five Year Land Acquisition Work Plan, District staff shall review Florida Forever projects proposed by DEP, Division of State Lands, to minimize redundancy and to facilitate an efficient and mutually supportive joint land acquisition effort. District staff shall continue to coordinate the Land Acquisition Five Year Plan with the District's FDOT regional mitigation plan developed under section 373.4137 F.S. to ensure the greatest possible cumulative benefit for water resources, wetland functions, and public benefits.

Approved Acquisition Areas

The approved acquisition areas listed below (Table 6.3 and Table 6.4) are not presented on a priority basis. For each of these waterbodies, it is desirable to acquire both the floodplain and a natural buffer zone to provide further water resource protection.

Table 6.3 Approved Acquisition Areas by Waterbody Type

Rivers & Creeks Originating in Florida	Rivers and Creeks Originating Outside Florida	Springs	Lakes & Ponds	Other Ecosystems, Basins and Buffers
Wakulla River	Apalachicola River	St. Marks River near Natural Bridge	Lake Jackson	Southwest Escambia County Ecosystem
St. Marks River	Lower Apalachicola River Wetland	Spring Lake/ Spring Group Area	Sand Hill Lakes	Garcon Point Ecosystem
Econfina Creek and others flowing into Deer Point Lake	Chipola River	Waddell Springs		West Bay Buffer
Lafayette Creek	Choctawhatchee River including Holmes Creek	Bosel Springs		Sandy Creek Basin
	Escambia River	Hays Springs		Apalachicola Bay/ St. Vincent Sound Buffer
	Blackwater River including Juniper, Big Coldwater & Coldwater creeks	Gainer Springs		
	Ochlockonee River & its major tributaries			
	Yellow & Shoal Rivers			
	Perdido River and Bay			

Table 6.4 Additional Approved Acquisition Areas and Methods

Ground water Recharge Areas	**Donated Lands**
Such lands may be designated by the District as Recharge Areas for the Floridan, Sand-and-Gravel, and other important aquifers.	The District will accept donations of lands within its major acquisition areas if those lands are necessary for water management, water supply, and the conservation and protection of land and water resources.
Exchange Lands	
The District may exchange lands it has acquired under the Florida Forever program for other lands that qualify for acquisition under the program. In an exchange, the District's Governing Board establishes the terms and conditions it considers necessary to equalize values of the exchange properties. In all such exchanges, the District's goal will be to ensure that is no net loss of wetland protection and that there is a net positive environmental benefit.	
Mitigation Acquisitions	
Under Florida law, unavoidable losses of natural wetlands or wetland functions require "mitigation" either through the acquisition or the restoration of other nearby wetlands. The District is often the recipient of such lands in the form of donations, and also serves as the mitigation agent for the Florida Department of Transportation. Whenever possible, the District attempts to acquire mitigation lands contiguous to its existing ownership, but since proximity to the original wetland impact is paramount, the District at times must acquire or manage isolated tracts.	

Note to Landowners

It is important to note that the District's land acquisition process only involves willing sellers and is usually opportunity driven in that landowners initiate the process by offering parcels for sale.

This plan includes a number of areas the District has identified for purchase, subject to available funding and especially the presence of willing sellers. If your property is included in any of our acquisition areas or maps and you do not desire to sell your land to the District, Florida Statutes require the District to remove your property from the acquisition plan at the earliest opportunity. Please contact the Division of Land Management and Acquisition at (850) 539-5999 at any time if you wish to remove your property from possible purchase consideration. The District will maintain a list of such requests and annually adjust its acquisition plan accordingly.

Note on Less-Than-Fee Methods of Land Protection

Florida's commitment to acquire the lands needed to permanently protect local water and environmental resources has resulted in the most successful program in the United States. However, there is not, and probably never will be, sufficient public funding available to acquire outright all the important water resource lands that need protection. Accordingly, the Florida Legislature has directed the state's water management districts to expend part of their land acquisition funding to purchase eligible properties using alternatives to "fee simple" acquisition. Under this scenario, the District buys a significant portion of the property rights the seller owns. In "less-than-fee" purchases, the District would attempt to acquire only those rights in property, i.e. development and land use conversion rights, that are needed to accomplish specific water resource and environmental protection goals.

Such less-than-fee methods can clearly provide a number of public benefits. One is that acquisition funding can be conserved, thereby enabling the protection of more land with limited funds. The property also continues in private ownership and thus remains on local property tax rolls. Moreover, the District does not incur the long-term costs of land management since the property's management and maintenance remains the landowner's responsibility. Not all properties are suitable nor are all landowners agreeable to less-than-fee acquisition, but the benefits make these kinds of transactions an attractive supplement to the District' usual fee simple land purchases.

Land Acquisition Projects

The Florida Forever Act, in particular Section 373.199(s) F.S., identifies information that must be included for each Florida Forever Project. Some of the required information is relatively general and applicable to all projects. To reduce the redundancies of this plan, general information is provided separately as part of the District's Five Year Plan for the Florida Forever Program. Specific land acquisition projects are individually identified and detailed information specific to the project is provided in the following pages. Figure 6.1 through 6.4 illustrate the proposed land acquisition projects by region.

Figure 6.1 2010 Proposed Land Acquisition Areas

Figure 6.2 2010 Proposed Land Acquisition Areas (West Region)

Florida Forever Land Acquisition Project:
Perdido River and Bay

The Perdido River serves as the state line, separating Florida from Alabama. The Perdido has been designated an Outstanding Florida Water and Special Water system, a canoe trail, and a recreation area. The upper part of the river is a shifting sand river system, which are unique to portions of Northwest Florida, south Alabama, southern Mississippi and extreme eastern Louisiana, while the lower end of the river is characteristic of a black water stream. Currently the District owns 5,451 acres in fee and 4 acres in less-than-fee.

The project area is mostly undeveloped and contains a diverse list of species. Acquisition of any floodplain area along the Perdido River, whether in fee or less than fee, will significantly protect the water resources of the area as well as enhance water quality protection efforts for the Perdido Bay system.

Priority purchases will be concentrated on parcels adjacent to existing District lands around the river mouth and designated tributaries.

The Perdido Bay is an estuarine system which receives fresh water from the Perdido River. Other bays in the immediate area include Tarkiln Bay, Arnica Bay, Bay La Launch and Bayou St. John. Perdido Key separates Perdido, Tarkiln, and Arnica bays, Bay La Launch and Bayou St. John from the Gulf of Mexico. Two barrier islands, Perdido Key and Santa Rosa Island, surround Perdido Bay. Currently, the District owns 809.85 acres along Perdido Bay.

Priority purchases will be concentrated on parcels adjacent to the bay which can enhance water quality protection of the bay and mitigate for wetland impacts associated with DOT highway construction in southern Escambia County.

Public Access
All District conservation lands are available for public use. Such uses include fishing, hunting, camping, hiking, boating, swimming, and other recreational and educational activities. Access issues are addressed on a parcel-by-parcel basis prior to acceptance.

Land Acquisition
Approximately 1,447 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will depend upon such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.

Florida Forever Land Acquisition Project:
Southwest Escambia County Ecosystem

Several major estuarine drainages, including Jones Swamp, Bayou Grande, Big Lagoon, and Tarkiln Bay, intersect in southwest Escambia County. These, in turn, comprise portions of Pensacola and Perdido bays. The proposed acquisition borders a major urban area and is under rapid encroachment from residential and commercial development. The project area is characterized by an undulating topography where remnants of ancient dune lines alternate with lower intervening swales that drain east or west, parallel to the Gulf coast. The wet prairies in the area are some of the last examples of what may be one of the most diverse plant communities in the southeast, supporting large stands of white-topped pitcher plants and almost 100 other plant species.

Protecting the ecological integrity of this area is very important to the quality of water resources in the Pensacola and Perdido bay systems. Acquisition will preclude new nonpoint pollution sources and will limit stormwater runoff by preventing channelization and placement of new impervious surfaces. Wetlands and upland buffers will be preserved, and riparian buffer zones will be maintained. Additionally, public uses will be maintained and fish, wildlife and estuarine productivity will be protected.

This acquisition is consistent with a number of major initiatives designed to protect environmental and other public resources in the region. These include water quality treatment systems, acquisition programs for the Jones Swamp Buffer Preserve and the Perdido Pitcher Plant Prairie, and efforts to prevent encroachment on NAS Pensacola. Together with nearby state parks, these acquisitions will provide for a major environmental reserve and greenway system within a rapidly urbanizing area.

Public Access
All District conservation lands are available for public use. Such uses include fishing, hunting, camping, hiking, boating, swimming, and other recreational and educational activities. Access issues are addressed on a parcel-by-parcel basis.

Land Acquisition
Approximately 11,000 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.

Ground water Recharge Area
Designated area has ground water recharge potential.

Florida Forever Land Acquisition Project:
Escambia River Basin

Beginning at the confluence of the Conecuh River and Escambia Creek above the Florida-Alabama border and emptying into Escambia Bay, the Escambia River corridor contains a rich diversity of plant and animal species, as well as many rare fish and waterfowl. The Escambia basin is broad and well drained in the upper reaches, and swampy below Molino, Florida. While the overall water quality is considered good, many point and non-point pollution sources empty into the river. Currently the District owns 34,919 acres along the river.

Priority purchases will be concentrated on parcels adjacent to existing District lands around the river mouth and designated tributaries.

Public Access
All District conservation lands are available for public use. Such uses include fishing, hunting, camping, hiking, boating, swimming, and other recreational and educational activities. Access issues are addressed on a parcel-by-parcel basis prior to acceptance.

Land Acquisition
Approximately 7,138 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.

Florida Forever Land Acquisition Project:
Garcon Point Ecosystem

This proposed land acquisition project contains most of the Garcon Point Peninsula in Pensacola Bay. The project area is largely undeveloped and includes a variety of natural communities that are in good to excellent condition. The entire tract provides considerable protection to the water quality of Pensacola Bay, as well as harboring a number of rare and endangered species. Priority purchases will be concentrated on parcels adjacent to existing District lands. Currently the District owns 3,245 acres.

The emergent estuarine marsh that borders several miles of shoreline within the project is an important source of organic detritus and nutrients, and serves as a nursery for many of the species found in Pensacola Bay. These wetlands function as both stormwater filtration and a storm buffer area, as well as providing erosion controls to the neighboring uplands. A minimum of 13 endangered or threatened species are known to live in the region including the recently listed federally endangered reticulated flatwoods salamander. The northern wet prairie portion is known to be an outstanding pitcher plant habitat.

Public Access
All District conservation lands are available for public use. Such uses include fishing, hunting, camping, hiking, boating, swimming, and other recreational and educational activities. Access issues are addressed on a parcel-by-parcel basis prior to acceptance.

Land Acquisition
Approximately 3,200 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.

Florida Forever Land Acquisition Project:
Blackwater River Basin

Originating in the Alabama Conecuh National Forest, the Blackwater River has a large portion of its Florida watershed further protected by the Blackwater River State Forest. In all, nearly 50 miles of the river corridor is remote and undeveloped. As a result, the Blackwater is considered one of Florida's best preserved waterways. Acquisition by the Florida Division of Forestry will bring into public ownership much of the lower, least protected portion of river floodplain and estuary. The District will assist in these acquisitions as needed. Currently the District owns 380 acres along the river.

The acquisition area includes a large area of mature longleaf pine forest, considerable bottomland forest and marsh acreage, upland mixed forest, blackwater stream and seepage slope communities. Priority purchases will be concentrated on parcels adjacent to existing District lands. Some 380 acres have been acquired along the Blackwater immediately south of Milton.

Public Access
All District conservation lands are available for public use. Such uses include fishing, hunting, camping, hiking, boating, swimming, and other recreational and educational activities. Access issues are addressed on a parcel-by-parcel basis prior to acceptance.

Land Acquisition
Approximately 11,449 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.

Florida Forever Land Acquisition Project:
Yellow/Shoal River Basin

The Yellow River has its headwaters in Alabama's Conecuh National Forest and forms the northern border of Eglin Air Force Base (AFB) across much of eastern Santa Rosa and western Okaloosa counties. The proposed acquisitions would bring much of the remainder of the Yellow River floodplain in Florida under public ownership. Included in the project is a segment of the lower Shoal, the largest tributary to the Yellow. Large private landowners own a majority of the floodplain in this project, but considerable areas of the bordering and buffer lands must also be acquired to ensure effective management and the protection of water resources. To accomplish these objectives, acquisition of the bordering land within the 100-year floodplain, along with an additional buffer of at least 50-feet, will be required. Highest priority will be given to tracts in the western portion of the project. Priority purchases will be concentrated on parcels adjacent to existing District lands. Currently the District owns 17,742 acres along the river.

Although the Yellow and Shoal rivers exhibit good overall water quality, both are fed largely by rainwater runoff and thus are highly susceptible to pollution from land use activities. The proposed purchase area would provide water quality protection from the Alabama border and encompass roughly 39,000 acres. Purchase of lands northwest of Eglin AFB, along the I-10 corridor, would provide approximately 52,000 acres of land that has excellent potential for future water resource development to supplement the strained potable water sources in southern Santa Rosa and Okaloosa counties. Acquisitions in this area are recommended by the District Regional Water Supply Plan for Okaloosa, Santa Rosa and Walton counties to protect future supply sources.

Public Access
All District conservation lands are available for public use. Such uses include fishing, hunting, camping, hiking, boating, swimming, and other recreational and educational activities. Access issues are addressed on a parcel-by-parcel basis prior to acceptance.

Land Acquisition
Approximately 39,982 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.

Ground water Recharge Areas
In Escambia and Santa Rosa counties, the Sand-and-Gravel Aquifer is the principal source of potable water for public supply. The Sand-and-Gravel Aquifer is unconfined or poorly confined, making it particularly susceptible to contamination by land uses. Land acquisition along the I-10 corridor between the Yellow and Blackwater rivers in Santa Rosa County would protect recharge areas that are particularly important for future water supply sources.

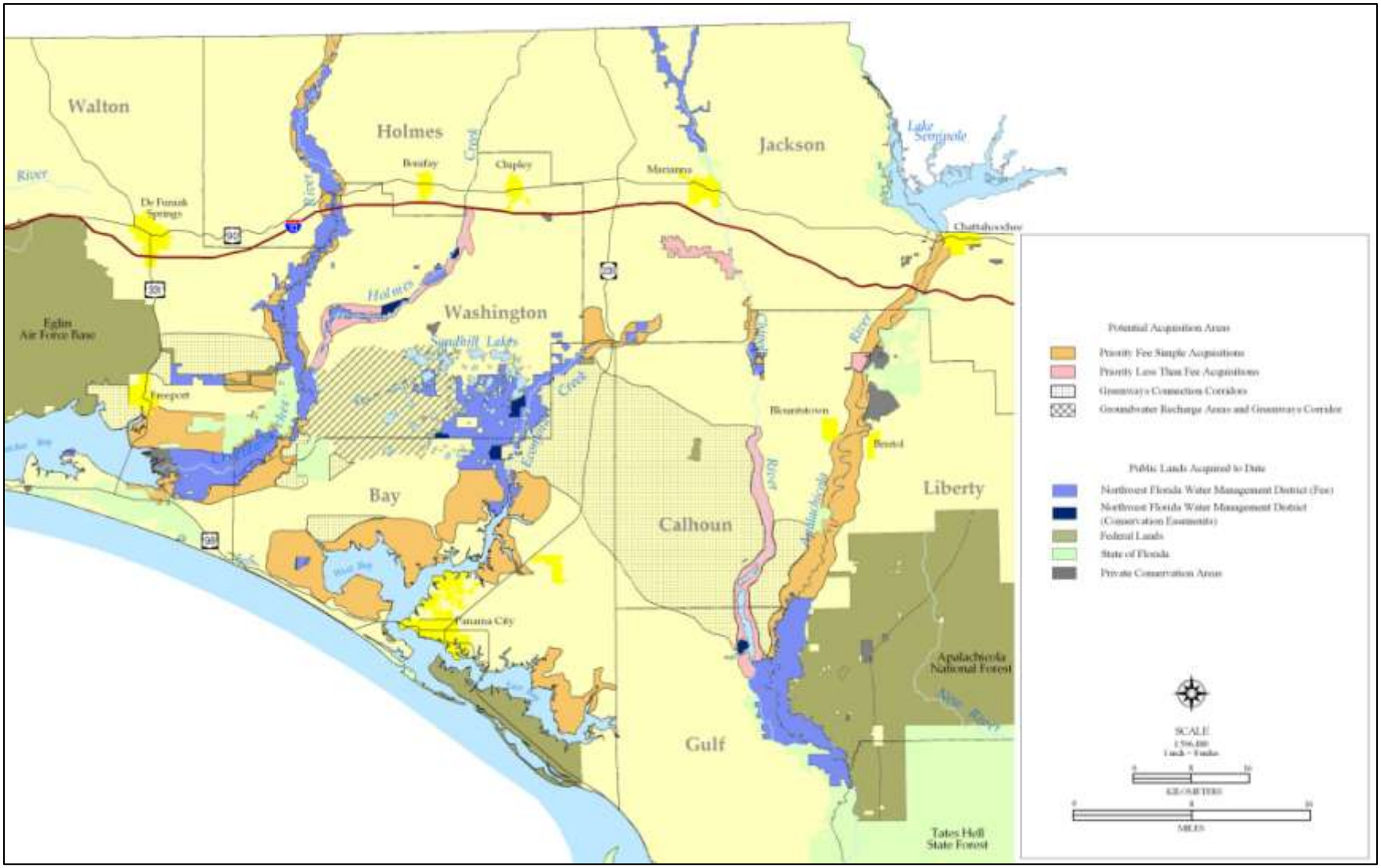

Figure 6.3 2010 Proposed Land Acquisition Areas (Central Region)

Florida Forever Land Acquisition Project:
Lafayette Creek

Originating in south central Walton County, the Lafayette Creek drainage basin is located due east and north of Freeport, Florida. The main stem of the creek begins about seven miles east of Freeport and runs due west for about six miles before it turns south and empties into LaGrange Bayou/Choctawhatchee Bay. Additional purchases along the creek will protect many diverse natural communities and habitat types. In addition, any proposed acquisitions will also protect a portion of the water resources of Magnolia and Wolf creeks, both of which are significant tributaries to Lafayette Creek. Currently, the District owns 3,160 acres along the creek, including 420 acres for DOT mitigation purposes.

Public Access
All District conservation lands are available for public use. Such uses include fishing, hunting, camping, hiking, boating, swimming, and other recreational and educational activities. Access issues are addressed on a parcel-by-parcel basis prior to acceptance.

Land Acquisition
Approximately 5,800 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.

Florida Forever Land Acquisition Project:
Choctawhatchee River/Holmes Creek Basin

Originating in Alabama and flowing into Choctawhatchee Bay, the Choctawhatchee River/Holmes Creek drains roughly 3,300 square miles of northwest Florida, the second largest floodplain in the state. Although the river basin exhibits more localized water quality problems than most in northwest Florida, the overall water quality is considered good. The river basin encompasses several springs and a variety of habitats including bottomland hardwood forests, marshes and Tupelo-Cypress swamps.

Due to the river corridor's undeveloped nature, the basin provides habitat for a variety of native wildlife, including several endangered plant and animal species. The river also serves as a breeding and migratory area for both the Alligator Gar and the Gulf Sturgeon. The District currently owns over 59,000 acres along the river and/or creek in fee and less-than-fee. Priority purchases will be concentrated on parcels adjacent to existing District lands, around the river's mouth and designated tributaries such as Holmes Creek and such other projects that can mitigate for wetland impacts associated with DOT highway construction.

Public Access
All District conservation lands are available for public use. Such uses include fishing, hunting, camping, hiking, boating, swimming, and other recreational and educational activities. Access issues are addressed on a parcel-by-parcel basis prior to acceptance.

Land Acquisition
Approximately 56,159 acres have been identified for fee simple acquisition on the Choctawhatchee River and Holmes Creek, and 7,000 acres have been identified for possible less-than-fee acquisition on Holmes Creek. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.

Florida Forever Land Acquisition Project:
West Bay Buffer

West Bay is the westernmost embayment of the St. Andrew Bay estuary. The bay supports notable shellfish and seagrass communities, important fisheries, and other environmental and economic resources. The West Bay watershed is characterized by extensive pine flatwoods, as well as hardwood forests, cypress wetlands, mixed-forested wetlands, freshwater marshes, wet prairie and other wetlands. Salt marshes, inland forested wetlands, and associated upland communities are especially prominent in several areas, including the Breakfast Point peninsula and adjacent to the Burnt Mill and Crooked Creek tributaries.

Like other estuaries, the bay is vulnerable to impacts associated with intensive residential and commercial development. Such potential impacts include the long-term effects of nonpoint source pollution and habitat loss and fragmentation. The proposed acquisition would help prevent such degradation by preserving intact an extensive ecosystem of forests, scrub, salt marshes, and freshwater wetlands. The acquisition would preclude new sources of pollution, prevent habitat loss and fragmentation, and protect the stability and integrity of littoral vegetation. Preserving intact the associated wetland and upland communities in the vicinity of the bay would also protect water quality by providing a substantial riparian buffer and maintaining the natural hydrology in the vicinity of the bay. The District currently owns 719 acres in the West Bay Buffer.

In addition to providing for water resource protection and public use, this acquisition will be consistent with several ongoing initiatives, including the West Bay Sector Plan. These include efforts to restore seagrass communities in the bay and to improve the treatment and management of domestic wastewater.

Public Access
All District conservation lands are available for public use. Such uses include fishing, hunting, camping, hiking, boating, swimming, and other recreational and educational activities. Access issues are addressed on a parcel-by-parcel basis prior to acceptance.

Land Acquisition
Approximately 47,281 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.

Florida Forever Land Acquisition Project:
Econfina Creek

Econfina Creek is the major contributor to the Deer Point Lake, which serves as the public water supply for Bay County, including Panama City, Panama City Beach and neighboring communities. The proposed purchases along the creek contain several spring-run streams, which are imperiled biological communities. The slope forest communities that border considerable lengths of the creek contain some of the highest species diversities encountered in Florida. The sand hills portion of the project features high rolling pinelands, steephead ravines and numerous sandhill upland lakes. Much of the sand hills area is of excellent quality, with nearly intact ground cover of wiregrass and dropseed. At least 18 species of rare or endangered plants inhabit the sand hills area. Because of the upland nature of the sand hills sites, the region is being developed with little regulatory restriction. The District currently owns over 43,700 acres in fee and less-than-fee, including the 2,155-acre Sand Hill Lakes Mitigation Bank. Priority purchases will be concentrated on parcels adjacent to existing District lands and parcels with significant recharge.

Public Access
All District conservation lands are available for public use. Such uses include fishing, hunting, camping, hiking, boating, swimming, and other recreational and educational activities. Access issues are addressed on a parcel-by-parcel basis prior to acceptance.

Land Acquisition
Approximately 39,740 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.

Ground water Recharge Areas
The upper portion of the acquisition project is a significant recharge area of the Floridan Aquifer. The majority of the acreage purchased by the District and targeted for future purchase is one of the most important recharge areas for the Floridan Aquifer in northwest Florida. Recharge rates in the area have been estimated at 25 to 40 inches per year, and this recharge drives the spring flows along Econfina Creek, the largest tributary of the Deer Point Lake Reservoir. The reservoir currently provides approximately 50 million gallons per day for public supply and industrial water uses in Bay County.

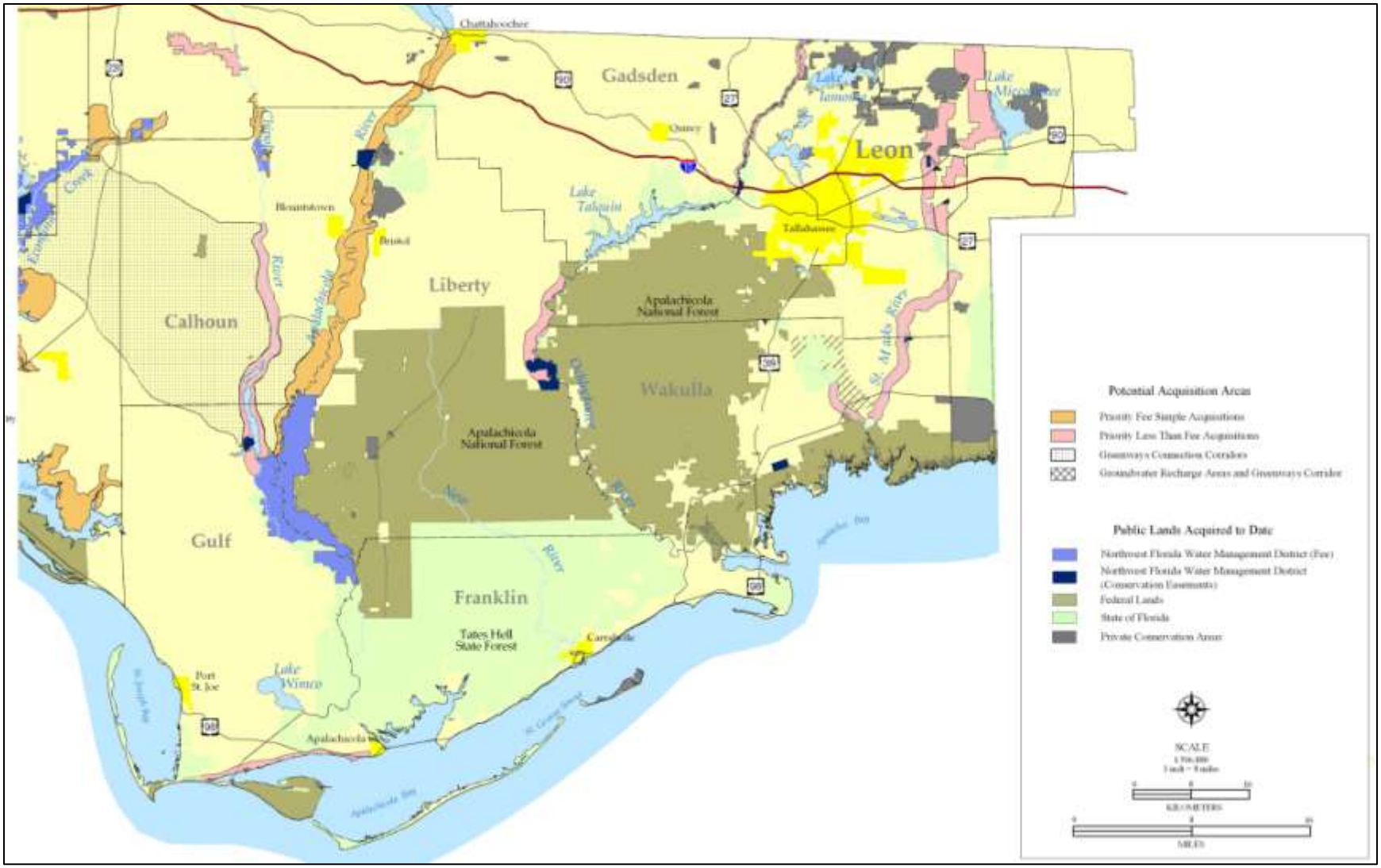

Figure 6.4 2010 Proposed Land Acquisition Areas (East Region)

Florida Forever Land Acquisition Project:
Sandy Creek Basin

Sandy Creek is a major tributary of East Bay, the easternmost embayment of the St. Andrew Bay estuary. The creek's basin is characterized by extensive pine flatwoods, as well as hardwood forests, salt marshes, cypress wetlands, mixed forested wetlands, freshwater marshes, wet prairie and other wetlands. Salt and freshwater marshes, inland forested wetlands, and associated upland communities are especially prominent along the creek and its tributaries.

Preservation of the Sandy Creek basin will protect a major tributary basin of East Bay. In so doing, it would preserve water quality and a mosaic of interconnected upland, wetland, stream, and estuarine habitats. The acquisition would also protect water quality by providing a substantial riparian buffer and maintaining natural hydrology.

Public Access
All District conservation lands are available for public use. Such uses include fishing, hunting, camping, hiking, boating, swimming, and other recreational and educational activities. Access issues are addressed on a parcel-by-parcel basis prior to acceptance.

Land Acquisition
Approximately 15,000 acres have been identified for acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.

Florida Forever Land Acquisition Project:
Chipola River Basin

A new area along the Middle Chipola River has been identified for fee acquisition. The area is comprised of 3,952 acres in northern Calhoun and southern Jackson counties. Acquisition of this tract will protect over seven miles of the west bank and 10 miles of the east bank of the Chipola, River. In addition, three 3rd magnitude springs (Barrel, Grotto and Sally) and both sides of "Look-N-Tremble" rapids will be protected. In addition, a less-than-fee acquisition, containing 123 acres, will protect an additional 1.5 miles of riverfront along the Chipola River. In 2009, the District acquired 1,377.76 acres in fee along the Middle Chipola River, including "Look-N-Tremble". The District now owns a total of 9,094 acres in fee simple and holds a conservation easement on 810 acres in the Chipola River Basin.

Two areas have been identified for less-than-fee acquisition along the Chipola River. The first proposed less-than-fee acquisition is comprised of approximately 6,000 acres in the Spring Lake/Spring Group area located in central Jackson County. Acquisition of the Spring Lake/Spring Group area and its numerous springs, which ultimately flow into Dry Creek, a significant tributary stream to the Chipola, will provide enhanced water resource protection to the area.

The second proposed less-than-fee acquisition contains a core tract of roughly 20,000 acres in the river basin in Calhoun and Gulf counties. The Chipola River is the largest tributary to the Apalachicola River and its mostly spring-fed waters make an important and consistent contribution of sediment-free water to the Apalachicola. The degree of biological diversity of the Chipola appears to be nearly as high as that of the Apalachicola. Priority purchases will be focused along the middle reaches of the Chipola River.

Public Access
All District conservation lands are available for public use. Such uses include fishing, hunting, camping, hiking, boating, swimming, and other recreational and educational activities. Access issues are addressed on a parcel-by-parcel basis prior to acceptance.

Land Acquisition
Approximately 2,574 acres has been identified for possible fee acquisition and 26,000 acres have been identified for possible less-than-fee acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.

Florida Forever Land Acquisition Project:
Apalachicola Bay/St. Vincent Sound Buffer

Apalachicola Bay has been recognized as a resource of state, federal, and international significance. The bay has extensive fish and shellfish resources, and it supports noteworthy commercial and recreational fisheries and other recreational and economic activities. It has been designated an Outstanding Florida Water, a State Aquatic Preserve, and an International Biosphere Reserve. It includes the Apalachicola Bay National Estuarine Research Reserve and the St. Vincent National Wildlife Refuge. State and federal agencies, as well as the NWFWMD, have made extensive investments in acquiring and protecting lands throughout the basin. This project would provide an important addition to these efforts.

Like other northwest Florida estuaries, Apalachicola Bay is vulnerable to impacts associated with development. Such potential impacts include the long-term effects of non-point source pollution and habitat loss and fragmentation. The proposed acquisition would help prevent such degradation by preserving intact the integrated forest and wetland community bordering St. Vincent Sound and Apalachicola Bay. The acquisition would preclude new sources of pollution, prevent habitat loss and fragmentation, and protect the stability and integrity of littoral vegetation. The acquisition would also protect water quality by providing a substantial riparian buffer and precluding new impervious surfaces and channelization.

The land targeted through this project is immediately adjacent to some of the most productive oyster harvesting areas of the Apalachicola Bay system, including the Indian Lagoon, Scorpion and Paradise bars.

Public Access
All District conservation lands are available for public use. Such uses include fishing, hunting, camping, hiking, boating, swimming, and other recreational and educational activities. Access issues are addressed on a parcel-by-parcel basis prior to acceptance.

Land Acquisition
Approximately 5,200 acres have been identified for less-than-fee acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.

Florida Forever Land Acquisition Project:
Upper Apalachicola River Basin

The Apalachicola River begins below Lake Seminole at the confluence of Chattahoochee and Flint rivers. It has the largest floodplain in the state and is widely regarded as one of the state's most important natural resources. The Apalachicola River supports the highly productive fishery in Apalachicola Bay, and more endangered plant species can be found along the river's upper stretches than in any comparably sized river in the state. The District owns 35,506 acres of river floodplain and holds a conservation easement on 1,544 acres.

Major habitat types along the Apalachicola River include coastal marshes, freshwater marshes, flatwoods and bottomland hardwood swamp. Water tupelo, Ogeechee tupelo, bald cypress Carolina ash and swamp tupelo have been identified in the floodplain, as well as numerous species of rare fish. Substantial additional acreage of the Apalachicola system is owned by other public agencies and private conservation organizations. Priority purchases will be concentrated on parcels adjacent to existing District lands, other conservation lands and designated tributaries.

Public Access
All District conservation lands are available for public use. Such uses include fishing, hunting, camping, hiking, boating, swimming, and other recreational and educational activities. Access issues are addressed on a parcel-by-parcel basis prior to acceptance.

Land Acquisition
Approximately 51,449 acres have been identified for possible fee acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.

Florida Forever Land Acquisition Project:
Ochlockonee River Basin

The Ochlockonee River originates in the Piedmont hills of Georgia and traverses parts of five Florida counties. Water quality in the river is lowest when it enters Florida and generally improves as it moves to the Gulf of Mexico. The Ochlockonee is primarily fed by rainwater runoff, hence highly susceptible to pollution of land use activities. Large parts of the watershed are publicly owned, including Joe Budd Wildlife Management Area, Lake Talquin State Forest and Apalachicola National Forest. The District's primary focus is to acquire less-than-fee rights on privately owned floodplain land separating existing federal/state properties. Public ownership of the erosion-prone lands bordering this usually fast flowing river will reduce the likelihood of water quality degradation. The District presently has 3,565 acres in less-than-fee (conservation easement) in the area.

Public Access
All District conservation lands are available for public use. Such uses include fishing, hunting, camping, hiking, boating, swimming, and other recreational and educational activities. Access issues are addressed on a parcel-by-parcel basis prior to acceptance.

Land Acquisition
Approximately 11,876 acres have been identified for less-than-fee acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.

Florida Forever Land Acquisition Project:
St. Marks/Wakulla Rivers

The Wakulla River originates at Wakulla Springs and flows south approximately 10 miles to join the St. Marks River at the town of St. Marks. The St. Marks River starts east of Tallahassee as a tiny stream, widens considerably below Horn Spring, and then disappears underground at Natural Bridge. Reemerging as a much stronger river at St. Marks Spring, it flows 11 miles to its confluence with the Wakulla River. While the lower reach of the river below the town of St. Marks is protected and preserved as part of the St. Marks National Wildlife Refuge, much of the remainder of the two river watersheds is threatened by active riverfront development and in the adjacent highlands. The St. Marks supports one of the most heavily used inshore saltwater fisheries in north Florida, the viability of which is largely dependent on the quality of freshwater flowing into the estuarine system. Both the Wakulla Springs State Park and the St. Marks National Wildlife Refuge are major refuges for numerous biological species. Much of the remaining privately owned land is timberland that is under intense development pressure. The District presently has 1,376 acres under less-than-fee acquisition in the area.

BluePrint 2000

In December 2003, the Northwest Florida Water Management District and the City of Tallahassee-Leon County BluePrint 2000 Intergovernmental Agency entered into a five-year Memorandum of Agreement (MOA) to work cooperatively to acquire conservation easements to protect and preserve the water resources of the St. Marks River basin in Leon County. Although this MOA has now expired, the District and BluePrint 2000 successfully purchased conservation easements on a 132.62-acre tract and 194.5-acre tract, both located in Leon County.

Land Acquisition

Approximately 45,456 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will be dependent on such considerations as: (1) Governing Board policy, (2) Threats to the resource, (3) Availability of willing sellers, (4) Tract size, (5) General market conditions, (6) Available staff resources and (7) Availability of funds.

6.2 Implementation of the 2008-2009 Work Plan

During the 2008-2009 fiscal year, the District completed 2,848.36 acres of fee simple land acquisitions and 198.7 acres of less-than-fee acquisitions. In addition, 97.4 acres of land in the Econfina Creek and Yellow River water management areas were surplused through the end of calendar year 2009. Highlights of the projects are listed below and a summary of all acquisition activities is included in Table 6.2.

- Two tracts were purchased to help protect the Chipola River in 2009. In January, approval was given for the purchase of approximately 338 acres in Jackson County along the Chipola River. The property is located on the east side of the Chipola River and consists primarily of mixed bottomland hardwood habitat associated with the floodplain of the Chipola River. The property includes over 1.5 miles of Chipola River frontage and the northern most spring of the Baltzell Spring Group. It is directly across the Chipola River from Christoff Landing on the District's Upper Chipola River Water Management Area and will be accessible to the public by boat.
- A portion of the middle Chipola River corridor, including Look-n-Tremble rapids, will be protected by a District purchase approved in October. The 1,375-acre tract in Calhoun County includes 3.5 miles of river frontage north and south of County Road 274, three perennial streams and seven diverse upland and wetland habitat types. The District plans to make the area available for recreation activities, subject to public input. These may include canoeing, tubing, hiking, fishing, hunting, birding, primitive camping and nature appreciation.
- Two purchases in 2009 will provide additional protection to the Choctawhatchee River and Bay system. The District purchased 121.5 acres on Holmes Creek in Washington County. This property will be used as a Department of Transportation (DOT) mitigation parcel. It will be used to mitigate for two bridge replacements on Highway 79. The parcel is also adjacent to existing District property and will provide public access for District lands north of Holmes Creek. This property was acquired with Florida Forever funds.
- In June the Governing Board approved the purchase of 40 acres in Walton County on Live Oak Point Peninsula. The property is located north of Hogtown Bayou and south of Choctawhatchee Bay. The property consists of estuarine marsh habitat and will be used to address DOT mitigation needs and enhance water resource protection of the Choctawhatchee Bay.
- In January the Governing Board approved the purchase of 820 acres on Perdido Bay in Escambia County. The property lies west of Saufley Field, south of Redfish Point and north of Ramsey Beach. The property is bisected by a stormwater ditch owned by the U.S. Navy that conveys water off Saufley Field runway into Perdido Bay. The western parcel borders Eleven Mile Creek and will protect approximately one mile of Perdido Bay shoreline and one mile of the eastern bank of the creek. Preservation and restoration of wetlands on this property will provide mitigation for Florida Department of Transportation (DOT) improvements on U.S. Highway 98 and Blue Angel Parkway.
- In March, the Governing Board approved the purchase of a 192-acre conservation easement in Leon County as a joint purchase with Blueprint 2000 under an agreement protecting the water resources and natural habitat values of the St. Marks River watershed. Blueprint 2000 and the District each paid one-half the purchase price and associated expenses. The majority of the property drains into Black Creek and consists of mesic upland hardwood, mixed bottomland hardwood, and cypress dome,. The District has purchased the development and land use conversion rights and preserved 102 acres of upland hardwood, bottomland hardwood, and cypress dome habitat.

The District also completed several land management activities during 2008-2009. Management and restoration efforts, including prescribed burns, native species planting and timber harvesting, continue across the District's 210,498 managed acres. In addition, the District maintains and improves public access and recreational amenities, such as boat ramps, primitive campsites, and day use (swimming and picnic) areas. Table 6.5 and Table 6.6 provide additional information on specific land restoration activities completed during the year. The projected 2009-2010 staffing and management budget by water management area can be found in Table 6.7.

- Volunteers coordinated by the Florida Trail Association and the USDA Forest Service completed the second of two wooden suspension bridges across Econfina Creek, on the District's Econfina Creek Water Management Area. A Recreational Trails Program grant administered by the Office of Greenways and Trails with funding from the U.S. Forest Service helped pay for materials, equipment, and volunteer support. Volunteers used innovative construction techniques to prevent adverse impacts to the habitat by reducing heavy equipment footprints. Contractors parked a cement truck on a designated road and provided a pumping trailer to send concrete through 500 feet of hose to fill bridge abutments. Volunteers also rigged wire cables, winches and straps to transport a Bobcat loader across the creek to minimize damage. The bridges replace two old makeshift bridges, making the Florida Trail more accessible to the public.
- Restoration and management continued within the Sand Hill Lakes Mitigation Bank in Washington County. Removal of sand pine plantations, shrub and oak reduction, re-planting of wiregrass, toothache grass and longleaf pines, native and exotic species surveys, fire management, water level monitoring, and exotics removal all continue on the property.
- The District entered into an agreement with Liberty County to stabilize and maintain public access roads on Florida River Island in Liberty County, an extremely popular portion of the Apalachicola River Water Management Area. These roads help facilitate public access to approximately 6,000 acres of floodplain lands with excellent hunting, fishing, and hiking opportunities. In September, District staff held a workshop to obtain public input concerning vehicle access on the island's roads and other related land management issues.
- During FY 2008-2009, habitat restoration was completed on 1,602 acres of District lands. Approximately 557,500 longleaf pines, 14,520 slash pines, and 909,920 wiregrass tubelings were planted on District-owned properties.
- District staff continue to work with equestrian users to evaluate and develop horse trails on the Econfina Creek and Perdido River Water Management Areas.
- A new canoe/kayak launching facility was constructed at Fillingim Landing on the Perdido River Water Management Area. This facility provides public access to an area of the Perdido River that has not had a public launching location for many years.
- In 2009, the District finalized plans to address resource protection and recreation facility issues Pitt, Sylvan, and Williford Springs on Econfina Creek. Proposed changes include replacing the retaining wall at Pitt Spring with natural limestone and vegetation, enhancing the canoe dock, adding a tube launch dock, constructing decks to overlook spring pools, extending boardwalks over sensitive natural areas, building an elevated observation deck at Williford, installing a permanent restroom facility and more. Late in the year, the District secured the permits for the project and began the Phase 1 (Pitt and Sylvan Springs) bidding process.
- The Division of Land Management and Acquisition finalized plans to construct a permanent field office in Milton to house the Western Region Land Management operations. This facility will replace a rented office that did not have adequate space for the region's equipment inventory.

Table 6.5 Land Management Activities: Restoration, Enhancement and Maintenance (2009)

	Acres Burned					Acres Planted				Acres Harvested					Acres Treated
Water Management Area	**Total**	Fuel Reduction	Site Preparation	Growing Season	Wiregrass Propagation	**Total**	Wiregrass	Longleaf Pine	Slash Pine	Replanted	**Total**	Restoration	Thinning	Habitat Restoration	For Invasive, Non-native or Off-site Species
Escambia River	**77**	52		25											5
Garcon Point	**37**				37										25
Blackwater River															5
Yellow River	**57**	25	32												15
Perdido River	**230**	230								**709**				709	20
Choctawhatchee River	**1994**	1994				**1087**	211	876							86
Econfina Creek	**2662**	1918		675	69	**58**	12	26	20	**1084**				1084	404
St. Andrew										**387**			93	294	
Carter Restoration	**206**	38	168			**87**	87								
Ward Creek West						**57**	57								
Devils Swamp Restoration	**548**	548													
Upper Chipola River															
Apalachicola River															
Lake Jackson															
Totals	**5811**	**4805**	**200**	**700**	**106**	**1289**	**367**	**902**	**20**	**2180**			**93**	**2087**	**560**

Table 6.6 Lands Management Activities: Access and Recreation Management (2009)

Water Management Area	Primitive Campsites	Picnic Grounds	Public Parks	Parking Areas	Reserved Group Sites	Boat Landings	Portolet Stations	Horse Trail	Canoe Trail	Hiking Trail	Nature Trail	Bike Trail	Access Road	Group Use Permits	Birding	Nature Trail	General Purpose	Information Signs	Weather Pavilions
	Number Maintained							Miles Maintained						Issued	Maps/Brochures Printed				Installed
Escambia River	13	9	8	9	1	8	10			1	2		27	24				20	2
Garcon Point				3						3			3					15	
Blackwater River		1				1												10	1
Yellow River	9	2	7	6		4	3		50				47					50	
Perdido River		3	3	4	1	3	4	3	9				32					110	1
Choctawhatchee River	8	9	12	12		10	8		15				43					80	4
Econfina Creek	10	14	8	18	4	4	12	56	22	18	2		23	168				279	8
Upper Chipola River	1		1	1		1		2	10	2	1	2	3						
Apalachicola River	2	1	1	2		2	1				4		6						
Lake Jackson			1	2				9		5	1	9	4	4					
Totals	**43**	**39**	**41**	**57**	**6**	**33**	**38**	**70**	**106**	**29**	**10**	**11**	**188**	**196**	**0**	**0**	**0**	**564**	**16**

Table 6.7 Projected Funding, Staffing and Resource Management for FY 2009-2010

Region	Water Management Area	Acres	Assigned Staff	Total Funding	Funding for Resource Management
Western	Escambia	34,919		$586,604	$385,600
	Escambia Conservation Easements	23		$2,689	$500
	Garcon Point	3,245		$159,978	$96,425
	Yellow/Escribano	17,742		$413,822	$310,200
	Blackwater	380		$26,130	$62,850
	Perdido	6,261		$670,784	$379,500
	Western Region Total	**62,570**	**3**	**$1,860,007**	**$1,235,075**
Central	Choctawhatchee	60,848		$1,302,330	$894,400
	Choctawhatchee/Holmes Conservation Easements	1,442		$28,258	$25,500
	Econfina	39,112		$2,522,043	$1,392,900
	St. Andrew/Econfina Conservation Easements	2,433		$3,258	$500
	Ward Creek West	719		$73,628	$47,750
	Carter Restoration	2,155		$250,214	$167,600
	Central Region Total	**106,709**	**5**	**$4,179,731**	**$2,528,650**
Eastern	Upper Chipola	9,094		$109,270	$109,500
	Apalachicola	35,506		$380,474	$482,350
	Apalachicola/Chipola Conservation Easements	2,360		$4,087	$500
	Lake Jackson	516		$104,709	$8,100
	St. Marks Conservation Easements	1,376		$3,508	$750
	Ochlockonee Conservation Easements	3,565		$2,425	$500
	Eastern Region Total	**52,417**	**2**	**$770,019**	**$601,700**
	Regional Totals	**221,696**	**11**	**$5,284,096**	**$4,365,425**
	Management Administration		4	$1,040,793	$589,700
	Grand Total	**221,696**	**15**	**$6,324,889**	**$4,955,125**

6.3 Florida Forever Capital Improvement Work Plan

This section describes restoration, stormwater retrofit, and water resource development projects funded pursuant to the Florida Forever Five Year Work Plan, as referenced in section 373.199(7), F.S. The District's Five Year Work Plan was initially approved in 2001 (NWFWMD 2001), and it is updated annually through this report. As required by section 373.199(2), F.S., the five-year work plan includes projects that further the goals of the Florida Forever Act (section 259.105, F.S.). In so doing, the plan integrates activities encompassed within SWIM plans; stormwater management projects; water resource development projects; waterbody restoration projects; and capital improvement projects that promote reclamation, storage, or recovery of water.

Plan Components

In accordance with s. 373.199(3)(a), F.S., the NWFWMD Florida Forever Capital Improvements Five Year Work Plan incorporates:

- Watershed resource restoration and protection projects addressing priorities identified in approved SWIM plans, as identified in Chapter 8 of this Consolidated Annual Report;
- Water resource development projects addressing priorities identified in regional water supply plans, as identified in Chapter 5 of this Consolidated Annual Report;
- Wetland resource restoration and enhancement projects that assist in implementation of priority projects identified in the NWFWMD Umbrella, Watershed-Based Regional Mitigation Plan (UWRMP) (www.nwfwmdwetlands.com);
- Capital improvement grant projects, as approved by the Governing Board, through implementation of the District's Florida Forever Capital Improvement Grant Program; and
- Other improvements to District lands and facilities, as approved by the Governing Board.

Priority waterbody and water resource descriptions are as outlined in NWFWMD (2001) and approved SWIM and RWSP plans, as identified in Chapters 5 and 8 respectively. Watershed descriptions District-wide were updated by NWFWMD (2005). Performance measures for capital improvement projects are as outlined in NWFWMD (2001), as well as within the plan components listed above.

Capital Improvement Grant Program

The Governing Board has directed the implementation of a competitive grant program for local governments and other government entities in northwest Florida as a means of identifying and implementing capital improvements, with emphasis on those that help implement the District's SWIM and regional water supply plans. Projects may also be approved to implement stormwater master plans, waterbody restoration projects, and reuse projects per s. 373.199(3)(a), F.S. To date, grants for 52 projects (totaling over $21.8 million) have been funded under the program. These grants have leveraged very significant additional funding for regional priorities, with nearly $44 million in local and other match funding being allocated to the approved projects. Facility ownership, permitting, and long-term maintenance are the responsibilities of the entities receiving grant funds, as provided through cooperative grant agreements.

The capital improvement grant program was historically implemented annually, as directed by the Governing Board. Prior to implementation, approved projects were submitted to the Department of Environmental Protection for review to ensure the eligibility of each project for Florida Forever capital improvement funding. Due to budgetary constraints, the 2008-2009 grant cycle was not completed and no

competitive grant program is anticipated for fiscal year 2009-2010. Additional information may be found at www.nwfwmd.state.fl.us/rmd/swim/fla_forever_grants/fla_forever_grants.htm.

Implementation of the 2008-2009 Work Plan

The FY 2008-2009 NWFWMD work plan listed nine District capital improvement projects for implementation. These projects are eligible for capital improvement funding from Florida Forever, SWIM, legislative special appropriation, federal grants, local government funding, and other sources. Included in these five projects is the District's Florida Forever Competitive Capital Improvement Grant program, which provides specified project activities approved for funding under this program.

Capital improvement projects completed during fiscal year 2008-2009 include the following:

- Sharer Road Stormwater Improvements. This project provided for the installation of conveyance and treatment structures along Meginnis Creek and Meginnis Tributary 1 of Lake Jackson, to reduce flooding and improve water quality. The District provided $500,000 in funding and the City of Tallahassee contributed over $2 million towards this project.
- Fourth Street (Baltzell Pond) Stormwater Pond. The City of Port St. Joe received a District grant for $298,000 to construct a two-acre stormwater treatment facility for water quality improvement to St. Joe Bay, a SWIM priority waterbody, state Aquatic Preserve and Outstanding Florida Waterbody. The facility treats stormwater from 17 acres within the downtown area. The City provided in-kind support of $20,250 for the project.
- Deer Point Lake Dirt Road Stabilization IV. The District provided funding to assist Bay County in improving the water quality of Deer Point Lake Reservoir, a Class I and SWIM priority waterbody. The county used best management practices to stabilize and provide stormwater treatment for dirt roads within or adjacent to the Deer Point Lake Protection Zone. The project was accomplished with a $726,176 Florida Forever grant together with $853,183 in local funding.
- Blue Pit Ecosystem Enhancement and Water Quality Improvement. Escambia County completed a restoration project within the Ten Mile Creek basin in the Perdido Bay watershed that consisted of rerouting stormwater flows and constructing new treatment facilities to reduce flooding and improve water quality for a 106-acre basin. The project also involved exotic-invasive species removal and native species planting. The District provided a grant for $174,429, while the County provided $186,984 in matching funds.
- Iola Road Stabilization and Erosion Control. The District provided grant funding in the amount of $949,720 to stabilize and construct stormwater treatment for two miles of dirt road discharging to the Apalachicola River and floodplain. Gulf County contributed $75,000 toward this water quality improvement project.
- Vernon Stormwater Retrofit. This project involved construction of a wet-detention stormwater facility and improvements to the existing conveyances to provide stormwater treatment prior to discharge into Holmes Creek, a SWIM priority waterbody. A District grant for $179,884 along with $49,307 in local funding from the City of Vernon accomplished these necessary water quality improvements.
- Chain Lake Road Stabilization. Washington County, in cooperation with adjacent landowners, completed stabilization of one mile of dirt road that discharged directly into Pine Log Creek, a tributary of the Choctawhatchee River. A concrete bridge and roadside stormwater treatment systems were also constructed. The District provided grant funding in the amount of $262,500 and Washington County contributed $156,903 in matching funds.
- Second and Sunset Wetland Water Quality Improvement. In June 2009, Escambia County completed an urban stormwater retrofit project providing treatment for a 33-acre basin discharging

to Davenport Bayou and Pensacola Bay. The project involved installation of two hydrodynamic separators, a wetland treatment system, planting of native vegetation and public amenities such as benches and signs. The Districted contributed $350,000 in grant funding and Escambia County provided $215,061 in matching funds.

- St. Andrew Bay Yacht Club Stormwater Improvements. In partnership with the St. Andrew Bay Yacht Club, the City of Panama City completed a stormwater retrofit that included installation of a pollutant separator unit to improve the quality of runoff directly entering St. Andrew Bay. The District provided $79,440 in funding while the City provided $83,875 to complete the project.
- Perdido River Canoe Launch. The District completed construction of a canoe launch at Fillingim's Landing in September 2009. The canoe launch is within the District's Perdido River Water Management Area and provides public access to the river.
- Rolling Pines Road Stabilization. The District provided $440,500 in grant funds to Washington County for the stabilization of three miles of dirt roads that discharge to several karst lakes in the southern portion of the county. The completed improvements provide stormwater treatment and prevent direct sedimentation into freshwater lakes. Washington County completed the work in-house, contributing $131,992 toward the project.

Fiscal Year 2009-2010 Capital Improvement Work Plan

As noted previously, the Florida Forever Act was amended and extended until 2018; however, recent appropriations have been reduced and future funding may not be available. Table 6.8 provides anticipated Florida Forever capital improvement expenditures through fiscal year 2013-14. This table represents the balance of previously appropriated funds. These funding estimates will be updated annually.

Table 6.8 Anticipated Florida Forever Work Plan Capital Improvement Expenditures

	FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14
Capital Improvement Grant Program	$4,326,022	$TBD	$TBD	$TBD	$TBD
Other Capital Improvements	$2,894,904	$TBD	$TBD	$TBD	$TBD
Total	**$7,220,926**	**$TBD**	**$TBD**	**$TBD**	**$TBD**

Table 6.9 lists capital improvement projects proposed for implementation over the next five years, depending on funding availability. Basic project descriptions are provided, and progress and modifications from the previous year's project plans are described as proposed.

Table 6.9 NWFWMD Florida Forever Capital Improvement Projects

Project	Description	Progress/Modification from Previous Year	Estimated Funding
Apalachicola River and Bay Wetland Restoration	Water quality improvement and habitat restoration. Overall project initiative includes restoration of Apalachicola River floodplain resources and functions, Tates Hell Swamp restoration, and other watershed projects as approved by the Governing Board.	Whiskey George basin project underway. May be partially funded through other state appropriations and used as federal match.	$1,000,000
Florida Forever Competitive Grant Program	Competitive grants for cooperative grant projects. Approved projects described in table below.	Funding includes ongoing projects.	$4,839,617
Okeeheepkee-Prairie Regional Stormwater Treatment Facility	Lake Jackson stormwater retrofit project with Leon County.	Continuation of long-term SWIM program priority.	$425,000
West Region Land Management Field Office	Construction of a facility to provide management of 62,000 acres of District property.	Construction underway to allow long-term management and restoration activities.	$651,529
Springs Protection/ Ecological Restoration	Protection and restoration of spring, wetland, riparian and associated watershed habitats. Enhancement of public access consistent with resource restoration and protection.	Continuation of long-term SWIM and land management program priorities. May also be funded through other state or federal funding sources.	$1,000,000
Total			$7,916,146

All previously approved and currently active local government grant projects are listed in Table 6.10. Implementation of these projects will substantially assist in overall implementation of approved NWFWMD SWIM plans for the Apalachicola, Choctawhatchee, Pensacola Bay, St. Andrew Bay, and St. Marks watersheds.

Table 6.10 NWFWMD Local Government Florida Forever Capital Improvement Grant Projects

Recipient	Project	Watershed	Description	Year Approved	Grant Amount
Santa Rosa Island Authority	Little Sabine Bay Circulation Project	Pensacola Bay/Santa Rosa Sound	Construction of circulation facility, stormwater treatment systems, and sediment removal	2003	$375,000
Walton County	Oyster Lake Restoration	Choctawhatchee River and Bay/Oyster Lake	Restore lake and wetland habitat and associated hydrology	2003	$487,500
Escambia County	East Ten Mile Creek Stream Restoration	Ten Mile Creek/ Perdido Bay	Stream restoration of second reach of Ten Mile Creek	2005	$500,000
Choctawhatchee Basin Alliance	Santa Rosa Sound Ecosystem Restoration	Santa Rosa Sound Choctawhatchee Bay	Stream restoration and stormwater enhancement	2006-07	$199,000
City of Fort Walton Beach	Lower Choctawhatchee Bay Stormwater Initiative	Santa Rosa Sound/ Choctawhatchee Bay	Stormwater retrofit for four sites discharging to Choctawhatchee Bay and Santa Rosa Sound	2006-07	$306,435
City of Springfield	Robindale Subdivision Stormwater Improvements	Martin Lake/ St. Andrew Bay	Construct urban stormwater retrofit	2006-07	$500,000
Washington County	River Road Stabilization	Choctawhatchee River and Bay	Sediment abatement and stabilization for adjacent wetlands	2006-07	$450,000
City of Apalachicola	Water Street & Avenue G Stormwater Improvements	Apalachicola River and Bay	Stormwater retrofit for water quality improvements	2007-08	$500,000
City of Port St. Joe	Sand Hills Pond Stormwater Improvement	St. Andrew Bay/ St. Joe Bay	Regional stormwater retrofit facility to benefit St. Joseph Bay	2007-08	$300,000
City of Carrabelle	10th Street Stormwater Improvements	Apalachicola/ St. George Sound	Stormwater treatment facility for water quality and flood control.	2007-08	$662,582
City of Fort Walton Beach	Eglin Parkway Stormwater Initiative	Choctawhatchee River and Bay	Construct urban stormwater retrofit	2007-08	$150,000
Okaloosa County	Mainsail Drive Stormwater Retrofit	Choctawhatchee Bay/Rocky Bayou	Stormwater retrofit for water quality improvements	2007-08	$33,800
Okaloosa County	Rocky Drive Stormwater Retrofit	Choctawhatchee Bay/Rocky Bayou	Stormwater retrofit for water quality improvements	2007-08	$75,300
Blueprint 2000	Cascade Park Watershed Resource Restoration	St. Augustine Branch/St. Marks	Stormwater retrofit and stream restoration	2009-10	$300,000
Total				$4,839,617	

The distribution of approved Florida Forever Capital Improvement Grant projects, along with other District capital improvement projects, is presented in Figure 8.2, within Chapter VIII.

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7 Mitigation Donation Annual Report

Section 373.414(1)(b)2, Florida Statutes, requires the District and DEP to report by March 1 of each year, as part of this report, all cash donations accepted as mitigation for use in duly noticed environmental creation, preservation, enhancement, or restoration projects that offset impacts permitted under Section 373, Part IV, F.S., Management and Storage of Surface Waters. The report is required to include a description of the endorsed mitigation projects and, except for projects governed as mitigation banks or regional offsite mitigation, must address, as applicable, success criteria, project implementation status and timeframe, monitoring, long-term management, provisions for preservation, and full cost accounting. The report specifically excludes contributions required under section 373.4137, F.S. (regional mitigation for specified transportation impacts).

Because the Northwest Florida Water Management District does not yet implement Phase II (wetland resource permitting) of the District's Environmental Resource Permitting (ERP) program, and because section 373.4137, F.S. (DOT Mitigation) is specifically excluded from this report, this annual requirement is fulfilled separately by DEP. It is anticipated that wetland resource protection aspects of ERP will be implemented within the Northwest Florida Water Management District, jointly by the District and DEP, in mid-2010. After that time, this report will be revised to include a report on any cash donations accepted as mitigation, as regulated by the District. The District may also receive funds in the future through its agreement with the U.S. Army Corps of Engineers under the Umbrella Watershed-Based Regional Mitigation plan. Thus far no donations have been received or planned through this agreement.

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8 Surface Water Improvement and Management Program and Watershed Restoration Summary Report

Introduction

Section 373.036(7)(d), F.S., provides that Districts may include in the Consolidated Annual Report additional information on the status or management of water resources as deemed appropriate. Northwest Florida Water Management District has a long-term program to protect and restore watershed resources District-wide. The planning framework for this program is the Surface Water Improvement and Management (SWIM) program, through which watershed and project planning are accomplished for major riverine-estuarine watersheds as indicated below (Figure 8.1).

Figure 8.1 NWFWMD SWIM Priority Watersheds

Status of Watershed Planning

The Northwest Florida Water Management District's SWIM Priority list was updated in 2006 (NWFWMD 2006a). The District's designated priority water bodies are listed in Table 8.1. In addition to respective watersheds, the list identifies major tributaries and water bodies. All other tributaries, sub-embayments, and contributing watershed areas are also considered as being within the listed priority water bodies.

Table 8.1 NWFWMD SWIM Priority List

Apalachicola River and Bay Watershed	
Apalachicola River	New River
Apalachicola Bay	Lake Seminole
Chipola River	
Pensacola Bay Watershed	
Escambia River	Escambia Bay
Blackwater River	East Bay
Yellow River	Blackwater Bay
Shoal River	Western and Central Santa Rosa Sound
East Bay River	Big Lagoon
Pensacola Bay	
Choctawhatchee River and Bay Watershed	
Choctawhatchee River	Eastern Santa Rosa Sound
Holmes Creek	Choctawhatchee Bay
St. Andrew Bay Watershed	
St. Andrew Bay	St. Joseph Bay
North Bay	Deer Point Lake Reservoir
West Bay	Econfina Creek
East Bay	
St. Marks River and Apalachee Bay Watershed	
St. Marks River	Lake Lafayette
Wakulla River & Wakulla Springs	Lake Munson
Lake Miccosukee	Apalachee Bay
Ochlockonee River and Bay Watershed	
Ochlockonee Bay	Lake Jackson
Ochlockonee River	Lake Iamonia
Perdido River and Bay Watershed	
Perdido River	Perdido Bay

Currently approved SWIM plans include the following:

- Apalachicola River and Bay Management 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
- St. Marks River and Apalachee Bay Watershed SWIM Plan

Related Programs

The SWIM program supports associated District programs, including regional wetland mitigation, Florida Forever capital improvements, land acquisition, flood map modernization, and the Efficient Transportation Decision Making (ETDM) program. Plan implementation is accomplished through a variety of activities, including stormwater retrofit for water quality improvement and flood protection, wetland and aquatic habitat restoration, resource assessments, floodplain mapping, public outreach and awareness initiatives, and intergovernmental review of proposed land use changes and other activities.

Implementation integrates and leverages a variety of funding sources, including SWIM (s. 451-459, F.S.), the Water Management Lands Trust Fund (s. 373.59, F.S.), Florida Forever capital improvement funding (s. 259.105 and s. 373.199, F.S.), legislative special appropriations, the Water Protection and Sustainability Program (s. 403.890, F.S.), state and federal grants, and local government contributions. Additionally, regional mitigation projects funded by Florida Department of Transportation (DOT) and implemented by the District are planned on a watershed basis and complement SWIM and other

watershed protection and restoration efforts. Cumulatively, the overall effort results in significant protection and improvement of watershed resources District-wide.

SWIM Activities and Program Implementation Update

Table 8.2 provides a planning-level update of anticipated SWIM project funding for fiscal year 2009-2010. Funding amounts indicated are inclusive of SWIM funding, Water Management Land Trust Fund, anticipated legislative appropriations, and other state and federal grant sources. Additional local and state match funding amounts are not included in the figures provided. Related Florida Forever Capital Improvement funding is discussed in Chapter 6.3.

Table 8.2 SWIM Work Plan for FY 2009-2010

SWIM Program Activities	Purpose	Estimated FY 09/10 Funding
Apalachicola River and Bay System		
Apalachicola River and Bay Wetland Restoration	Floodplain, hydrologic and riverine habitat restoration in the Apalachicola Watershed; Interstate basin coordination; Supporting studies and analysis	$2,400,000
Eastpoint Stormwater Plan	Stormwater plan development for community of Eastpoint	$100,000
Cooperative Watershed Planning	Local coordination and watershed stakeholder assistance and development	$20,000
IFAS No-Till Study	Agricultural BMP validation	$35,000
Pensacola Bay System		
Bayou Chico Restoration	Estuarine restoration, including sediment sampling and analysis	$100,000
Yellow River Watershed Analysis	Collection and analysis of long-term hydrologic and water quality data	$150,000
Choctawhatchee River and Bay Watershed		
Cooperative Watershed Planning	Local coordination and watershed stakeholder assistance and development	$25,000
Urban Stormwater Retrofit	Basin-wide urban stormwater planning and retrofit	$100,000
Ecological Restoration	Wetland and riparian habitat restoration, including at Live Oak Point	$350,000
Spring and riparian habitat protection	Acquisition and enhancement of Natural Bridge Rise in cooperation with Walton County	$118,000
Ochlockonee River and Bay Watershed		
Watershed Planning	SWIM plan development and project planning	$50,000
Tanyard Branch Hydraulic Analysis	Stormwater assessment to identify retrofit projects for flood protection and water quality	$80,000

SWIM Program Activities	Purpose	Estimated FY 09/10 Funding
St. Andrew Bay Watershed		
Urban Stormwater Retrofit	Includes basin-wide stormwater planning and retrofit project implementation in cooperation with local governments and stakeholders	$1,700,000
Ecological Restoration	Planning and implementation of shoreline, wetland, and watershed restoration	$100,000
St. Marks River/Apalachee Bay Watershed		
Wakulla Gardens Stormwater	Stormwater assessment to identify retrofit projects for flood protection and water quality	$50,000
St. Marks River Freshwater Needs Assessment	Freshwater needs assessment for the St. Marks and Wakulla rivers	$100,000
Watershed Planning	SWIM plan implementation; local government coordination	$25,000
Stormwater plan development and implementation	Stormwater retrofit planning and implementation in cooperation with local governments	$300,000
Perdido River and Bay Watershed		
Perdido Resource Characterization	Resource characterization and assessment for Perdido Bay	$25,000
Watershed Planning	SWIM plan development; local government and stakeholder coordination	$25,000
District-Wide Activities		
Research, Data Collection, and Monitoring	Water resource data collection and monitoring; detailed elevation data collection	$700,000
Minimum Flows and Levels	Fresh water need determinations	$100,000
Water Resource Education	Public outreach for water resource education	$122,000
Technical Assistance	Assistance to local governments and watershed initiatives; review of local government comprehensive plans and DRIs; coordination with state and federal agencies; planning in support of mitigation and ETDM; program monitoring and reporting	$100,000
Watershed Project Development	Preliminary stormwater and restoration project planning; coordination with local governments cooperating agencies and initiatives	$200,000
Florida Forever Program Administration	Administration of District-wide grant program	$30,000

Watershed Resource Restoration Capital Improvement Summary Table

Summary information on watershed restoration projects active during fiscal year 2008-2009 is presented in Table 8.3. The table compiles information concerning projects implemented through the SWIM, regional wetland mitigation, and Florida Forever capital improvement grant programs. These projects are implemented in cooperation with numerous local governments, as well as state and federal agencies. The current projects represent long-term watershed resource restoration and wetland mitigation efforts encompassing over 40,000 acres District-wide. An overall project map is provided in Figure 8.2.

Table 8.3 NWFWMD Watershed Restoration Capital Improvements

Project Name	Purpose	Cooperator	Program	Status
Apalachicola River and Bay System				
Bellamy Property	Acquisition (fee-simple), preservation and enhancement of 338.7± acres of palustrine forested wetlands along the Chipola River (March 2009).	Florida Forever, DOT Mitigation	Florida Forever, DOT Mitigation	Complete; Monitoring
Tates Hell Swamp Restoration	Hydrologic restoration of approximately 19,300 acres of Tates Hell Swamp, including Gator Creek, Gully Branch, Big Slough, and Sand Beach Branch.	FDACS DOF, Franklin Co., FFWCC	SWIM; Florida Forever	Implementation
Doyle Creek Basin Restoration	Additional hydrologic and vegetation restoration on 25 acres to enhance 1,820 acres within Tates Hell Swamp.	DOT, FDACS DOF	DOT Mitigation	Complete; Monitoring
Whiskey George Basin Restoration	Additional hydrologic restoration for 2,850 acre basin within Tates Hell Swamp.	FDACS DOF, DOT	DOT Mitigation, SWIM	Implementation
Cat Point Breakwater	Breakwater construction and marsh restoration along Apalachicola Bay.	DOT Mitigation	SWIM; DOT Mitigation	Implementation
Juniper Creek Headwaters Preserve	Preservation and enhancement of Juniper Creek headwater wetlands.	DOT; Bay Co. Conservancy	DOT Mitigation	Implementation; monitoring
Water St. & Ave. G Stormwater	Stormwater retrofit of eight-acre portion of downtown Apalachicola that discharges to lower Apalachicola River.	City of Apalachicola	Florida Forever	Implementation
10th Street Stormwater	Stormwater retrofit for approximately 28 acres discharging into St. George Sound.	City of Carrabelle	Florida Forever	Implementation
Pensacola Bay System				
Palafox Basin Alum Injection System	Regional stormwater retrofit for 266-acre basin discharging into Pensacola Bay; includes L-Street Pond Alum injection system within downtown Pensacola.	Pensacola	SWIM: U.S. EPA (319)	Implementation
Little Sabine Bay Circulation Project	Circulation facility construction, stormwater retrofit for about five-acre area, and sediment removal/ habitat restoration	Santa Rosa Island Authority	Florida Forever	Implementation

Project Name	Purpose	Cooperator	Program	Status
Rogers Tract Mitigation	Mitigation preservation and enhancement for 40 acres within the Blackwater River watershed.	DOT	DOT Mitigation	Preservation; monitoring
Bluff Springs Mitigation	Mitigation preservation and enhancement encompassing 311 acres within the Escambia River watershed.	DOT	DOT Mitigation; Florida Forever	Preservation; monitoring
Yellow River Ranch	Mitigation restoration project for 280 acres within the Yellow River watershed.	DOT	DOT Mitigation	Implementation
Brewer Tract Mitigation	Mitigation preservation and enhancement encompassing 73 acres within the Blackwater River watershed.	DOT	DOT Mitigation	Preservation; monitoring
Second & Sunset Wetland Water Quality Improvement	Stormwater retrofit for 33-acre area discharging to Davenport Bayou and Pensacola Bay.	Escambia County	Florida Forever	Complete
Choctawhatchee River and Bay Watershed				
Plum Creek Acquisition Along Holmes Creek	Acquisition and restoration of 130 acres of forested wetlands and upland buffers along Holmes Creek.	DOT	DOT Mitigation	Implementation
Oyster Lake Restoration	Wetland restoration project to re-establish hydrologic flow patterns within 60-acre portion of a coastal dune lake system.	Walton County	Florida Forever	Implementation
Freeport Public Access Reuse Project	Development of 53-acre public access reuse capability, including storage and ancillary facilities, to reduce pollutant loading to Choctawhatchee Bay.	City of Freeport	SWIM, Florida Forever	Complete
Clement Taylor Park Retrofit and Ecological Restoration	Stormwater retrofit and habitat restoration within Destin city park. Encompasses 43-acre treatment area.	Choctawhatchee Basin Alliance; Destin	SWIM	Complete
Lafayette Creek Mitigation	Mitigation wetland protection and enhancement encompassing 3,160 acres within the Lafayette Creek basin.	DOT	DOT Mitigation, Florida Forever	Implementation; monitoring
Live Oak Point	Preservation and enhancement of 475 acres of major salt marsh on Choctawhatchee Bay.	DOT Mitigation	DOT Mitigation	Implementation; monitoring
Devil's Swamp Mitigation	Hydrologic enhancement and vegetation restoration for 4,850 acres in southern Walton County.	DOT Mitigation	DOT Mitigation	Implementation; monitoring

Project Name	Purpose	Cooperator	Program	Status
Sand Hill Lakes Mitigation Bank	Ecological restoration and public access, encompassing approximately 2,155 acres of wetland mitigation. Also includes recharge area for Econfina Creek and Deer Point Lake Reservoir.	NWFWMD	DOT Mitigation	Implementation
Santa Rosa Sound Ecosystem Restoration	Stream restoration and stormwater enhancement for a portion of Fort Walton Beach discharging to Santa Rosa Sound. Includes 63 acres of stormwater retrofit.	Choctawhatchee Basin Alliance	Florida Forever	Complete; Invoicing
Lower Choctawhatchee Bay Stormwater Initiative	Stormwater retrofit treating four sites and 283 acres discharging into Choctawhatchee Bay.	Fort Walton Beach	Florida Forever	Complete; Invoicing
Chain Lake Road Stabilization	NPS pollution abatement and sediment removal of an unpaved stream crossing on Pine Log Creek.	Washington County	Florida Forever	Complete
River Road Stabilization	Stabilization of unpaved road and removal of direct sediment discharges into adjacent wetlands.	Washington County	Florida Forever	Implementation
Vernon Stormwater Retrofit	Stormwater retrofit for 15 acre area directly discharging to Holmes Creek.	Vernon	Florida Forever	Complete
Eglin Parkway Stormwater Initiative	Stormwater retrofit treating 62 acre urbanized area in the Choctawhatchee Bay watershed.	City of Fort Walton Beach	Florida Forever	Complete; Invoicing
Mainsail Drive Stormwater Retrofit	Stormwater retrofit treating four acres discharging to Rocky Bayou and Choctawhatchee Bay.	Okaloosa County	Florida Forever	Implementation
Rocky Drive Stormwater Retrofit	Stormwater retrofit treating six acres discharging to Rocky Bayou and Choctawhatchee Bay.	Okaloosa County	Florida Forever	Implementation
St. Andrew Bay Watershed				
Deer Point Lake Unpaved Roads Phase IV	Unpaved road stabilization to remove sediment discharges from Deer Point Lake Reservoir.	Bay County	Florida Forever	Complete
11th Street Stormwater Retrofit	Stormwater retrofit for urban development discharging into Watson Bayou.	Bay County	SWIM, Florida Forever	Planning
Ward Creek West Hydrologic Restoration	Vegetation and wetland restoration for 719 acres in the West Bay watershed.	NWFWMD	DOT Mitigation	Implementation

Project Name	Purpose	Cooperator	Program	Status
Lynn Haven Breakwater and Retrofit	Stormwater retrofit and shoreline wetland habitat restoration along St. Andrew Bay.	Lynn Haven; DOT	SWIM; Florida Forever; DOT Mitigation	Complete; Monitoring
Rolling Pines Road Stabilization	Unpaved road stabilization to eliminate sedimentation within the Econfina Recharge Area.	Washington County	Florida Forever	Complete
Fourth Street Stormwater Pond	Stormwater retrofit treating 17 acre urban watershed discharging to St. Joseph Bay.	City of Port St. Joe	Florida Forever	Complete
Robindale Subdivision Stormwater Improvement	Stormwater retrofit treating 53 acres that discharge to Martin Lake and St. Andrew Bay.	Springfield	Florida Forever	Implementation
St. Andrew Bay Yacht Club Stormwater Improvement	Stormwater retrofit treating 25 acres discharging to St. Andrew Bay and affecting approximately 28,000 square feet of seagrass.	Panama City	Florida Forever	Complete
Sand Hills Stormwater Pond	Stormwater retrofit treating 29 acres of Port St. Joe discharging to St. Joseph Bay.	City of Port St. Joe	Florida Forever	Implementation
Iola Road Stabilization & Erosion Control	Unpaved road stabilization to eliminate sedimentation to the Apalachicola River and adjacent wetlands.	Gulf County	Florida Forever	Complete
Ochlockonee River and Bay Watershed/Lake Jackson				
Shuler Property	Preservation and restoration of 1,573.66± acres (less-than-fee) of wetlands and upland buffers along the Ochlockonee River.	DOT	DOT Mitigation	Implementation
Okeeheepkee Prairie Stormwater Mgmt. Facility	Regional stormwater retrofit for area of Tallahassee discharging into Lake Jackson.	Leon County	Florida Forever	Implementation
Meginnis Arm Shoreline	Shoreline restoration for 17 acres on Lake Jackson for wetland mitigation.	DOT	DOT Mitigation	Implementation; monitoring
Womack Creek Restoration	Vegetation restoration for 70 acres within Tates Hell Swamp.	DOT	DOT Mitigation	Complete; monitoring
Sharer Road Stormwater Improvement	Stormwater retrofit for 1,500 acres discharging to Meginnis Creek tributary and Lake Jackson.	Tallahassee	Florida Forever	Complete

Project Name	Purpose	Cooperator	Program	Status
St. Marks River/Apalachee Bay Watershed				
Cascade Park Watershed Resource Restoration	Urban stormwater retrofit for 760-acre contributing basin and stream restoration for St. Augustine Branch	Blueprint 2000	Florida Forever	Implementation
St. Marks River Watershed Stormwater Retrofit	Construction of stormwater retrofit projects for water quality and hydrologic restoration, pursuant to St. Marks River Watershed SWIM plan.	Local governments	SWIM; Florida Forever	Planning
Perdido River and Bay Watershed				
Perdido River Mitigation Phases I & II	Preservation of 216 acres and hydrologic/vegetation restoration of 67 acres within Perdido River WMA.	DOT Mitigation	DOT Mitigation	Implementation; monitoring
Ten Mile Creek Restoration	Major environmental stream restoration encompassing approximately 237 acres and one mile of Ten Mile Creek (East Ten Mile Creek).	Escambia County	Florida Forever	Implementation
Blue Pit Ecosystem Enhancement and Water Quality Improvement	Stormwater retrofit and restoration of about ten acres in the Ten Mile Creek basin.	Escambia County	Florida Forever	Complete

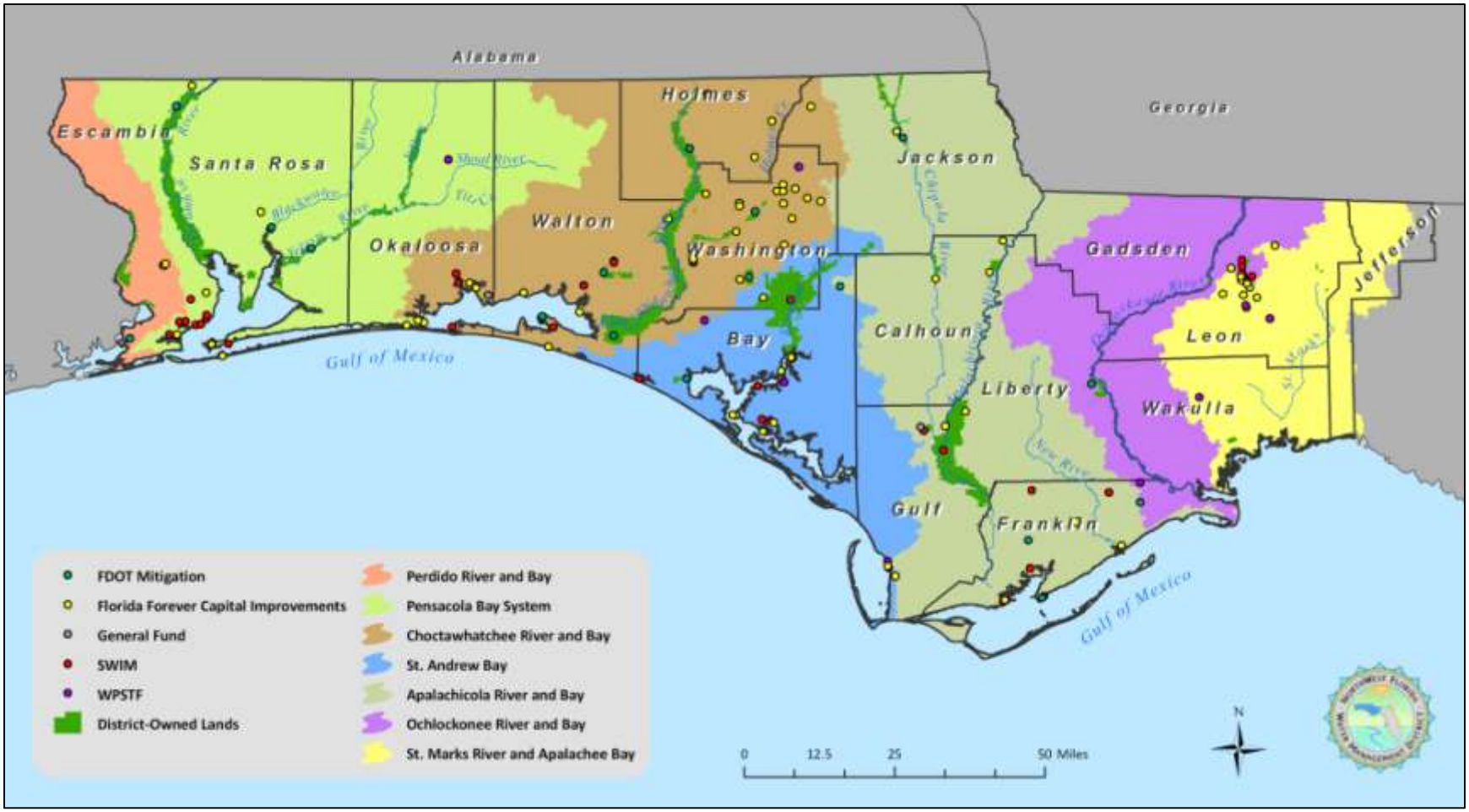

Figure 8.2 NWFWMD Capital Project Distribution

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Appendix: District Water Management Plan Annual Performance Measures

The water management districts, DEP, and the Executive Office of the Governor developed core annual performance measures for the district water management plans. These measures, as revised in October 2009, are intended as a means of evaluating programs and budgets on an annual basis. While individual districts are free to develop additional strategies and measures specific to the needs of their region, these core measures organized by area of responsibility are intended to reflect statewide priorities. It should be noted that some of the statewide performance measures apply to programs not implemented by the Northwest Florida Water Management District. Values and trends reported in these cases reflect values and results provided by DEP or other agency staff.

Water Supply

Water Supply Objective 1: Increase available water supplies and maximize overall water use efficiency to meet identified existing and future needs.

WS 1(a) Percentage of Domestic Wastewater Reuse

The state and water management districts continue to emphasize wastewater reuse. This resource as a result has become an important alternative to the use of potable supplies for such beneficial uses as landscape irrigation, industrial processing and power generation. This measure is intended to identify on an annual basis the wastewater reuse capacity of facilities within the NWFWMD and the proportion of wastewater effluent actually reused. Data for this measure is provided by the FDEP, Division of Water Resource Management, Water Reuse Program. In 2007, there were 57 reuse facilities in the District providing beneficial reuse to 2,114 residences, 23 golf courses, nine parks and two schools. Of the 92 MGD of domestic wastewater reuse capacity, 56 MGD were used during 2007, or about 61 percent (D. Trimble, personal communication, December 15, 2009). For more information on wastewater reuse within the NWFWMD, please visit http://www.dep.state.fl.us/water/reuse/inventory.htm.

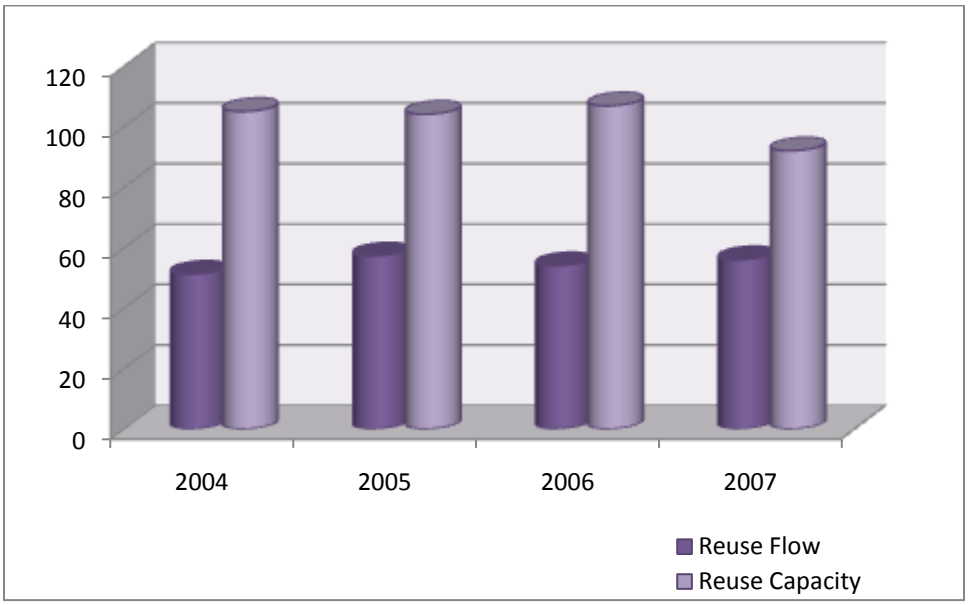

Figure A.1 Percent of Reuse Capacity Used in NWFWMD (in MGD)

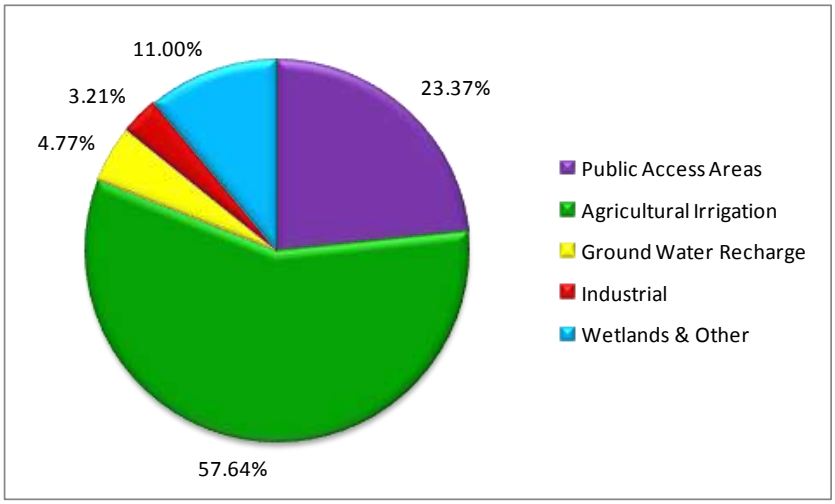

Figure A.2 Reuse Allocation by Type

WS 1(b) Uniform Gross Per Capita Water Use (Public Supply) by District and Water Supply Planning Regions

Public supply represents one of the two primary water use sectors (along with commercial-industrial), and it is experiencing the greatest growth in use levels District-wide. This measure is intended to show the trend of such use, recognizing that water conservation can serve as a significant source of "new water" to meet public needs. Gross per capita public supply use is calculated by dividing the total publicly supplied water used (in gallons per day) by the population served. However, because service population by utility has not been gathered consistently, gross per capita as presented below has been calculated by dividing the total publicly supplied and domestic self-supplied water used (in gallons per day) by the total county population. For more information, please see the Water Supply Assessment Update at http://www.nwfwmd.state.fl.us/rmd/water_supply_planning/regional_water_supply_planning.html.

The District's Water Supply Assessment Update for the 2010-2030 planning period was completed in May 2009. The information contained in the table below contains water use data using 2005 as the base year and illustrates the differences in current water use and the forecasted water use for regions within the District. The projections indicate that each region will see an increase in the amount of water required for average daily use, while the per capita rates across the District have generally decreased since 2000.

Table A.1 Public Supply Water Use Estimates and Projections by Region

Region		Total Public Supply Water Use (mgd)		Average Uniform Gross Per Capita (gal/d)	Primary Water Source
		2005	2030	2005	
I	Escambia	40.45	54.42	140	Sand-and-Gravel Aquifer
	Total	40.45	54.42		
II	Santa Rosa	14.07	23.22	106	Floridan Aquifer/ Sand-and-Gravel Aquifer
	Okaloosa	22.73	31.64	125	
	Walton	8.10	15.74	196	
	Total	44.91	70.60		
III	Bay	28.92	56.94	198	Deer Point Lake Reservoir
	Total	28.92	56.94		
IV	Calhoun	0.63	0.95	148	Floridan Aquifer
	Holmes	1.20	1.72	205	
	Jackson	2.12	2.55	143	
	Liberty	0.33	0.71	118	
	Washington	1.02	1.23	133	
	Total	5.08	7.15		
V	Gulf	1.82	3.49	128	Floridan & Surficial Aquifers/ Gulf County Canal
	Franklin	2.03	2.82	199	
	Total	3.85	6.31		
VI	Gadsden	4.01	6.67	126	Floridan Aquifer/ Surface Water
	Total	4.01	6.67		
VII	Jefferson*	0.73	1.05	153	Floridan Aquifer
	Leon	33.57	51.14	148	
	Wakulla	1.76	4.12	131	
	Total	36.05	56.32		
	District Total	**163.50**	**258.40**	**145 (avg.)**	

Source: Water Supply Assessment Update (2009).
*Reflects approximately 60% of the county that resides within the NWFWMD.

WS 1(c) Uniform Residential Per Capita Water Use (Public Supply) by District and Water Supply Planning Regions

At this time, the NWFWMD does not have the data necessary to calculate residential per capita water use. However, in late 2008, the District's Regulatory Division began to require large public supply utilities to report additional water use information consistent with their existing reporting requirements. This information includes number of connections by structure or type, service population estimates, and other information that will assist in the future analysis of per capita water use in the NWFWMD. All public supply permittees are expected to have these additional reporting requirements phased into their permits within the next five years.

WS 1(d) Within each water supply planning region:

1) **The estimated amount of water supply to be made available through the water resource development component of the regional water supply plan (RWSP);**
2) **Percent of estimated amount under development; and**
3) **Percent of estimated amount of water actually made available.**

The districts are charged with expanding the "water pie" to assure future water supply availability. This is accomplished through water resource development, or regional projects designed to create, from traditional or alternative sources, an identifiable, quantifiable supply of water for existing and/or future reasonable and beneficial uses. The estimated quantity of water needed and the water resource development activities of the District are included in Regional Water Supply Plans and in Table A.3 below.

Table A.2 Water Resources Development by Region (2007-2010)

Quantity (MGD)	Region II	Region III	Region V
Made Available	16.7	0.0	6.0
Under Development	11.4	10.0	0.0
Future Development	27.4	0.0	3.0
Total	55.5	10.0	9.0
% made available	***30%***	***0%***	***67%***

Source: NWFWMD Staff, 2010

The Regional Water Supply Plan (RWSP) for Region II was updated in 2006. It estimates an additional 55.5 MGD of alternative supplies can be made available through implementation of the Water Resources Development component of the plan. This amount does not include 25.0 MGD of alternative surface water sources that are identified for needs beyond the 2025 planning horizon. Approximately 16.7 MGD or 30% have already been made available to coastal utilities in Region II and another 11.4 MGD or 21% are under development. Thus, approximately 51% of the total alternative sources identified in the WRD component are either under development or have already been developed; the remaining 49% are for future development as determined by future demand though 2025.

The Region III RWSP (August 2008) identifies approximately 10 MGD of water available from inland sources, as well as additional water available from reuse and conservation in quantities to be determined. Preliminary analysis and design work for inland source development is underway.

For Region V, the estimated amount of alternative supplies that can be made available through the Water Resource Development component of the plan is 9.0 MGD. This includes 3.0 MGD for an alternative inland ground water source for eastern Franklin County and 6.0 MGD for an alternative surface water source for Port St. Joe via the Gulf County Fresh Water Supply Canal. The Port St. Joe alternative water source went operational during FY 2008-09.

WS 1(e) Within each water supply planning region, the estimated additional quantities of water supply made available through District water supply development assistance

"Water Supply Development" is defined as the planning, design, construction, operation and maintenance of public or private facilities for water collection, production, treatment, transmission or distribution for sale, resale or end use. Although this is primarily the responsibility of local and regional water supply providers, this measure is intended to identify the extent to which the District assists water suppliers in developing additional capacity.

During fiscal year 2008-2009, the District provided water supply development assistance in Regions II, III, IV, V, and VII through the Water Protection and Sustainability Program. It is anticipated that over 35.88 MGD will be made available within these regions. Specific water resource and water supply development projects are described in Chapter 5.2 of this report.

Water Supply Objective 2: Prevent contamination of water supplies.

WS 2(a) Percentage of surface water supply sources for which water quality fully attains the designated use

The Florida Department of Environmental Protection is charged with implementing Florida's water quality monitoring and reporting program developed pursuant to the federal Clean Water Act. Through this program, surface waterbodies are regularly assessed for a variety of water quality parameters. In NWFWMD, the Deer Point Lake Reservoir is the primary source for Bay County and the Gulf County Canal is the primary source for the City of Port St. Joe.

Based on information provided by FDEP, there are nine drinking water segments or waterbodies located in the District. Of these, only one is potentially impaired. Therefore, 88.9% can be considered as attaining their designated use.

Flood Protection and Floodplain Management

Flood Protection/Floodplain Management Objective 1: Minimize damage from flooding.

FP 1(a) Percentage of District works maintained on schedule

The District does not own or operate any facilities that provide flood protection. Since the structural approach tends to be more expensive, less effective, and involve greater risks, a nonstructural approach is preferred for flood protection and floodplain management.

Flood Protection/Floodplain Management Objective 2: Promote non-structural approaches to achieve flood protection and to protect and restore the natural features and functions of the 100-year floodplain.

FP 2(a) Number of acres identified for acquisition to minimize damage from flooding and the percentage of those acquired

The majority of lands purchased by the District encompass important natural flood storage areas. By protecting these areas, the District ensures that floodplain functions will be sustained. These land purchases protect people and communities located downstream, which could otherwise be impacted by lost floodplain functions. Less-than-fee acquisitions (e.g., conservation easements) are also useful for flood protection purposes. Through the end of calendar year 2009, the District has acquired 221,697 of the 382,047 acres identified in the District's 2010 Florida Forever Land Acquisition Work Plan through fee and less-than-fee purchases and donation. Of this, 173,782 acres of floodplain have been acquired of the 289,356 floodplain acres identified. This comprises 60 percent of the priority acquisition area identified as vulnerable to flooding and represents significant progress in floodplain protection.

Water Quality

Water Quality Objective 1: Protect and improve surface water quality.

Under Florida's water quality protection programs, waters are classified for uses, including drinking water, shellfish harvesting, fish and wildlife maintenance, agriculture, and navigation, utility and industrial use. The TMDL program is implemented in northwest Florida by the Department of Environmental Protection. These two performance measures indicate the extent to which the water quality needed to support the designated use(s) is being attained. For more information on the TMDL program, visit www.dep.state.fl.us/water/tmdl/index.htm.

WQ 1(a) Percent of surface waters with healthy nutrient levels

Data provided by FDEP on nutrient levels within the NWFWMD show that of the 166 waterbodies analyzed, only 13 are listed as impaired for nutrients. Thus, 92.2% of waterbodies assessed by DEP can be considered to contain 'healthy' nutrient levels.

WQ 1(b) Percent of surface waters with healthy biological conditions

Data provided by FDEP on the biology of waterbodies within the NWFWMD show that of the 173 waterbodies analyzed for biology, 68 are listed as impaired. Thus, 60.7% of waterbodies assessed by DEP can be considered to contain 'healthy' biology.

Water Quality Objective 2: Protect and improve ground water quality.

WQ 2(a) Improving, degrading, and stable trends in nitrate concentrations in springs

Increasing nitrate levels have been documented to affect spring water clarity and the composition of the aquatic plant community. Under Florida's water quality monitoring programs, ground water aquifers are regularly assessed for a variety of water quality parameters. This measure is intended to identify ground water trends as measured in spring flow quality to assure protection of water resources.

Insufficient data are available to establish nitrate levels and trends for the majority of northwest Florida springs. However, existing data indicate a long-term increasing nitrate concentration in Jackson Blue Springs and a stable trend for St. Marks Rise. Wakulla Springs previously showed an increasing trend, though over the past ten years there has been a decline and subsequent stabilization of nitrate concentrations to about 0.6 to 0.8 mg/L. The District's 1999-2000 study of nitrate sources in the Wakulla Spring basin helped bring awareness to the problem, influenced changes in the City of Tallahassee's spray field management, and provided the basis for further study that led to the City's investment in advanced wastewater treatment. The District participates in working groups for both Wakulla and Jackson Blue springs with the goal of increasing awareness and communication between interests in the spring basins, monitoring water quality and spring flow, and providing a forum for cooperation between agencies.

Table A.3 Nitrate Trends at Selected NWFWMD Springs

Spring	Nitrate Trend
Jackson Blue Spring	30 year degrading trend
Wakulla Springs	10 year stable trend
St. Marks Rise	20 year stable trend

Sources: NWFWMD Water Resources Special Report 02-1; 05-1; 06-1; NWFWMD staff, January 2010.

Natural Systems

Natural Systems Objective 1: Maintain the integrity and functions of water resources and related natural systems.

NS 1(a) Number of minimum flows and levels (MFLs), by water type, established annually and cumulatively

Minimum Flows and Levels can be set for streams, rivers, and other flowing watercourses; lake and wetland levels; aquifers; and springs. To date, no MFLs have been established in northwest Florida. The District Governing Board declared a reservation on the water resources of the Apalachicola River, including the Chipola River, in January 2006. The annual MFL Priority List can be found in Chapter 3.

NS 1(b) Percentage of MFLs established in accordance with the previous year's schedule

The District's MFL Priority List and Schedule identifies those lakes/wetlands, rivers/streams and aquifers for which MFLs are to be established over time. The schedule is updated annually and submitted to DEP for approval. This measure compares the scheduled waterbodies with those actually established to track progress in implementing MFLs. As noted previously, no MFLs have been established in northwest Florida.

NS 1(c) For the previous year, the total acres of wetlands or other surface waters authorized by Environmental Resource Permit to be impacted and the number of acres required to be created, enhanced, restored and preserved.

The Northwest Florida Water Management District began implementing the Environmental Resource Permitting program for stormwater permits on October 1, 2007. Rulemaking for wetland permitting is underway and the program is scheduled to begin in 2010.

NS 1(d) Acres of land acquired through fee simple and less than fee simple, respectively, on an annual and cumulative basis

Acquisition of land, or specific interests in such land, provide significant water resource benefits and is often the most effective way to protect water and related natural resources in the future. Annual acquisitions vary widely, due in large part to specific opportunities for land acquisition in any given year. In calendar year 2009, the District acquired 2,747.76 acres through purchase, donation and exchange (Table A.4). Since 1984, the District has increased its fee-simple landholdings by an average of about 1.1% per year. Note that negative acres reflect District lands that are considered surplus (and sold) or exchanged lands.

Table A.4. NWFWMD Fee Simple Acquisition Acres

Calendar Year	Annual Acres	Cumulative Acres
Pre-2005	-	197,102.14
2005	4,855.90	201,958.04
2006	4,990.14	206,948.18
2007	35.78	206,983.96
2008	766.71	207,750.67
2009	2,747.76	210,498.43

"Less-than-fee" refers to a group of techniques (e.g. conservation easements) that involve acquisition of limited interests in property, as opposed to outright, or fee-simple, purchase (e.g. conservation easements). Generally, less-than-fee methods should be used when resource protection benefits can be obtained without fee simple ownership, when intensive land management or restoration is not necessary, and when the cost to the public is reasonable. In 2009, the District received 198.70 acres in conservation easements (Figure A.4). Since 1995, the District has increased its less-than-fee landholdings by an average of about 2.6% per year.

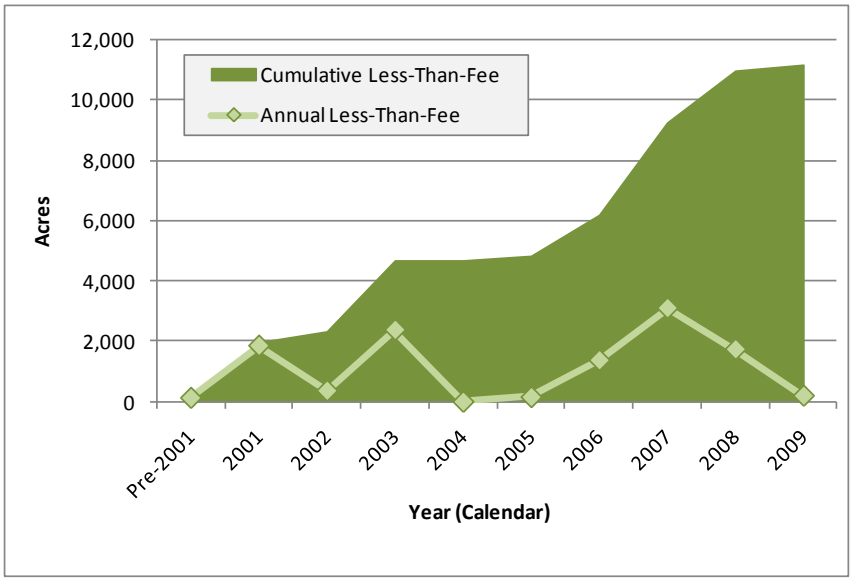

Figure A.3 NWFWMD Less-Than-Fee Acquisition Acres

To date, the District has acquired a total of 221,697.37 acres. Of this total, approximately 95% are fee-simple, donation and exchange lands, with the remaining 5% in conservation easements (Figure A.5). Overall, the District's land acquisition program increases in acreage by an average of 1.7% per year.

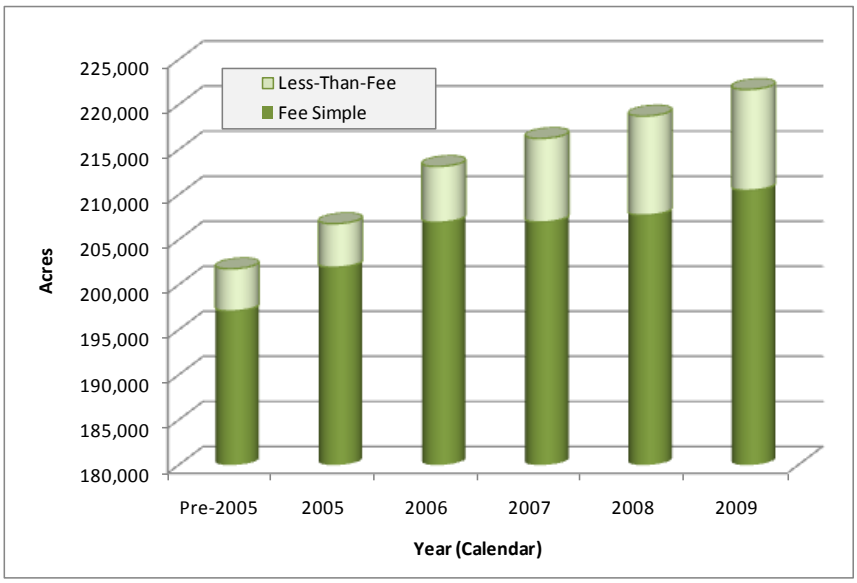

Figure A.4 Total NWFWMD Lands by Acquisition Type