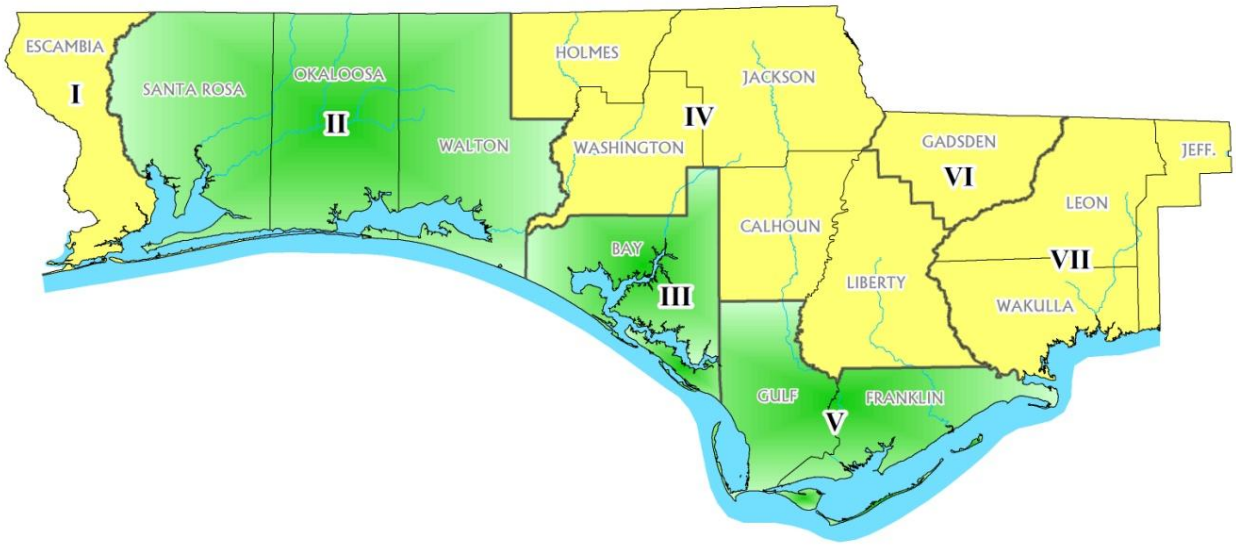
Five-Year

Water Resource Development Work Program

Fiscal Year 2009-2010 Update

Proposed October 2009



Northwest Florida Water Management District

Program Development Series 09-03

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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 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).

Figure 1. Water Supply Planning Regions

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.

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 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 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 (Tables 10, 14, and 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 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 Appendix A.

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

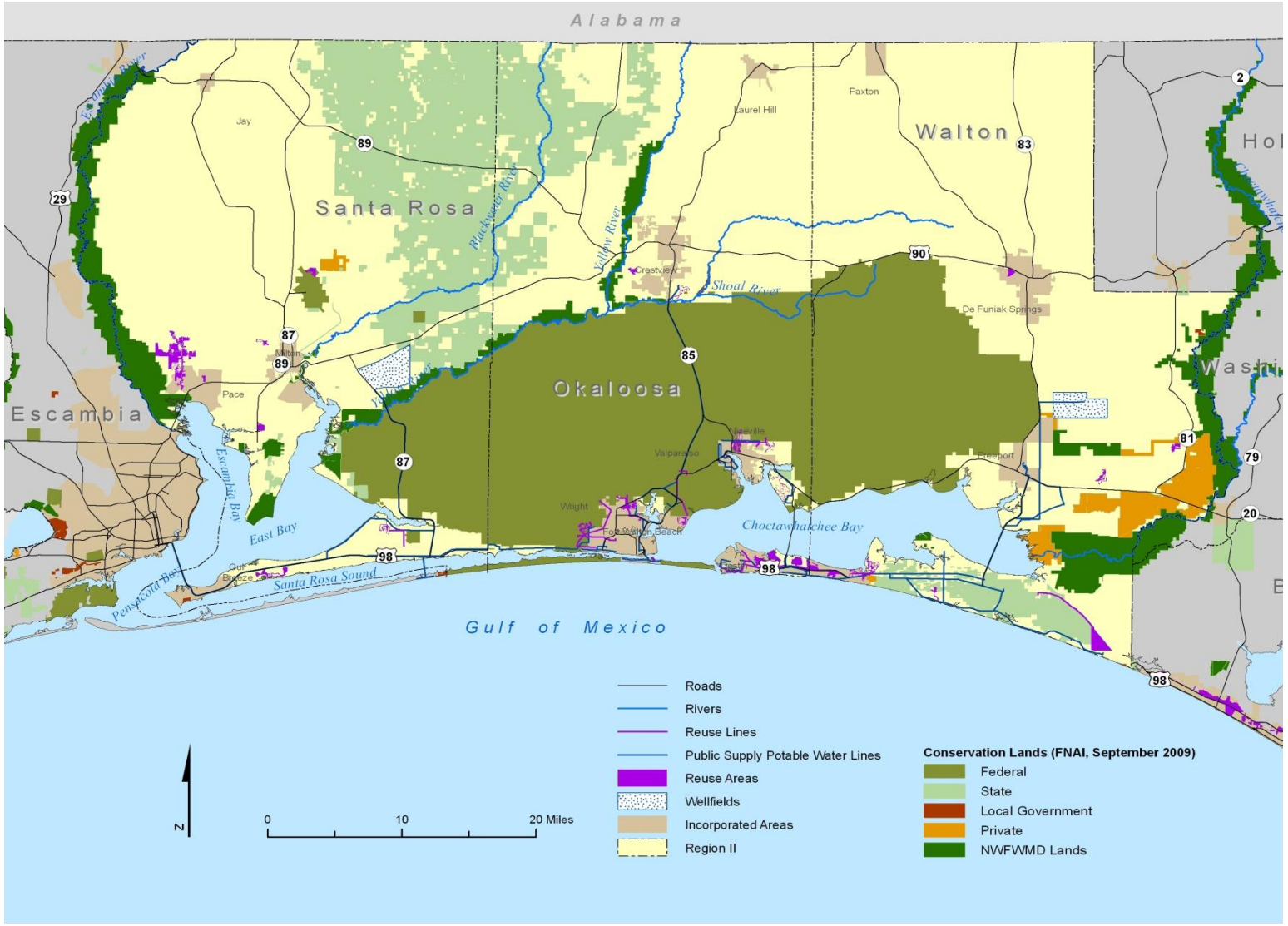

Figure 2. Water Supply Planning Region II

Water Resource Development Project – 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]

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 1. Project funding will be provided by the WMLTF.

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

Table 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

Water Resource Development Project – Region II

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

Table 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.

Water Resource Development Project – Region II

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 3. Development of Feasible Surface Water Sources

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

Water Resource Development Project – Region II

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 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

Water Resource Development Project – Region II

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. 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

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 (Appendix A) and the Florida Forever Trust Fund. Coordination and assessment funding is provided through the WMLTF.

Water Resource Development Project – Region II

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 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.

Water Resource Development Project – Region II

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 assessment 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. The WRDWP Annual Report and was completed and incorporated into the March 1st Consolidated Annual Report.

Table 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 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.

Water Resource Development Project – Region II

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 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.

Water Resource Development Project – Region II

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 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 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 13/14)
				FY 09-10	FY 10-11	FY 11-12	FY 12-13	FY 13-14	
1	Floridan Aquifer Sustainability	21	$165,898	$192,000	$30,000	$20,000	$10,000	$10,000	$262,000
2	Inland Sand-and-Gravel Aquifer Sustainability	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	24	$24,695	$25,000	$50,000	$50,000	$20,000	$20,000	$165,000
6	Water Conservation	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 and 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

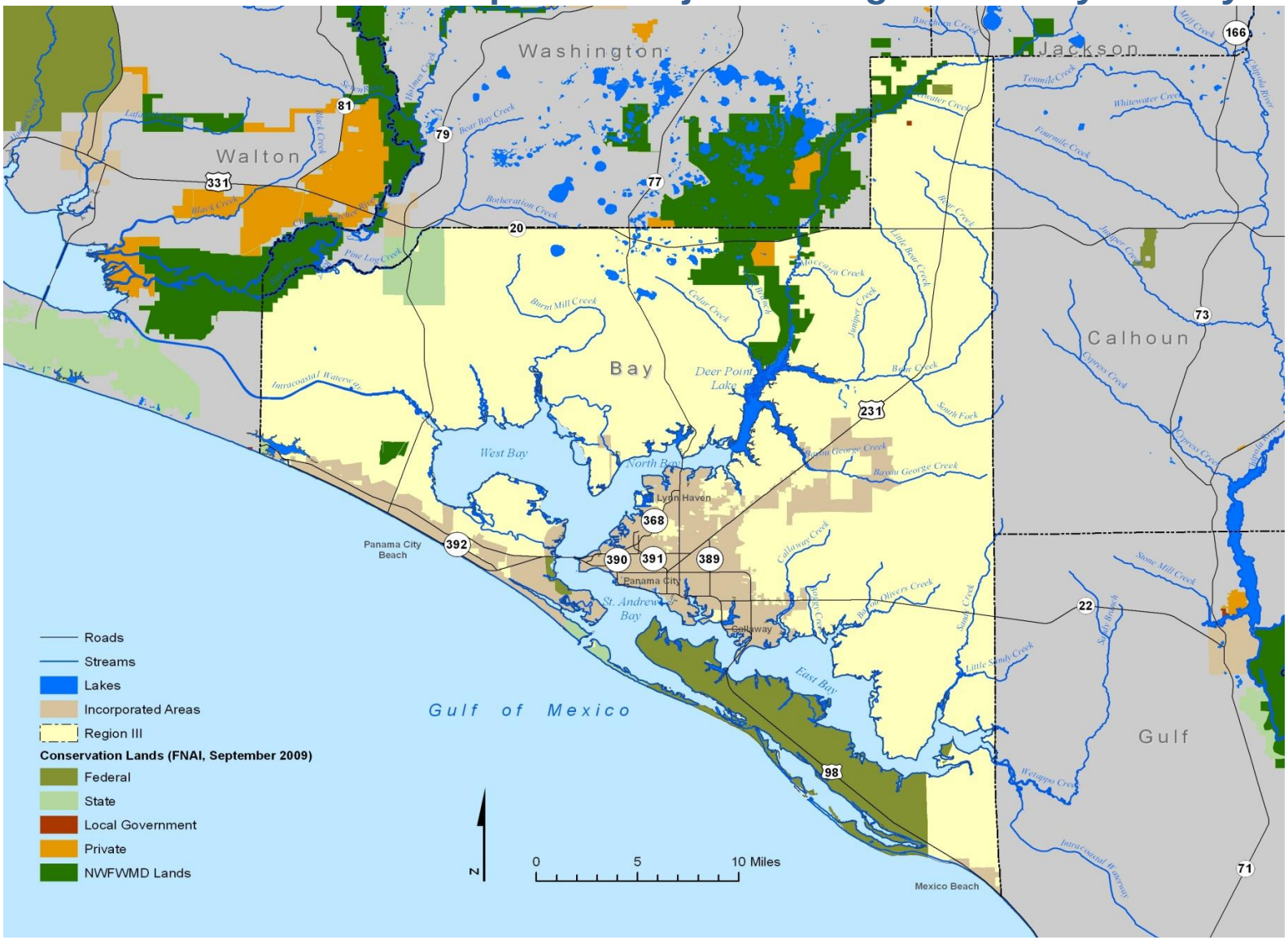

Figure 3. Water Supply Planning Region III

Water Resource Development Project – Region III

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

This project supports development of an inland groundwater 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 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.

Water Resource Development Project – Region III

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 assessment 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 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

Water Resource Development Project – Region III

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 assessment discussed above and alternative water supply development in providing a foundation for future RWSP updates.

Table 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 14. 2009-2013 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 13/14)
				FY 09-10	FY 10-11	FY 11-12	FY 12-13	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	TBD
TOTAL			$78,796	$388,000	$100,000	$60,000	$60,000	$50,000	$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

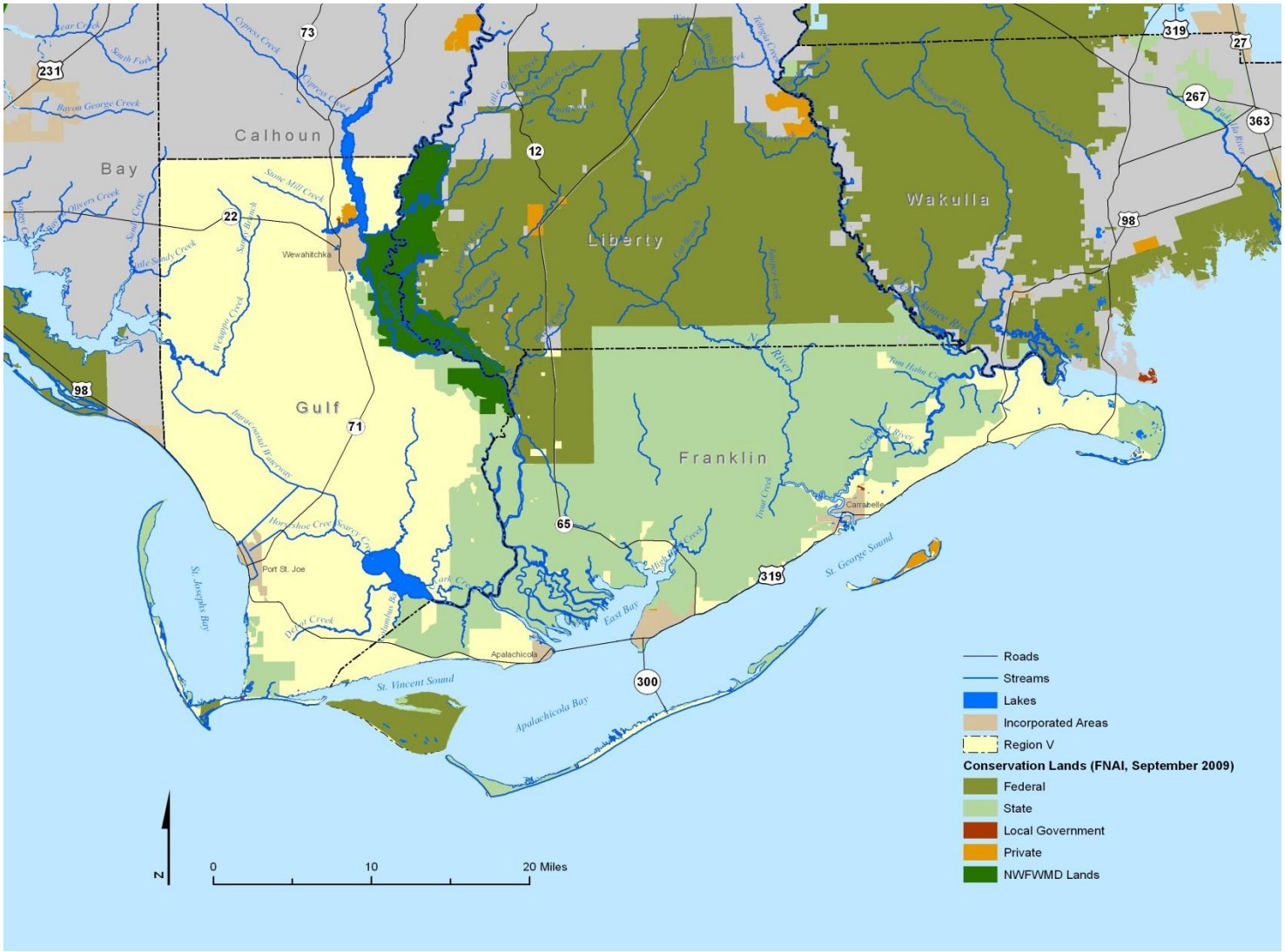

Figure 4. Water Supply Planning Region V

Water Resource Development Project – Region V

Strategy 1.0 Hydrologic and Water Quality Data Collection, Monitoring, 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 groundwater 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 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 (Appendix A). District general funds could also be used for this purpose.

Water Resource Development Project – Region V

Strategy 2.0 Regional Water Supply Coordination, Source Protection, 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 assessment 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 16. Coordination, Source Protection, and Engineering and Technical Assistance

Implementing Agency:	NWFWMD
Proposed FY Expense (FY 09-10):	$359,000
Estimated 5-Year Cost (FY 09-14):	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 (Appendix A).

Water Resource Development Project – Region V

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 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.

Water Resource Development Project – Region V

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 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 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 13/14)
				FY 09-10	FY 10-11	FY 11-12	FY 12-13	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	Coordination, Source Protection, and Engineering and Technical Assistance	11	$22,685	$359,000	TBD	TBD	TBD	TBD	TBD
3	Water Reuse and Conservation 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			$81,326	$431,000	$108,000	$65,000	$65,000	$60,000	$619,000+

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

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Appendix A. Alternative Water Supply and Water Resource Development Projects

The following table presents expected Water Protection and Sustainability Program Trust Fund expenditures for alternative water supply development and water resource development projects. In the event additional funding is made available, the District will consider additional potential projects in accordance with Section 373.1961, F.S. Additional information will be provided with the March 1, 2010, Consolidated Annual Report.

Table 20. AWSD and WRD Projects Funded under the Water Protection and Sustainability Program

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	$11,172,750	$17,672,750	63%
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**	**$57,802,750**	**$79,272,750**	**72%**

*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.