

**Five-Year**  
**Water Resource Development**  
**Work Program**

**Fiscal Year 2012-2013 Update**  
**Proposed October 2012**



**Northwest Florida**  
**Water Management District**

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# NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT

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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.), as amended in 2012, to prepare a Five-Year Water Resource Development Work Program to describe the District's implementation strategy and funding plan for the water resource, water supply, and alternative water supply development components of each approved regional water supply plan (RWSP) developed or revised under section 373.709, 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 governing boards of 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."

Water resource, water supply, and alternative water supply development are complementary components of the RWSP. Water resource development projects are typically regional and broad in scope, while water supply development projects are more localized and address water treatment, storage, and delivery to end users. Water resource development supports and facilitates future alternative water supply development, which provides for the development of non-traditional water sources. Water management districts are statutorily responsible primarily for water resource development, while water supply development is primarily the responsibility of local governments, water supply authorities, and utilities. The districts do, however, also provide technical and financial assistance for water supply development. Alternative water supply and water resource development projects supplement dedicated regulatory efforts to ensure the long-term sustainability of water resources.

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## Regional Water Supply Planning in Northwest Florida

The Northwest Florida Water Management District (NFWFMD or "District") established seven water supply planning regions in 1996 (Figure 1). The initial District Water Supply Assessment (WSA) (NFWFMD 1998) evaluated whether supplies would be sufficient to meet demands through 2020, and it was determined that only Region II (Santa Rosa, Okaloosa, and Walton counties) required a RWSP. The primary resource concern identified in Region II is a pronounced drawdown in the coastal Floridan Aquifer caused by long term pumping.

In 2006, the NFWFMD 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 concluded that the need for additional source redundancy and sustainability warranted development of a RWSP for Region III (Bay County).

A District-wide WSA update was completed in 2008 (approved May 2009), extending water demand projections and an evaluation of sources through 2030. The update confirmed that no additional RWSPs were required and that water supply planning and implementation efforts should continue in regions II, III, and V (NFWFMD 2008a). The WSA is scheduled to be updated again in 2013.

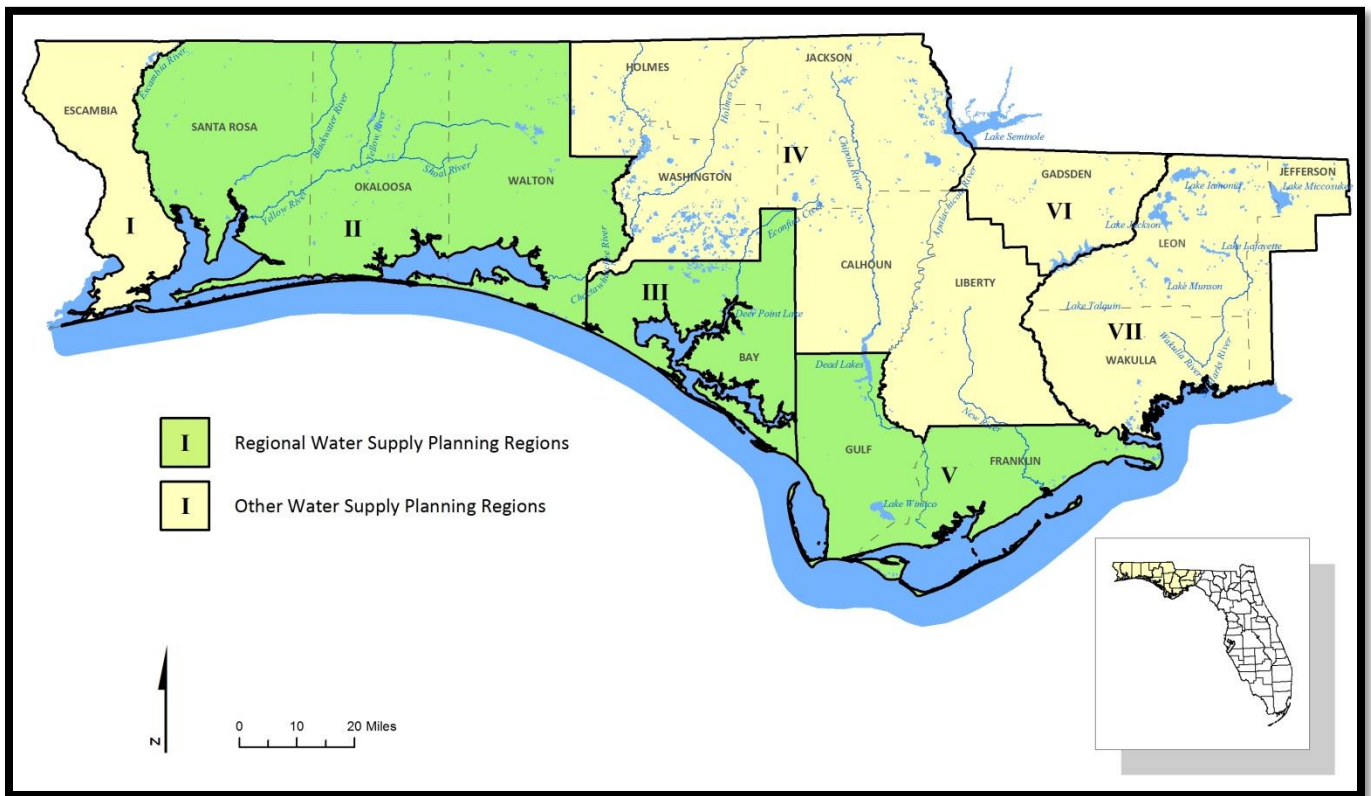


Figure 1. Water Supply Planning Regions

As required by Section 373.709(2)(a)1, F.S., the RWSP level of certainty planning goal is to identify and meet existing and future reasonable-beneficial water needs during a 1-in-10 year drought event. While water supply sources can become constrained during drought conditions, demands can increase for certain uses, such as agricultural irrigation and outdoor water use. District RWSPs include strategies to help drought-proof northwest Florida communities through alternative water supply development, the interconnection of water systems, the reuse of reclaimed water, and water conservation. A more thorough discussion of the quantification of 1-in-10 year drought demands may be found in the 2008 Water Supply Assessment Update (NFWFMD 2008a).

Implementation of the strategies detailed in the Water Resource Development Work Program (WRDWP) will make additional water available to meet future needs in a timely manner for reasonable-beneficial uses through the planning period. Sources of water include the inland Floridan Aquifer, Sand-and-Gravel Aquifer, reclaimed water, and surface waters. Water conservation is emphasized to improve water use efficiency and long-term water resource sustainability. It should be noted that future water demands, including consideration of 1-in-10 year drought and seasonal demand fluctuations, are also addressed through the consumptive use permitting program.

Public supply continues to be the largest use category for the District, representing 47 percent of the demand in 2005 and projected to grow to 52 percent by 2030 (NFWFMD 2008a). This increasing trend is generally true for Regions II, III, and V and has been a focus of the projects developed through the regional water supply planning process, as discussed below.

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## Funding for Water Resource and Supply Development

The state constitution limits the NFWMD to 1/20<sup>th</sup> (.05 mills) of the *ad valorem* taxing authority afforded the other four water management districts. The District's FY 2011-2012 ad valorem tax millage rate, as set by the Governing Board, is .04. To fulfill legislatively mandated water supply planning and water resource development activities under this revenue constraint, the District looks to other sources of funding, as available, including the following:

- Water Management Lands Trust Fund (no legislative funding since FY 10-11);
- Water Protection and Sustainability Program Trust Fund (no legislative funding since FY 08-09);
- Legislative special appropriations (no water supply funding since FY 08-09);
- Florida Forever (no appropriations since FY 10-11);
- District General Fund;
- Federal grants; and
- Local government and water supply utility cost-sharing.

Water resource development in northwest Florida has depended primarily on funding from the Water Management Lands Trust Fund (WMLTF). Appropriations from the WMLTF for water resource and supply development have been eliminated since FY 2010-2011. The District is implementing priority projects to the extent possible using previously encumbered funds and reserves. The District, however, has no ability to replenish reserve funds when expended.

The Water Protection and Sustainability Program Trust Fund (WPSPTF), established by the 2005 Florida Legislature, allowed the District to provide cost-share assistance for construction of alternative water supply development projects and priority water resource development and springs protection activities. Projects funded under the WPSPTF are listed in Appendix A and are described in the March 1 Consolidated Annual Report. No funding has been appropriated for the WPSPTF since FY 2009-2010.

The Florida Forever Trust Fund has supported acquisition of important recharge lands within the Econfina Recharge Area. Additionally, Florida Forever has been a potential source of construction funding for reclaimed water storage facilities. Florida Forever funding, however, has not been appropriated since FY 2010-2011.

Local government and utility funding participation is especially important for several types of water resource development projects. Aquifer storage and recovery, reuse of reclaimed water, and water conservation are examples. All projects require substantial local investment once they reach the water supply development stage.

Funding budgeted for water resource development is listed below in summary tables for regions II, III, and V (tables 2, 5, and 8, respectively). The proposed water resource development funding for FY 2013-2014 is \$709,200. The anticipated five year water resource development implementation cost (FY 12/13 – FY 16/17) is \$2,491,600. Additionally, the district expects to spend over \$7,400,000 during the planning period for alternative water supply development, augmenting local government and utility funding.

Where enhanced monitoring and water resource development needs are identified, District reserve funds may support these activities during the short term. Over the longer term planning horizon, however, significant needs, including for alternative water supply development and resource monitoring and analysis, have been identified that exceed currently identified funding. Efforts will continue to secure adequate funding for long-term water resource and supply development.

## Region II: Santa Rosa, Okaloosa, and Walton Counties

Since the 1940s, Santa Rosa, Okaloosa, and Walton counties (Figure 2) have been characterized by rapid population growth and a concentration of development and water demands within coastal portions of the region. Long-term pumping of the coastal Floridan Aquifer in southern Santa Rosa, Okaloosa, and Walton counties has caused formation of a substantial cone of depression, causing a risk of significant salt water intrusion and damage to public supply wells. Resource regulation and water supply planning and development over the past two decades have focused on reducing coastal withdrawals, limiting coastal demand, and developing inland water supply sources as alternatives to coastal ground water.

Chapter 40A-2, Florida Administrative Code (F.A.C.), established the coastal Water Resource Caution Area (WRCA) across the southern reach of all three counties (Figure 2). Within the coastal WRCA, regulatory approaches to resource sustainability are applied, including stringent conservation and reporting requirements and the prohibition of new allocations of coastal Floridan Aquifer water for non-potable uses.

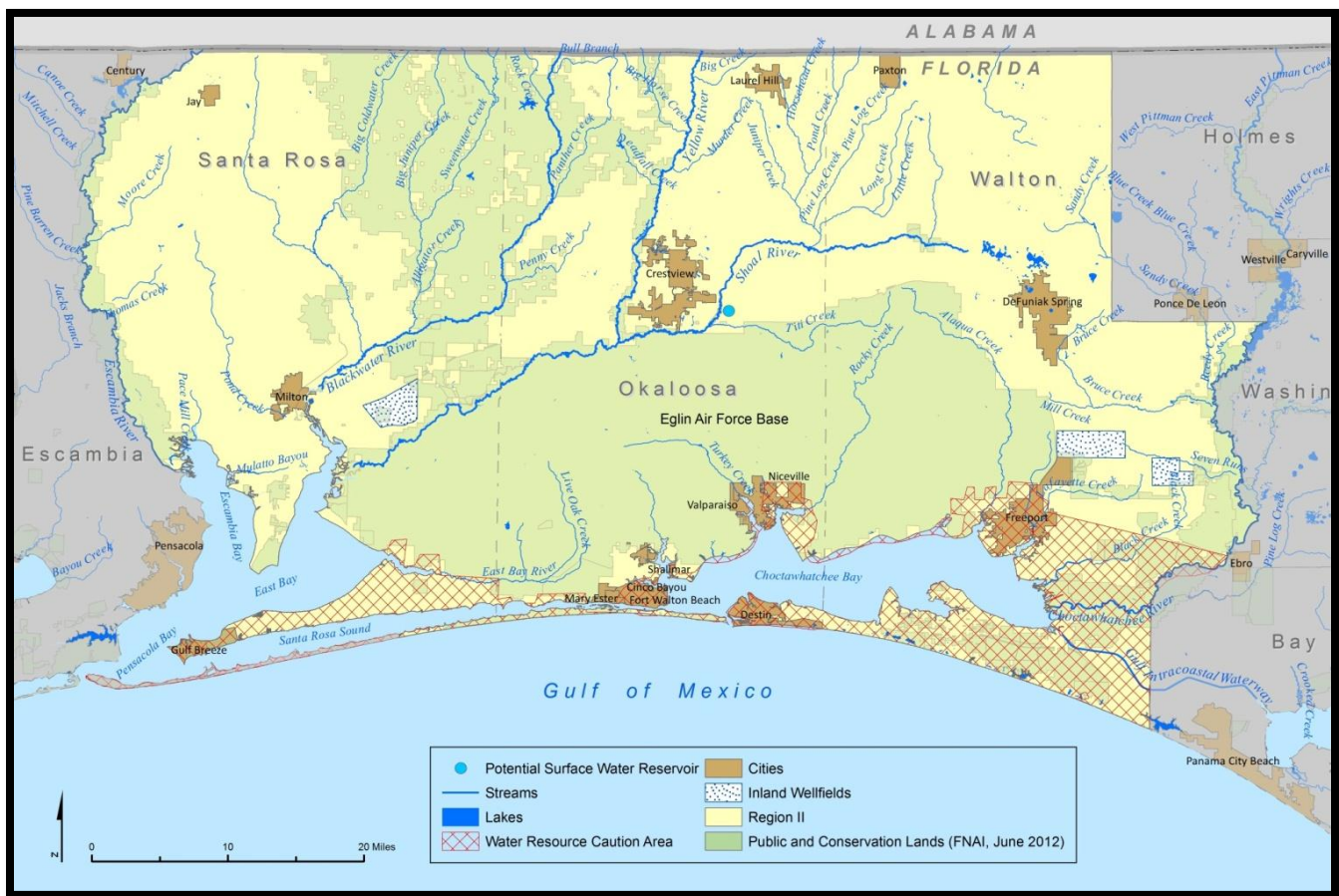


Figure 2. Water Supply Planning Region II

The District's first RWSP was approved by the Governing Board for Region II in February 2001 (NFWMD 2001). The Region II RWSP described the region's water supply needs, identified existing and alternative water sources, and analyzed the ability of these sources to meet future demands to 2020. Updates to the plan were approved in 2006 (NFWMD 2006) and again in 2012 (NFWMD 2012b). In the process, water resource and water supply development components have been revised, progress on project implementation was described, and water demands were projected to 2030. Public supply water use in the region is currently projected to increase 53

percent from 46.08 million gallons per day (MGD) in 2010, to 70.71 MGD in 2030, with a large portion of this increase anticipated to serve demand in the coastal region.

## Region II Water Resource Development

The Region II RWSP includes ten water resource development projects encompassing strategies for developing water resources in support of alternative water supply development. These are summarized in Table 1. Descriptions of the strategies and their current progress follow.

Table 1. Region II Water Resource Development Projects

<i>Project</i>	<i>Activity</i>	<i>Water Identified or Made Available (MGD)</i>
Floridan Aquifer Sustainability Modeling	Development and application of a regional ground water flow model and salt water intrusion models.	30
Inland Sand-and-Gravel Aquifer Development and Sustainability	Development and application of a three-dimensional, transient ground water flow model.	18
Development of Surface Water Sources	Identification and development of feasible surface water sources and optimal facilities.	25
Aquifer Storage and Recovery Feasibility	Development of aquifer storage and recovery systems, primarily to support the reuse of reclaimed water.	2.125*
Water Reuse Coordination	Assistance in the development of reclaimed water to offset and conserve potable water resources.	5**
Water Conservation Coordination	Assistance to local governments and utilities in the conservation of potable water resources.	2.5**
Regional Water Supply Planning	Development and implementation of regional water supply plans.	N/A
Interconnection of Water Supply Conveyance Systems	Interconnection of coastal utility infrastructure to enhance the resilience of the coastal water systems.	N/A
Hydrologic Data Collection and Analysis	Collection and analysis of surface and ground water data throughout the region.	N/A
Abandoned Well Plugging	Assistance to local governments and utilities in the plugging of abandoned wells.	N/A

\* 50 percent potable water offset estimated.

\*\* Additional anticipated quantities to be determined.

### **Floridan Aquifer Sustainability Modeling**

Limiting further salt water intrusion into the coastal Floridan Aquifer and sustaining the aquifer as a viable water supply source is a primary focus of the RWSP. The Floridan Aquifer Sustainability Model was developed to include a western domain encompassing Santa Rosa and western Okaloosa counties and an eastern domain that includes eastern Okaloosa and Walton counties. The model has been used to evaluate long-term safe yields from the coastal aquifer, pumpage from consumptive use permits, and future withdrawal scenarios to evaluate cumulative impacts.

Model simulations have been run to predict the extent of salt water intrusion through 2100 for the eastern and western model domains. The simulations incorporated historical withdrawals and proposed future pumping rates. Results indicate that salt water intrusion into potable portions of the Floridan Aquifer continue to occur at a slow, manageable rate (HydroGeoLogic, Inc., 2007b, 2007c). 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 of saline waters where the Bucatunna Clay confining unit is absent (easternmost Choctawhatchee Bay area), and downward vertical leakage through the Intermediate System.



Under current pumping conditions, it is estimated that the coastal Floridan Aquifer is sustainable through 2050 and likely beyond (NFWFMD 2012b). Future model applications will be directed toward analysis of drawdown effects of increased pumping of the Floridan Aquifer in inland areas and alternative withdrawal scenario development.

### **Inland Sand-and-Gravel Aquifer Development and Sustainability**

Due to its high recharge rate, the inland Sand-and-Gravel Aquifer in Region II is capable of providing regionally-significant quantities of water. Through this project, a three-dimensional, transient ground water flow model has been developed to assess the volume of water sustainably available from the aquifer. The study area for this effort lies between the Blackwater and Yellow Rivers in Santa Rosa and Okaloosa counties. The model includes the transient response of the aquifer to drought and climatic variability. In previous years, considerable 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. The ground water flow model was subsequently developed and calibrated.

Development of an inland Sand-and-Gravel Aquifer wellfield was initiated in 1999 within the Santa Rosa County portion of the study area. Prior to the development of the wellfield, approximately one MGD were being withdrawn from the area for public supply. 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 and vicinity have increased to over five MGD. Water from the wellfield is being conveyed south to alleviate pumping demand from the Floridan Aquifer along the coast.

Modeling results to date indicate that an additional 13 MGD may be drawn from the inland Sand-and-Gravel Aquifer study area for a ground water production total of approximately 18 MGD. The ability of the aquifer to sustain a production of 18 MGD and avoid or minimize impacts to natural resources will depend on the management of withdrawals. Withdrawals can be managed by the proper placement of wells, variable pumping scenarios, and limiting drawdown in wells.

Preliminary mapping of the extent and quality of wetlands in the study area has been completed. Further investigation is needed to verify wetland quality and assess potential impacts to seepage wetlands and streams sourced by Sand-and-Gravel Aquifer ground water. The District has completed development of backwater models of the Yellow and Blackwater Rivers, which are useful for accurately delineating floodplains of these rivers. The District is assisting Santa Rosa County in its wellhead/wellfield protection efforts by using the existing inland Sand-and-Gravel Aquifer ground water flow model to delineate capture zones for wells in the wellfield area. It is anticipated that the model will be applied to the resource assessment portion of the WSA update. Additional application and assessment, including evaluation of potential wetland effects from future withdrawals, may also be conducted depending on funding availability.

### **Development of Surface Water Sources**

The Region II RWSP has identified surface water as an alternative water supply source to meet potable water demands beyond 2020, particularly within Okaloosa County. 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). This study reviewed various technically and economically feasible alternatives, including direct river withdrawal and riverbank filtration. The District also concurrently reviewed an evaluation of a proposed Yellow River Reservoir and concluded that the proposal is not economically feasible and that its implementation would cause significant environmental impacts and mitigation requirements.

Currently, the Shoal River, east of Crestview in Okaloosa County, is being considered along with an offline pumped storage reservoir with a target of dependably delivering 25 MGD of surface water. Water would be

pumped directly from the Shoal River to a reservoir located on an upstream tributary behind an earthen dam. District and Okaloosa County staff have performed preliminary feasibility studies, investigated land acquisition potential, and evaluated river water withdrawal methods and offline tributary surface impoundments for this project. Funding for the next fiscal year and beyond has been allocated to continue to assist Okaloosa County in project development once a preferred alternative is selected. Associated with this strategy, the District anticipates evaluating needs and opportunities for watershed resource protection and wetland and stream mitigation.

### **Aquifer Storage and Recovery Feasibility**

Aquifer storage and recovery (ASR), depending on the particular hydrogeologic and economic considerations of an area, has the potential to support storage of large quantities of water more effectively and at a lower cost than above ground storage. Aquifer storage and recovery systems have not been developed on a widespread basis within Region II due to hydrogeologic conditions, economic feasibility, the need for water quality evaluations, and other technical constraints. Destin Water Users has recently developed an ASR system that is permitted for a 2.125 annual average daily flow capacity. The system consists of seven wells for storage of reclaimed water in the Sand and Gravel Aquifer. This reclaimed water is available to meet irrigation demands, helping to conserve potable water resources.

The use of ASR in the future for storage of reclaimed water or, perhaps, as a salinity barrier may require a regional approach, since water introduced into a geologic formation could affect the ground water beneath jurisdictions or service areas of multiple utilities. In coordination with evaluations of surface water supply and reclaimed water alternatives and if additional funding becomes available, the District may conduct preliminary ground water model analyses of the feasibility of additional ASR activities within Region II. A cooperative approach between utilities, the District, and DEP will be sought for any project development.

### **Water Reuse Coordination**

As of 2011, 22 facilities in Region II were permitted for public access reclaimed water, producing an estimated 9.28 MGD for public access reuse (DEP 2012). These facilities supported landscape irrigation for approximately 1,927 residences, 19 golf courses, eight parks, three schools, and one cemetery.

In response to regulatory and cooperative planning efforts, significant investments in reuse have been made in the region, particularly for golf course irrigation in coastal areas. Most of the utilities serving coastal Santa Rosa, Okaloosa, and Walton counties provide some public access reuse water that offsets potable demand. Additionally, the District has provided technical assistance and funding for several reclaimed water projects. Among recent projects, the City of Freeport constructed a wastewater reuse system intended to provide approximately 0.47 MGD of reclaimed water to irrigate a future residential subdivision and golf course. Construction to expand Okaloosa County's Bob Sikes Water Reclamation Facility has also been completed. Approximately 1.0 MGD of reclaimed water is available from this facility for public access irrigation in the vicinity of Crestview.

The Region II RWSP previously identified approximately 5 MGD of new beneficial reuse to offset demands on the coastal Floridan Aquifer within Region II. Work toward updating this estimate is ongoing as part of development of a District-wide reuse plan. The plan will identify needs and opportunities, as well as conceptual future projects to support RWSP implementation and to enhance the sustainability of water resources throughout northwest Florida. Results will include estimates of ground water offsets and reductions of surface water discharges. Work is well underway on multiple components of the plan and associated applications.

### **Water Conservation Coordination**

A significant effort at water conservation has been underway in Region II for some time, substantially due to regulatory requirements and incentives established within the coastal WRCA. As a result, the estimated potential for additional potable water conservation within the coastal portion of the region is relatively low (estimated

previously at 2.5 MGD) (PBS&J 2000a). Water conservation remains a priority, however, to build upon current water use efficiency and resource sustainability.

Under Chapter 40A-2, F.A.C., new withdrawals from the Floridan Aquifer for non-potable uses are not permitted within the coastal WRCA. 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 the reuse of reclaimed water. The goal for utility conservation measures is to reduce the annual average residential per capita water consumption to 100 gallons per day or lower and to reduce water leakage to 10 percent or less of the water withdrawn.

District staff promote water conservation education and awareness through such activities as the distribution of water conservation brochures and information to Region II utilities. To date 54,350 brochures have been provided. In FY 2004-2005 and in coordination with DEP, the District initiated the Water Conservation Hotel and Motel Program (Water CHAMP), 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 September 2012, 38 hotels were participating in the program, including 16 in Region II.

In cooperation with other water management districts, the District participated in the statewide study of the effects of water rate pricing structures on public supply water demand (Whitcomb 2005). The NFWFMD coordinates distribution of the associated water rates model in cooperation with the author. Since 2005, requests for the model have been referred to Dr. Whitcomb for 33 utilities.

### **Regional Water Supply Planning**

Development and refinement of regional strategies, project planning and development, and RWSP updates are essential components of water resource development. Related activities include technical support and coordination with local governments and utilities to ensure a regional focus in the planning and development of alternative water supply projects. Associated administrative activities include project and funding management, coordination with DEP and other agencies, and progress reporting.

The District provides assistance with hydrogeology and related technical evaluations for development of new and alternative water sources, including the inland Floridan Aquifer, the Sand-and-Gravel Aquifer, surface water, and reclaimed water. The District has also assisted local governments and utilities in development of water transmission facilities extending from inland wellfields to the coastal WRCA. District staff may also work with local governments and state and regional agencies to enhance coordination of land use and water supply planning. District staff previously distributed guidelines and provided technical assistance to local governments for preparing water supply comprehensive plan amendments and water supply facilities work plans.

During the past year, the District completed an update to the Region II RWSP. Additional activities included coordination of program funding sources and grant agreements. The 2011-2012 WRDWP Annual Report was completed and incorporated into the March 1, 2012, Consolidated Annual Report.

### **Interconnection of Water Supply Conveyance Systems**

A District priority is the coastal water systems interconnection initiative. The goal of the initiative is to enhance the resilience of the coastal water systems by enabling transfer of water between utilities should the need arise due to droughts or other contingencies. Multi-jurisdictional and regional water conveyance systems will better ensure water will be available for emergency response and disaster recovery in the event of water shortages, natural disasters, environmental emergencies, or system failures. This is a cooperative effort with local utilities.

The Coastal Water Systems Interconnect assessment includes a comprehensive Basis of Design Report (BODR) to evaluate potential interconnections that would serve multiple utilities. Existing interconnections were evaluated to determine their capacity and ability to meet the emergency needs of the interconnected utilities. The

evaluation was conducted for current and future conditions (2030) and relied on the utility emergency production capacities and demands.

The evaluation identified two priority major interconnections that would significantly enhance emergency water supplies for coastal communities. An interconnection between southern Walton and Bay counties would improve emergency water system reliability for customers of Bay County Utilities and Regional Utilities in Walton County. A second interconnection between the Fairpoint Regional Utility System in Santa Rosa County and the Okaloosa County West water system would enhance emergency water supply reliability in coastal Santa Rosa and Okaloosa counties.

### **Hydrologic Data Collection and Analysis**

The District has a hydrologic data collection network of rainfall gauges, stream gauges, and monitoring wells throughout Region II. Ground and surface water monitoring capabilities have been enhanced by continuing cooperation with the U.S. Geological Survey surface water gauging network and development of an expanded monitoring network for the Sand-and-Gravel and Floridan aquifers where new water sources have been developed or are planned. In addition, the District will continue to monitor conditions within the coastal WRCA for salt water intrusion and aquifer sustainability. The monitoring network is essential for ensuring that long-term water supply initiatives are successful and sustainable, as well as for refining groundwater models and analyses needed to make future management decisions and to further develop water management strategies.

Details of monitoring conducted as part of the Water Resource Development Work Program, as well as other work programs, may be found in the Hydrologic Monitoring Plan (Barrios et al., 2011), available at: [www.nfwmd.state.fl.us/pubs/hydrologic\\_monitoring\\_plan/hydrologic\\_monitoring\\_plan.html](http://www.nfwmd.state.fl.us/pubs/hydrologic_monitoring_plan/hydrologic_monitoring_plan.html).

The need has been identified to further expand and enhance the District's water resource monitoring network to support resource sustainability and cumulative impact assessments, to develop alternative water supplies, and to establish minimum flows and levels (MFLs). Among the enhancements planned are additional water level, water quality, and rainfall stations, and substantially increased monitoring frequency. Detailed plans for an expanded hydrologic and water quality monitoring network will be completed and implemented during the current year.

### **Abandoned Well Plugging**

The District's resource regulation program includes an active effort to plug abandoned artesian wells. The overall goal of the program is to protect available ground water resources from aging, uncontrolled, or improperly constructed wells that are no longer in use. 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 and funding to utilities in the plugging of abandoned wells identified as having the potential to adversely affect ground water quality. Well abandonment is an ongoing effort and is likely to continue as more wells are identified for plugging in the future. The District will continue to implement this project through regulatory programs, where feasible. This project supports District efforts to sustain coastal water supply sources. To date, the District has facilitated the plugging of 4,614 abandoned wells within Region II. During FY 2011-2012, the District's well plugging activity occurred in other Planning Regions.

## **Funding Summary: Region II Water Resource Development Projects**

Table 2 displays past year expenditures, current year budget, and anticipated future expenditures for water resource development within Region II.

Table 2. 2013-2017 Region II WRDWP Project Funding

<i>Water Resource Development Projects</i>	<i>FY 11-12* Expenditures</i>	<b>Anticipated Five Year Work Program</b>					<i>FY13-FY17 Cost Estimate</i>
		<b>FY 12-13 Budget**</b>	<b>FY 13-14</b>	<b>FY 14-15</b>	<b>FY 15-16</b>	<b>FY 16-17</b>	
Floridan Aquifer Sustainability	\$2,280	\$0	\$0	\$0	\$0	\$0	<b>\$0***</b>
Inland Sand-and-Gravel Aquifer	\$89,728	\$34,900	\$50,000	\$40,000	\$40,000	\$40,000	<b>\$204,900</b>
Surface Water Sources	\$83,335	\$22,400	\$50,000	\$100,000	\$50,000	\$30,000	<b>\$252,400</b>
Aquifer Storage and Recovery	\$0	\$0	\$0	\$0	\$0	\$0	<b>\$0</b>
Water Reuse	\$29,659	\$14,100	\$20,000	\$20,000	\$20,000	\$20,000	<b>\$94,100</b>
Water Conservation	\$5,569	\$4,700	\$5,000	\$5,000	\$5,000	\$5,000	<b>\$24,700</b>
Regional Water Supply Planning	\$83,327	\$26,100	\$20,000	\$20,000	\$20,000	\$50,000	<b>\$136,100</b>
Interconnect	\$115,807	\$12,700	\$15,000	\$20,000	\$0	\$0	<b>\$47,700</b>
Hydrologic Data	\$74,232	\$64,200	\$287,000	\$176,000	\$176,000	\$176,000	<b>\$879,200</b>
Abandoned Well Plugging	\$0	\$0	\$0	\$0	\$0	\$0	<b>\$0</b>
<b>TOTAL</b>	<b>\$483,937</b>	<b>\$179,100</b>	<b>\$447,000</b>	<b>\$381,000</b>	<b>\$311,000</b>	<b>\$321,000</b>	<b>\$1,639,100</b>

\* Preliminary figures; final costs will be provided in the March 1, 2013, Consolidated Annual Report.

\*\* FY 13 figures based on adopted budget.

\*\*\*Funding for application of the Floridan Aquifer Sustainability Model during the Water Supply Assessment (WSA) update and subsequent evaluations is captured within budget listed for the Regional Water Supply Planning project.

The budget for FY 2012-2013 reflects a decrease in anticipated spending as compared to budgets of previous years. The major contractual expenses for development of the coastal interconnect BODR were completed during the previous fiscal year. Development of the Floridan Aquifer Sustainability Model is complete, with expenses for application of the model for the WSA update being captured within the Regional Water Supply Planning project. Additionally, technical work to assist Okaloosa County in potential reservoir evaluation was completed during FY 11-12, was an update to the Region II RWSP. It is anticipated that expenditures will increase beginning in FY 13-14. This in particular reflects efforts to further expand and enhance the District's water resource monitoring network, as described above.

## Region II Water Supply Development

Water supply development strategies of the Region II RWSP, including preferred alternative water supply development projects, are listed in Table 3.

Table 3. Region II Water Supply Development Projects

<i>Project</i>	<i>Activity</i>	<i>Planning Level Cost Estimate</i>	<i>Water Made Available or Anticipated (MGD)</i>
Inland Floridan Aquifer Alternative Water Supply	Development of the inland Floridan Aquifer wellfield and transmission infrastructure to bring inland ground water to serve coastal utilities in Walton County.	\$47,088,331	15*
Inland Sand and Gravel Aquifer Alternative Water Supply	Development of the Inland Sand and Gravel Aquifer wellfield and associated infrastructure to bring inland ground water to serve coastal utilities in Santa Rosa County.	\$18,800,000	14**
Surface Water Supply Development	Development of alternative surface water supply source, storage system, conveyance, and conjunctive use.	\$86,159,000	25
Water Reuse Facilities	Assist utilities and local governments in the development of reclaimed water to achieve potable water offset.	TBD	5
Water Supply Management Projects	Development of conveyance and interconnection facilities, facilitating development of alternative water supplies.	\$42,700,000	N/A

\* Approximately 13 MGD currently permitted.

\*\* 18 MGD including current pumpage. Approximately six MGD currently permitted.

Major water supply development projects completed to date have included inland ground water sources for coastal utilities in all three counties. These include the inland Sand and Gravel Aquifer wellfield in Santa Rosa County, inland Floridan Aquifer wells and transmission facilities in Okaloosa County, and an inland Floridan Aquifer wellfield and transmission facilities in Walton County. Current construction projects include transmission and interconnection facilities in Walton County.

To date, Region II water supply development projects have made approximately 19 MGD of water available for the region, including 13 MGD from the inland Floridan Aquifer and six MGD from the inland Sand and Gravel Aquifer. An additional 42 MGD is estimated to be available for future development, including 12 MGD from the inland Sand and Gravel Aquifer, 25 MGD from surface water, and at least 5 MGD from reclaimed water. These water supplies, together with traditional water supply sources, are anticipated to be sufficient to meet projected demands through 2030 under both normal and 1-in-10 year drought conditions. Additional detail is available in the 2012 Region II RWSP update (NFWFMD 2012b).

### Region III: Bay County

The Governing Board approved a RWSP for Region III (Figure 3) in August 2008 (NFWMD 2008b). The plan describes concerns about the long-term sustainability of water supply resources within the region and presents strategies to diversify supplies and minimize their vulnerability to a major hurricane storm surge. The region currently depends on Deer Point Lake Reservoir as the primary public supply source of water. A future major storm surge has been identified as a potential threat to the resource given the possibilities of saline water entering the reservoir and of damage to or loss of the impoundment structure.



Figure 3. Water Supply Planning Region III

Existing and reasonably anticipated surface water supplies within the region are considered adequate to meet existing and reasonably anticipated future average water demands and demands for a 1-in-10 year drought through 2030, while sustaining water resources and related natural systems (NFWFMD 2008a). However, the surface water supply is the sole source of potable water for more than 90 percent of Region III. The NFWFMD will continue to work with local governments and utilities in the region to ensure the long-term reliability and sustainability of potable water resources.

## Region III Water Resource Development

The Region III RWSP includes three water resource development strategies. These are summarized in Table 4. Descriptions of the strategies and their current progress follow.

Table 4. Region III Water Resource Development Projects

<i>Project</i>	<i>Activity</i>	<i>Water Identified or Made Available (MGD)</i>
Hydrologic and Water Quality Data Collection, Monitoring, and Analysis	Hydrologic data collection, analysis, and modeling to identify baseline conditions and trends to support alternative water supply development.	TBD
Water Reuse and Conservation Assistance	Assistance to local governments and utilities in developing reclaimed water and to enhance water conservation efforts.	TBD
Regional Water Supply Coordination and Technical Assistance	Technical assistance, support for utility interconnections, and development and update of the regional water supply plan.	TBD

### **Hydrologic and Water Quality Data Collection, Monitoring, and Analysis**

Implementation of this project provides the water resource data collection, analysis, and modeling needed for characterizing baseline conditions and subsequently identifying and evaluating future alternative water supply sources. The data collection and analysis developed will also facilitate the long-term monitoring needed to ensure future withdrawals are managed to protect water resources and associated natural systems.

In cooperation with Bay County, the District continues implementation of the Deer Point Lake Watershed Hydrologic Monitoring program. This effort includes operation of stream stage/discharge and rainfall monitoring stations that provide a continuous record of precipitation and surface water flows during both dry weather and storm conditions. The District also operates additional ground water level, stream flow, and lake level monitoring sites within the county, all intended to characterize water resource conditions and trends within the region.

Details of monitoring conducted as part of the Water Resource Development Work Program, as well as other work programs, may be found in the Hydrologic Monitoring Plan (Barrios et al., 2011), available at: [www.nfwfmd.state.fl.us/pubs/hydrologic\\_monitoring\\_plan/hydrologic\\_monitoring\\_plan.html](http://www.nfwfmd.state.fl.us/pubs/hydrologic_monitoring_plan/hydrologic_monitoring_plan.html).

### **Water Reuse and Conservation Assistance**

The reuse of reclaimed water is an important regional strategy, given its potential for reducing and constraining potable water demand, improving water use efficiency, and supporting sustainable long-term management. District staff coordinate with DEP as that agency carries out its reuse regulation responsibilities. As of 2011, an estimated 3.55 MGD of reclaimed water were used for public access reuse in Region III (DEP 2012). This includes irrigation of an estimated 1,049 residences, three golf courses, four parks, and two schools.

As described above, work continues on development of a District-wide reuse plan that will identify conceptual projects to support RWSP implementation and thus help enhance water resource sustainability. The plan will



provide an inventory of reclaimed water systems, projected wastewater flows for utilities in Region III through 2035, and geographic information systems (GIS) data. Work on these components is well underway.

Enhanced water conservation efforts may reduce current water use and limit long-term demand. Application of conservation rate structures, conservation measures in local building codes and ordinances, consumptive use permitting conditions, water loss prevention and correction efforts, and public outreach and education are expected to be especially important. The District's Water CHAMP program, described earlier, has 11 participating hotels in Bay County. Since 2004, the District has distributed approximately 6,150 water conservation brochures to utilities and local governments in the region.

### **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 subject to a RWSP must address statutory requirements to effectively coordinate land use and water supply planning. Such local governments are required to amend their comprehensive plans as necessary to include a Water Supply Facilities Work Plan and to otherwise ensure water supplies are planned and developed to meet future growth in a manner consistent with the RWSP.

The coastal water systems interconnection initiative described above also considers interconnections within Region III. Utility interconnections, in concert with continued development of alternative water supply sources, enhance the resilience of water supplies within the coastal regions in the face of droughts, major storms, and other possible events. The initial evaluation included three utilities within Bay County. Continuing work includes development of alternative preliminary designs and cost estimates.

It is anticipated that an update to the RWSP for Region III will be developed during 2013. Through this process, the allocation of alternative water supply development funding will be further evaluated based on an updated assessment of the optimal strategies for addressing water resource needs identified in the RWSP and WSA.

### **Funding Summary: Region III Water Resource Development Projects**

Table 5 displays past year expenditures, current year budget, and anticipated future expenditures for water resource development within Region III.

Table 5. 2013-2017 Region III WRDWP Project Funding

<i>Water Resource Development Projects</i>	<i>FY 11-12* Expenditures</i>	<b>Anticipated Five Year Work Program</b>					<i>FY13-FY17 Cost Estimate</i>
		<b>FY 12-13 Budget**</b>	<b>FY 13-14</b>	<b>FY 14-15</b>	<b>FY 15-16</b>	<b>FY 16-17</b>	
Hydrologic and Water Quality Data Collection, Monitoring, and Analysis	\$31,926	\$38,500	\$73,200	\$61,000	\$61,000	\$61,000	<b>\$294,700</b>
Water Reuse and Conservation Assistance	\$4,456	\$11,200	\$8,000	\$8,000	\$8,000	\$8,000	<b>\$43,200</b>
RWS Coord. and Technical Assist.	\$3,547	\$16,500	\$60,000	\$40,000	\$20,000	\$20,000	<b>\$156,500</b>
<b>TOTAL</b>	<b>\$39,929</b>	<b>\$66,200</b>	<b>\$141,200</b>	<b>\$109,000</b>	<b>\$89,000</b>	<b>\$89,000</b>	<b>\$494,400</b>

\* Preliminary figures; final costs will be provided in the March 1, 2013, Consolidated Annual Report.

\*\* FY 13 figures based on adopted budget.

The additional funding indicated in Table 5 reflects an anticipated RWSP update and technical assistance to local governments and utilities in the planning region, as well as an increased focus on identifying potential reuse projects within the region and for continuing to develop the District’s hydrologic monitoring network. Funding is expected to increase beginning in FY 13-14, in particular to support an enhanced monitoring network in support of cumulative impact evaluations and resource sustainability monitoring.

### Region III Water Supply Development

Water supply development strategies identified in the Region III RWSP are listed in Table 6.

Table 6. Region III Water Supply Development Projects

<i>Project</i>	<i>Activity</i>	<i>Planning Level Cost Estimate*</i>	<i>Water Made Available or Anticipated (MGD)</i>
Inland Ground Water Source Development and Water Supply Source Protection	Develop inland alternative water supply source to meet future demands and abate risks of salt water intrusion and extreme drought.	TBD	TBD
Utility Interconnections and Infrastructure Enhancements	Assist with delivery system interconnections and facility Improvements.	\$26,000,000**	TBD
Water Reuse Facilities	Construction of water reuse facilities to provide reclaimed water for landscape irrigation and other beneficial uses.	TBD	TBD

\* Planning level cost estimates and anticipated quantities of water to be made available will be re-evaluated during the update to the Region III RWSP, scheduled for completion in 2013.

\*\* Preliminary estimated cost of Walton/Bay County Interconnection.

From 2009-2012, the District provided water supply development assistance to the City of Callaway for extending a potable water transmission main within the Allanton Peninsula and for a water and sewer systems interconnection with Sandy Creek Utility Services, Inc.

## Region V: Gulf and Franklin Counties

The Region V RWSP was approved by the Governing Board in January 2007 (NFWMD 2007). The primary concern described is salt water intrusion into the coastal Floridan Aquifer, which has implications for the long-term sustainability of coastal ground water supplies within both Franklin and Gulf counties. Although public supply demands are relatively small, they represent two-thirds of the total projected demand for 2030. To meet projected demands associated with permanent and seasonal population growth, a surface water supply source has been developed for the City of Port St. Joe and its vicinity in Gulf County, and the inland Floridan Aquifer has been evaluated as a long-term source for coastal Franklin County. Given the completion of the alternative water supply project, the need to continue regional water supply planning for Region V will be re-evaluated based on the 2013 Water Supply Assessment update.

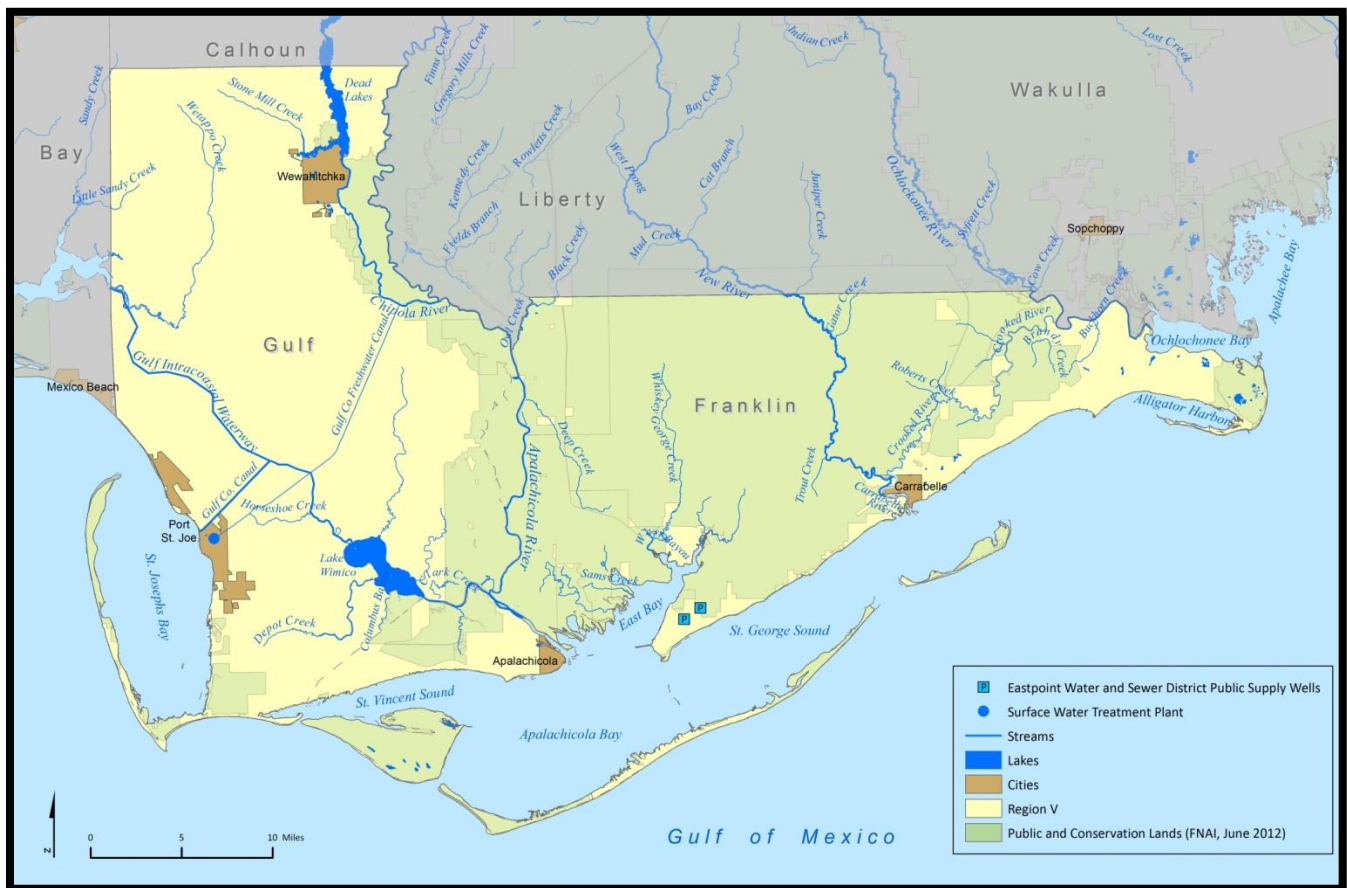


Figure 4. Water Supply Planning Region V

## Region V Water Resource Development

The Region V RWSP includes four water resource development projects encompassing strategies supporting alternative water supply development. These are summarized in Table 7. Descriptions of the strategies and their current progress follow.

Table 7. Region V Water Resource Development Projects

<i>Project</i>	<i>Activity</i>	<i>Water Identified or Made Available (MGD)</i>
Hydrologic and Water Quality Data Collection, Monitoring, and Analysis	Water resource data collection, analysis, and modeling to support future alternative water supply development.	3
Regional Water Supply Coordination, Source Protection, and Engineering and Technical Assistance	Technical assistance to help local governments and utilities meet water supply-related source protection, project design, and engineering requirements.	6
Water Reuse and Conservation Coordination Assistance	Coordination and assistance to utilities and local governments for development of reclaimed water for beneficial uses.	TBD
Regional Water Supply Plan Implementation	Planning and tracking project implementation, grant administration, fulfilling statutory reporting requirements, and related activities.	N/A

**Hydrologic and Water Quality Data Collection, Monitoring, and Analysis**

This activity provides for water resource data collection, analysis, and modeling to determine the location and distribution of potential future production wells and other water supply sources to serve Region V communities. Tasks include ground water modeling, water quality sampling and analysis, and hydrologic monitoring and analysis. Long term emphasis includes water quality and hydrologic monitoring to identify and evaluate trends.

The District conducted significant data collection and analysis to evaluate the feasibility of an inland ground water source within Franklin County. The work included test well development, water quality analysis, and aquifer testing. It was estimated that up to three MGD of sustainable water supply may be identified and supported through inland ground water source development for Franklin County.

The District has also assisted the Eastpoint Water and Sewer District (EPWSD) in test well development and aquifer testing. This effort led to the development of a new water supply production well, located further inland from the immediate coastal area. Expected outcomes include reduced withdrawals from the coastal aquifer and a resulting reduced threat to water supply wells from salt water intrusion.

**Regional Water Supply Coordination, Source Protection, and Engineering and Technical Assistance**

This project provides for technical assistance to help local governments and utilities meet water supply-related source protection, project design, and engineering requirements. The District helps support regional coordination and planning on the part of regional water supply utilities and local governments. Assistance is focused on protecting ground and surface water sources, water resource engineering, intergovernmental coordination, and other technical assistance.

The District’s coastal water systems interconnection initiative extends to Gulf County. Such interconnections are intended to enhance the resilience of water supplies within the coastal areas in the face of droughts, major storms, and other possible events.

In addition to providing funding assistance to the City of Port St. Joe for construction of its new surface water supply facility (described below), the District has provided additional assistance for improvements to the city’s potable water distribution system.

With District assistance, the City of Carrabelle completed an engineering analysis of 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. The City of

Carrabelle has enacted a conservation-oriented rate structure as part of this effort, thereby improving water use efficiency, particularly for new development. Technical and financial assistance has previously been provided to the City of Wewahitchka for test well development.

### **Water Reuse and Conservation Coordination Assistance**

Water reuse is an important component of the long-term regional water supply strategy and is pursued where feasible as a means of providing non-potable water for beneficial uses, thereby offsetting potable demand, and constraining long-term potable demand. The District's role in developing water reuse includes coordination among utilities, inventorying existing and potential reuse sources and beneficial uses, and providing technical and financial assistance for specific reuse projects. As of 2011, an estimated 0.12 MGD of public access reclaimed water were reused in Region V (DEP 2012). This includes irrigation of one golf course and a greywater system at the Franklin County Correctional Institution.

As described previously, work continues on development of a District-wide reuse plan that will identify water reuse needs and opportunities to support RWSP implementation and enhance the sustainability of water resources throughout northwest Florida. The plan will provide an inventory of reclaimed water systems, projected wastewater flows for selected utilities in Region V through 2035, and GIS data.

Other conservation assistance provided by the District to Region V has been distribution of the water rates model (Whitcomb 2005) to two utilities in the region. The District has distributed 1,201 water conservation brochures to utilities in the region in the past year. The Water CHAMPS program in Region V has two hotels in Port St. Joe participating as of September 2012.

### **Regional Water Supply Plan Implementation**

Implementing the RWSP for Region V encompasses planning and tracking project implementation, grant administration, reporting, and related activities. 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 March 1 Consolidated Annual Report were completed. An update to the Region V RWSP has been deferred pending the Water Supply Assessment update in 2013.

While this project does not directly provide water, the efforts encompassed do support the long-term development of alternative water supply sources, including the approximately nine MGD estimated to be available across the region through development of alternative surface water and inland ground water sources.

### **Funding Summary: Region V Water Resource Development Projects**

Table 8 displays past year expenditures, current year budget, and anticipated future expenditures for water resource development within Region V. The five-year funding estimates indicated above are based on continued RWSP development and implementation in Region V, with an update to the plan following completion of the District-wide WSA. Funding is expected to increase beginning in FY 13-14, in particular to support an enhanced monitoring network in support of cumulative impact evaluations and resource sustainability monitoring.

Table 8. 2013-2017 Region V WRDWP Project Funding

<i>Water Resource Development Projects</i>	<i>FY 11-12* Expenditures</i>	<i>Anticipated Five Year Work Program</i>					<i>FY13-FY17 Cost Estimate</i>
		<i>FY 12-13 Budget**</i>	<i>FY 13-14</i>	<i>FY 14-15</i>	<i>FY 15-16</i>	<i>FY 16-17</i>	
Hydrologic and Water Quality Data Collection and Analysis	\$6,391	\$7,000	\$89,000	\$49,000	\$49,000	\$49,000	<b>\$243,000</b>
Coord., Source Protection, Eng. and Tech. Assist.	\$8,578	\$3,300	\$10,000	\$10,000	\$10,000	\$10,000	<b>\$43,300</b>
Water Reuse and Conservation Coord.Assist.	\$1,677	\$1,000	\$7,000	\$7,000	\$7,000	\$7,000	<b>\$29,000</b>
Regional Water Supply Plan Implementation	\$1,945	\$3,800	\$15,000	\$8,000	\$8,000	\$8,000	<b>\$42,800</b>
<b>TOTAL</b>	<b>\$18,591</b>	<b>\$15,100</b>	<b>\$121,000</b>	<b>\$74,000</b>	<b>\$74,000</b>	<b>\$74,000</b>	<b>\$358,100</b>

\* Preliminary figures; final costs will be provided in the March 1, 2013, Consolidated Annual Report.

\*\* FY 13 figures based on adopted budget.

## Region V Water Supply Development

Water supply development strategies within the Region V RWSP are listed in Table 9.

Table 9. Region V Water Supply Development Projects

<i>Project</i>	<i>Activity</i>	<i>Planning Level Cost Estimate</i>	<i>Water Made Available or Anticipated (MGD)</i>
Inland Ground Water Source Development and Water Supply Source Protection	Engineering analysis, facility construction, source protection, and hydrologic restoration.	\$1,000,000	3.0
Alternative Surface Water Treatment and Transport Facility Development	Construction of water treatment and transmission facilities, specifically including alternative water supply development in Gulf County.	\$16,737,000	6.0
Utility Interconnections and Infrastructure Enhancements	Assist with delivery system interconnections and facility improvements.	TBD	TBD
Reclaimed Water Use	Construction of water reuse facilities to provide reclaimed water for landscape irrigation and other beneficial uses.	TBD	<1.0

With funding assistance and cooperation from the District, the City of Port St. Joe constructed a six MGD surface water treatment plant as an alternative water source to reduce reliance on coastal ground water (Appendix A). Development of the new treatment facility enabled the City to shift its public water supply from naturally constrained ground water sources to surface water derived from the Chipola River via an existing fresh water canal. This will enable the city to meet projected future demands while reducing the stress on local ground water resources. In addition to meeting municipal needs, the city may in the future be able to make this resource available for nearby areas outside of the city limits.

Funding and technical assistance provided to the Eastpoint Water and Sewer District has led to development of a water supply production well located further inland from previously existing water supply wells. Withdrawals in the immediate coastal area and the threat of salt water intrusion are, as a result, being reduced.

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## District-wide Initiatives

As noted above, a district-wide Water Supply Assessment update is scheduled for completion during 2013. This assessment will incorporate updated water demand projections to 2035 for all regions and all water use categories. Evaluations of the status and sufficiency of water resources will also be updated as part of the assessment.

The District continues to emphasize water supply development assistance for financially disadvantaged small local governments. Recently, the district has provided funding assistance for the City of Gretna's water pipeline extension and interconnection with the Town of Greensboro, engineering conducted by Calhoun County in preparation for extending water service to the unincorporated Pine Island community, a feasibility assessment completed by the City of Carrabelle for a water line extension and interconnection with Alligator Point, and potable water transmission and reuse facilities constructed by the City of Freeport. As noted above, the District has also assisted the City of Callaway in constructing water transmission facilities and completing water and sewer systems interconnection. Among earlier projects, the District provided funding assistance to the City of Port St. Joe for the acquisition of the St. Joe fresh water canal.

Significant investments in alternative water supplies have resulted in a diverse base of water supply sources from Gulf to Escambia counties. To build upon this effort, the District is working in cooperation with utilities to explore and develop strategic interconnections between coastal water supply systems. The interconnection of these systems is expected to significantly enhance the resilience of coastal water supplies by enabling transfer of water between utilities if necessary due to water supply interruptions, droughts, or other contingencies.

An initial study was completed in January 2009 to evaluate the feasibility and benefits of interconnecting coastal water supply utilities. A basis of design report will be completed in 2012. The report will provide a detailed analysis of interconnect alternatives and design parameters. Candidate interconnection projects will be described, as will key issues and challenges, including utility emergency capacities and water blending analysis. Work is proceeding on conceptual designs for a western interconnection between Santa Rosa and Okaloosa counties and an eastern interconnection between Walton and Bay counties.

The District continues development of a District-wide reuse plan. The plan will identify opportunities for future reclaimed water projects that enhance resource sustainability and provide environmental benefits, such as offsetting potable water withdrawals and improving surface water quality by reducing wastewater discharges. The plan will support implementation of RWSPs, surface water improvement and management plans, grant funding initiatives, and other District objectives. Integral to this planning effort is development of a spatial analysis application of existing reuse systems.

The District continues its program to properly plug abandoned or contaminated wells for financially constrained public water systems, in water resource caution areas, in areas identified under Chapter 62-524, Florida Administrative Code (F.A.C.) (Escambia, Santa Rosa, Jackson, and Leon counties), and in other areas as necessary. The program at one time had matching funding from DEP and was able to cover 100 percent of costs. The program currently pays up to 50 percent of costs to plug and abandon eligible wells. During 2012, the District expended \$23,360 to plug wells in Jackson and Jefferson counties.

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## Appendix A. Recent Water Supply Projects in the NFWWMD

Table 10 presents expected Water Protection and Sustainability Program Trust Fund expenditures for alternative water supply development and water resource development projects. If future funding becomes available from the WPSPTF or other sources, the District will consider potential projects in accordance with Section 373.703, F.S.

Table 11 presents additional water supply development assistance and alternative water supply development projects. These projects are included in this report to demonstrate how complementary programs and activities, including regional water supply planning, water resource development, alternative water supply development, water supply development assistance, and the district-wide water supply assessment, work together to ensure sustainable long-term water supplies.

Additional information will be provided with the March 1, 2013, Consolidated Annual Report.

**Table 10. Alternative Water Supply and Water Resource Development Projects Funded under the Water Protection and Sustainability Program**

Project	Region	Local Sponsor	Activity	Status	WPSPTF FY Appropriation	Anticipated Water (MGD)	WPSPTF Contribution	Local Contribution	Total	Local %
Area-wide Alternative Water Supply Source Expansion	II	Regional Utilities, South Walton Utility Co., Freeport	Inland wellfield expansion	Complete	FY 2006	9.0	\$6,500,000	\$9,991,891	\$16,491,891	61%
Tram Road Public Access Reuse Facility	VII	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	II	Okaloosa County	Water reuse	Complete	FY 2006	0.7	\$2,000,000	\$4,000,000	\$6,000,000	67%
Inland Floridan Aquifer Source - WRD	V	NWFWMD; Franklin County Utilities	Inland source evaluation	Complete	FY 2006	3.0	\$300,000	\$0	\$300,000	0%
Ground Water Modeling & Aquifer Testing - WRD	III	Bay County	Inland source evaluation	Complete	FY 2006; FY 2007	*	\$350,000	\$800,000	\$1,150,000	70%
Surface Water Treatment Plant	V	Port St. Joe	Surface water	Complete	FY 2007	6.0	\$4,000,000	\$12,736,700	\$16,736,700	76%
City of Chipley Reuse Project	IV	Chipley	Water reuse	Complete	FY 2007	1.20	\$500,000	\$4,500,000	\$5,000,000	90%
Wakulla County Reuse Project	VII	Wakulla County	Water reuse	Construction	FY 2007	0.35	\$500,000	\$750,000	\$1,250,000	60%
Advanced Wastewater Treatment & Water Reuse Facilities	VII	Tallahassee	Water resource development/springs protection	Complete	FY 2007	4.5	\$500,000	\$5,800,000	\$6,300,000	92%
Inland Ground Water Source Development	III	Bay County	Inland source development	Under review	FY 2008	10.0	\$5,470,000	\$9,570,000**	\$15,040,000	64%
<b>Total</b>						<b>35.95</b>	<b>\$21,470,000</b>	<b>\$53,398,591</b>	<b>\$74,868,591</b>	<b>71%</b>

\*Ground water modeling and aquifer testing.

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.

\*\* Includes \$2,100,000 contribution from the District's General Fund. The overall funding for this project will be further evaluated based on an updated assessment of the optimal strategies for addressing water resource needs identified in the RWSP and WSA.

**Table 11. Additional Water Supply Development Assistance Projects**

<b>Project</b>	<b>Local Sponsor</b>	<b>Region</b>	<b>Activity</b>	<b>Status</b>	<b>Completion</b>	<b>NWFWMD Contribution</b>	<b>Funding Source</b>
Port St. Joe Fresh Water Canal	Port St. Joe	V	Land acquisition of freshwater canal as alternative water supply source	Complete	FY 2002	\$350,000	District General Fund
Inland Ground Water Supply Development	Fairpoint Regional Utility System	II	Construction of inland Sand-and-Gravel aquifer wellfield and transmission facilities	Complete	FY 2006	\$3,178,700	U.S. EPA
City of Freeport Reuse Project	Freeport	II	Water reuse storage and transmission system construction	Complete	FY 2010	\$3,000,000	SWIM, Florida Forever
Allanton Peninsula Water and Wastewater Extension Project	Callaway	III	Water supply transmission and distribution system construction	Complete	FY 2010	\$100,000	WMLTF
East Okaloosa County Water and Sewer Extension	Okaloosa County	II	Water supply transmission and interconnection	Complete	FY 2010	\$750,000	District General Fund
Walton County Phase II Regional Water Supply	Regional Utilities	II	Construction of transmission and Storage Facilities; associated with inland wellfield AWSD	Complete	FY 2011	\$2,000,000	EMRTF; District General Fund
Port St. Joe Water Distribution System Improvements	Port St. Joe	V	Water supply improvements	Complete	FY 2011	\$50,000	District General Fund
Carrabelle-Alligator Point Interconnection Feasibility Study	Carrabelle	V	Interconnection feasibility assessment; enactment of conservation rate structure	Complete	FY 2011	\$100,000	WMLTF
Wewahitchka Water Supply System Improvements	Wewahitchka	V	Water supply development; test production well construction	Complete	FY 2011	\$400,000	District General Fund
Water and Sewer Systems Interconnections	Callaway	III	Interconnections of water systems and sewer systems between Callaway and Sandy Creek Utility	Complete	FY 2012	\$53,998	District General Fund
Water Transmission Line Construction and Interconnection	Freeport	II	Transmission line and interconnection construction	Complete	FY 2012	\$800,000	District General Fund

**Table 11. Additional Water Supply Development Assistance Projects (continued)**

<b>Project</b>	<b>Local Sponsor</b>	<b>Region</b>	<b>Activity</b>	<b>Status</b>	<b>Completion</b>	<b>NWFWMD Contribution</b>	<b>Funding Source</b>
Gretna to Greensboro Watermain Extension	Gretna; Gadsden County	VI	Water supply transmission and distribution Facility Construction	Complete	FY 2012	\$449,888	District General Fund
Water Supply Improvements; Preliminary Engineering	Gretna	VI	Preliminary engineering and environmental analysis	In progress	FY 2012	\$50,000	District General Fund
Pine Island Water Distribution System Expansion	Calhoun County	IV	Expansion of water distribution system to unincorporated community	In progress	FY 2013	\$98,607	District General Fund
Water Main Construction (South Walton County)	WRP, Inc.*	II	Construction of transmission facilities and subaqueous pipeline from inland wellfield to serve coastal Walton and Okaloosa counties.	In progress	FY 2013	\$2,500,000	District General Fund
U.S. Highway 98 Water Line Extension	Regional Utilities	II	Water main extension along U.S. Highway 98 in Walton County	In progress	FY 2013	\$750,000	District General Fund
Test Well Development	Panacea Area Water System	VII	Test well development and data analysis	In progress	FY 2013	\$30,500	District General Fund
Okaloosa County AWS - Surface Water	Okaloosa County	II	Assistance to Okaloosa County for surface water reservoir development.	Planned	FY 2015	\$2,000,000	District General Fund

\* Partnership between South Walton Utility Company, Inc., and Destin Water Users, Inc.

**\$16,661,693**