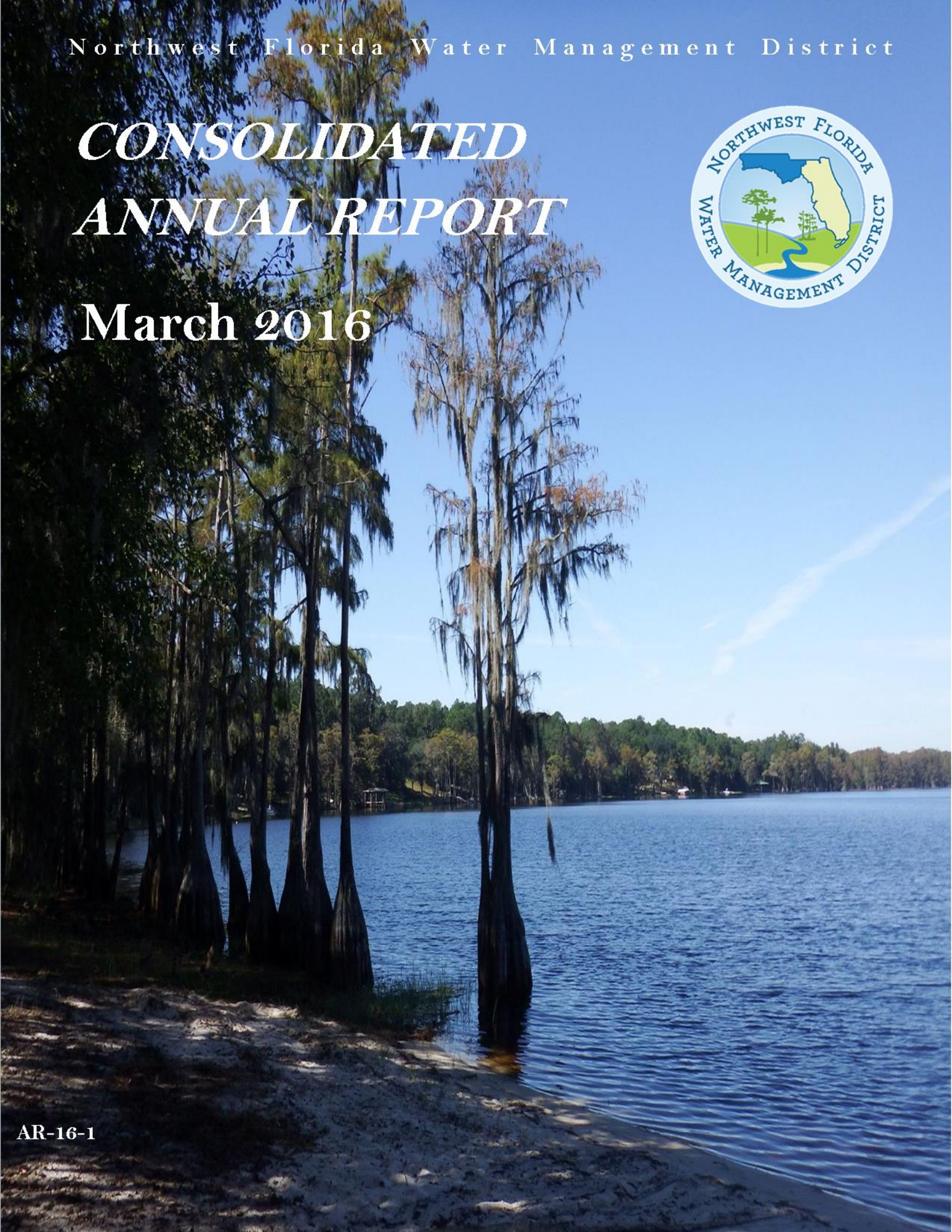
Northwest Florida Water Management District

CONSOLIDATED ANNUAL REPORT

March 2016



AR-16-1

Northwest Florida Water Management District

Consolidated Annual Report

March 1, 2016

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Executive Summary

This Consolidated Annual Report fulfills section 373.036(7)(a), Florida Statutes (F.S.), that requires the Northwest Florida Water Management District (NWFWMD or District) to annually prepare and submit a report on the management of water resources to the Governor, the President of the Senate, the Speaker of the House of Representatives, and the Florida Department of Environmental Protection (DEP). Copies are provided to the chairs of legislative committees with substantive or fiscal jurisdiction over water management districts and the governing boards of counties having jurisdiction or deriving funds for operations of the District. The report is also made available to the public online at nwfwater.com/data-publications/reports-plans/consolidated-annual-reports/.

The March 1, 2016, NWFWMD Consolidated Annual Report includes seven required reports, as specified in section 373.036(7)(b), F.S. These are:

- The Strategic Water Management Plan Annual Work Plan Report (section 373.036(2)(e)(4), F.S.);
- The Minimum Flows and Levels Annual Priority List (section 373.042(2), F.S.);
- The Annual Five-Year Capital Improvement Plan (section 373.536(6)(a)3, F.S.);
- The Five-Year Water Resource Development Work Program (section 373.536(6)(a)4, F.S.);
- The Alternative Water Supplies Annual Report (section 373.707(8)(n), F.S.);
- The Florida Forever Work Plan Annual Report (section 373.199(7), F.S.); and
- The Mitigation Donation Annual Report (section 373.414(1)(b)2, F.S.).

Also included is one optional element, a Surface Water Improvement and Management (SWIM) Program Summary Report that describes projects implemented to protect and improve water quality and watershed resources.

Together, the reports that follow provide the status of District programs that work toward the protection, restoration, and sustainability of northwest Florida's water and related resources. Priorities adopted by the Governing Board in the fiscal year (FY) 2014-2015 and FY 2015-2016 budgets include: spring restoration and protection, minimum flows and levels, Apalachicola-Chattahoochee-Flint River Basin, water supply, watershed resource protection and restoration, and flood protection and floodplain management. Highlights of the reports are:

- **Springs Protection and Restoration –** Several springs restoration projects have been underway to accomplish sediment removal, shoreline restoration and protection, natural habitat restoration, and recreation and access improvements to benefit springs on Homes and Econfina creeks with assistance from local partners and DEP. The District is protecting Jackson Blue Spring and the Gainer Spring Complex of Econfina Creek through land acquisitions. Wakulla and Jackson Blue springs will benefit from large scale septic to sewer retrofit projects in Leon, Wakulla and Jackson counties. **(Chapter 1: Strategic Water Management Plan Annual Work Plan Report)**
- **Minimum Flows and Levels (MFLs)** – The District continues work to develop MFLs in Northwest Florida with activities underway for five waterbodies. During the past year, enhanced hydrologic data collection and biological field work were conducted for Wakulla Spring and St. Marks River Rise and a conceptual groundwater flow model was developed for the Wakulla Spring system. Work plans for the Jackson Blue Spring and the Region II coastal Floridan aquifer MFLs were completed in 2015, and additional surface and groundwater monitoring was initiated in Jackson Blue Spring. In 2015-2016, a deep core well will be drilled

near Jackson Blue Spring, additional monitor wells will be installed, and ecological work will be conducted. For the coastal Floridan aquifer in Region II, enhanced water quality monitoring will also be initiated, and the regional groundwater flow model will be completed. Data collection will continue for the St. Marks River Rise, Wakulla Springs, and Sally Ward Spring system, including data for estuarine habitat modeling; and development will commence on regional ground and surface water models. **(Chapter 2: Minimum Flows and Levels Annual Priority List)**

- **Apalachicola-Chattahoochee-Flint (ACF) Rivers Basin** – District staff provided substantial technical support to the state of Florida in its effort to achieve sufficient interstate freshwater allocations to protect the economic and ecological viability of the Apalachicola River and Bay. The District also continued to help local governments implement stormwater retrofit projects to improve water quality in Apalachicola Bay. **(Chapter 1: Strategic Water Management Plan Annual Work Plan Report)**
- **Water Supply Development** – Through FY 2014-2015, the District has awarded more than $18 million in competitive water supply development grants to local governments and utilities to meet local water supply needs and to help accomplish regional water resource priorities. In FY 2014-2015, $8 million was awarded to fund 28 water supply development projects. Funding was distributed to communities of all sizes across the District. **(Chapter 1: Strategic Water Management Plan Annual Work Plan Report; Chapter 4: Water Supply)**
- **Regional Water Supply Planning** – Regional water supply plan implementation continues for Region II (Santa Rosa, Okaloosa, and Walton counties) and Region III (Bay County). **(Chapter 4: Water Supply)**
- **Agricultural Best Management Practices (BMPs)** – The District continued cooperative assistance for the Mobile Irrigation Laboratory and Sod-Based Crop Rotation programs that promote water conservation and reduced use of pesticides and fertilizers. The initiative began in FY 2013-2014 and included funding agricultural BMPs and irrigation retrofits in the Jackson Blue Spring basin. This successful initiative continued through FY 2014-2015. **(Chapter 1: Strategic Water Management Plan Annual Work Plan Report)**
- **Habitat Restoration** – Extensive restoration activities were completed on District lands and other public lands across northwest Florida. These include streambank restoration, reforestation and groundcover habitat restoration, and hydrologic restoration. **(Chapter 5: Florida Forever Work Plan Annual Report)**
- **Water Quality Protection and Restoration** – The District continues to work with local governments in the Apalachicola River and Bay and St. Andrew Bay watersheds to implement stormwater retrofit projects for water quality improvement. The District was awarded a National Fish and Wildlife Foundation grant under the Gulf Environmental Benefit Fund (GEBF) to update SWIM plans for all seven major watersheds, to be completed by 2017. This is part of a multi-agency effort to develop an integrated restoration strategy for Gulf of Mexico needs in Florida **(Chapter 1: Strategic Water Management Plan Annual Work Plan Report; Chapter 7: Surface Water Improvement and Management Program Summary Report)**
- **Flood Protection and Floodplain Management** – The District continues to assist FEMA with flood map modernization and the watershed Risk Mapping, Assessment and Planning (Risk MAP) program. Final effective digital flood insurance rate maps are scheduled to be issued in 2017 after remapping studies in the coastal counties. District websites provide detailed floodplain information (www.portal.nwfwmdfloodmaps.com), and elevation data (www.nwfwmdlidar.com) for the public. **(Chapter 1: Strategic Water Management Plan Annual Work Plan Report)**

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Chapter 1: Strategic Water Management Plan Annual Work Plan Report

1.1 Introduction

The Governing Board approved the current Strategic Water Management Plan (SWMP) on November 12, 2015, in accordance with Section 373.036(2)(e), Florida Statutes (F.S.). The strategic priorities are consistent with those in the District's adopted FY 2015-2016 budget and preliminary FY 2016-2017 budget, and include the following:

- Springs Protection and Restoration – Protect and restore water quality and flows within the major spring systems of northwest Florida.
- Minimum Flows and Levels (MFLs) – Develop and implement science-based MFLs that protect water resources and associated natural systems.
- Apalachicola-Chattahoochee-Flint River Basin – Protect Apalachicola River and Bay water quality and freshwater inflow.
- Water Supply – Ensure sufficient water is available for all existing and future reasonable-beneficial uses and natural systems.
- Watershed Protection and Restoration – Protect and restore watershed resources and functions.
- Flood Protection and Floodplain Management – Maintain natural floodplain functions and minimize harm from flooding.

The SWMP evaluated in this report is from the prior fiscal year, covering FY 2014-2015 (NWFWMD 2014). Elements addressed in this report are:

- Project-based accomplishments from the past fiscal year (October 1, 2014 through September 30, 2015);
- Evaluation of indicators specified in the SWMP; and
- Accomplishment of milestones and deliverables.

The evaluation of indicators serves several purposes within a strategic plan. Beyond providing an assessment of program implementation, identification and evaluation of indicators helps to further an understanding of resource conditions and to clarify objectives and intended results. Evaluating measures and indicators provides internal and external feedback for ascertaining whether a given project or initiative is achieving intended results and whether the underlying strategy is appropriate or should be revised.

1.2 Springs Protection and Restoration

Current Activities and Accomplishments

Protecting and restoring northwest Florida's springs and their associated systems is a continuing priority for the District. Recently accomplished and current activities are focused on improving water quality and flows within the major spring systems of northwest Florida. These activities include helping producers implement agricultural best management practices (BMPs) for water conservation and water quality improvement within the Jackson Blue Spring basin (Jackson County); assisting Jackson, Wakulla, and Leon counties with septic to sewer retrofits within the contribution areas of the Jackson Blue and Wakulla springs systems; restoring habitat at Williford, Devil's Hole, and Walsingham springs within the Econfina Creek Water Management Area (WMA) and along Holmes Creek (Washington County); acquiring land to protect Jackson Blue Spring and the Gainer Spring Complex of Econfina Creek; evaluating the Claiborne aquifer as a potential alternative water source in the Jackson Blue Spring contribution area; and monitoring and resource assessments for major spring systems Districtwide.

Evaluation of Indicators

The SWMP includes three indicators for Springs Protection and Restoration: project accomplishment, trends in nitrate concentrations, and trends in spring flows. Progress on these indicators is summarized below.

(1) Project accomplishment (percent completion on schedule)

The NWFWMD had several new and ongoing projects in FY 2014-2015 that contribute to spring protection and restoration, as outlined in Table 1.1. The table list projects by major watershed from west to east.

Table 1.1 Spring Protection and Restoration Projects Indicator

Project	Description/Cooperators	Total Cost (or as noted)	Status	Percent Complete
Choctawhatchee River and Bay Watershed				
Holmes Creek Spring Complex Restoration	Restoration of approximately 500 feet of eroded stream bank at three boat launch sites. Washington County	$276,500	Under construction	40%
Holmes Creek Spring Complex Restoration – Cotton Landing	Restoration and stormwater management of 125 feet of shoreline on Holmes Creek, along with compatible public access improvements. DEP	$199,200	Design/Permitting	25%
St. Andrew Bay Watershed				
Williford Spring Restoration	Sediment removal, shoreline restoration, stabilization, and compatible public access enhancements in the Econfina Creek WMA.	$2,100,000	Complete	100%

Project	Description/Cooperators	Total Cost (or as noted)	Status	Percent Complete
Devil's Hole Spring Streambank Restoration	Restoration and stormwater management of 100 LF at spring on Econfina Creek, along with compatible public access improvements. DEP	$143,200	Design/Permitting	25%
Walsingham Streambank Restoration	Non-structural stream bank and habitat restoration at Walsingham Park in Washington County	$75,000	Planning	0%
Land acquisition – Econfina	Acquisition of three acres along Econfina Creek in northern Bay County.	$48,000	Planning	0%
Streambank Restoration – Econfina	Restoration of shoreline and habitat along recent acquisition parcel	$54,000	Planning	0%
Apalachicola River and Bay Watershed				
Mobile Irrigation Laboratory	Technical assistance to producers, primarily within the Jackson Blue Spring contribution area, to improve irrigation efficiency. FDACS;, NRCS; West FL RC&D Council	$72,000 (annual cost)	All funds expended and projects complete for FY 2014-2015	100%
Jackson Blue Spring Agricultural BMP Cost Share Program	Financial assistance to producers in the Jackson Blue Spring contribution area to implement irrigation efficiency and water quality BMPs. Producers, FDACS, NRCS	$2,072,255	Year 1 complete; years 2 and 3 in progress	35%
Land acquisition – Jackson Blue	Fee simple or less-than-fee simple acquisition of 992 acres in the Jackson Blue Spring area.	$4,786,568	In progress	5%
Jackson County Septic to Sewer Retrofit – Indian Springs	Convert residential subdivision in Jackson Blue Spring area from septic to sewer. Jackson County and City of Marianna WWTF	$1,450,000	Contracting/Planning	0%
Claiborne Aquifer Evaluation	Construct test and monitoring wells and conduct modeling to determine the aquifer's viability to reduce demands on Jackson Blue Spring flows.	$466,548	Planning; project begins October 2015	0%
St. Marks River and Apalachee Bay Watershed				
Leon County Septic to Sewer Retrofit – Woodside Heights	Convert residential subdivision in Wakulla Spring area from septic to sewer to reduce nitrogen loading. Leon County	$4,900,000	Contracting/Planning	0%

Project	Description/Cooperators	Total Cost (or as noted)	Status	Percent Complete
Wakulla County Septic to Sewer Retrofit – Magnolia Gardens	Convert residential subdivision in Wakulla Spring area from septic to sewer to reduce nitrogen loading. Wakulla County; DEP; USDA	$7,716,600	Contracting/Planning	0%
Wakulla County Septic to Sewer Retrofit – Wakulla Gardens	Convert residential subdivision in Wakulla Spring area from septic to sewer to reduce nitrogen loading. Wakulla County; DEP; USDA	$10,396,600	Contracting/Planning	0%

(2) and (3) Trends in nitrate concentrations and spring flows

Spring flow and nitrate[1] concentration data are available for Gainer Springs, Jackson Blue Spring, St. Marks River Rise, and Wakulla Spring. Current information is summarized in Table 1.2 and Figure 1.1 - 1.4. The table below indicates apparent trends based on examination of changes in flows and concentrations over time. Additional and updated information on major springs in northwest Florida is available at www.nwfwater.com/water-resources/springs/.

Table 1.2 Trends in Spring Flows and Nitrate/Nitrite Concentrations Indicator

Spring/Spring System	Average Flow (cfs)/Trend[1]	Nitrate Concentration (mg/L)[2]
Gainer Springs Group	154/Variable, stable	0.20/Stable
Jackson Blue Spring	117/Variable[3]	3.55/Stable
St. Marks Rise	353/Variable, stable	0.11/Highly variable[4]
Wakulla Spring	623/Increasing	0.50/Decreasing[5]

[1]Periods of Record (flow): Gainer Springs, 2002-2015; Jackson Blue Spring, 2003-2015; St. Marks Rise, 1997-2015; Wakulla Spring, 1997-2015. Trends are based on visual examination of data and may not be statistically significant.

[2]Periods of Record (water quality): Gainer Springs, 2002-2014; Jackson Blue Spring, 2005-2015; St. Marks Rise, 1999-2015; Wakulla Spring, 1997-2015.

[3]Spring flow from Jackson Blue Spring is influenced by the water level maintained in Merritt's Mill Pond.

[4]Water quality under the influence of surface water drainage.

[5]Possible association between spring flow and nitrate concentration.

[1]Values are measured and reported as nitrate + nitrite. Nitrite (NO_2) is converted into nitrate (NO_3) in the environment.

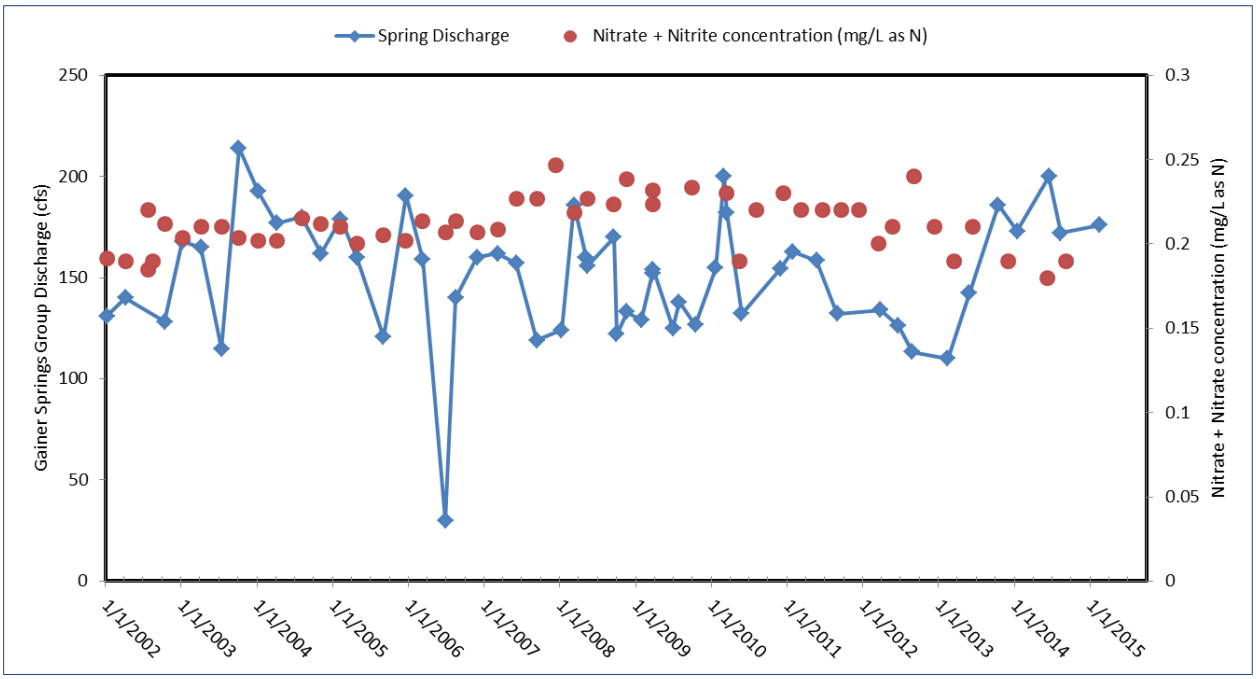

Figure 1.1 NO2+NO3 Concentration and Discharge: Gainer Springs Group (2002-2015)

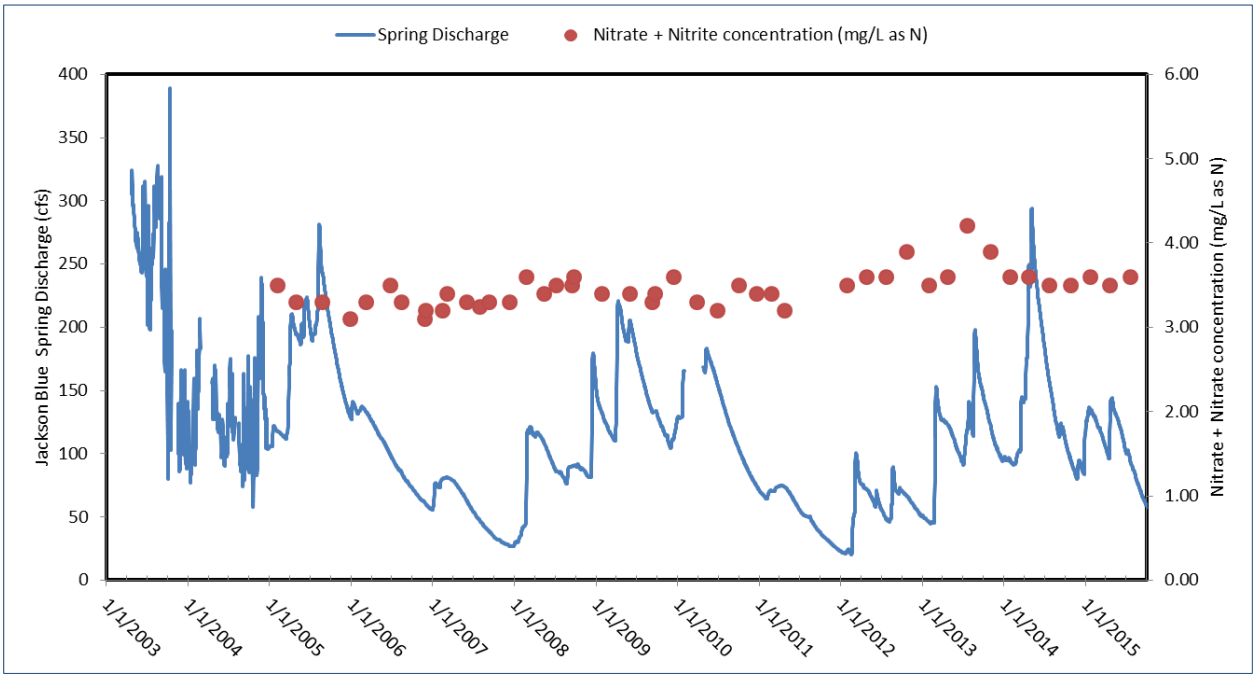

Figure 1.2 NO2+NO3 Concentration and Discharge: Jackson Blue Spring (2003-2015)

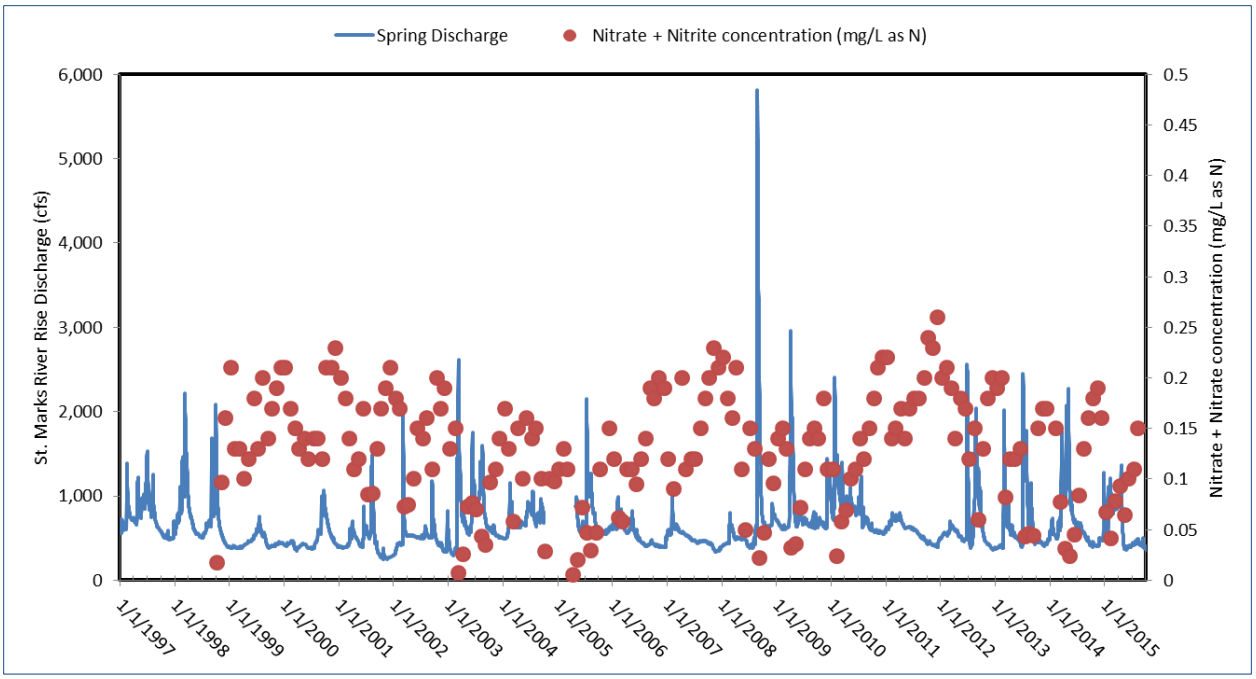

Figure 1.3 NO2+NO3 Concentration and Discharge: St. Marks River Rise (1997-2015)

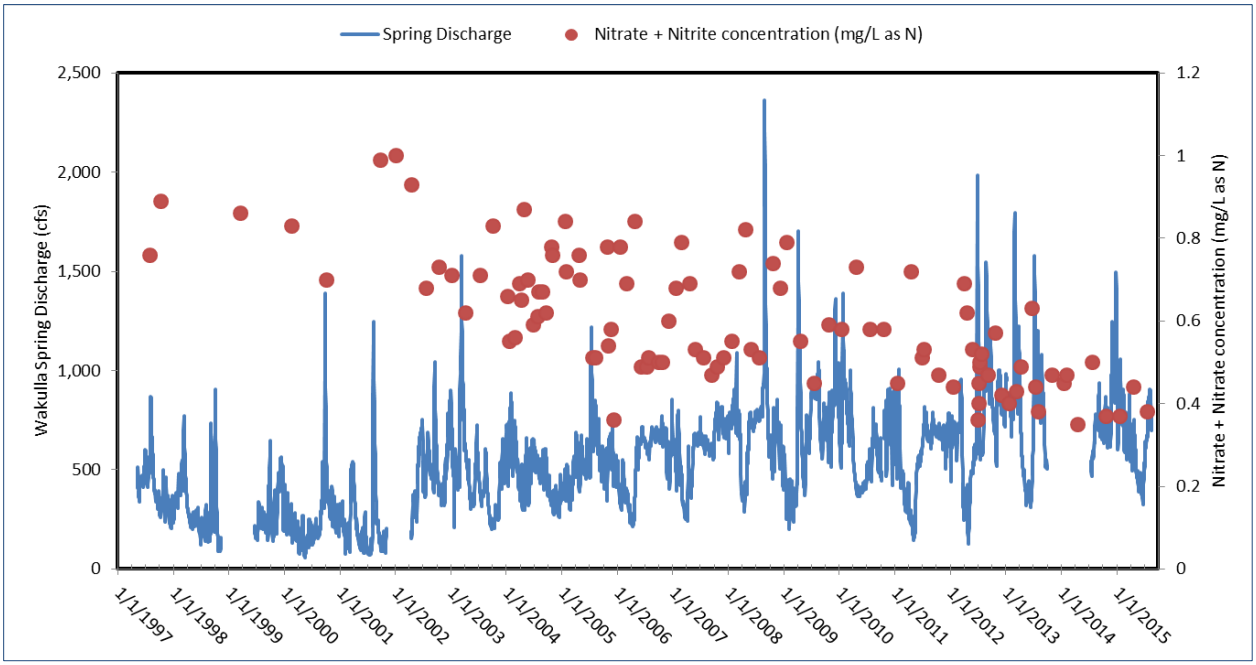

Figure 1.4 NO2+NO3 Concentration and Discharge: Wakulla Spring (1997-2015)

Deliverables and Milestones

Three deliverables are noted for Springs Protection and Restoration: Mobile Irrigation Lab evaluation reports, water quality data, and spring discharge data. Milestones listed are the target dates for completion of planned projects. Table 1.3 shows the status of SWMP deliverables and milestones for Springs Protection and Restoration.

Table 1.3 Springs Protection and Restoration Deliverables and Milestones

Deliverable	Status
(1) Mobile Irrigation Lab evaluation reports	Receiving quarterly reports and evaluation summaries, water savings calculations, and lists of public outreach and education events attended.
(2) Water quality data	Water quality data collected by DEP and NWFWMD and available from STORET or NWFWMD water quality database.
(3) Spring discharge data	Discharge data collected by NWFWMD and available from the NWFWMD discharge database.

Milestone	Target Date	Status
(1) Completion of Devil's Hole spring stream bank restoration	2015-2016	In progress
(2) Completion of Williford Spring restoration	2015-2016	Complete
(3) Implementation of funded BMPs for producers in the Jackson Blue Spring basin and Mobile Irrigation Lab evaluations	2015-2016	In progress
(4) Completion of Holmes Creek streambank stabilization	2016	In progress

1.3 Minimum Flows and Levels

Current Activities and Accomplishments

The District continues to move forward expeditiously to develop minimum flows and levels (MFLs) in Northwest Florida. The NWFWMD FY 2015-2016 MFL priority list includes four first-magnitude springs (St. Marks River Rise, Wakulla Spring, the Econfina Creek and Gainer Springs Complex, and Jackson Blue Spring), one second-magnitude spring (Sally Ward Spring), two coastal aquifer systems, Deer Point Lake reservoir, and the Shoal and Lower Yellow River system. Additional waterbodies will be scheduled in future years. The list represents an ambitious yet achievable MFL program, which is being implemented in an efficient and technically sound manner.

FY 2014-2015 Accomplishments

District staff is working concurrently on five MFL waterbodies: St. Marks River Rise, Wakulla Spring, Sally Ward Spring, Jackson Blue Spring, and the coastal Floridan aquifer in Planning Region II (Okaloosa, Santa Rosa, and Walton counties). During FY 2014-2015, the construction of 15 new monitor wells was completed to enhance data collection in the Wakulla Spring and St. Marks River Rise groundwater contribution zones. The District contracted with the U.S. Geological Survey (USGS) to monitor aquifer levels in the Georgia portion of the groundwater contribution zones. The USGS is also monitoring surface water flows and levels at nine sites near Wakulla Spring, including swallets that provide recharge to the aquifer system. Specialized water quality data sondes were purchased and installed at seven sites to better understand the factors influencing water clarity at Wakulla Spring.

Field work and surveying were performed to collect data on in-instream habitats, floodplain elevations, soils, and vegetation communities along the St. Marks and Wakulla rivers. A conceptual groundwater flow model was also developed for the Wakulla Spring system. The technical assessments for the St. Marks River Rise MFL are on schedule to be completed in 2018, with the technical assessments for Wakulla Spring and Sally Ward Spring to be completed in 2020.

The Jackson Blue Spring MFL was initiated in 2014, two years earlier than initially scheduled. A Work Plan that describes the scope of work and schedule for the technical assessments was completed in June

2015. Additional surface water monitoring was initiated in Merritt's Mill Pond. Sites for up to eight new monitor wells were selected and staff is requesting site access from property owners.

In FY 2014-2015, a Work Plan was completed for the coastal Floridan aquifer in Planning Region II. The District contracted with a consultant to update and recalibrate a groundwater flow model for that region. Bid specifications were prepared for six deep coastal Floridan aquifer monitor wells and associated aquifer performance test monitor wells. Thirteen existing wells were also assessed to determine their suitability for enhanced water quality monitoring.

Activities Planned for FY 2015-2016

During FY 2015-2016, enhanced hydrologic data collection will continue for the St. Marks River Rise and Wakulla Spring system. Water quality data needed for estuarine habitat modeling will also be collected. Work will begin on the development of a regional groundwater flow model for the Wakulla Spring system and a surface water model for the St. Marks and Wakulla rivers.

Near Jackson Blue Spring, a 450-ft deep core will be completed to gain a better understanding of the hydrogeologic and aquifer properties near the spring vent. Following the coring, up to eight new surficial and Floridan aquifer monitor wells will be constructed. Water level data collected from the wells will be used to calibrate a groundwater flow model. Ecological and floodplain transect data will be collected along Merritt's Mill Pond and Spring Creek to support the future development of surface water and ecological models.

To support development of MFLs for the coastal Floridan aquifer in Planning Region II, up to six new monitor wells will be constructed, tested, and instrumented to monitor water quality. Enhanced water quality monitoring will also be initiated at up to 12 existing wells. Analysis of long-term trends in coastal water quality will also be performed. The regional groundwater flow model is anticipated to be completed in 2016.

Evaluation of Indicators

The SWMP includes two indicators for MFLs: MFL technical assessment accomplishment and waterbodies meeting their adopted MFLs. Current progress on these indicators follows.

(1) MFL technical assessment accomplishment

Table 1.4 MFL Technical Assessment Status Indicator

MFL Waterbody	Target Date	MFL Status	Percent Complete
St. Marks River Rise	2018	Under development	20%
Wakulla Spring	2020	Under development	20%
Sally Ward Spring	2020	Under development	20%
Floridan Aquifer, Coastal Region II	2020	Under development	10%
Jackson Blue Spring	2022	Under development	10%
Shoal and Lower Yellow River system	2023	Scheduled for completion in 2022-2023	0%
Econfina Creek & Spring complex	2024	Scheduled for completion 2023-2024	0%
Deer Point Lake	2025	Scheduled for completion 2024-2025	0%
Floridan Aquifer, Coastal Bay Co.	2026	Scheduled for completion 2025-2026	0%

(2) Waterbodies meeting their adopted MFLs

This indicator will be utilized after MFL rule adoption. The first MFL rule adoption is scheduled for 2019.

Deliverables and Milestones

Deliverables and milestones listed for MFLs include completed technical assessments according to the approved schedule. Target dates and status are shown in Table 1.4. Within the current SWMP horizon, the technical assessment for St. Marks River Rise is scheduled for completion in 2018. The current District-approved MFL Priority List and schedule can be found in Chapter 2: of this report and on the website: nwfwater.com/water-resources/minimum-flows-levels/.

1.4 Apalachicola-Chattahoochee-Flint River Basin

Current Activities and Accomplishments

Management of water resources in the Apalachicola-Chattahoochee-Flint (ACF) basin continues to be a major emphasis of the District in partnership with other agencies and regional stakeholders. The District is therefore engaged in a series of activities that, together, will help achieve the long-term strategic priority: protect Apalachicola River and Bay water quality and freshwater inflow. Current priorities include providing technical assistance to the Executive Office of the Governor and the DEP on an array of issues related to interstate freshwater allocation. Stormwater retrofit projects are ongoing in cooperation with the City of Apalachicola and the City of Carrabelle to improve water quality in Apalachicola Bay.

Evaluation of Indicators

The SWMP includes three indicators for the ACF River Basin:

(1) Cooperative project implementation
(2) Area restored
(3) Stormwater treatment area

Current data and information with respect to these indicators are presented below in Table 1.5.

Table 1.5 Cooperative Project Status Indicator

Project	Description	Status	Restoration Area (Acres)[1]	Treatment Area (Acres)
Battery Park Stormwater Retrofit	Stormwater retrofit project in cooperation with the City of Apalachicola	Completed FY 2014-2015	N/A[1]	54
Prado Outfall Basin Retrofit	Stormwater retrofit project in cooperation with the City of Apalachicola	Bidding. Completion scheduled 2017	N/A	46
US 98 & 16th Street Basin Retrofit	Stormwater retrofit project in cooperation with the City of Apalachicola	Bidding. Completion scheduled 2017	N/A	76

Project	Description	Status	Restoration Area (Acres)[1]	Treatment Area (Acres)
Avenue I Basin Retrofit	Stormwater retrofit project in cooperation with the City of Apalachicola	Engineering. Completion scheduled 2017	N/A	54
Marine Street Basin Retrofit	Stormwater retrofit project in cooperation with the City of Carrabelle	Construction. Completion scheduled 2016	N/A	11

[1] Current projects focused on water quality treatment; restoration area not applicable.

Deliverables and Milestones

Deliverables and milestones listed for the ACF River Basin include completion of an updated hydrodynamic model; completion of hydrologic restoration within the Whiskey George Basin in Tates Hell Swamp; and completion of four cooperative stormwater retrofit projects in the City of Apalachicola. The hydrodynamic model and Whiskey George Basin restoration were completed on schedule. The stormwater retrofit projects within the City of Apalachicola, as well as one within the City of Carrabelle, are underway. Construction of the first project (Battery Park basin retrofit) is complete. Completion of the remaining projects is anticipated in 2016 and 2017.

Table 1.6 ACF Basin Deliverables and Milestones

Deliverable	Status
(1) Updated hydrodynamic model of Apalachicola Bay	Complete

Milestone	Target Date	Status
(1) Complete hydrologic restoration activities in the Whiskey George basin of Tates Hell Swamp	2014	Complete
(2) Completion of four cooperative stormwater retrofit projects in the City of Apalachicola: Battery Park Basin, US 98 and 16th Street basin, Prado Outfall basin, and Avenue I basin	2015	In progress. Completion anticipated 2016-2017

1.5 Water Supply

Current Activities and Accomplishments

The strategic priority for water supply, as defined in the SWMP, is to "ensure sufficient water is available for all existing and future reasonable-beneficial uses and natural systems." This represents a long-term responsibility. Given this, the District continues to implement water resource development and water supply planning and to invest in water supply development assistance across northwest Florida.

The District has begun planning to update the Districtwide Water Supply Assessment (WSA) for 2018, projecting water demands and evaluating source sufficiency through 2040. Regional water supply plans (RWSP) will subsequently be developed or updated for those regions without a secure water supply future. Update of the Region II RWSP is scheduled to immediately follow the WSA update to allow for consistent population and water use projections.

The District is continuing its Water Supply Development Grant Program. Through FY 2014-2015, the District has awarded more than $18 million in competitive water supply development grants to local

governments and utilities to meet local water supply needs and to help accomplish regional water resource priorities. In FY 2014-2015, $8 million was awarded to fund 28 water supply development projects. Funding was distributed to communities of all sizes across the District, with emphasis on supporting financially disadvantaged communities.

Current areas of focus for water resource development include groundwater modeling and identification of alternative water supply sources including the Claiborne aquifer, reclaimed water, and conservation. The District continues to protect the primary water supply for Bay County through stewardship of the Econfina Creek WMA, including acquiring additional land along Econfina Creek and restoring the native sandhill and riparian communities. In its second year, the District is cooperating with the Florida Department of Agricultural and Consumer Services (DACS) and the other four water management districts in a study being conducted by the University of Florida Watershed Ecology Lab. This four-year study is examining the management of forests for increased regional water yield.

Evaluation of Indicators

The SWMP includes five indicators for Water Supply: RWSP water demands met, public supply uniform gross and uniform residential per capita water use, water reuse to offset the use of potable quality water and to achieve other beneficial uses, and project accomplishment. Current indicator values are included below in Table 1.7 through Table 1.9.

(1) RWSP water demands met (volume and percentage)

This refers to the portion of projected water demand of the two regional water supply plan areas which is met by permitted allocations or available sources of water imports, stated as million gallons per day (mgd) and percent. The 2013 WSA showed a net increase of 43 mgd for all water use categories in RWSP regions II and III over the planning horizon from 2010 to 2035 (Table 1.7). Given existing permitted allocations, 96 percent of projected demands are met through 2035. Demands not met are in the public supply category and will need to be achieved through reduced demands via water conservation, alternative water supply sources, or increased groundwater allocations.

Table 1.7 RWSP Water Demands Met Indicator

Indicator	2010-2035 Net demand change (mgd)	Future demand met within existing allocation (mgd)	Percent of net demand change met
RWSP water demands met	43	41	96%

The Region II RWSP identifies reclaimed water and surface water supply development as alternatives to meet future demand. Enhanced water conservation is also supported by the Region II RWSP. Similarly, the Region III RWSP supports reuse of reclaimed water, enhanced water conservation, and development of an alternative, upstream surface water pump station which Bay County completed in 2015.

(2) Public supply uniform gross per capita water use (gallons and trend)
(3) Public supply uniform residential per capita water use (gallons and trend)

Two per capita water use indicators are utilized for water supply planning: gross per capita water use and residential per capita water use. Per capita water use as defined here is consistent with the uniform per capita use metrics set forth by DEP to allow for consistent per capita use metrics throughout Florida (DEP 2008). The gross per capita water use rate apportions all types of customer uses including

residential, commercial, institutional, industrial, recreation, aesthetic, agricultural, fire protection, and utility water losses to each permanent resident in the utility's distribution area. Residential per capita excludes large industrial, commercial, institutional, recreational, and other non-residential uses.

District gross and residential per capita water use values are shown in
Table 1.8 and trends are shown in Figure 1.5. Gross per capita data was not available on an annual basis prior to 2010, and reliable residential water use data were not available prior to 2012. Over the years 1995 through 2014, gross per capita water use has generally declined while population served by utilities has increased. A declining trend in per capita use appears likely due to increased efficiency of water use within public water supply systems in the District. Residential per capita water use between 2012 and 2014 appears to be declining slightly though not consistently. Trend analyses will be completed once the detailed water use has been consistently collected for more than five years.

Table 1.8 Public Supply Gross and Residential Per Capita Water Use Indicator

Year	Public supply uniform gross per capita water use[1,2]	Public supply uniform residential per capita water use[1,2]
1995	151	
2000	164	
2005	145	
2010	146	n/a
2011	140	n/a
2012	136	80
2013	128	73
2014	126	76

[1]Gallons per capita per day.
[2]Seasonal population incorporated from 2012 to present.

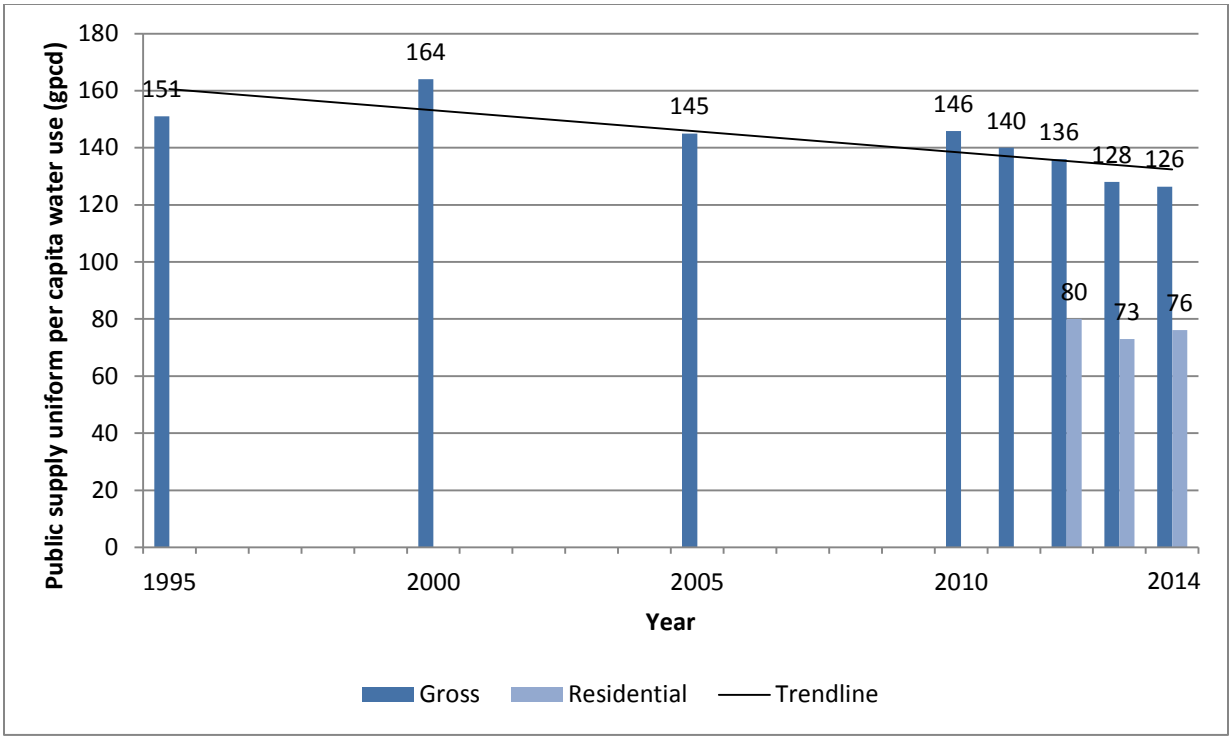

Figure 1.5 Public Supply Gross and Residential Per Capita Water Use Trends

(4) Water reuse to offset the use of potable quality water and to achieve other related beneficial uses (volume and trend)

The water reuse indicator refers to the amount of reclaimed water that either offsets (effectively decreases) the use of potable quality water or achieves other resource benefits, such as recharge to potable aquifers or wetland restoration. This information is compiled as part of Florida's annual reuse inventory (DEP 2015). The types of reclaimed water application that offset potable water use are public access uses, industrial uses, and nursery irrigation. Within the District, the City of Monticello and Town of Gretna provide reclaimed water to commercial nurseries. Other applications of reclaimed water, including discharge to sprayfields, rapid infiltration basins, and wetlands, are not included here because their recharge fractions to potable aquifers are not known or wetland restoration benefits have not been documented.

The volume of water reused in northwest Florida from 2007 through 2014, as described above, is listed in Table 1.9 and the trend over this period shown in Figure 1.6. A large increase occurred between 2010 and 2011, with trends stable before 2010 and increasing moderately after 2011. The 2011 increase can be substantially attributed to the Emerald Coast Utilities Authority's Central Water Reclamation Facility, which began providing significant amounts of reclaimed water to International Paper and Gulf Power. This facility also replaced Pensacola's aging wastewater treatment plant, eliminating a substantial discharge of wastewater into Pensacola Bay.

Table 1.9 Water Reuse Indicator

Year	Reclaimed water use offsetting potable water (mgd)[1,2]
2007	15
2008	14
2009	14
2010	13
2011	25
2012	27
2013	25
2014	28

[1]Source: DEP annual reuse inventories 2008 - 2015, www.dep.state.fl.us/water/reuse/inventory.htm
[2]Includes public access, industrial, and nursery reuse.

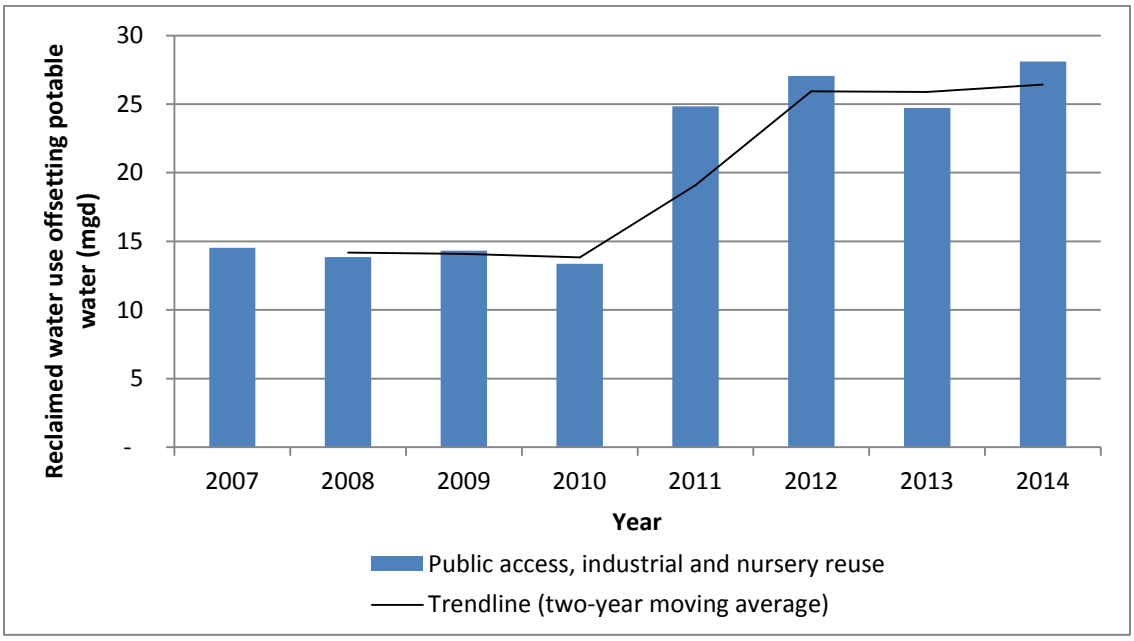

Figure 1.6 Water Reuse Trend

(5) Project accomplishment (percent completion on schedule)

This indicator highlights progress on local water supply projects with funding assistance provided by the District.

Table 1.10 Project Accomplishment Indicator

Project	Description	Funds Granted	Funds Expended	Percent Complete
Water Supply Development Grant Program (Figure 1.7)	Competitive grant program in which the District awarded funding assistance for 49 water supply projects through the end of FY 2014-2015.	$18,124,439	$6,194,406	34%
Bay County Surface Water Supply Upstream Intake	Grant funding to support Bay County's alternative raw water pump station and nine-mile force main to enhance system resiliency in support of the Region III RWSP.	$5,470,000	$5,470,000	100%

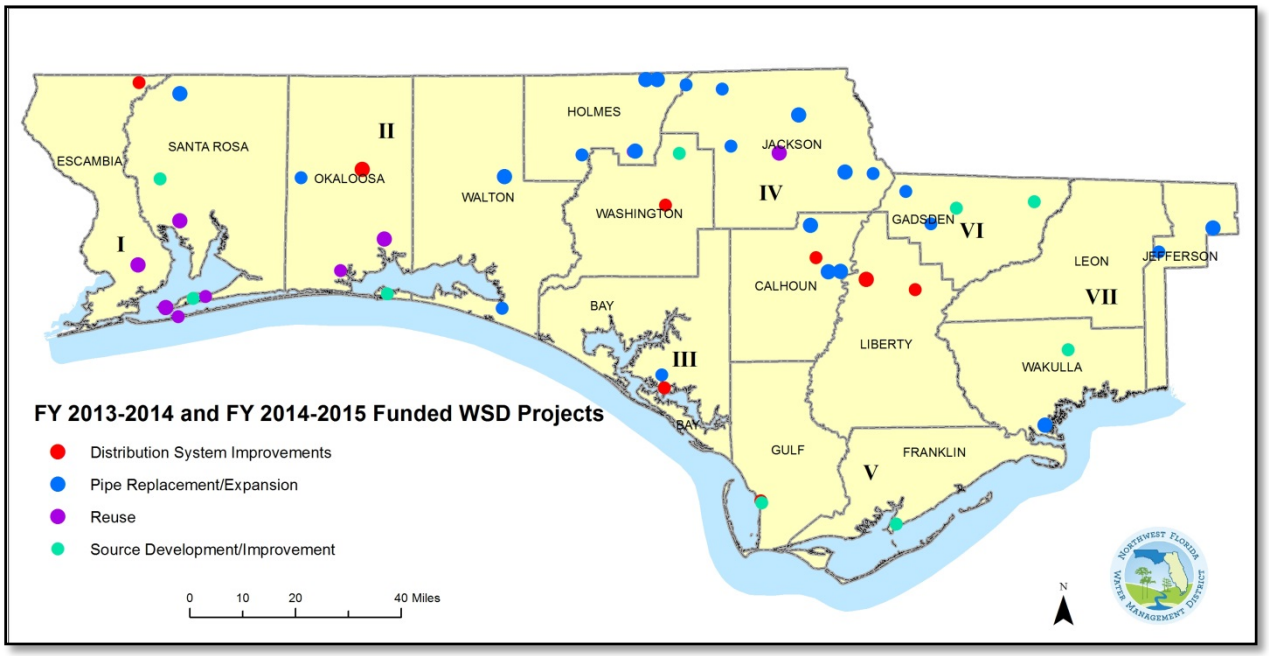

Figure 1.7 District-Funded Water Supply Development Projects FY 2013-2014 and FY 2014-2015

Deliverables and Milestones

Deliverables and milestones listed for the SWMP water supply priority include completion of the District WSA, completion of the Region III and Region II RWSP updates, completion of an interim Districtwide reclaimed water evaluation, adoption of more consistent rules (statewide) for permitting of individual water use through coordination with DEP and the other four water management districts, and revision of the well construction rule. The WSA and Region III RWSP updates were completed on schedule, as was adoption of an update to the District's consumptive use permitting rule (Chapter 40A-2, F.A.C.). The interim Districtwide reuse evaluation and well construction rule update are proceeding on schedule for 2016. Status of deliverables and milestones are shown below in Table 1.11.

Table 1.11. Water Supply Deliverables and Milestones

Deliverable	Status
(1) Districtwide Water Supply Assessment Update	Complete
(2) RWSP Updates	Region III complete Region II on schedule

Milestone	Target Date	Status
(1) Districtwide Water Supply Assessment Update	2014	Complete
(2) Region III RWSP Update	2014	Complete
(3) Region II RWSP Update	2017	On schedule
(4) Interim Districtwide Reclaimed Water Evaluation	2015	In progress; completion in 2016
(5) Adoption of more consistent rules statewide for permitting of individual water use (CUPCon) through coordination with DEP and the other four WMDs	2014	Complete
(6) Revision of well construction rule	2015	Tabled in FY 2014-2015.
(7) Initiation of new regulatory database system (eReg)	2015	New database adopted for WUP and ERP in 2015. Implementation of wells database expected in 2016.

1.6 Watershed Protection and Restoration

Current Activities and Accomplishments

The strategic priority for Watershed Protection and Restoration, as defined in the SWMP, is "protect and restore watershed resources and functions." Reflecting this priority, the District continues to focus on cooperative stormwater retrofit, water quality, water conservation, and habitat restoration projects in the Apalachicola River and Bay and St. Andrew Bay watersheds. Specific efforts include financial support of a Mobile Irrigation Laboratory (MIL) in cooperation with DACS and the Natural Resources Conservation Service (NRCS); cooperative funding with producers for agricultural BMPs within the Jackson Blue Spring groundwater contribution area; cooperative funding to Jackson County for a septic-to-sewer retrofit project in the Indian Springs subdivision on Merritt's Mill Pond and Jackson Blue Spring; financial support for research and outreach on University of Florida's Institute of Food and Agricultural Services (IFAS) Sod-Based Crop Rotation Program; restoration of Williford Springs; and stormwater retrofit projects to improve water quality in St. Andrew Bay and Apalachicola Bay. District staff are also continuing participation in multi-agency project planning and development across northwest Florida associated with the federal RESTORE Act, which was created as a result of the Deepwater Horizon oil spill in 2010. Additionally, the District provided engineering services to support stormwater retrofit projects for St. Andrew and Choctawhatchee bays funded by the MOEX Offshore settlement and has provided assistance to the Choctawhatchee Basin Alliance for monitoring and restoration-related activities. Near the end of FY 2014-2015, the District received funding from the National Fish and Wildlife Foundation to complete updates to seven watershed plans. Work will begin on this effort during FY 2015-2016 and will conclude the following fiscal year.

In its ongoing reforestation and groundcover habitat restoration program, the District completed hand planting of 1,483 acres of longleaf pine, wet pine flatwoods, and wiregrass habitat. These habitat restoration activities enhance groundwater recharge, improve wetland functions, and offset wetland losses caused by transportation projects. Approximately 989,500 longleaf pine tubelings were planted within two WMAs. The District also reestablished groundcover habitat, planting 108,900 plugs of wiregrass on disturbed habitat sites at the Sand Hill Lakes Mitigation Bank and the Choctawhatchee River/Holmes Creek WMA. Seed for District groundcover projects was collected from District land on the Econfina Creek WMA. The District continues to research, refine, and establish new habitat restoration techniques that increase species diversity and ecosystem health.

Evaluation of Indicators

The SWMP includes three indicators for Watershed Protection and Restoration: balance of released mitigation credits reflective of net functional lift under the District's Umbrella Mitigation Plan; cooperative project implementation; and contributing area for newly installed stormwater treatment.

(1) Balance of released mitigation credits, reflective of net functional lift achieved under the District's Umbrella Mitigation Plan (credits)

Wetland mitigation "credit" is a measure of the environmental functional lift generated from successful implementation of wetland mitigation projects. Credits are produced by restoration, enhancement, preservation or creation activities and are normally calculated by the Uniform Mitigation Assessment Method (UMAM), as defined in section 373.4137(18), F.S., although other assessment methods, including the Wetland Rapid Assessment Procedure (WRAP—developed by the SFWMD), have also been used. Since the establishment of the District's wetland mitigation program in 1997 to comply with

section 373.4137, F.S., through the end of FY 2014-2015, 746.04 credits have been developed and released by permitting authorities. A total of 482.81 credits have been used ("debited") to offset wetland impacts associated with transportation or other projects, leaving an Umbrella Mitigation Plan balance of 263.23 credits at the end of the fiscal year. Additional information may be found at: www.nwfwmdwetlands.com.

(2) Cooperative project implementation (number and percent complete per the planned schedule)
(3) Contributing area for newly installed stormwater treatment (acres)

The status of cooperative watershed project implementation, and restoration or stormwater treatment contributing area, if applicable, are found below in Table 1.12. The table lists projects by major watershed from west to east. Many of the indicators below are also shared with springs restoration and protection projects, as shown in Table 1.1.

Table 1.12 Watershed Protection and Restoration Indicator

Project	Description/Cooperators	Total District Cost (or as noted)	Restoration or Treatment Area (Acres)	Status	Percent Complete
Choctawhatchee River and Bay Watershed					
Okaloosa County – Tanglewood Pond	Stormwater retrofit engineering, surveying and construction oversight. MOEX funding with construction coordinated by DEP. Okaloosa County, DEP	$29,294	213	Complete	100%
Okaloosa County – Overbrook Pond	Stormwater retrofit engineering, surveying and construction oversight. MOEX funding with construction coordinated by DEP. Okaloosa County, DEP	$40,089	175	Complete	100%
St. Andrew Bay Watershed					
Panama City Lisenby Avenue Pond	Stormwater retrofit engineering, surveying and construction oversight. Panama City, DEP	$84,651	125	Complete	100%
Panama City Maple Avenue Baffle Boxes	Placement of 13 baffle boxes to improve water quality in an urban basin. Panama City	$978,500	291	Complete	100%
Bay County Ed Lee Road Stabilization	Paving of a dirt road for the purposed of sediment abatement. Bay County	$671,000	50	Complete	100%
Parker US98 Cross-Drain Stormwater Improvements	Water Quality improvement and flooding abatement. City of Parker	$1,013,500	181	Construction	47%
Callaway Stormwater Retrofit	Water Quality improvement and flooding abatement. City of Callaway	$705,000	40	Construction	50%

Project	Description/Cooperators	Total District Cost (or as noted)	Restoration or Treatment Area (Acres)	Status	Percent Complete
Mexico Beach Baffle Boxes	Water Quality improvement and flooding abatement. City of Mexico Beach, DEP	$428,000	103	Construction	50%
Apalachicola River and Bay Watershed					
Apalachicola Prado Outfall Basin Retrofit	Stormwater retrofit project in cooperation with the City of Apalachicola; construction scheduled for 2017	$457,276	46	Bidding	46%
Apalachicola US 98 & 16th Street Basin Retrofit	Stormwater retrofit project in cooperation with the City of Apalachicola; construction scheduled for 2017	$831,780	76	Bidding	76%
Apalachicola Avenue I Basin Retrofit	Stormwater retrofit project in cooperation with the City of Apalachicola; construction scheduled for 2017	$71,550[1]	54	Engineering	54%
Carrabelle Marine Street Basin Retrofit	Stormwater retrofit project in cooperation with the City of Carrabelle; construction scheduled for 2016	$462,000	11	Construction	25%
Apalachicola Bay Strategic Plan	Multi-agency coordination to identify current needs and priority actions to improve bay water quality. Watershed stakeholders	$250,000	NA	Planning	0%
Sod-based Crop Rotation Pilot Project	Pilot project within the Jackson Blue Spring basin to complete a four-year rotation cycle to reduce water use and nutrient application rates while increasing crop yields. UF IFAS	$480,032	NA	Applied to DEP for grant funding under EPA 319 program	0%
Sod-based Crop Rotation Assistance	Technical assistance to producers, primarily within the Jackson Blue Spring contribution area, to reduce water use and nutrient application rates. UF IFAS	$40,000 (annual cost)	NA	All funds expended and project complete for FY 2014-2015	100%
Districtwide					
NFWF SWIM	Development and update to seven SWIM plans	$695,000	NA	Contracting/ Planning	0%

[1] Construction costs for Avenue I project to be determined upon completion of final design.

Deliverables and Milestones

Deliverables and milestones for the SWMP Watershed Protection and Restoration priority are outlined below in Table 1.13.

Table 1.13 Watershed Protection and Restoration Deliverables and Milestones

Deliverable	Status
(1) Annual Regional Wetland Mitigation Plan and Mitigation Monitoring Reports	Annual monitoring for the regional wetland mitigation plan and FDOT mitigation projects was completed in the fall of 2015 with all projects meeting or exceeding success criteria. Monitoring reports were completed in accordance with permit requirements and posted to www.nwfwmdwetlands.com/index.php for public review.
(2) SWIM Program Summary Report within the Consolidated Annual Report	Report included as Chapter 7 of the Consolidated Annual Report.

Milestone	Target Date	Status
(1) In-Lieu-Fee Instrument fully permitted by U.S. Army Corps of Engineers	2014	Complete
(2) Completion of four cooperative stormwater retrofit projects in the Apalachicola River and Bay Watershed: Battery Park Basin, US 98 and 16th Street basin, Prado Outfall basin, and Avenue I basin	2015	Battery Park complete. Completion of other projects expected in 2016.
(3) Completion of four cooperative stormwater retrofit projects in the St. Andrew Bay Watershed: Panama City Maple Ave., Bay Co. Ed Lee Rd., Parker Drainage and Water Quality Improvements, and Callaway Stormwater Retrofit	2015	Panama City and Bay Co. projects complete. Parker and Callaway completion expected in 2016.

1.7 Flood Protection and Floodplain Management

Current Activities and Accomplishments

The SWMP Flood Protection and Floodplain Management strategic priority is to "protect floodplain functions for the benefit of human communities and natural systems." Long-term activities to maintain natural floodplain functions include land acquisition within most of the major riverine floodplains of northwest Florida and ongoing land management, as well as wetland mitigation for Florida Department of Transportation (DOT). Additionally, the District's environmental resource permitting (ERP) regulatory program seeks to protect floodplains and manage surface waters to avoid flood damage to property.

The District continues to work in cooperation with the Federal Emergency Management Agency (FEMA) on flood map modernization and the Risk Mapping, Assessment, and Planning (Risk MAP) program. The final effective digital flood insurance rate maps (DFIRMs) were issued for Franklin and Jefferson counties in February 2014 and in Wakulla County in September 2014. Detailed coastal remapping studies will be completed in 2016 for Escambia, Santa Rosa, Okaloosa, Walton, Bay and Gulf counties, with updated final effective DFIRMs scheduled to be issued in 2017.

FEMA has also initiated the Risk MAP program, which is the focus of the District's current effort. This effort includes collaboration with state and local agencies to deliver detailed data to foster informed risk management decisions and actions that mitigate flood risk through a consistent approach to assessing potential vulnerability and losses.

The District continues to support a public website providing detailed Light Detection and Ranging (LiDAR)-based elevation and surface feature data for properties across northwest Florida. The data provided is ten times more detailed than most previous topographic maps. This provides an important tool for many of the District's water resource management and flood protection functions. Residents and technical experts can also use the data to plan for activities including landscaping, resource protection, flood risk evaluation, and construction. The website is available at www.nwfwmdlidar.com/. Additionally, the District makes detailed floodplain information available to the public through www.portal.nwfwmdfloodmaps.com.

Evaluation of Indicators

The SWMP includes two indicators for Flood Protection and Floodplain Management: area of floodplain protected through fee or less-than-fee acquisition, and percent of the District with updated DFRIMs meeting FEMA standards and criteria. These indicators are shown in Table 1.14 below.

Table 1.14 Flood Protection and Floodplain Management Indicator

Indicator	Target Date	Value
(1) Area of floodplain protected through fee or less-than-fee acquisition[1]	Ongoing	177,808 acres
(2) Percent of District with updated DFIRMs meeting FEMA standards and criteria	2014	100%

[1]Floodplain area of current NWFWMD lands (fee and less-than-fee). This represents approximately 78% of the total District managed area.

Deliverables and Milestones

Table 1.15 provides deliverables and milestones for the SWMP Flood Protection and Floodplain Management priority. DFIRM completion incorporating coastal remapping studies for Escambia, Santa Rosa, Okaloosa, Walton, Bay, and Gulf counties is scheduled for 2017.

Table 1.15 Flood Protection and Floodplain Management Deliverables and Milestones

Deliverable	Status
(1) Coastal DFIRMs for Franklin, Jefferson, and Wakulla counties	Complete
(2) Risk MAP regulatory and non-regulatory products according to discovery report for each study area	Implementation

Milestone	Target Date	Status
(1) Completion of DFIRM updates for Franklin, Jefferson, and Wakulla counties	2014	Complete
(2) Completion of coastal remapping studies for Escambia, Santa Rosa, Okaloosa, Walton, Bay, and Gulf counties	2016	On schedule

Chapter 2: Minimum Flows and Levels Annual Priority List

Section 373.042, F.S., requires each water management district to develop minimum flows and levels (MFLs) for specific surface and ground waters within their jurisdiction. The MFL for a given waterbody is the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area. MFLs are established using best available data and consideration is given to natural seasonal fluctuations, non-consumptive uses, and environmental values associated with coastal, estuarine, riverine, spring, aquatic, and wetlands ecology as specified in Chapter 62-40.473, F.A.C.

The multi-year process of MFL establishment involves identification of priority waterbodies, data collection, technical assessments, peer review, public involvement, rule-making, and rule adoption. Adopted MFLs are considered when reviewing consumptive use permit applications. A recovery or prevention strategy must be developed for any waterbody where consumptive uses currently or are anticipated within the next 20 years to result in flows or levels below an adopted MFL.

The NWFWMD FY 2015-2016 MFL priority list and schedule includes four first-magnitude springs (St. Marks River Rise, Wakulla Spring, Econfina Creek and Gainer Springs Complex, and Jackson Blue Spring), one second-magnitude spring (Sally Ward Spring), two coastal aquifer systems, Deer Point Lake reservoir, and the Shoal and Lower Yellow River system (Table 2.1). Additional waterbodies are anticipated to be scheduled in future years (Table 2.2 and Figure 2.1). The priority list represents an ambitious yet achievable MFL program, which is being implemented in an efficient and technically sound manner.

Work on five MFL waterbodies is underway. Enhanced data collection for the St. Marks River Rise, Sally Ward Spring, and Wakulla Spring system includes 53 new or expanded surface and groundwater stations. Enhanced monitoring will support the development of hydrologic models that are needed to evaluate this complex hydrogeologic system. The technical assessment for the St. Marks River Rise, a first-magnitude spring in southeastern Leon County, will be completed in 2018. The data and hydrologic models developed for the St. Marks River Rise will also support MFL development for nearby Wakulla Spring and Sally Ward Spring. Technical assessments for these two waterbodies are scheduled to be complete in 2020.

The Jackson Blue Spring MFL was initiated in 2014, two years earlier than initially scheduled. A Work Plan outlining a scope of work and schedule for the technical assessments was completed in 2015. Additional surface water monitoring in Merritt's Mill Pond has been initiated and ecological data will be collected in FY 2015-2016. New monitor wells in the Jackson Blue Spring groundwater contribution area will be constructed during the coming year. Data collection efforts will support technical assessments and the development of hydrologic models for the spring system.

A work plan has also been prepared for the coastal Floridan aquifer in Planning Region II (Okaloosa, Santa Rosa, and Walton counties). Site access is being obtained for new monitor wells, which will be constructed to monitor coastal water quality and aquifer levels. The District has contracted with a consultant team to update and recalibrate a groundwater flow model that encompasses the study region.

The MFL priority waterbody schedules are subject to the availability of funds, data collection and analysis needs, climatic conditions, peer review, and rule challenges. The list and schedule will be re-evaluated annually, and adjustments will be made as appropriate.

Table 2.1 Northwest Florida Water Management District MFL Priority List 2016[1]

Waterbody	Type[2, 3]	County	MFL Initiation	Estimated Completion	
				Technical Assessment[3,4]	Rule Adoption
St. Marks River Rise	Spr (1st)	Leon	2013	2018	2019
Wakulla Spring	Spr (1st)	Wakulla	2013	2020	2021
Sally Ward Spring	Spr (2nd)	Wakulla	2013	2020	2021
Floridan Aquifer, Coastal Region II	A	Coastal Santa Rosa, Okaloosa, Walton	2014	2020	2021
Jackson Blue Spring	Spr (1st)	Jackson	2014	2022	2023
Shoal and Lower Yellow River System	R	Santa Rosa, Okaloosa, Walton	2017	2023	2024
Econfina Creek & Spring Complex	Spr (1st & 2nd) and R	Bay, Jackson, Washington	2019	2024	2025
Deer Point Lake	L	Bay	2020	2025	2026
Floridan Aquifer, Coastal Bay County	A	Bay	2021	2026	2027

Table 2.2 Waterbodies for Future Years

Waterbody	WB Type[2]	County
Morrison Spring	Spr (2nd)	Walton
Holmes Blue Spring	Spr (2nd)	Holmes
Blue Hole Spring	Spr (2nd hist.)	Jackson
Ponce de Leon Spring	Spr (2nd)	Holmes
Baltzell Spring group/upper Chipola Spring Complex	Spr (2nd) and R	Jackson
Holmes Creek & Spring Complex	Spr (2nd) and R	Washington
Telogia Creek	R	Liberty, Gadsden

Table 2.3 Waterbodies Subject to Regulatory Reservations

Apalachicola River	Jackson, Calhoun, Gulf, Gadsden, Liberty, Franklin	The magnitude, duration, and frequency of observed flows are reserved, essentially in total, all seasons for the protection of fish and wildlife of the Chipola River, Apalachicola River, associated floodplains and Apalachicola Bay (40A-2.223, F.A.C.)
Chipola River	Jackson, Calhoun, Gulf	

Footnotes

[1]Priority list and schedule will be re-evaluated on an annual basis.

[2]WB Type: A=aquifer, L=lake, R=river, Spr=spring (1st or 2nd magnitude).

[3]All 1st magnitude springs, and 2nd magnitude springs within state or federally owned lands purchased for conservation purposes, are required to be listed according to section 373.042, F.S.

[4]It is anticipated that each proposed MFL will be submitted for scientific peer review following the technical assessment.

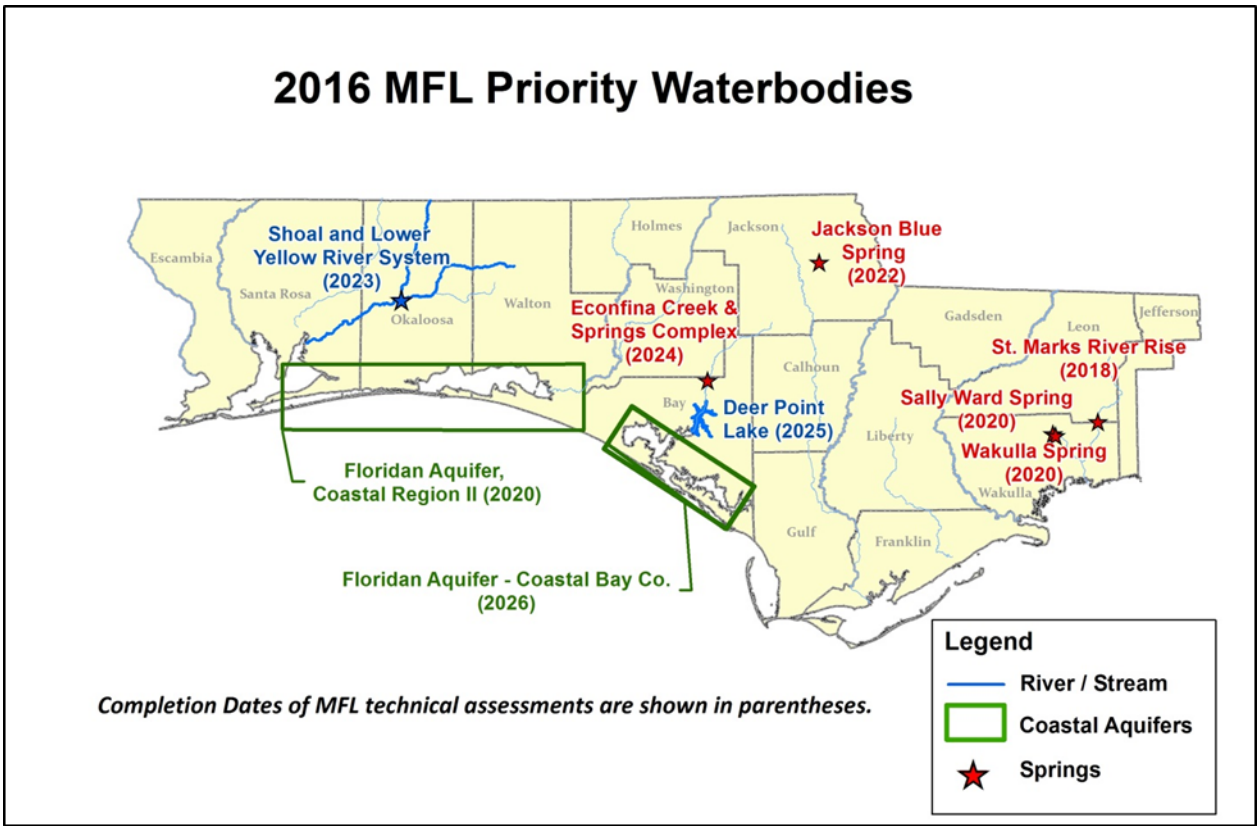

Figure 2.1 NWFWMD MFL Priority Waterbodies

Chapter 3: Annual Five-Year Capital Improvements Plan

3.1 Introduction

The five-year capital improvements plan (CIP) includes projected revenues and expenditures for capital improvements from fiscal years 2015-2016 through 2019-2020. As directed by section 373.536(6)(a)(3), F.S., the CIP has been prepared in a manner comparable to the fixed capital outlay format set forth in section 216.043, F.S. The format for this plan is drawn from the standard budget reporting format prescribed by the Executive Office of the Governor. Capital improvement projects may be budgeted in either of two standard program categories. Those programs and their activities and sub-activities are represented below:

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

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

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

Activities under program *3.0 Operation and Maintenance of Lands and Works* that may include capital improvement projects are: 3.1 Land Management and 3.2 Works. Of these, the NWFWMD only has capital improvement projects in activity 3.1.

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

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

3.2 Five-Year Capital Improvements Plan

The purpose of the Five-Year Capital Improvements Plan (CIP) is to project future needs and anticipate future funding requirements to meet those needs. The development and construction of all capital projects are budgeted either under program heading *2.0 Acquisition, Restoration and Public Works* or under program heading *3.0 Operation and Maintenance of Lands and Work*s.

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

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

The District's Florida Forever Work Plan, Land Acquisition Plan, Five-Year Water Resource Development Work Program, Land Management Plan, Land Acquisition Trust Fund – Specific Appropriation 1639, and Northwest Florida Umbrella, Watershed-based, Regional Mitigation Plan also provide information on the District's long range capital improvements plan.

Table 3.1 NWFWMD Five Year Capital Improvements Plan, Fiscal Years 2016-2020

2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS

2.1 Land Acquisition

Revenues ($)	**Fiscal Year**				
	2015-2016	**2016-2017**	**2017-2018**	**2018-2019**	**2019-2020**
Water Management Lands Trust Fund	0	0	0	0	0
Florida Forever	0	0	0	0	0
District Land Acquisition Reserve	69,990	81,121	75,000	75,000	75,000
Land Management Fund	0	0	0	0	0
Line Item 1645 - 2014-2015 General Appropriations Act	0	0	0	0	0
Land Acquisition Trust Fund (Line Item 1639)	4,788,568	0	0	0	0
TOTAL	**4,858,558**	**81,121**	**75,000**	**75,000**	**75,000**

Expenditures ($)	**Fiscal Year**				
	2015-2016	**2016-2017**	**2017-2018**	**2018-2019**	**2019-2020**
Water Management Lands Trust Fund	0	0	0	0	0
Florida Forever – Land Acquisitions	0	0	0	0	0
District Land Acquisition Reserve – Preacquisition	69,990	81,121	75,000	75,000	75,000
Land Management Fund	0	0	0	0	0
Land Acquisition Trust Fund (Line Item 1639): Lakeshore Farms II LLC, Blue Springs Plantation, Inc. and James Tract Acquisition	4,788,568	0	0	0	0
TOTAL	**4,858,558**	**81,121**	**75,000**	**75,000**	**75,000**

2.2 Water Source Development

Revenues ($)	Fiscal Year 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Florida Forever	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**

Expenditures ($)	Fiscal Year 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Florida Forever – Land Acquisitions	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**

2.3 Surface Water Projects

Revenues ($)	Fiscal Year 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
FDOT Mitigation Funds	1,880,000	1,180,000	1,180,000	1,180,000	1,180,000
TOTAL	1,880,000	1,180,000	1,180,000	1,180,000	1,180,000

Expenditures ($)	Fiscal Year 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
FDOT Mitigation	1,880,000	1,180,000	1,180,000	1,180,000	1,180,000
TOTAL	1,880,000	1,180,000	1,180,000	1,180,000	1,180,000

2.5 Facilities Construction and Major Renovations

Revenues ($)	Fiscal Year 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Florida Forever	0	0	0	0	0
Water Management Lands Trust Fund	0	0	0	0	0
Land Management Fund	20,000	0	0	0	0
TOTAL	**20,000**	**0**	**0**	**0**	**0**

Expenditures ($)	Fiscal Year 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Econfina Field Office Renovations	20,000	0	0	0	0
TOTAL	**20,000**	**0**	**0**	**0**	**0**

3.0 OPERATION AND MAINTENANCE OF LANDS AND WORKS

3.1 Land Management

Revenues ($)	Fiscal Year 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Water Management Lands Trust Fund	0	0	0	0	0
Florida Forever	0	0	0	0	0
Land Management Fund	345,095	0	0	0	0
Line Item 1638A - 2013-2014 General Appropriations Act	0	0	0	0	0
FWCC AHRE Section Funds	64,905	0	0	0	0
Line Item 1645 - 2014-2015 General Appropriations Act	300,000	0	0	0	0
Land Acquisition Trust Fund (Line Item 1639)	50,000	0	0	0	0
TOTAL	**760,000**	**0**	**0**	**0**	**0**

Expenditures ($)	Fiscal Year 2015-2016	2016-2017	2017-2018	2018-2019	2019-2020
Spring Restoration & Protection Project; Phase II - Williford Spring	70,000	0	0	0	0
Streambank Restoration & Public Recreation – Cooperative with Local Governments	235,000	0	0	0	
Devil's Hole Spring Restoration	137,000	0	0	0	0
Cotton Landing Streambank Restoration and Protection	193,000	0	0	0	0
Walsingham Park Shoreline Restoration and Protection	75,000	0	0	0	0
Econfina Creek – James Tract Restoration	50,000	0	0	0	0
TOTAL	**760,000**	**0**	**0**	**0**	**0**

TOTAL CAPITAL EXPENDITURES ($)	**7,518,558**	**1,261,121**	**1,255,000**	**1,255,000**	**1,255,000**

3.3 Project Descriptions

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

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS
ACTIVITY: 2.1 LAND ACQUISITION

Project Title: Preacquisition Expenditures for Save Our Rivers, Preservation 2000, Florida Forever, District Land Acquisition Reserve, Land Management Fund, and Land Acquisition Trust Fund Purchases; no land acquisitions are anticipated in FY 2016-2017 and beyond. .

Type: Unimproved Land

Physical Location: Undetermined; within the District's 16-county boundary

Square Footage/Physical Description: N/A

Expected Completion Date: N/A

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

Plan Linkages: Florida Forever Work Plan and Land Acquisition Trust Fund (Specific Appropriation 1639 – Spring Protection Land Purchases)

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): $69,990 (Land Acquisition Reserve Fund) for preacquisition expenditures to acquire land. Purchase price of land is unknown at this time.

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

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

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

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS
ACTIVITY: 2.1 LAND ACQUISITION

Project Title: Lakeshore Farms II LLC Conservation Easement

Type: Improved Row Crop Agricultural Land

Physical Location: Jackson Blue Spring basin, Jackson County

Square Footage/Physical Description: Approximately 598 acres of agricultural land, including center-pivot irrigation systems

Expected Completion Date: On or before September 30, 2016

Historical Background/Need for Project: Intensive row crop agricultural property situated north of Jackson Blue Spring (first-magnitude) that contributes significant nutrient loads into the groundwater aquifer and spring. District is attempting to acquire a conservation easement on the property that limits the land use to silviculture only. This action will significantly reduce or eliminate nutrients, primarily nitrogen, from entering the groundwater aquifer and spring while maintaining the property in agriculture as a working forest. A conservation easement would also maintain the property on the County's tax rolls.

Plan Linkages: Florida Forever Work Plan and Land Acquisition Trust Fund (Specific Appropriation 1639 – Spring Protection Land Purchases)

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

Alternative(s): Fee Simple Interest, but acquisition costs may double and the District would be responsible for costs associated with land management and restoration.

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

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

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

Anticipated Additional Operating Costs/Continuing: None anticipated

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS
ACTIVITY: 2.1 LAND ACQUISITION

Project Title: Blue Springs Plantation, Inc. Fee Simple Acquisition

Type: Unimproved and Improved Land

Physical Location: Jackson Blue Spring basin, Jackson County

Square Footage/Physical Description: Approximately 404.1 acres of property configured for rural residential development, e.g. 10-acre lots, with some access road development.

Expected Completion Date: On or before September 30, 2016

Historical Background/Need for Project: The Blue Springs Plantation, Inc. property is situated north, northeast and east of Jackson Blue Spring. The northeast parcel sits directly over the underground conduit system that discharges water out of the spring vent. The property has been configured into residential lots of approximately 10 acres each and their sale and development would increase nutrient loads into the groundwater aquifer and spring. Acquisition of the property would protect and preserve the water quality of Jackson Blue Spring.

Plan Linkages: Florida Forever Work Plan and Land Acquisition Trust Fund (Specific Appropriation 1639 – Spring Protection Land Purchases)

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

Alternative(s): Less-Than-Fee Acquisition (Conservation Easement)

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

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

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

Anticipated Additional Operating Costs/Continuing: Varied. Maintenance and restoration costs to be determined based on each individual parcel and type of lands ultimately acquired.

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS
ACTIVITY: 2.1 LAND ACQUISITION

Project Title: FY 2014-2015 General Appropriations Act Spring Protection Land Purchases, Line Item 1645 – Mildred James Tract Fee Simple Acquisition

Type: Unimproved Land

Physical Location: Econfina Creek, Bay County – Located at the southwest corner of the junction of Econfina Creek and Highway 20 in northern Bay County adjacent to the Gainer Spring Group

Square Footage/Physical Description: Approximately 3.1 acres of unimproved land along Econfina Creek

Expected Completion Date: On or before December 31, 2015

Historical Background/Need for Project: To protect and preserve the water quality of Econfina Creek (Class I Waterbody) and the nearby Gainer Spring Group (1st Magnitude).

Plan Linkages: Florida Forever Work Plan and Land Acquisition Trust Fund (Specific Appropriation 1639 – Spring Protection Land Purchases)

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): Approximately $54,000

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

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): Minimal as this parcel will be added to the District's Econfina Creek WMA for management and maintenance.

Anticipated Additional Operating Costs/Continuing: $50,000 for shoreline restoration and protection, restoration of habitat to its natural state and condition, and vehicular access restrictions (fencing). Funding for these restoration activities are contained in 3.1 below.

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS
ACTIVITY: 2.2 WATER SOURCE DEVELOPMENT

Project Title: Save Our Rivers and Florida Forever Land Purchases and Land Acquisition Trust Fund Land Purchases; no land acquisitions are anticipated in FY 2015-2016.

Type: Unimproved Land

Physical Location: Undetermined; within the District's 16-county boundary

Square Footage/Physical Description: N/A

Expected Completion Date: N/A

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

Plan Linkages: Florida Forever Work Plan

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

Alternative(s): None

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

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

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

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

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS
ACTIVITY: 2.3 SURFACE WATER PROJECTS

Project Title: Regional Mitigation for FDOT Wetlands Impacts

Type: Wetlands, waterbodies, and buffers that qualify as mitigation for DOT wetland impacts

Physical Location: Various locations; watersheds within the District

Square Footage/Physical Description: Land purchases, land management restoration activities (shrub reduction, herbicide, vegetative planting, etc.), and/or construction of various capital restoration structures (e.g., bridges, low water crossings, water control structures)

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

Historical Background/Need for Project: Section 373.4137, F.S., provides that the districts mitigate for FDOT wetland impacts that are not within the service area of a private mitigation bank or when credits from a mitigation bank are not deemed appropriate.

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

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

Alternative(s): Specific projects may be excluded from the mitigation plan, in whole or in part, upon the election of the DOT, a transportation authority if applicable, or the District.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): Unknown at this time. Multiple projects. Costs are determined by project type (habitat restoration, hydrologic restoration and enhancement, land acquisition, etc.).

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

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): Unknown at this time. Multiple projects. Costs are determined by project type (habitat restoration, hydrologic restoration and enhancement, land acquisition, , etc.).

Anticipated Additional Operating Costs/Continuing: Unknown at this time. Multiple projects. Costs are determined by project type (habitat restoration, hydrologic restoration and enhancement, land acquisition, etc.)

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS
ACTIVITY: 2.5 FACILITIES CONSTRUCTION AND MAJOR RENOVATIONS

Project Title: Econfina Field Office Renovations

Type: Concrete slab, electrical wiring and lighting, etc. for an equipment and materials storage facility (pole barn)

Physical Location: 6418 E. Hwy. 20, Youngstown, Florida 32466

Square Footage/Physical Description: 52' x 40' x 6" thick concrete slab, including approach apron and fill dirt for pole barn. Also includes electrical wiring and lighting, etc.

Expected Completion Date: September 30, 2016

Historical Background/Need for Project: The District closed the Marianna Field Office and completed consolidation to the Econfina Field Office at the end of FY 2014-2015. As part of the consolidation, additional field equipment, materials, and supplies required storage and protection. A two-year old 56' x 44' (approximate) pole barn formerly used to cover a modular unit at the Econfina Field Office will be renovated to adequately store and protect equipment, materials, and supplies. Modifying the existing pole barn by installing a concrete slab and incorporating posts were for added strength and longevity is a cost effective and efficient alternative to new construction.

Plan Linkages: Florida Forever Work Plan, District Strategic Plan, District Budget

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

Alternative(s): NWFWMD could delay the potential project, but expensive field equipment, materials, and supplies would be subjected to the elements.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): Estimated at $20,000.

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

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

Anticipated Additional Operating Costs/Continuing: Minimal as electrical expenses will be included in the EFO billing.

PROGRAM: 3.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS
ACTIVITY: 3.1 FACILITIES CONSTRUCTION AND MAJOR RENOVATIONS

Project Title: Econfina Springs Complex Phase II - Williford Spring: Resource Protection, Public Safety, Public Recreation and Interpretative Signage, and Additional Landscape Plants.

Type: Spring Restoration and Protection Project

Physical Location: Econfina Creek Water Management Area

Square Footage/Physical Description: Development, construction, and installation of resource protection, public safety, public recreation and interpretative signage, and additional landscape plants.

Expected Completion Date: On or before April 30, 2016

Historical Background/Need for Project: Project will restore and protect a significant second magnitude spring by removing from one to three feet of sediment, addressing stormwater issues, preventing erosion, enhancing water quality, protecting natural systems, and restoring and enhancing riparian and associated aquatic habitats adversely impacted in the past due to unregulated public access and recreational use.

Plan Linkages: District's Florida Forever Work Plan

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

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): $70,000, i.e. $65,000 for signage and $5,000 for landscape plants.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): None

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

Anticipated Additional Operating Costs/Continuing: Minimal. Signage comes with a 12-month warranty and signage materials come with a 10-year warranty. Signage may require semi-annual or annual cleaning and general maintenance.

PROGRAM: 3.0 OPERATION AND MAINTENANCE OF LANDS AND WORKS
ACTIVITY: 3.1 LAND MANAGEMENT

Project Title: Streambank Restoration and Protection and Repairs and Improvements to Hightower, Spurling, and Live Oak Landings
Type: Streambank Restoration and Protection and Public Access and Recreation

Physical Location(s): Hightower, Spurling, and Live Oak landings (Washington County) – Choctawhatchee River/Holmes Creek WMA.

Square Footage/Physical Description: The restoration and protection of approximately 500 feet of eroded shoreline or streambank at three boat launch locations along Holmes Creek utilizing geotextile bags to create a vegetative retaining wall, as well as the repair and improvement of these boat launch sites, including but not limited to: 1) constructing four stormwater facilities; 2) demoloshing, re-grading, and constructing a boat launch at Live Oak Landing; 3) access road improvements; 4) parking area improvements at all three sites; 5) constructing a bank fishing pier at Live Oak Landing; 6) a boardwalk and spring observation deck at the Hightower Landing spring; 7) installing protective rail fencing at all sites; and 8) constructing picnic areas and four primitive campsites at Spurling Landing.

Expected Completion Date: Project completion is anticipated to occur on or before September 30, 2016, subject to water levels and receipt of the Spurling Landing permit. Permits have been received for Live Oak and Hightower Springs Landings and shoreline restoration construction has been completed.

Historical Background/Need for Project: Significant streambank erosion is occurring at all three sites and lack of stormwater treatment facilities are causing significant sedimentation issues, especially at Hightower and Live Oak Landings. In addition, the boat launch at Live Oak Landing cannot be used properly during low water periods, limiting public access and recreation. Enhanced public access and recreation facilities are also needed, especially at Live Oak and Spurling Landings.

Plan Linkages: District's Florida Forever Work Plan

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

Alternative(s): District could delay the project, and shorelines or streambanks will continue to erode; stormwater will continue to impact the water quality of Holmes Creek; the public will have difficulty accessing Holmes Creek and adjacent District lands for recreation purposes; and public recreation opportunities will be diminished.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): $225,000.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): not to exceed $10,000 for rail fencing, picnic tables, grills, fire rings, etc. for primitive campsites.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): None. Per the cooperative agreement, Washington County will maintain sites and provide law enforcement patrols.

Anticipated Additional Operating Costs/Continuing: County responsibility.

PROGRAM: 3.0 OPERATION AND MAINTENANCE OF LANDS AND WORKS
ACTIVITY: 3.1 LAND MANAGEMENT

Project Title: Devil's Hole Spring Streambank Restoration and Protection

Type: Spring and Shoreline Restoration and Protection

Physical Location: Econfina Creek

Square Footage/Physical Description: Spring and shoreline restoration and protection utilizing geotextile bags and other non-structural techniques. Project also enhances public access opposite the spring to protect the spring and the Econfina Creek shoreline, engineering design and permitting underway.

Expected Completion Date: By September 30, 2016

Historical Background/Need for Project: Devil's Hole Spring and the adjacent Econfina Creek shoreline are experiencing significant bank erosion and sedimentation due to adverse impacts caused by unregulated public use on sensitive slope areas. Project will restore, stabilize, and protect highly erodible streambank while providing enhanced public access and recreational use.

Plan Linkages: District's Florida Forever Work Plan and Land Acquisition Trust Fund - Specific Appropriation 1639

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

Alternative(s): None.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): $137,000 (DEP Funds: $125,000 for spring and adjacent shoreline protection and restoration and District Land Management Fund: $12,000 for materials only for enhanced public access and recreation).

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): $53,916 (Total engineering design service cost for Devil's Hole Spring and Cotton Landing - District Land Management Fund, subject to approval of a budget amendment in FY 2015-2016)

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

Anticipated Additional Operating Costs/Continuing: None. Site security is already being provided and a Public Works Inmate Crew will provide site cleanup and maintenance.

PROGRAM: 3.0 OPERATION AND MAINTENANCE OF LANDS AND WORKS
ACTIVITY: 3.1 LAND MANAGEMENT

Project Title: Cotton Landing Shoreline Restoration and Protection

Type: Shoreline Restoration and Protection, Stormwater, and Enhanced Public Access and Recreation

Physical Location: Holmes Creek, approximately three miles northeast of Vernon, Florida.

Square Footage/Physical Description: Shoreline restoration and protection utilizing geotextile bags and landscaping while providing for enhanced public access and recreation while protecting Holmes Creek springs, engineering design and permitting underway.

Expected Completion Date: By September 30, 2016

Historical Background/Need for Project: The Holmes Creek shoreline at Cotton Landing is experiencing significant bank erosion and sedimentation due to adverse impacts caused by prolonged drought, stormwater issues, inadequate public water access facilities, and unregulated public use on sensitive shoreline areas. Project will restore, stabilize, and protect highly erodible shorelines and address stormwater issues while providing for enhanced public access and recreational use.

Plan Linkages: District's Florida Forever Work Plan and Land Acquisition Trust Fund - Specific Appropriation 1639

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

Alternative(s): None.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): $193,000 (Land Acquisition Trust Fund – Specific Appropriation 1639 - $175,000 and District Land Management Fund - $18,000).

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): $53,916 (Total engineering design service cost for Devil's Hole Spring and Cotton Landing - District Land Management Fund, subject to approval of a budget amendment in FY 2015-2016)

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

Anticipated Additional Operating Costs/Continuing: None. Site security is already being provided and a Public Works Inmate Crew will provide site cleanup and maintenance.

3.4 Appendix

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

2.0 Acquisition, Restoration and Public Works

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

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

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

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

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

3.0 Operation and Maintenance of Lands and Works

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

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

Chapter 4: Water Supply

4.1 Five-Year Water Resource Development Work Program: FY 2015-2016 Update

Introduction

The Florida Water Resources Act (Chapter 373, Florida Statutes) directs the state's five water management districts to conduct water supply planning through a two-step process that involves: (1) assessing the water supply needs and sources of each water supply planning region; and (2) developing regional water supply plans (RWSPs) for those regions where existing sources of water are considered inadequate to supply water for all existing and future reasonable-beneficial uses while sustaining water resources and natural systems over a twenty-year planning period. Regional water supply plans are governed by section 373.709, Florida Statutes (F.S.), and must include both water resource development and water supply development components, with supporting data and analysis, to exceed the projected water demands through the planning horizon.

Section 373.536(6)(a)4, F.S., requires each district to prepare a Five-Year Water Resource Development Work Program (WRDWP or Work Program) to describe the implementation strategy and funding plan for the water resource, water supply, and alternative water supply development components of each approved RWSP. 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 in which the districts have jurisdiction. The Florida 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 development and water supply development are complementary components of the RWSP. Water resource development projects are typically regional and broad in scope and can support development of non-traditional water sources. Water supply development projects are more localized and address water treatment, storage, and delivery to end users. In statute, water management districts are responsible largely for water resource development, while water supply development is primarily the responsibility of local governments, water supply authorities, and utilities. While their primary focus is water resource development, the districts do provide technical and financial assistance for water supply development.

Regional Water Supply Planning in Northwest Florida

The Northwest Florida Water Management District (NWFWMD or District) established seven water supply planning regions in 1996 (Figure 4.1). The initial District Water Supply Assessment (WSA) (NWFWMD 1998) evaluated the sufficiency of supplies to meet demands through 2020 and concluded 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 NWFWMD Governing Board determined that the need for planning alternative surface water development in Gulf County and resource constraints in coastal 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 2008 WSA update extended water demand projections and an evaluation of sources through 2030. The update concluded that no additional RWSPs were required and that water supply planning and implementation efforts should continue in regions II, III, and V (Coates et al. 2008).

The District again updated the WSA in 2013, projecting water demands and evaluating source sufficiency through 2035 (Countryman et al. 2014). The report showed that public supply remains the largest use category for the District, accounting for approximately 45 percent of the demand in 2010. It is expected that this ratio will remain similar through the 2015-2035 planning period. The Governing Board discontinued regional water supply planning for Region V due to the completion of surface water source development in Gulf County and adequacy of water supplies in Franklin County under revised growth projections. The District continues to work with Region V communities to address resource needs and concerns and is continuing hydrologic data collection and analysis to support resource monitoring.

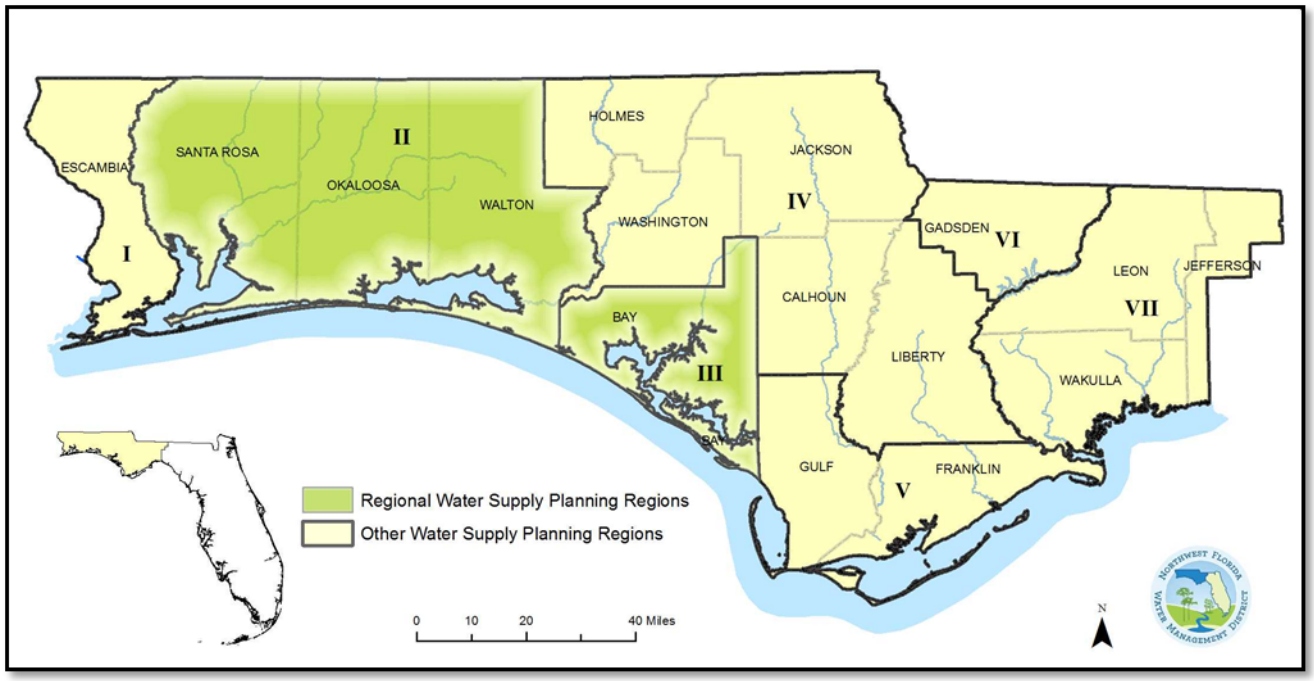

Figure 4.1 NWFWMD Water Supply Planning Regions

Funding for Water Resource and Supply Development

The state constitution limits the NWFWMD to 0.05 mills of ad valorem taxing authority, which is 1/20th of that afforded the other four water management districts. The District's fiscal year (FY) 2014-2015 tax millage rate, as set by the Governing Board, was 0.039. The budget for FY 2015-2016 includes a millage rate of 0.0378. Based on taxable values provided by the 16 counties in the District, tax collections are projected to be $3,433,785 for FY 2015-2016. With a recurring operating budget of $17,276,601, the District must rely on state and other revenue sources to conduct many of its programs. Among the

funding sources the District looks to for water supply planning and water resource development are the following:

- Land Acquisition Trust Fund;
- Direct Legislative appropriations;
- District General Fund;
- Federal grants;
- Florida Forever; and
- Local government and water supply utility cost sharing.

Until recently, water resource development in northwest Florida has depended primarily on funding from the Water Management Lands Trust Fund. This trust fund, however, was discontinued by the 2015 Florida Legislature through Senate Bill 2516-A. The bill established the Land Acquisition Trust Fund to accomplish purposes as set forth in Article X, Section 28 of the State Constitution.

To the extent possible, the District applies limited ad valorem funding to augment state appropriations for basic water supply planning functions. Because ad valorem funding is inadequate to support implementation of major water resource and supply development projects and initiatives, the District also applies available encumbered funds and reserves for priority projects.

The Water Protection and Sustainability Program Trust Fund (WPSPTF), established by the 2005 Legislature, enabled the District to provide cost-share assistance for construction of alternative water supply development projects and priority water resource development and springs protection activities. No funding has been appropriated for the WPSPTF since FY 2009-2010.

The Florida Forever Trust Fund has supported acquisition of lands throughout northwest Florida that provide critical water resource functions, including water quality protection and aquifer recharge. Additionally, Florida Forever has been a potential source of construction funding for reclaimed water storage facilities. Florida Forever, however, has not had significant appropriations since FY 2010-2011.

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

In FY 2014-2015, the District approved $8 million from reserve funds for water supply development assistance grants across northwest Florida. The District extended the grant program another year with approximately $2.3 million dedicated to water supply development assistance during FY 2015-2016.

Funding budgeted for water resource development is listed in summary tables for regions II and III in the following sections (Table 4.2 and Table 4.5, respectively). The approved water resource development funding for FY 2015-2016 is $2,622,400. The anticipated five year water resource development implementation cost through FY 2019-2020 is $6,793,700.

Region II: Santa Rosa, Okaloosa, and Walton Counties

Since the 1940s, Santa Rosa, Okaloosa, and Walton counties (Figure 4.2) have been characterized by significant growth in water demands within coastal portions of the region. Long-term pumping of the coastal Floridan aquifer caused formation of a substantial cone of depression, creating 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, constraining coastal demand, and developing inland water supply sources as alternatives to coastal groundwater.

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. 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.

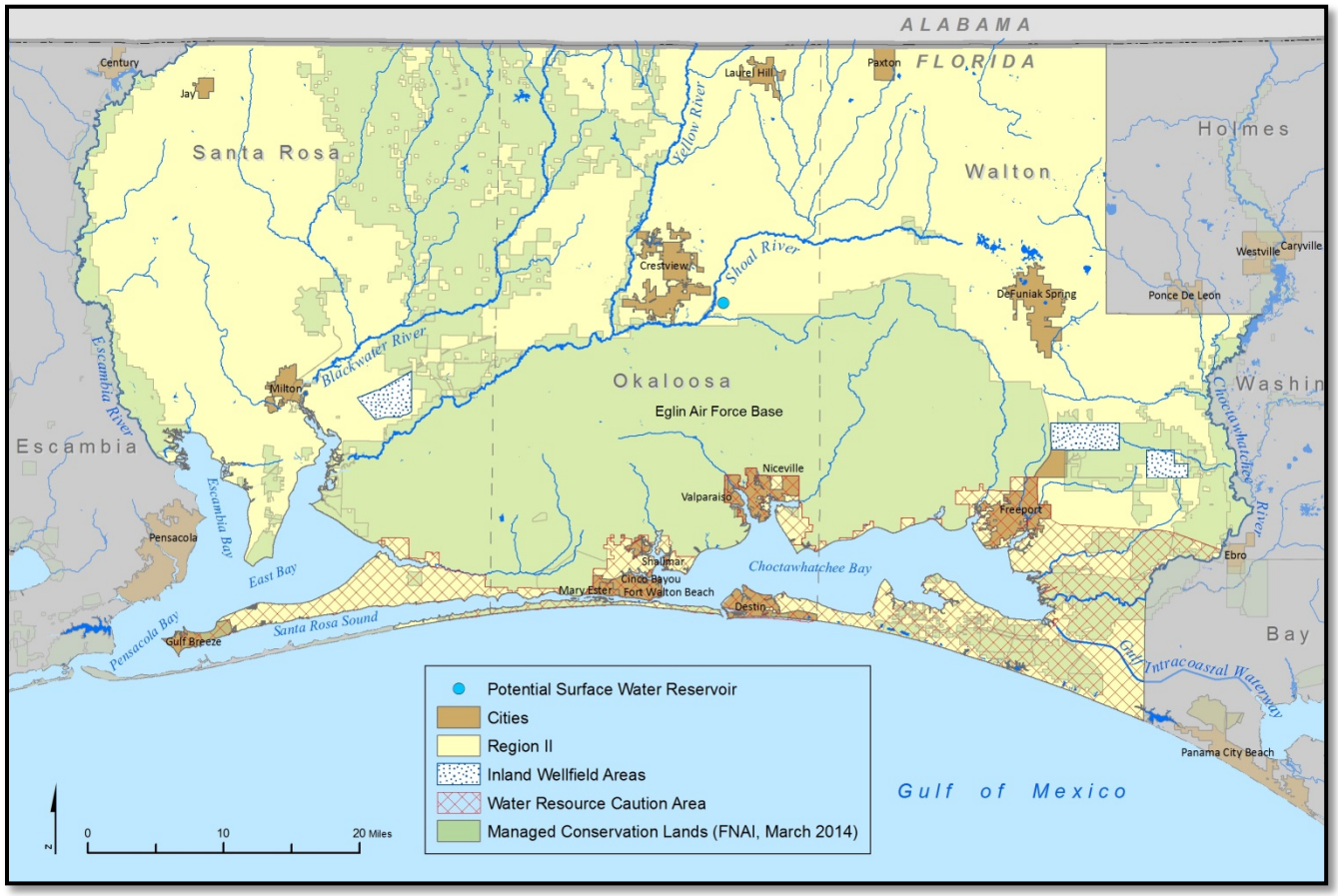

Figure 4.2 Water Supply Planning Region II

The District's first RWSP was approved by the Governing Board for Region II in February 2001, with updates to the plan approved in 2006 and most recently in 2012 (Busen and Bartel 2012). According to the 2013 WSA Update, public supply accounted for approximately 46 million gallons per day (mgd), or 62 percent of 2010 water use in Region II, with recreational water use comprising an additional 14 mgd,

or nearly 19 percent (Countryman et al. 2014). It is expected that public supply demand within the region will continue to increase through the planning horizon.

Region II Water Resource Development

The Region II RWSP includes ten water resource development projects encompassing strategies for sustaining water resources and supporting alternative water supply development (Table 4.1). The quantities of water identified in the table indicate preliminary figures based on regional scale model simulations of groundwater systems, regional planning objectives, and application of literature-based factors for reuse and water conservation. The amounts will be refined upon completion of or updates to the identified activity.

Table 4.1 Region II Water Resource Development Projects

Project	Activity	Water Identified (mgd)
Floridan Aquifer Sustainability Modeling	Development and application of a regional groundwater flow model and salt water intrusion models to identify regional sustainability from the coastal Floridan aquifer.	30
Inland Sand-and-Gravel Aquifer Development and Sustainability	Development and application of a three-dimensional, transient groundwater flow model to identify sustainable demands from Inland sand-and-gravel Aquifer.	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
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.	3
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 groundwater data throughout the region.	N/A
Abandoned Well Plugging	Assistance to local governments and utilities in the plugging of abandoned wells.	N/A

*This amount is an up-to amount originally included in the 2012 Region II RWSP for the Shoal/Yellow Rivers project; an updated estimate by Okaloosa County is approximately 10 mgd.

Floridan Aquifer Sustainability

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 Region II RWSP. Models of the Floridan aquifer were

previously developed to include a western domain encompassing Santa Rosa and western Okaloosa counties and an eastern domain that includes eastern Okaloosa and Walton counties. Model simulations were made to predict the extent of salt water intrusion through 2100 for the eastern and western domain models. Results indicate that salt water intrusion into potable portions of the Floridan aquifer continue to occur at a slow rate (HydroGeoLogic, Inc., 2007b, HydroGeoLogic, Inc. and Hazlett-Kincaid, Inc. 2007). 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.

In FY 2014-2015, the District began a project to refine the groundwater models. The two models have been combined into a single western district model and expanded to include portions of Escambia and Bay counties, in addition to coastal Region II. The project will incorporate newer monitoring data, updated water demand projections, and it will be calibrated to reflect groundwater withdrawals since inland wellfields have been developed. Additional investigation into the sand-and-gravel aquifer is also planned as part of this model update (see more detail below). The updated model will be used to evaluate future withdrawal scenarios by both regulators and permittees.

The increase in resources for this project is tied to the initiation in 2014 of minimum flows and levels (MFLs) for the coastal Floridan aquifer in Planning Region II. A work plan for developing and establishing an MFL for coastal Region II, an extensive data review and evaluation, and bid specifications for rehabilitating existing wells and expanding monitoring wells were completed in 2015. The current NWFWMD MFL Priority List shows the technical assessment for this project is scheduled for completion in 2020, with rule adoption in 2021.

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. Development of an inland sand-and-gravel aquifer wellfield was initiated in 1999 within the Santa Rosa County. Water from the wellfield is conveyed south to alleviate pumping demand from the Floridan aquifer along the coast. Public supply water withdrawals from the inland wellfield and vicinity increased from 1.0 mgd in 1998 to 5.6 mgd in 2013; however, in 2014 withdrawals fell to 3.4 mgd due to a line break across East Bay that rendered it out of service for many months and temporarily increased coastal Floridan withdrawals to meet water demands.

Previous District evaluations indicate that total groundwater production of up to 18 mgd, inclusive of current withdrawals, may be available from the sand-and-gravel aquifer. The model includes the transient response of the aquifer to drought and climatic variability. Considerable data were gathered, which involved constructing project-specific monitoring wells, determining aquifer hydraulic properties, mapping aquifer unit thicknesses, and measuring groundwater levels and stream discharge. The groundwater flow model was subsequently developed and calibrated. The sand-and-gravel aquifer model may be updated as part of the western district model described above.

Development of Surface Water Sources

In 2006, the District and its 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 the technical and economic feasibility of several alternatives, including direct river withdrawal, riverbank filtration, and construction

of tributary reservoirs. The District also concurrently reviewed an evaluation of a proposed Yellow River Reservoir and concluded that the proposal was not economically feasible and that its implementation would cause significant environmental impacts and mitigation requirements. Okaloosa County is continuing to evaluate surface waters in the Yellow and Shoal river basins as potential future water supply sources. Potential facilities may include direct withdrawal and treatment systems, as well as an offline reservoir or other storage facilities. The county recently completed a major land acquisition and has facilitated public workshops jointly with the U.S. Army Corps of Engineers as they continue to evaluate alternative water supply options. The District will continue efforts to support planning for alternative surface water development, including conducting an analysis of the Shoal and Lower Yellow River system through the MFL program.

Aquifer Storage and Recovery Feasibility

Aquifer storage and recovery (ASR), depending on the particular hydrogeologic characteristics of an area, has the potential to store large quantities of water more effectively and at a lower cost than above-ground storage. With a single exception, ASR systems have not been developed within Region II due to hydrogeologic conditions, economic infeasibility, water quality constraints, and other technical constraints. Destin Water Users has developed an ASR system for storage of reclaimed water in the sand-and-gravel aquifer. The reclaimed water facility has a permitted capacity of 2.125 mgd annual average daily flow. This reclaimed water is available to meet irrigation demands, helping to conserve potable water resources and to mitigate any potential impacts associated with this volume of groundwater withdrawal.

The use of ASR in the future for storage of reclaimed water or perhaps the use of direct aquifer recharge as a salinity barrier may require a regional approach, since water introduced into a geologic formation could affect the groundwater beneath jurisdictions or service areas of multiple utilities and local governments. In coordination with evaluations of surface water supply and reclaimed water alternatives and if additional funding becomes available, the District may conduct preliminary groundwater 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

The Region II RWSP previously identified approximately 5 mgd of new beneficial reuse to offset demands on the coastal Floridan. 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. As of 2014, 25 reuse applications associated with 11 reuse systems in Region II were permitted for public access reclaimed water, producing an estimated 10.6 mgd for public access reuse (DEP 2015). These facilities supported landscape irrigation for approximately 2,421 residences, 19 golf courses, 14 parks, four schools, and two cooling towers. Past District funding assistance has helped provide for construction of wastewater infrastructure improvements to facilitate reuse near the City of Freeport and in north-central Okaloosa County.

Water reuse coordination efforts increased in FY 2014-2015 due to the Senate Bill 536 statewide initiative to evaluate the expansion of the use of reclaimed water, as well as use of stormwater and excess surface water. The District also continues efforts to develop a water reuse evaluation that details wastewater facility characteristics and disposition of effluent in Northwest Florida. This evaluation will identify opportunities for more integrated water management and resource sustainability. Additionally, the District continues to work with utilities in the region to expand the use of reclaimed water to meet non-potable water needs through a districtwide water supply grant program. Since 2013, $1,426,500

has been awarded for seven reuse projects in Region II that include: expanding and upgrading reuse systems in the cities of Fort Walton Beach and Niceville in Okaloosa County; and the City of Gulf Breeze, the Holley Navarre Water System and Pace Water System in Santa Rosa County. All recipients in Region II are matching District grant funds.

Assisting utilities and local governments in developing beneficial reuse projects will remain a priority, with implementation depending on funding availability. Future project emphasis will be prioritized on opportunities that reduce demand for potable water and provide environmental benefit.

Water Conservation Coordination

A significant effort at water conservation has been underway in Region II for some time, largely due to regulatory requirements and incentives established within the coastal WRCA. As a result, per capita water use has declined in recent years in the region. Water conservation remains a priority to build upon current water use efficiencies and to further enhance resource sustainability. To support this effort, an updated evaluation of water conservation potential will be completed in 2016. It will include a review of existing programs in the region and identification of potential water savings achievable from additional water conservation measures.

Under Chapter 40A-2, F.A.C., new withdrawals from the Floridan aquifer for non-potable uses are generally 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. Goals for utility conservation measures for permitted withdrawals within the WRCA include reducing the annual average residential per capita water consumption to 110 gallons per day or lower and reducing water leakage to 10 percent or less of the water withdrawn. Utilities withdrawing an average of over 100,000 gallons per day are required to report withdrawals annually, with the majority required to report per capita water use. Most utilities in Region II reporting these values are achieving the 110 residential gallons per capita per day (gpcd) goal.

The District has worked in cooperation with DEP and the Florida water management districts to address public supply water conservation within Florida under section 373.227, F.S. The participating agencies have worked to define a common water conservation planning process for public supply utilities including creating standardized analytical methods and tools, common supporting technical criteria, and consistent permitting requirements and incentives related to goal-based conservation planning. As part of this initiative, the District established a process to allow for extension of permit duration for utilities which have demonstrated water savings achieved through implementation of a goal-based water conservation plan (Rule 40A-2.321, F.A.C.).

In 2014, the District's Governing Board declared April as water conservation month, joining DEP, the other Florida water management districts, and participating local governments in promoting water conservation and recognizing water conservation activity at a statewide level. In addition, funding for projects that achieve quantifiable water savings continue to be eligible for grant funding under the water supply development grant program.

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. District staff continue to work with local governments and state and regional agencies to better coordinate land use and water supply planning. In FY 2013-2014, substantial staff resources were devoted to completion of a Districtwide WSA update (Countryman et al. 2014). Major components of the update included an updated source assessment and revised water demand projections for Region II. During FY 2013-2014 and FY 2014-2015, District staff reviewed the first two Florida Statewide Agricultural Irrigation Demand (FSAID) reports, developed by the Florida Department of Agriculture and Consumer Services (DACS), and provided additional planning and technical assistance for future updates. District staff have also been working cooperatively with DEP staff to evaluate the status of the coastal WRCA and to improve reuse coordination. Beginning in late 2015, efforts will begin to update the Region II RWSP.

District staff also assist communities and utilities through water supply development projects. In FY 2014-2015, six of 25 District-wide water supply development grants were awarded to Region II totaling over $1.4 million. Funds were granted in all three Region II counties for purposes of water supply transmission, reuse, interconnection, and modeling. The grant program is discussed further under Districtwide Initiatives and in Appendix A.

Interconnection of Water Supply Conveyance Systems

Largely focused on Region II, the Coastal Water Systems Interconnection Project was a District initiative focused on increasing water supply reliability in coastal communities in cooperation with local utilities. The goal of the initiative was to enhance the resilience of the coastal water systems by enabling transfer of water between utilities during droughts or other contingencies. The Coastal Water Systems Interconnection Initiative was completed in 2013 with the final report providing a detailed analysis of interconnect alternatives and design parameters. Two interconnection projects were selected for potential future implementation: a coastal interconnection between Santa Rosa and Okaloosa counties and a coastal interconnection between Walton and Bay counties.

Although this project is complete, the District continues to support local governments and utilities planning interconnect projects that help ensure available and reliable water supplies, particularly in coastal areas.

Hydrologic Data Collection and Analysis

The District has a data collection network of rainfall gauges, stream gauges, and monitoring wells throughout Region II. Groundwater and surface water monitoring capabilities have been enhanced by continuing cooperation with the U.S. Geological Survey surface water gauging network and developing 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 continues to monitor conditions within the coastal WRCA for salt water intrusion and aquifer sustainability. This monitoring is essential for ensuring the success of long-term water supply initiatives, as well as for refining groundwater models and analyses to support future management decisions.

The District continues expansion of groundwater and rainfall monitoring network in Region II to support resource evaluations and development of improved modeling tools for both planning and consumptive

use permitting. In FY 2014-2015, an additional salt water intrusion monitoring well was added to the quarterly groundwater quality monitoring network and 20 existing monitoring wells were evaluated for rehabilitation and enhanced data collection with another six locations evaluated for monitor well construction. The data from these additional monitoring sites, as well as additional monitoring sites added in FY 15-16, will support the establishment of MFLs for the coastal Floridan aquifer in Region II and improved water resource development monitoring activities.

Abandoned Well Plugging

The District's Regulatory Services Division implements an effort to plug abandoned wells. The overall goal of the program is to protect available groundwater resources from aging 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. Technical assistance and funding is available to local governments and utilities for plugging abandoned wells identified as having the potential to adversely affect groundwater quality. This is an ongoing effort that the District will continue to implement where feasible in partnership with stakeholders and local governments. Through September 30, 2015, the District has permitted the plugging of 5,258 abandoned wells within Region II, 229 of which were plugged in FY 2014-2015.

Funding Summary: Region II Water Resource Development Projects

Table 4.2 displays past year expenditures, current year budget, and anticipated future expenditures for water resource development within Region II.

Table 4.2 2016-2020 Region II WRDWP Project Funding

Water Resource Development Projects	Budget Activity	FY 14-15 Expen-ditures[1]	Anticipated Five Year Work Program					FY16-FY20 Cost Estimate
			FY 15-16 Budget[2]	FY 16-17	FY 17-18	FY 18-19	FY 19-20	
Floridan Aquifer Sustainability	1.1.2 2.2.1	$264,142	$943,200	$500,000	$100,000	$275,000	$150,000	$1,968,200
Inland Sand-and-Gravel Aquifer	1.1.2 2.2.1	$8,696	$5,300	$5,500	TBD	TBD	TBD	$10,800
Surface Water Sources	1.1.2 2.2.1	$0	$0	$50,000	$250,000	TBD	TBD	$300,000
Aquifer Storage and Recovery	2.2.1	$0	$0	$0	$0	$0	$0	$0
Water Reuse	2.2.1	$27,884	$24,700	$25,000	$15,000	$15,000	$15,000	$94,700
Water Conservation	1.1.1 2.2.1	$16,548	$8,000	$8,000	$8,000	$8,000	$8,000	$40,000
Regional Water Supply Planning	1.1.1	$20,847	$58,400	$60,000	$60,000	$25,000	$20,000	$223,400
Interconnect	1.1.1	$0	$0	$0	$0	$0	$0	$0
Hydrologic Data	1.2.0 2.2.1	$99,389	$126,700	$130,000	$90,000	$90,000	$90,000	$526,700
Abandoned Well Plugging[3]	4.2.0	$9,549	$10,000	$8,000	$5,000	$5,000	$5,000	$33,000
TOTAL		$447,056	$1,176,300	$786,500	$528,000	$418,000	$288,000	$3,196,800

[1]Final, unaudited figures.
[2]FY 2015-2016 figures based on adopted budget.
[3]Funding in future years will be budgeted as assistance needs are identified.

The budget for FY 2015-2016 reflects an increase in anticipated spending as compared to that presented in the previous WRDWP. This largely reflects the development of an improved groundwater flow model and associated hydrologic monitoring to support water supply planning, water resource development, and consumptive use permitting in Region II. The modeling will principally address the Floridan aquifer, but may also be integrated with the sand-and-gravel aquifer model. Additionally, the budget provides for an increased level of effort to support the Region II RWSP update for water reuse addressing both ongoing District priorities.

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 4.3.

Table 4.3 Region II Water Supply Development Projects

Project	Activity	Estimated Cost	Estimated Water Available (mgd)
Inland Floridan Aquifer Alternative Water Supply	Development of the inland Floridan aquifer wellfield and transmission infrastructure to bring inland groundwater to serve coastal utilities in Walton and Okaloosa counties.	$48,100,268	15[1]
Inland Sand-and-Gravel Aquifer Alternative Water Supply	Development of the inland sand-and-gravel aquifer wellfield and associated infrastructure to bring inland groundwater to serve coastal utilities in Santa Rosa County.	$9,588,500	18[2]
Surface Water Supply Development	Development of alternative surface water supply source, storage system, conveyance, and conjunctive use.	TBD	10[3]
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.	$41,200,000	N/A

[1]Represents new inland wellfield pumping capacity; total pumping capacity approximately 28 MGD.
[2]Represents total estimated capacity of the inland wellfield region. Approximately 8 MGD currently permitted.
[3]Okaloosa County pursuing development of specific project options

Major completed water supply development projects include construction of inland groundwater wells, transmission pipelines, and associated facilities serving 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 inland Floridan aquifer wellfield and transmission facilities in Walton County. Recently, WRP, Inc. completed a 15-mile potable water transmission pipeline from an inland wellfield in Walton County, south across Choctawhatchee Bay to serve coastal service areas in Walton and Okaloosa counties. Additionally, Regional Utilities of Walton County constructed over five miles of water transmission pipeline along the U.S. Highway 98 corridor. This pipeline also conveys inland groundwater to meet coastal demand.

To date, Region II water supply development projects have made approximately 21 mgd of water available, including 13 mgd from the inland Floridan aquifer and 8 mgd from the inland sand-and-gravel aquifer. The District will continue efforts to make additional water supplies available to meet future needs, particularly focusing on surface water and reclaimed water. These water supplies, together with traditional water supply sources, are anticipated to be sufficient to meet demands through 2035 under both normal and 1-in-10 year drought conditions. Additionally, through the District's competitive grant program for water supply development, over $1.4 million in funding was awarded for six projects in Region II during FY 2014-2015, increasing reuse utilization capacity and improving the reliability and capacity of potable water supply systems (Appendix A, Table 4.7).

Region III: Bay County

The RWSP for Region III (Figure 4.3) was developed initially in 2008 and updated in 2013 (NWFWMD 2008; Brooks et al. 2014). The plan describes concerns about the long-term sustainability of water supply resources within the region and presents strategies to increase source reliability and minimize the vulnerability of Deer Point Lake Reservoir, the region's primary public supply source, to a major hurricane storm surge. Pursuant to the RWSP, the NWFWMD provided over $5 million in grant funding to Bay County for a $23 million project to develop an alternate intake at the lower end of Econfina Creek, the primary tributary of the reservoir. The location of new facility will minimize vulnerability to storm surge impacts.

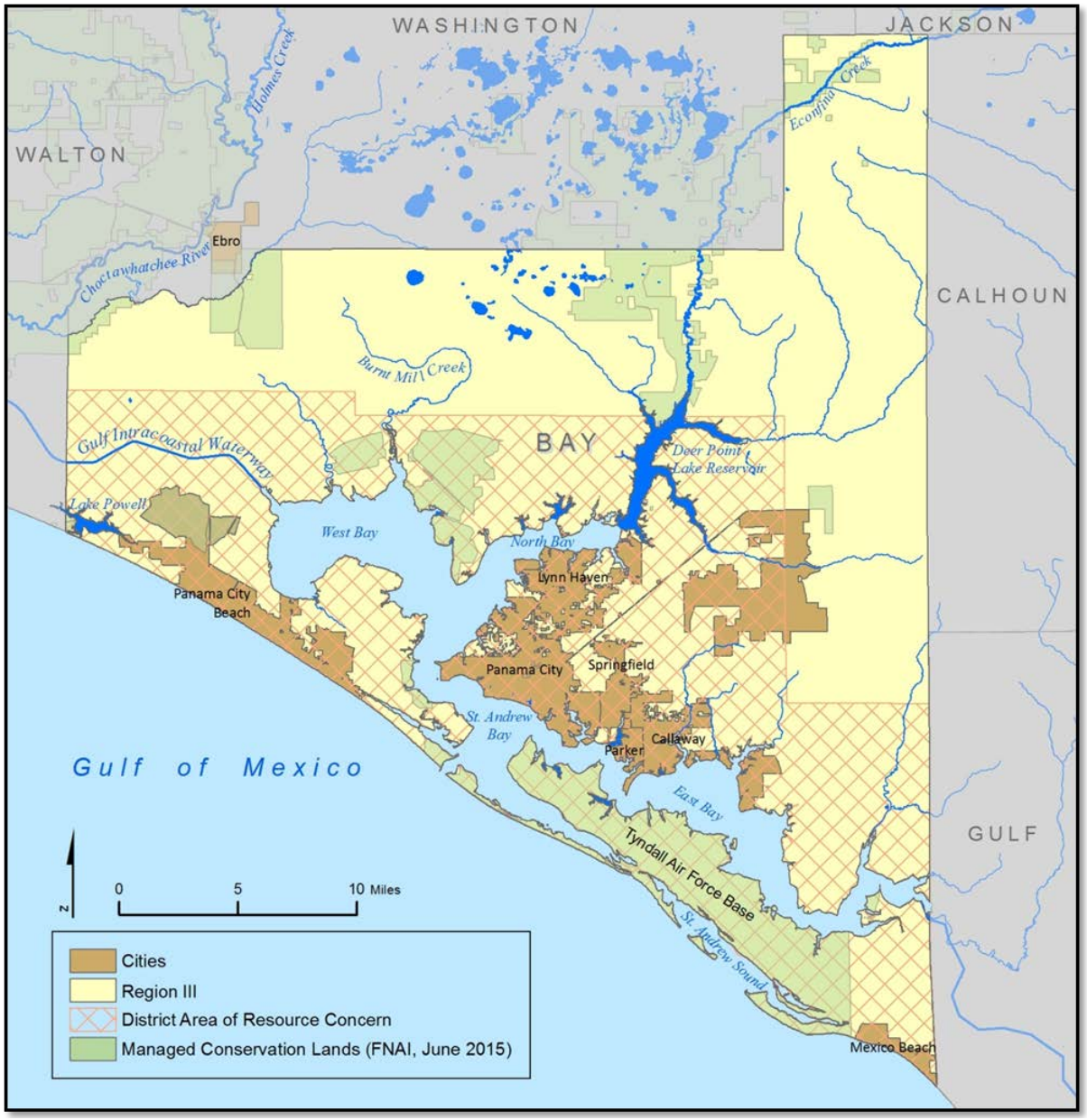

Figure 4.3 Water Supply Planning Region III

The 2013 WSA Update showed that public supply and industrial-commercial-institutional (ICI) water use together comprised approximately 72 percent of the water use in 2010, accounting for 38 percent and 34 percent respectively (Countryman el al. 2014). The report concluded that existing and reasonably anticipated surface water supplies are adequate to meet projected regional demands through 2035.

Region III Water Resource Development

The Region III RWSP update includes five water resource development strategies. These are summarized in Table 4.4. Descriptions of the strategies and progress to date follow.

Table 4.4 Region III Water Resource Development Projects

Project	Activity	Water Identified (mgd)
Econfina Creek and Groundwater Recharge Area Protection	Land protection and management of the Econfina Creek WMA, a regionally significant groundwater recharge area.	N/A
Hydrologic and Water Quality Data Collection and Analysis	Hydrologic data collection, monitoring, analysis, and modeling to identify baseline conditions and trends, evaluate current and potential water supply sources, and sustainably manage withdrawals.	N/A
Water Reuse Funding and Technical Assistance	Assistance to local governments and utilities in developing reclaimed water uses to extend potable water supplies and improve water quality of St. Andrew Bay.	5
Water Conservation Funding and Technical Assistance	Assistance to local governments and utilities in enhancing water conservation and efficiency efforts.	TBD
Regional Water Supply Planning, Coordination, and Technical Assistance	Technical assistance, support for utility interconnections, and development and update of the regional water supply plan.	N/A

Additional water supplies that could potentially be made available include water reuse and quantifiable conservation efforts. The District will continue efforts to help facilitate and provide technical assistance to local governments and utilities on water reuse and conservation projects.

Econfina Creek and Groundwater Recharge Area Protection

The District's Land Acquisition and Management Division manages over 43,000 acres in the Econfina Creek Water Management Area (WMA) to protect a regionally significant groundwater recharge area and other water resources while also providing public access and a resource for compatible public use and recreation. Land management activities include habitat enhancement, restoration, and development and maintenance of public access facilities. Acquisitions of inholdings and additions may be planned in the future depending on funding availability.

In late FY 2014-2015, the Williford Spring restoration project was completed. This was a $2.1 million project that restored and protected the spring shoreline, removed sediment, and implemented stormwater improvements. In addition, to make the area more accessible and resilient to public use, the District constructed spring access steps, a deck, boardwalks and trails for enhanced public access, as well as other recreational improvements to further protect the spring thereby enhancing water quality

protection of Econfina Creek. Cooperating partners were DEP and the Florida Fish and Wildlife Conservation Commission.

Hydrologic and Water Quality Data Collection and Analysis
This project provides the water resource data collection, analysis, and modeling needed for characterizing conditions and evaluating current and potential water supply sources. The project also incorporates long-term monitoring as needed to help 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 operates additional groundwater level, stream flow, and lake level monitoring sites within the county, all intended to characterize water resource conditions and trends within the region.

Water Reuse Funding and Technical Assistance
In 2013, an estimated 2.4 mgd of reclaimed water were used for public access reuse in Region III (DEP 2014). This included irrigation of 1,086 residences, two golf courses, four parks, and three schools. The Region III RWSP identifies approximately 5 mgd of new beneficial reuse that could offset the use of potable water sources. In addition to extending water supplies, further development of water reuse would help improve water quality in St. Andrew Bay and coastal waters by reducing wastewater discharges to the environment. Projected wastewater flows of almost 20 mgd by 2035 (Countryman et al. 2014) provide opportunity for additional application of reclaimed water for non-potable needs to reduce the use of potable water.

District staff will work with utilities and local governments to identify opportunities for expanded water reuse to meet non-potable water needs, as well as feasible funding sources and strategies. The District will continue working with utilities in Region III to determine the feasibility of reclaimed water to serve the needs of Gulf Power's Lansing Smith Generator Plant near Southport. This project has the potential to remove surface water discharges from wastewater facilities, brackish surface water withdrawals for consumptive and pass-through uses, and to position utilities to better meet future reclaimed water demand.

Other water use projects may include assessments matching reclaimed water generators with users, feasibility studies, pilot projects, and demonstration projects. Projects of highest priority to the District are those that offset and reduce the consumption of potable quality water, as well as those that protect natural systems and achieve integrated water resource management. In FY 2014-2015, staff continued development of a reuse inventory that can be used for further reuse planning work, and participated in the Senate Bill 536 statewide reuse study.

Water Conservation Funding and Technical Assistance
This project supports conservation and efficiency programs, practices, and measures on the part of local governments and utilities. Water conservation serves the public interest by enhancing efficiency, reducing costs to the public, and limiting impacts to natural resources. An updated evaluation of water conservation potential in Region III will be completed in 2016. The evaluation will review existing programs and identify potential water savings achievable from additional water conservation measures.

Staff will continue to work with local governments and utilities to further improve water use efficiency for public supply and other water use categories.

In 2014, the District's Governing Board declared April as water conservation month, joining DEP, the other Florida water management districts, and participating local governments in promoting water conservation advocacy and recognizing water conservation activity at a statewide level. In addition, funding for projects that achieve quantifiable water savings continue to be eligible for grant funding under the water supply development grant program (www.nwfwater.com/water-resources/wsp/grants/).

Regional Water Supply Planning, Coordination, and Technical Assistance
This project continues funding for the District to manage implementation of the Region III RWSP. The work involves coordinating and tracking projects and programs, completing administrative tasks related to plan implementation, and fulfilling statutory reporting requirements. This project also provides for technical assistance to local governments and water suppliers, educational and outreach materials and programs within the region, and other related activities.

In FY 2013-2014, substantial staff resources were devoted to completion of a Districtwide WSA update and subsequent Region III RWSP update. Also during FY 2013-2014 and in FY 2014-2015, District staff reviewed the first two Florida Statewide Agricultural Irrigation Demand (FSAID) reports, developed by the Florida Department of Agriculture and Consumer Services (DACS), and provided additional planning and technical assistance for future updates. Similar efforts in Region III are anticipated through the next WSA Update in 2018.

Funding Summary: Region III Water Resource Development Projects
Table 4.5 displays past year expenditures, current year budget, and anticipated future expenditures for water resource development within Region III.

Table 4.5 2016-2020 Region III WRDWP Project Funding

Water Resource Development Projects	Budget Activity	FY 14-15 Expen-ditures[1]	Anticipated Five Year Work Program					FY16-FY20 Cost Estimate
			FY 15-16 Budget[2]	FY 16-17	FY 17-18	FY 18-19	FY 19-20	
Econfina Creek & Groundwater Recharge Area	2.1.0 2.3.0 2.5.0 2.6.0 3.1.0	$2,212,981	$1,361,800	$1,012,400	$1,012,400	TBD	TBD	$3,386,600
Hydrologic Data	1.1.2 1.2.0 2.2.1	$47,170	$68,300	$50,000	$50,000	TBD	TBD	$168,300
Water Reuse	2.2.1	$8,365	$6,200	$5,000	$5,000	TBD	TBD	$16,200
Water Conservation	1.1.1 2.2.1	$8,183	$4,900	$3,000	$3,000	TBD	TBD	$10,900
Regional Water Supply Planning	1.1.1	$5,212	$4,900	$5,000	$5,000	TBD	TBD	$14,900
TOTAL		$2,281,910	$1,446,100	$1,075,400	$1,075,400	$0	$0	$3,596,900

[1]Final, unaudited figures.
[2]FY 2015-2016 figures based on adopted budget

Reduced expenditures in all projects except hydrologic data for FY 2015-2016 reflect completion of spring restoration projects and completion of the statewide reuse study and draft reuse evaluation. Increases in hydrologic data collection reflect expansion of the western district flow model to include coastal Bay County. Projected funding going forward reflects continuing technical assistance to local governments and utilities, with emphasis on identifying potential reuse projects, identifying the potential for enhanced water conservation, and for continuing hydrologic monitoring and analysis. With the updated RWSP for Region III, the WRDWP recognizes the significant ongoing level of effort for management of the Econfina Creek Water Management Area, which includes the primary recharge area for Floridan aquifer springs contributing to Econfina Creek and Deer Point Lake Reservoir. In addition to land management activities, significant capital expenditures are planned during FY 2015-2016 for restoration at Devils Hole spring along Econfina Creek.

Region III Water Supply Development

Water supply development strategies identified in the Region III RWSP Update are listed in Table 4.6.

Table 4.6 Region III Water Supply Development Projects

Project	Activity	Estimated Cost	Water Made Available or Anticipated (mgd)
Development of Upstream Intake for Surface Water Supply	Develop an alternative raw water pump station near the mouth of Econfina Creek and nine-mile force main to tie in with existing raw water main.	$23,425,000[1]	30[2]
Water Reuse Facilities	Construction of water reuse facilities to provide reclaimed water for landscape irrigation and other non-potable uses.	TBD	5
Utility Interconnections and Infrastructure Enhancements	Assist with delivery system interconnections and facility improvements. Specifically includes potential 48" pipeline emergency interconnect between southern Bay and Walton counties.	$25,700,000[3]	N/A
Water Conservation Projects that Result in Quantifiable Water Savings	Implementation of water conservation and efficiency programs and practices by local utilities.	TBD	TBD

[1]Final cost.
[2]Capacity of alternate raw water intake.
[3]Estimated cost for Bay-Walton emergency interconnect project.

Bay County's alternative pump station project was completed in FY 2014-2015 for development of an alternate upstream intake for Deer Point Lake Reservoir. The District provided $5.47 million in funding assistance from the Water Protection and Sustainability Trust Fund. The District also awarded water supply grant funding totaling nearly $780,000 for water system improvements for the cities of Springfield and Parker in FY 2014-2015 (Appendix A, Table 4.7).

Districtwide Initiatives

Water Supply Development Grant Initiative
The District continues to emphasize water supply development assistance for local governments and utilities. The Governing Board approved 49 projects totaling more than $18 million for the water supply development assistance grant program in the last two fiscal years. The Governing Board has approved an additional $2.3 million in assistance for this program in the FY 2015-2016 budget.

Coastal Interconnects
The Coastal Water Systems Interconnection Project was a District initiative focused on increasing water supply reliability in coastal communities in cooperation with local utilities. The goal of the initiative was to enhance the resilience of the coastal water systems by enabling transfer of water between utilities due to droughts or other contingencies. Multi-jurisdictional and regional water conveyance systems will better ensure water availability for emergency response and disaster recovery in the event of water shortages, natural disasters, environmental emergencies, or system failures. The Coastal Water Systems Interconnection Initiative was completed in 2013 with the final report providing a detailed analysis of interconnect alternatives and design parameters. Two interconnection projects were selected for potential future implementation: a coastal interconnection between Santa Rosa and Okaloosa counties and a coastal interconnection between Walton and Bay counties. Implementation of these two recommendations will require significant financial commitment to complete.

Water Reuse
District staff are developing approaches for integrated planning of water and wastewater resources. In FY 2014-2015, staff continued development of geographic information system (GIS) data associated with wastewater treatment plants and effluent disposition, including a new dataset of water use sectors that could be potential reclaimed water recipients. The data can be used to help match reclaimed water supplies with non-potable demands, identify setbacks for well permits, and planning and coordination for more integrated water management. Staff will continue efforts to develop a Districtwide water reuse evaluation to provide detailed information on wastewater systems that is needed for understanding opportunities and costs for expanding reuse potential. Assisting utilities and local governments in developing beneficial reuse projects will remain a priority, with implementation depending on future funding availability.

Agricultural Best Management Practices Cost Share Program
Significant efforts are underway to enhance agricultural water use efficiency and to support implementation of associated water quality best management practices (BMPs), targeted primarily for the Jackson Blue Spring basin of the Apalachicola River watershed. Over the past two years, the District budgeted $1,167,500 of legislatively appropriated spring restoration funding for these activities. The funding is being used to provide a 75 percent cost share to help producers retrofit center pivot irrigation systems and to implement fertigation and other more efficient nutrient application systems, as well as to help expand the northwest Florida mobile irrigation laboratory. Together, these efforts are expected to significantly enhance efficient use of both water and nutrients within the Jackson Blue Spring basin. As of the end of the third quarter (June 30, 2015), 93 percent of the available cost-share funds were under contract or distributed to producers for implementation of best management practices. An additional $1.0 million in legislatively-approved funding to continue this effort is planned for FY 2015-2016.

Well Abandonment

The District continues its program to properly plug abandoned or contaminated wells. Well abandonments typically considered for financial assistance from the District include the following: projects for financially constrained public water systems; wells located within water resource caution areas, and wells within areas identified under Chapter 62-524, Florida Administrative Code (F.A.C.) (Escambia, Santa Rosa, Jackson, and Leon counties). Other projects not meeting the previously listed criteria can also be considered, as appropriate. 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 FY 2014-2015, the District permitted the abandonment of 945 wells Districtwide. The District has executed an agreement with the City of Marianna for the proper abandonment of three wells of unknown use. The District will provide matching funds not to exceed $5,000 through the agreement.

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Appendix A. Water Supply Projects in the NWFWMD

Table 4.7 presents additional water supply development assistance and alternative water supply development projects funded since FY 2013-2014. 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, and water supply development assistance work together to ensure sustainable long-term water supplies.

Table 4.7 Additional Water Supply Development Assistance Projects (FY 2013 – 2015)

Project	Local Sponsor	Region	Activity	Status	Completion	NWFWMD Contribution	District Funding Source
Century Water System Leak Survey	Town of Century	I	Conduct leak survey of entire distribution system and prioritize leak repairs to reduce water loss from 22% to 10%	Complete	FY 2014-2015	$44,500	District General Fund
Chumuckla Water System Upgrades	Chumuckla Water System	II	Well and SCADA upgrade; equipment acquisition for water line improvements	Complete	FY 2014-2015	$100,721	District General Fund
Highway 285 Reclaimed Water Main Upgrade	City of Niceville	II	Replacement and upgrade of reuse lines to increase capacity	Complete	FY 2014-2015	$144,000	District General Fund
Santa Rosa Soccer and Horse Complex Reclaimed Water Extension	Pace Water System, Inc.	II	Reuse transmission main construction	Complete	FY 2014-2015	$160,000	District General Fund
Pine Island Water System	Calhoun County	IV	Development of water distribution system for the Pine Island community	Complete	FY 2014-2015	$446,545	District General Fund
State Road 20 Waterline Replacement	City of Blountstown	IV	Construction of water main; installation of hydrants	Complete	FY 2014-2015	$471,690	District General Fund
Water Extension to I-10 Interchange	Town of Grand Ridge	IV	Construction of water main extension to I-10 interchange	Complete	FY 2014-2015	$347,083	District General Fund
Greenwood/Marianna Interconnecting Water Mains	Town of Greenwood	IV	Construct of interconnection; with additional distribution line replacement	Complete	FY 2014-2015	$230,308	District General Fund
Chipola River Pump #2 Rehabilitation	City of Port St. Joe	V	Rehabilitate pump #2 and add a new diesel electric generator	Complete	FY 2014-2015	$225,870	District General Fund
Monticello Water Extension	City of Monticello	VII	Extend water main approximately two miles north of the city, abandoning several private systems	Complete	FY 2014-2015	$927,000	District General Fund
CWRF Reclaimed Water System Expansion	Emerald Coast Utilities Authority	I	Reuse extension to Scenic Hills Golf Course and UWF main campus	Design/Permitting	FY 2015-2016	$522,000	District General Fund
Water Main Replacement	City of DeFuniak Springs	II	Replacement of asbestos cement water main; installation of additional hydrants	Design/Permitting	FY 2015-2016	$473,750	District General Fund
South Santa Rosa Utility System Reclaimed Water Elevated Storage Tank	City of Gulf Breeze	II	Construction of a 300,000 gallon elevated reclaimed water storage tank	Design/Permitting	FY 2015-2016	$345,500	District General Fund

Project	Local Sponsor	Region	Activity	Status	Completion	NWFWMD Contribution	District Funding Source
West Destin Water Supply Analysis	Destin Water Users	II	Develop system model to analyze water system improvements throughout the western and northern service area	Design/Permitting	FY 2015-2016	$40,000	District General Fund
Well No. 7 and Transmission Line	Fairpoint Regional Utility System	II	Design, permitting, bidding, and construction administration for future new well, treatment facility, and water transmission line	Design/Permitting	FY 2015-2016	$123,947	District General Fund
U.S. Hwy 98 Water Line Extension Phase VI	Florida Community Services Corporation of Walton County	II	Phase IV of major upgrade of potable water transmission lines along the U.S. Highway 98 corridor	Construction	FY 2015-2016	$487,620	District General Fund
Holt-Baker Interconnection	Holt Water Works, Inc.	II	Construct a 1,100 LF 6” interconnection with Baker Water System, Inc.	Design/Permitting	FY 2015-2016	$8,700	District General Fund
Town of Jay Asbestos Watermain Replacement	Town of Jay	II	Replacement of asbestos cement water main	Construction	FY 2015-2016	$663,024	District General Fund
Water System Improvements - Gate Valve Replacement	City of Parker	III	Replace the City’s 30 non-functioning gate valves	Construction	FY 2015-2016	$278,500	District General Fund
City of Bonifay Waterline Replacement	City of Bonifay	IV	Replacement of asbestos cement and lead joint water main	Construction	FY 2015-2016	$268,900	District General Fund
Water Storage Capacity	City of Bristol	IV	Construction of ground storage tank; installation of high service pumps	Design/Permitting	FY 2015-2016	$537,500	District General Fund
Highway 77/I-10 Infrastructure Improvements Project	City of Chipley	IV	Construction of new well with transmission system improvements	Design/Permitting	FY 2015-2016	$440,000	District General Fund
2014 Water Improvements Project	City of Cottondale	IV	Replace cast iron and asbestos concrete pipe with PVC water line	Design/Permitting	FY 2015-2016	$284,580	District General Fund
Chipola River Protection and Stormwater Reuse Project	City of Marianna	IV	Expand pond to provide stormwater reuse and provide additional water quality treatment	Design/Permitting	FY 2015-2016	$671,340	District General Fund
Hosford Water System Upgrades	Liberty County	IV	Various activities to ultimately increase well production capacity	Design/Permitting	FY 2015-2016	$263,000	District General Fund

Project	Local Sponsor	Region	Activity	Status	Completion	NWFWMD Contribution	District Funding Source
Altha Water System Phase 3	Town of Altha	IV	Construction of water main; installation of hydrants	Construction	FY 2015-2016	$540,000	District General Fund
2014 Water Improvements Project	Town of Campbellton	IV	Replace aging waterline	Construction	FY 2015-2016	$322,062	District General Fund
Water Main Replacement	Town of Esto	IV	Water distribution system replacement	Design/Permitting	FY 2015-2016	$703,543	District General Fund
Town of Noma Water Line Replacement Project	Town of Noma	IV	Water distribution system replacement	Construction	FY 2015-2016	$415,292	District General Fund
Booster Pump Installation	Town of Wausau	IV	Install booster pumps to improve potable water service and fire protection	Design/Permitting	FY 2015-2016	$250,800	District General Fund
Water Main Replacement	Town of Westville	IV	Replace aging water line	Design/Permitting	FY 2015-2016	$491,100	District General Fund
Lime Feed System and Water Main Replacement	City of Port St. Joe	V	Install lime addition system to improve drinking water quality and replace aging cast iron pipe with PVC	Bid Phase	FY 2015-2016	$358,920	District General Fund
Water System Upgrades	City of Gretna	VI	Design and surveying for two new wells with additional transmission and treatment improvements	Design/Permitting	FY 2015-2016	$150,000	District General Fund
Transmission Line Replacement	Rosedale Water Association	VI	Replace aging water transmission line	Contract Development	FY 2015-2016	$272,978	District General Fund
Asbestos Cement Pipe Replacement Project	Town of Greensboro	VI	Replace asbestos concrete pipe with PVC water line	Bid Phase	FY 2015-2016	$222,044	District General Fund
Town of Havana Water System Improvements	Town of Havana	VI	Construction of new well, ground storage tank, and treatment facilities	Implementation	FY 2015-2016	$500,000	District General Fund
Panacea Area Water System - Sopchoppy Water System Interconnect	Panacea Area Water System, Inc.	VII	Construct potable water system interconnection with Sopchoppy	Design/Permitting	FY 2015-2016	$379,447	District General Fund
Pensacola Beach Reclaimed Water System Expansion - Phase 2	Emerald Coast Utilities Authority	I	Install ground storage tank, pump station and other components to expand reclaimed water system	Contract Development	FY 2016-2017	$425,000	District General Fund

Project	Local Sponsor	Region	Activity	Status	Completion	NWFWMD Contribution	District Funding Source
Reclaimed Water System Improvements	City of Fort Walton Beach	II	Install booster pump station, pressure and storage tanks, and appurtenances to provide reclaimed water to cemetery and athletic complex	Implementation	FY 2016-2017	$482,000	District General Fund
Golf Course Re-Use Line Replacement	Holley-Navarre Water System, Inc.	II	Increase size of reclaimed water line serving the Hidden Creek Golf Course and surrounding neighborhood	Construction	FY 2016-2017	$295,000	District General Fund
Mid-County Tank #4	Okaloosa County Water and Sewer	II	Construction of 1 MG elevated water tank for northern wellfield	Implementation	FY 2016-2017	$1,250,000	District General Fund
Water System Improvements 2015	City of Springfield	III	Install approximately 6,300 LF of 6” to 8” water line	Bid Phase	FY 2016-2017	$499,192	District General Fund
Catalyst Site/Industrial Park Water Improvements	Calhoun County	IV	Install new water line and complete upgrades and repairs to an existing elevated storage tank	Bid Phase	FY 2016-2017	$182,232	District General Fund
Planning for Reuse of Reclaimed Water	City of Bonifay	IV	Conduct planning and geotechnical evaluation for a reclaimed water system	Design/Permitting	FY 2016-2017	$350,000	District General Fund
Water System Improvements	City of Graceville	IV	Replace water line and associated components	Design/Permitting	FY 2016-2017	$426,729	District General Fund
2014 Water Improvements Project	Town of Sneads	IV	Replace water line and associated components	Construction	FY 2016-2017	$402,354	District General Fund
Water System Improvements	Eastpoint Water and Sewer District	V	Install new inland well and transmission line to existing treatment and storage system; abandon two coastal wells	Design/Permitting	FY 2016-2017	$346,669	District General Fund
Hayfield Spur Road Extension Loop	Jefferson Communities Water System, Inc.	VII	Construct water line and fire hydrants to provide looping and potential connections for future customers	Design/Permitting	FY 2016-2017	$164,203	District General Fund
Wakulla Regional Water System Improvements	Talquin Water and Wastewater, Inc.	VII	Install new water treatment systems and storage improvements to improve water quality within the drinking water system	Bid Phase	FY 2016-2017	$350,000	District General Fund
			Total			**$18,285,643**	

4.2 Alternative Water Supplies Annual Report

Table 4.8 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 4.8 Projects Funded Under the Water Protection and Sustainability Program

Project	Region	Local Sponsor	Activity	Status	WPSPTF FY Approp.	Anticipated Water (MGD)[1]	WPSPTF Contribution	Local Contribution	Total	Local %
Area-wide Alternative Water Supply Source Expansion	II	Regional Utilities, South Walton Utility Co.	Inland wellfield expansion	Complete	FY 2006	15.1	$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	$4,509,132	$6,509,132	69%
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	0.0	$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	1.2	$500,000	$4,500,000	$5,000,000	90%
Wakulla County Reuse Project	VII	Wakulla County	Water reuse	Reuse line complete; WWTP upgrade funded	FY 2007	0.4	$500,000	$6,495,000	$6,995,000	93%
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%
Alternative Pump Station	III	Bay County	Alternative raw water pump station and force main	Complete	FY 2008; FY 2009	30.0[2]	$5,470,000	$17,914,000	$23,384,000	77%
Total						**62.1**	**$21,470,000**	**$67,996,723**	**$89,466,723**	**76%**

[1]Anticipated water made available rounded to the nearest 100,000 gallons per day
[2]Capacity of alternate raw water intake

Chapter 5: Florida Forever Work Plan Annual Report

5.1 Land Acquisition Work Plan

Introduction

Section 373.199(7), F.S. requires the Northwest Florida Water Management District (District) to annually update the Florida Forever Five-Year Work Plan. To date, this is the 15th annual update of the 2001 Florida Forever Five-Year Work Plan. Since 2006 this plan has been presented as a separate chapter in the Consolidated Annual Report as required by section 373.036(7), F.S. This plan contains information on projects eligible to receive funding under the Florida Forever Act and also reports on land management activities, lands surplused or exchanged and the progress of funding, staffing and resource management of projects for which the District is responsible.

Florida Forever Program

In 1999, the Florida Legislature passed the Florida Forever Act (section 259.105, F.S.) which has continued the state's long-term commitment to environmental land acquisition, restoration of degraded natural areas, and high-quality outdoor recreation opportunities.

While previous programs focused almost exclusively on the acquisition of environmentally sensitive lands, the Florida Forever program is somewhat different in that it authorizes the use of up to half of the program funding for certain types of capital improvement projects. Eligible uses of these funds include water resource development, stormwater management projects, water body restoration, recreation facilities, public access improvements, and removing invasive plants, among others. The remaining 50 percent must be spent on land acquisition and the table below illustrates actual expenditures for land acquisition using Florida Forever funding.

Water Management Area	Acres	Dollars Expended
Perdido River	6,044	$13,535,865
Escambia River	697	$ 1,231,692
Yellow River	205	$ 630,046
Choctawhatchee River	4,269	$ 6,162,350
Econfina Creek	3,663	$ 7,977,220
Apalachicola River	1,912	$ 3,981,132
Chipola River	2,440	$ 5,922,785
St. Marks River	830	$ 1,862,050
Ochlockonee River	1,529	$ 1,951,197

Since the inception of the District's land acquisition program, the goal has been to bring as much floodplain as possible of our major rivers and creeks under public ownership and protection. To date, more than 223,555 acres have been protected for water resource purposes through the land acquisition efforts of the District either in fee simple or through conservation easements, the District's preferred method of acquisition, presently and going forward.

A summary of acquisitions and surplusing completed in 2015 is provided below.

Table 5.1 Summary of Acquisitions and Surplusing Completed in 2015

Acquisitions					
Property	**Date Acquired**	**Acres**	**Purchase Price**	**Funding Source(s)**	**Water Management Area**
James	12/18/15	3.12	$48,000	Springs Funding	Econfina Creek
Surplused Lands					
Property	**Date Surplused**	**Acres**	**Sale Price**	**Funding Source(s)**	**Water Management Area**
Blue Springs Road	06/12/15	(2.6)	$5,300	N/A (exchange parcel)	Econfina Creek
Sale to DOT	06/29/15	(0.42)	$2,400	Florida Forever/DOT Mitigation	Escambia River
	TOTAL	**(3.02)**	**$7,700**		

Acquisition Planning

The District employs a watershed approach to select and prioritize the important water resource and natural systems within the major river basins of northwest Florida. Primary among the considerations in this process are how specific floodplain or buffer areas help satisfy the District's water resources and natural system protection objectives; the availability of funds; a property owner's willingness to enter into an agreement or to sell the property; how different areas fit into the District's land management scheme; and the size, accessibility, and overall condition of each property. Recommendations from interest groups, landowners, local governments, agency representatives, and other interested parties are given full consideration in the acquisition process.

Subject to receiving funding, the District's acquisition efforts this year will focus on the purchase of Conservation Easements that protect the quality and quantity of water that flows from springs, and inholdings and additions to the existing water management areas (WMAs). Existing WMAs include the Perdido River, Escambia River, Blackwater River, Yellow River, Garcon Point, Choctawhatchee River/Holmes Creek, Econfina Creek, Chipola River, and Apalachicola River. All of these WMAs will be high priority areas for the acquisition of additions and inholdings. Acquisition efforts will be directed toward acquiring those properties which the District adjoins on one, two or three sides (additions) or those parcels which the District surrounds on all sides (inholdings). Specifically, the District's acquisition efforts will also focus on acquiring less than fee simple interest in properties located within the Jackson Blue and Wakulla Springs Groundwater Contribution Areas. Fee simple acquisition is considered only after less than fee simple is determined not to be a viable option.

In developing the annual update, District staff shall review projects proposed by DEP's Division of State Lands in order to minimize redundancy and facilitate an efficient and mutually supportive land acquisition effort.

Approved Acquisition Areas

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

Table 5.2 NWFWMD Approved Land Acquisition Areas

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

Groundwater Recharge Areas	Donated Lands
Such lands may be designated by the District as Recharge Areas for the Floridan, Sand-and-Gravel and other important aquifers and may be acquired in fee simple or less than fee simple.	The District will accept donations of lands within its major acquisition areas if those lands are necessary for water management, water supply and the conservation and protection of land and water resources.

Exchange Lands
The District may exchange lands it has acquired under the Florida Forever program for other lands that qualify for acquisition under the program. The District's Governing Board establishes the terms and conditions it considers necessary to equalize values of the exchange properties. In all such exchanges, the District's goal will be to ensure that there is no net loss of wetland protection and that there is a net positive environmental benefit.

Mitigation Acquisitions
Under Florida law, unavoidable losses of natural wetlands or wetland functions require "mitigation" through the acquisition or restoration of other nearby wetlands. The District is often the recipient of such lands in the form of donations and also serves as the mitigation agent for the Florida Department of Transportation. Whenever possible, the District attempts to acquire mitigation lands contiguous to its existing ownership, but since proximity to the original wetland impact is often paramount, the District will acquire or manage isolated tracts at times.

Surplus
Chapter 373.089, F.S., allows the Governing Board of the District to sell (surplus) lands or interest or rights in lands to which the District has acquired title or to which it may hereafter acquire title. Any lands, or interests or rights in lands, determined by the Governing Board to be surplus may be sold by the District at any time for the highest price, but in no case shall the selling price be less than the appraised value.

Surplus Lands

District staff conducted an evaluation of all District lands to determine if there were any parcels appropriate for surplus. The parcels recommended for surplus were small, non-contiguous, isolated tracts or connected only on a corner. The following tracts were declared surplus by the District's Governing Board.

Table 5.3 Surplus Lands List

WMA	Acres	County	Acquired Date	Status
Blackwater River	0.4	Santa Rosa	August 3, 2001	Sold on 12-13-13
Choctawhatchee River	38	Walton	July 31, 1992	Sold on 02-14-14
Choctawhatchee River	38	Walton	July 31, 1992	For Sale
Econfina Creek	8.39	Washington	December 19, 1997	For Sale
Econfina Creek	2.6	Bay	April 17, 2006	Sold on 06-12-15
Escambia River	115	Escambia	April 26, 1994	For Sale
Yellow River	1.5	Okaloosa	December 15, 1999	Sold on 12-13-13
Yellow River	61.1	Okaloosa	December 15, 1999	Exchanged 01-24-14

Note to Landowners

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

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

Less Than Fee Methods of Land Protection

In less than fee or Conservation Easement purchases, the District attempts to acquire only those rights in property (i.e., development and land use conversion rights) that are needed to accomplish specific water resource and environmental protection goals.

Being the District's preferred method of acquisition, such less than fee methods can provide a number of public benefits. First, the landowner retains title to the property and the ability to operate the property, within the provisions of the Conservation Easement, in an economically beneficial manner. Also, acquisition funding can be conserved, thereby enabling the protection of more land with fewer funds. Further, the property continues in private ownership and thus may remain on local property tax rolls. Moreover, the District does not incur the long-term costs of land management since the property's management and maintenance remains the landowner's responsibility. Not all properties are suitable for less than fee acquisition, but the potential benefits often make these kinds of transactions a viable alternative to the District's traditional fee-simple land purchases.

DEP Florida Forever Priority List

The Florida Forever Priority List can be found at http://www.dep.state.fl.us/lands/FFplan.htm

Florida Forever Goals and Numeric Performance Measures

As outlined in Chapter 18-24, F.A.C., the District is required to report on the goals and measures for lands to be acquired under the Florida Forever program. The following page summarizes the goals and measures applicable to Northwest Florida Water Management District.

Florida Forever Goals and Numeric Performance Measures

Reported as of October 1, 2015

Rule No. 18-24.0022

(2)(d)1. For proposed acquisitions, see section 5.1, (Florida Forever) Land Acquisition Five-Year Work Plan in the Consolidated Annual Report.

Acquisitions of lakes, wetlands, and floodplain areas to date = 187,112 Total acres
15,255 Florida Forever acres

(2)(d)2. Acquisitions for water resource development to date = 41,616 Total acres (incl. fee and l-t-f)
3,663 Florida Forever acres (incl. fee and l-t-f)

(3)(a)2. Refer to section 5.2, (Florida Forever) Capital Improvement Work Plan of the Consolidated Annual Report for funded capital improvements identified in SWIM, stormwater, or restoration plans.

(3)(a)3. NWFWMD lands to be treated for upland invasive, exotic plants <5,000 acres

The District has not conducted surveys to identify the spatial distribution of invasive exotic plant infestation on District lands. It is known that invasive plant problems exist at varying levels on some District lands, and staff treat with herbicide as needed.

(3)(b) New water to be made available through Florida Forever funding for water resource development -

Major water resource development accomplishment has been provided by additions to Econfina Creek Water Management Area (1992-2009). Additionally, Florida Forever funding has in the past contributed to the construction of a 750,000 gallon reuse storage facility for the City of Freeport to serve a 0.6 MGD reuse water service area (project completed in 2009). Funding for water supply development, including construction of water reuse facilities, is primarily provided through the Water Protection and Sustainability Program Trust Fund, NWFWMD General Fund, and local funding. See the NWFWMD Five-Year Water Resource Development Work Program report and Consolidated Annual Report.

(4)(a)1. NWFWMD lands that are in need of and are undergoing restoration, enhancement or management by the District.

In need of restoration, enhancement and management = 13,359 acres
Undergoing restoration or enhancement = 958 acres
Restoration completed = 20,934 acres
Restoration maintenance = 20,934 acres

(4)(a)3. Refer to section 5.2, (Florida Forever) Capital Improvement Work Plan of the Consolidated Annual Report for capital improvements identified in SWIM, stormwater, or restoration plans.

(4)(a)6. NWFWMD lands under upland invasive, exotic plant maintenance control <10,000 acres

(4)(b) Refer to section 4.1, Five-Year Water Resource Development Work Program: FY 2015-2016 of the Consolidated Annual Report for quantity of new water made available through regional water supply plans.

(4)(c) See section 5.1, (Florida Forever) Land Acquisition Work Plan (Table 5.5) of the Consolidated Annual Report for resource-based recreation facilities by type.

Land Acquisition Projects

The Florida Forever Act, in particular section 373.199(3) F.S., identifies information that must be included for each Florida Forever Project. Some of the required information is relatively general and applicable to all projects. To reduce the redundancies of this plan, general information is provided separately as part of the District's Five-Year Plan for the Florida Forever Program. Specific land acquisition projects are individually identified and detailed information specific to the project is provided in the following pages.

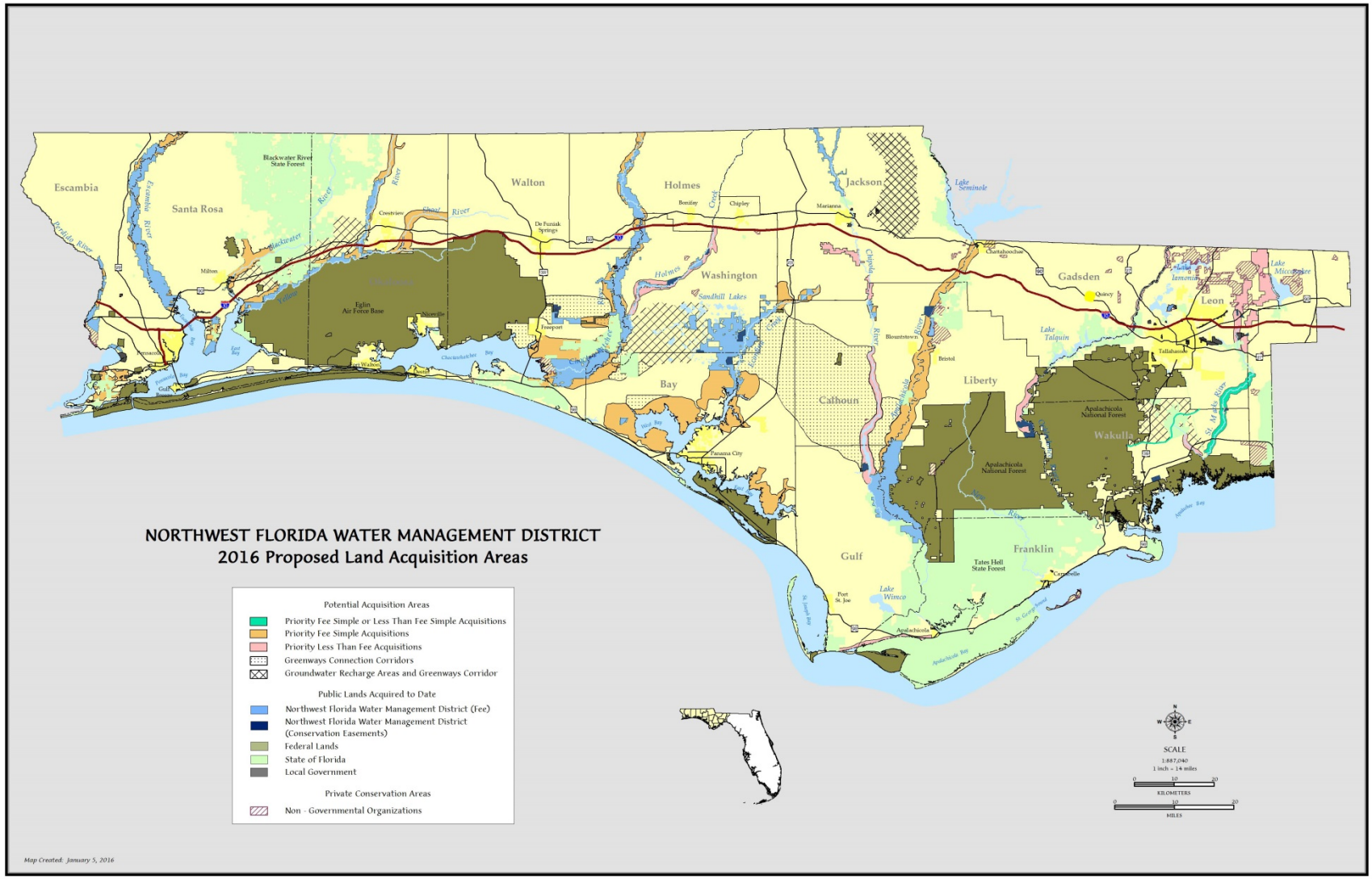

Figure 5.1 Proposed Land Acquisition Areas

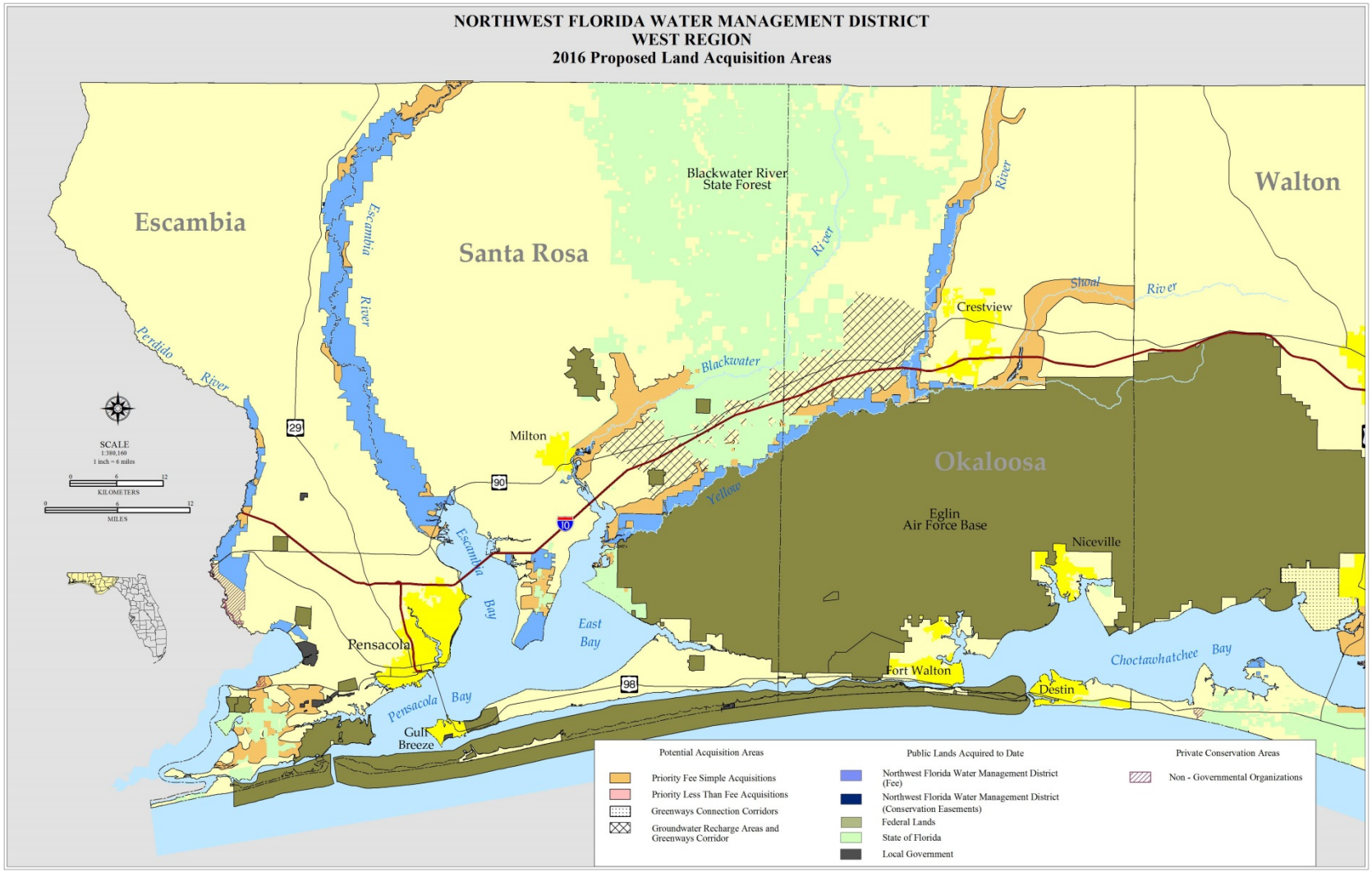

Figure 5.2 2016 Proposed Land Acquisition Areas (West Region)

Florida Forever Land Acquisition Project

Perdido River and Bay Basin

The Perdido River serves as the state line, separating Florida from Alabama. The Perdido River has been designated an Outstanding Florida Water and Special Water system; a canoe trail; and a recreation area. The upper part of the river is a shifting sand river system, unique to portions of Northwest Florida, south Alabama, southern Mississippi and eastern Louisiana, while the lower end of the river is characteristic of a blackwater stream. The District owns 6,261 acres in fee simple and 4 acres in less than fee between the Perdido River and Bay.

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

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

The Perdido Bay is an estuarine system which receives fresh water from the Perdido River. Subsidiary embayments within the Perdido Bay estuary include Tarkiln Bay, Arnica Bay, Wolf Bay, Bayou La Launch and Bayou St. John. Perdido Key separates Perdido, Tarkiln, and Arnica bays, Bayou La Launch and Bayou St. John from the Gulf of Mexico. Big Lagoon adjoins Perdido Bay to the east, separating it from Pensacola Bay. Currently, the District owns 810.19 acres along Perdido Bay.

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

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

Land Acquisition
Approximately 1,447 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will depend upon such considerations as: Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; available staff resources, and availability of funds.

Florida Forever Land Acquisition Project

Southwest Escambia County Ecosystem

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

Protecting the ecological integrity of this area is important to the quality of water resources in the Pensacola and Perdido bay systems. Strategic acquisitions could help limit nonpoint pollution and untreated stormwater runoff by preventing channelization. Wetlands and upland buffers would also be preserved, and riparian buffer zones would be maintained. Other potential benefits include improved fish, wildlife, and estuarine productivity.

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

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

Land Acquisition
Approximately 11,000 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will depend upon such considerations as: Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; available staff resources, and availability of funds.

Groundwater Recharge Area
Designated area has groundwater recharge potential.

Florida Forever Land Acquisition Project

Escambia River Basin

Beginning at the confluence of the Conecuh River and Escambia Creek above the Florida-Alabama border and discharging into Escambia Bay, the Escambia River corridor contains a rich diversity of plant and animal species, as well as many rare fish and waterfowl. The Escambia River basin is broad and well drained in the upper reaches, and swampy below Molino, Florida. While the overall water quality is considered good, many point and non-point pollution sources empty into the river. Currently, the District owns 35,413 acres in fee simple and 19 acres in less than fee along the river.

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

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

Land Acquisition
Approximately 6,644 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will depend upon such considerations as: Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; available staff resources, and availability of funds.

Florida Forever Land Acquisition Project

Garcon Point Ecosystem

This proposed land acquisition project contains most of the Garcon Point Peninsula, which borders Pensacola, Escambia, East and Blackwater bays. The project area is largely undeveloped and includes a variety of natural communities that are in good to excellent condition. The entire tract provides considerable protection to the water quality of the surrounding estuary, as well as harboring a number of rare and endangered species.

The emergent estuarine marsh that borders several miles of shoreline within the project is an important source of organic detritus and nutrients and serves as a nursery for many of the species found in Pensacola Bay. These wetlands function as both stormwater filtration and a storm buffer area, as well as providing erosion controls to the neighboring uplands. A minimum of 14 endangered or threatened species are known to live in the region including the listed federally endangered reticulated flatwoods salamander. The northern wet prairie portion is known to be an outstanding pitcher plant habitat.

Priority purchases will be concentrated on parcels adjacent to existing District lands. Currently the District owns 3,245 acres in fee simple on Garcon Point.

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

Land Acquisition
Approximately 3,200 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will depend upon such considerations as: Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; available staff resources, and availability of funds.

Florida Forever Land Acquisition Project

Blackwater River Basin

Originating in the Conecuh National Forest in Alabama, the Blackwater River has a large portion of its Florida watershed further protected by the Blackwater River State Forest. In all, nearly 50 miles of the river corridor is remote and undeveloped. As a result, the Blackwater River is considered one of Florida's best preserved waterways.

The acquisition area includes a large area of mature longleaf pine forest; considerable bottomland forest and marsh acreage; upland mixed forest; and blackwater stream and seepage slope communities. Priority purchases will be concentrated on parcels adjacent to existing District lands. Approximately 381 acres in fee simple have been acquired along the Blackwater River immediately south of Milton in Santa Rosa County.

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

Land Acquisition
Approximately 11,449 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over the next five years or more. The timing of any given acquisition will depend upon such considerations as: Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; available staff resources, and availability of funds.

Florida Forever Land Acquisition Project

Yellow and Shoal River Basin

The Yellow River has its headwaters in Conecuh National Forest in Alabama and forms the northern border of Eglin Air Force Base (AFB) across much of eastern Santa Rosa and western Okaloosa counties. The potential acquisitions would bring much of the remainder of the Yellow River floodplain in Florida under public ownership. Included in the project is a segment of the lower Shoal River, the largest tributary to the Yellow River. Large private landowners own a majority of the floodplain in this project, but considerable areas of the bordering and buffer lands are being sought to ensure effective management and protection of water resources. Highest priority will be given to tracts in the western portion of the project within the 100-year floodplain. Priority purchases will be concentrated on parcels adjacent to existing District lands. Currently the District owns 16,553 acres in fee simple along the river.

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

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

Land Acquisition
Approximately 39,140 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition can depend upon such considerations as: Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; available staff resources, and availability of funds.

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

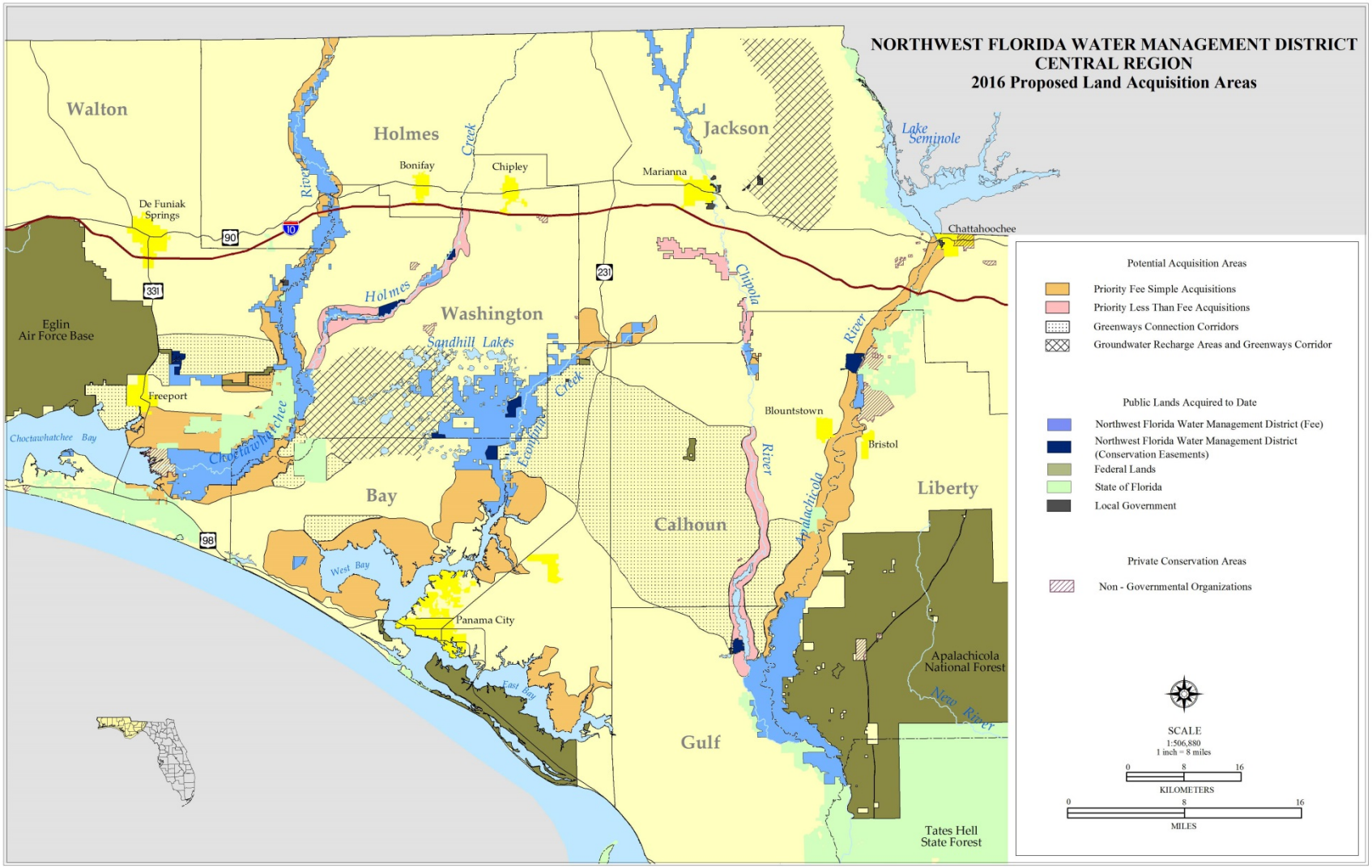

Figure 5.3 2016 Proposed Land Acquisition Areas (Central Region)

Florida Forever Land Acquisition Project

Lafayette Creek

Originating in south central Walton County, the Lafayette Creek drainage basin is located northeast of Freeport, Florida. The main stem of the creek begins about seven miles east of Freeport and runs due west for about six miles before it turns south and empties into LaGrange Bayou/Choctawhatchee Bay. Additional purchases along the creek would protect many diverse natural communities and habitat types. In addition, any proposed acquisitions could also protect a portion of the water resources of Magnolia and Wolf creeks, both of which are significant tributaries to Lafayette Creek. Currently, the District owns 3,160 acres in fee simple along the creek, including 1,397 acres for DOT mitigation purposes.

The area between the Choctawhatchee River and Eglin Air Force Base is part of the Northwest Florida Greenway Corridor which serves to protect open space stretching from the Apalachicola National Forest to Eglin Air Force Base. It is intended to preserve environmentally sensitive areas, sustain existing military lands and airspace, maintain the economic viability of forest lands, and provide recreation. The District, in cooperation with Eglin Air Force Base, acquired a 1,095.3 acre conservation easement from Nokuse Plantation utilizing Department of Defense Readiness and Environmental Protection Integration (REPI) funds. Acquisition of this Conservation Easement will help ensure the protection of seepage streams within the Magnolia and Lafayette Creeks and buffer Eglin Air Force Base lands to the west.

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

Land Acquisition
Approximately 5,800 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will depend upon such considerations as: Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; available staff resources, and availability of funds.

Florida Forever Land Acquisition Project

Choctawhatchee River and Holmes Creek Basin

Originating in Alabama and flowing into Choctawhatchee Bay, the Choctawhatchee River/Holmes Creek basin encompasses the second largest floodplain in the state. Approximately 3,133 square miles of the watershed is in Alabama and 2,052 square miles is in Florida. The river is 170 miles long with about 88 miles in Florida. Although the river basin exhibits localized water quality problems, primarily due to agricultural land use in the upper basin, the overall water quality is considered good. The river basin encompasses several springs and a variety of habitats including bottomland hardwood forests, marshes and Tupelo-Cypress swamps.

Due to the river corridor's undeveloped nature, the basin provides habitat for a variety of native wildlife, including several endangered plant and animal species. The river also serves as a breeding and migratory area for both the Alligator Gar and the Gulf Sturgeon. The District currently owns 63,348 acres (60,810 acres in fee simple) along the river and creek and 2,538 acres in less than fee. Priority purchases would be concentrated on parcels adjacent to existing District lands, around the river's mouth, designated tributaries such as Holmes Creek, and other projects that can mitigate for wetland impacts associated with DOT highway construction.

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

Land Acquisition
Approximately 55,064 acres have been identified for fee simple acquisition on the Choctawhatchee River and Holmes Creek, and 7,000 acres have been identified for possible less than fee acquisition on Holmes Creek. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will depend upon such considerations as: Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; available staff resources, and availability of funds.

Florida Forever Land Acquisition Project

West Bay Buffer

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

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

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

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

Land Acquisition
Approximately 47,281 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will depend upon such considerations as: Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; available staff resources, and availability of funds.

Florida Forever Land Acquisition Project

Econfina Creek

Econfina Creek is the major contributor to Deer Point Lake, which serves as the public water supply for Bay County, including Panama City, Panama City Beach and neighboring communities. The proposed purchases along the creek contain several spring-run streams, which are imperiled biological communities. The slope forest communities that border considerable lengths of the creek contain some of the highest species diversity encountered in Florida. The sand hills portion of the project features high rolling pinelands, steephead ravines, and numerous sandhill upland lakes. Much of the sand hills area is of excellent quality, with a nearly intact ground cover of wiregrass and dropseed. At least 24 species of rare or endangered plants inhabit the sand hills area. The District currently owns 43,771 acres (41,338 in fee simple) including the 2,155-acre Sand Hill Lakes Mitigation Bank and 2,433 acres in less than fee. Priority purchases would be concentrated on parcels adjacent to existing District lands and parcels with significant aquifer recharge potential.

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

Land Acquisition
Approximately 39,666 acres have been identified for possible acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will depend upon such considerations as: Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; available staff resources, and availability of funds.

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

Florida Forever Land Acquisition Project

Sandy Creek Basin

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

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

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

Land Acquisition
Approximately 15,000 acres have been identified for acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will depend upon such considerations as: Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; available staff resources, and availability of funds.

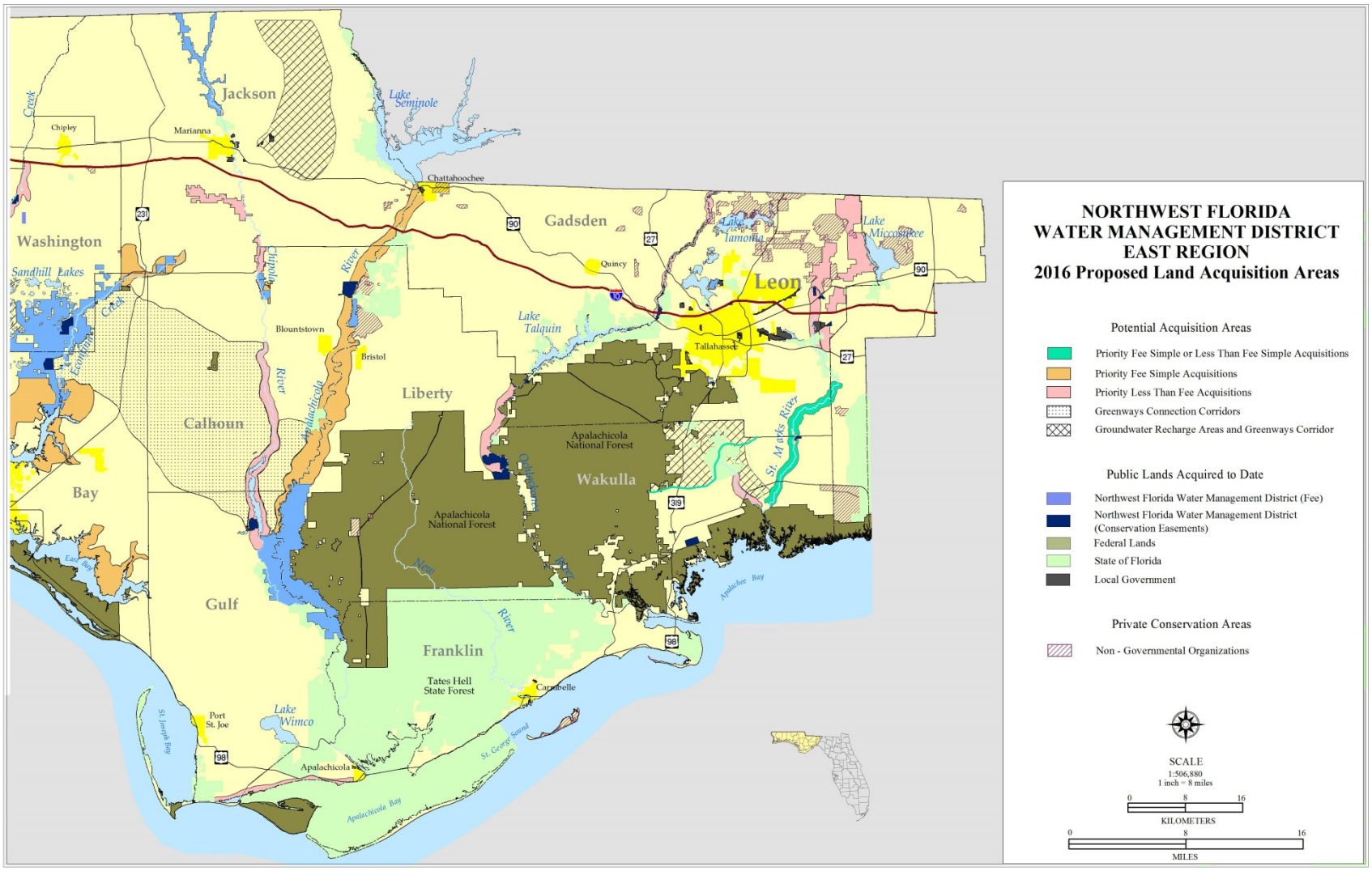

Figure 5.4 2016 Proposed Land Acquisition Areas (East Region)

Florida Forever Land Acquisition Project

Chipola River Basin

A new area along the Middle Chipola River has been identified for acquisition. The area is comprised of approximately 2,400 acres in northern Calhoun and southern Jackson counties. Acquisition of this tract would help protect more than 3.4 miles of the west bank and 4.25 miles of the east bank of the Chipola, River. In 2009, the District acquired 1,377.76 acres in fee along the Middle Chipola River, including the "Look-N-Tremble" rapids. The District now owns a total of 9,094 acres in fee simple and 810 acres in less than fee simple in the Chipola River Basin.

Two additional areas have been identified for less than fee acquisition along the Chipola River. The first is comprised of approximately 6,000 acres in the Spring Lake Spring Group area located in central Jackson County. Strategic acquisition of land in the Spring Lake Spring Group area with its numerous springs, and tributaries which eventually discharge in the Chipola River, would provide enhanced water resource protection to the area.

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

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

Land Acquisition
Approximately 30,000 acres has been identified for possible fee simple or less than fee acquisition on the Chipola River and approximately 72,341 acres have been identified for fee simple or less than fee simple acquisition in the Jackson Blue Spring Groundwater Contribution Area. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will depend upon such considerations as: Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; available staff resources, and availability of funds.

Florida Forever Land Acquisition Project

Apalachicola Bay and St. Vincent Sound Buffer

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

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

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

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

Land Acquisition
Approximately 5,200 acres have been identified for less than fee acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will depend upon such considerations as: Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; available staff resources, and availability of funds.

Florida Forever Land Acquisition Project

Upper Apalachicola River Basin

The Apalachicola River begins below Lake Seminole at the confluence of Chattahoochee and Flint rivers. It has the largest floodplain in the state and is widely regarded as one of the state's most important natural resources. The Apalachicola River supports the highly productive fishery in Apalachicola Bay, and more endangered plant species can be found along the river's upper stretches than in any comparably sized river in the state. The District owns 36,823 acres in fee-simple and 1,550 acres in less than fee simple.

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

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

Land Acquisition
Approximately 50,132 acres have been identified for possible fee acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition can depend upon such considerations as: Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; available staff resources, and availability of funds.

Florida Forever Land Acquisition Project

Ochlockonee River Basin

The Ochlockonee River originates in the coastal plain of Georgia and traverses parts of five Florida counties. Water quality in the river is lowest when it enters Florida and generally improves as it flows closer to the Gulf of Mexico. The Ochlockonee is primarily fed by rainwater runoff, and is therefore susceptible to pollution by land use activities. Large parts of the watershed are publicly owned, including Joe Budd Wildlife Management Area, Lake Talquin State Forest and Apalachicola National Forest. The District's primary focus is to acquire less than fee rights on privately owned floodplain land separating existing federal and state properties. Public ownership of the erosion-prone lands bordering this usually fast-flowing river could reduce the likelihood of water quality degradation. The District presently has 3,675 acres in less than fee holdings in the area.

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

Land Acquisition
Approximately 11,767 acres have been identified for less than fee acquisition. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will depend upon such considerations as: Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; available staff resources, and availability of funds.

Florida Forever Land Acquisition Project

St. Marks and Wakulla Rivers

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

BluePrint 2000

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

Wakulla Springs Groundwater Contribution Area

The Wakulla Springs Groundwater Contribution Area, east of the Apalachicola National Forest, has been identified for fee simple or less than fee simple acquisition to provide protection to the groundwater contribution area in Wakulla County.

Land Acquisition

Approximately 45,456 acres have been identified for fee or less than fee acquisition along the St. Marks and Wakulla rivers and approximately 16,583 acres have been identified for fee simple or less than fee simple acquisition in the Wakulla Springs Groundwater Contribution Area. Sufficient lands have been identified to allow for a flexible implementation strategy over at least the next five years. The timing of any given acquisition will depend upon such considerations as: Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; available staff resources, and availability of funds.

Implementation of the 2014-2015 Work Plan

Land Acquisition
The District purchased one tract in fee simple during 2015 along Econfina Creek, surplused 0.42-acres to DOT for a bridge replacement, and surplused an additional 2.6 acres along Blue Springs Road in Bay County.

Land Management
The District completed numerous land management activities during Fiscal Year 2014-2015. Management and restoration efforts including prescribed burns, native species planting, and timber harvesting continue across the District's 211,152 managed acres. In addition, the District maintains and improves public access and recreational amenities such as boat ramps, primitive campsites, and swimming and picnic areas. In the pages that follow, Table 5.4 and Table 5.5 provide additional information on specific land restoration activities completed during the year. The projected Fiscal Year 2015-2016 staffing and management budget by WMA can be found in Table 5.6.

To date, the District has conserved and protected 223,555 acres primarily through fee simple acquisition. These lands protect natural systems, wetland and floodplain functions, groundwater recharge, surface and groundwater quality, and fish and wildlife habitat. District-owned lands are all accessible to the public and are managed to protect water resources while providing public access and resource-based recreation.

District lands include the majority of the Escambia and Choctawhatchee river floodplains, as well as extensive lands along the Perdido, Blackwater, Yellow, Shoal, and Apalachicola rivers; Lafayette, Holmes and Econfina creeks; and on Perdido Bay, Garcon Point, and Live Oak Point. In addition, the District manages and conducts habitat restoration and maintenance on Yellow River Ranch, Live Oak Point, Ward Creek West, and Sand Hill Lakes Mitigation Bank. The District has acquired the majority of the groundwater recharge area for springs that discharge into Econfina Creek and form a crucial component of the water contribution to Deer Point Lake Reservoir.

Land Management Accomplishments (FY 2014-2015)
- The District conducted prescribed burns on approximately 6,200 acres, as well as vegetation management (herbicide) and habitat enhancements on approximately 1,723 acres.
- 1,131 camping permits were issued at 88 reservation-only sites on District lands.
- 15 special resource area permits were issued for larger events on District property.
- 12 recreation areas, phase two of reservable campsites, were added to the District's online reservation system for the Apalachicola, Choctawhatchee, and Escambia River WMAs which provide 58 campsites. In addition, the second phase of a program to replace and improve signage on District lands was partially completed.
- Eight timber harvests were conducted to remove offsite sand pine and thin loblolly, longleaf, and slash pine totaling 1,812 acres.
- More than 7,200 acres of District-owned land were surveyed for invasive exotic plants, and control measures were implemented for all identified problem areas.

Restoration

The District accomplishes water resource restoration through several interrelated programs, primarily Surface Water Improvement and Management (SWIM), Land Management, and Mitigation.

Approved NWFWMD plans with substantial restoration components include the following:

- *Apalachicola River and Bay Management Plan* (1996)
- *Pensacola Bay System SWIM Plan* (1997)
- *Lake Jackson Management Plan* (1997)
- *Choctawhatchee River and Bay SWIM Plan* (2002)
- *St. Andrew Bay Watershed SWIM Plan* (2000)
- *St. Marks River Watershed SWIM Plan* (2009)
- *Tate's Hell State Forest Hydrologic Restoration Plan* (2010)
- *Florida Forever Capital Improvements Plan*

Restoration Accomplishments (FY 2014-2015)

- The Williford Spring restoration project was completed in 2015. Costing more than $2.1 million, this project involved restoring spring bank areas, providing stabilized access to the spring, sediment removal, and recreation improvements including a new parking area, boardwalks, interpretive trails, pavilions, and a canoe tie-up dock that can help prevent future impacts by limiting the number of canoes that enter the spring area.
- One cooperative project to restore the eroding streambank on Holmes Creek is 80 percent complete. This project is being constructed by Washington County with funding assistance from the District.
- A shoreline stabilization project was completed at Devil's Hole swallet in Washington County. This project, implemented by District staff, utilized a non-structural approach utilizing geotextile bags to stabilize the eroding shoreline with a vegetated retaining wall. In addition, steps and a small dock with a ladder for entering and exiting the swallet were constructed.
- The majority of the streambank restoration project was completed at Walsingham Park in Washington County. This project, implemented by District staff, utilized geotextile bags to stabilize the eroding shoreline.
- Seed for District groundcover projects were collected from District land on the Econfina Creek WMA. The District continues to research, refine, and establish new habitat restoration techniques that increase species diversity and ecosystem health.
- The District completed hand planting of 1,723 acres of disturbed longleaf pine habitat. These habitat restoration activities enhance groundwater recharge, improve wetland functions, and offset wetland losses caused by FDOT projects. Additionally, 995,800 longleaf pine tubelings were planted within three WMAs.

Table 5.4 Summary of Land Restoration, Enhancement and Maintenance Activities (2015)

Water Management Area	Acres Burned					Acres Planted					Acres Harvested				Acres Treated
	Total	Fuel Reduction	Site Preparation	Growing Season	Wiregrass Propagation	**Total**	Upland/Wetland Wiregrass and Toothache Grass	Longleaf Pine	Slash Pine	Replanted	**Total**	Restoration	Thinning	Habitat Restoration	For Invasive, Non-native or Off-site Species
Escambia River	**89**	89													
Garcon Point	**1490**	1411			79										2105
Blackwater River															160
Yellow River	**206**	121		85		**60**			60						1140
Perdido River	**125**	125													3690
Choctawhatchee River	**148**			148		**280**		280			**702**		702		565
Econfina Creek	**2828**	108	1017	1176	527	**1059**		247		812	**1511**	1344	167		1902
St. Andrews	**261**	239		22		**357**		357							
Carter Restoration	**395**	204		191											120
Ward Creek West	**66**			66											
Devils Swamp Restoration															
Chipola River	**169**	89		80											
Apalachicola River															1410
Lake Jackson	**316**			316											55
Totals	**6,093**	**2,386**	**1,017**	**2,084**	**606**	**1,756**		**884**	**60**	**812**	**2,213**	**1,344**	**869**		**11,147**

Table 5.5 Summary of Access and Recreation Management Activities (2015)

Water Management Area	Picnic Areas	Day Use Sites	Parking Areas	Reserved Camp Sites	Canoe/Kayak Boat, Landings	Portolet Stations	Horse Trail	Canoe Trail	Hiking Trail	Nature Trail	Bike Trail	Access Road	Camp Site Reservations	General Purpose (boundary signs)	Information Signs on District Lands	Weather Pavilions and Wildlife Viewing Towers
	Number Maintained						Miles Maintained						Issued	Signs		Installed
Escambia River	6	11	12	28	11	10			1	2		27	105	315	102	2
Garcon Point		2	2						3					15		
Blackwater River	1	3	3		2	3				1				32	2	1
Yellow River		3	3		3			50				42		257	24	
Perdido River	3	3	4	1	4	4	6	15	6	1		32	84	18	61	1
Choctawhatchee River	12	15	15	21	14	10		15	11			103	41	109	8	8
Econfina Creek (incl. Carter Tract)	13	14	14	25	8	14	56	22	18	2		134	870	167	42	15
Chipola River	1	4	4	3	2	2	4	6	3			9	29	189	11	1
Apalachicola River	1	2	2	10	2	1						9	2	277	15	2
Lake Jackson	1	2	2			1	7		10		7	5				1
Totals	**38**	**59**	**61**	**88**	**46**	**45**	**73**	**108**	**52**	**6**	**7**	**361**	**1,131**	**1,379**	**265**	**31**

Table 5.6 Projected Funding, Staffing and Resource Management for FY 2015-2016

Region	Water Management Area	Acres	Assigned Staff	Total Funding	Funding for Resource Management
Western	Escambia	35,413		$125,003	$72,050
	Escambia Conservation Easements	19		$806	$500
	Garcon Point	3,245		$57,179	$12,500
	Yellow	16,553		$78,254	$37,250
	Blackwater	381		$30,883	$22,650
	Perdido	6,261		$129,094	$85,520
	Perdido Conservation Easements	4		$806	$500
	Western Region Total	**61,876**	**3**	**$422,025**	**$230,970**
Central	Choctawhatchee	60,810		$407,011	$268,000
	Choctawhatchee/Holmes Conservation Easements	2,537		$15,612	$13,000
	Econfina	39,182		$1,009,009	$810,485
	St. Andrew/Econfina Conservation Easements	2,433		$3,366	$250
	Ward Creek West	719		$0	$0
	Carter Restoration	2,155		$60,000	$60,000
	Central Region Total	**107,836**	**5**	**$1,494,998**	**$1,151,735**
Eastern	Chipola	9,094		$149,943	$85,588
	Apalachicola	36,823		$65,681	$21,100
	Apalachicola/Chipola Conservation Easements	2,359		$2,856	$500
	Lake Jackson	516		$84,136	$53,850
	St. Marks Conservation Easements	1,376		$3,445	$500
	Ochlockonee Conservation Easements	3,675		$3,445	$500
	Eastern Region Total	**53,843**	**2**	**$309,506**	**$162,038**
	Regional Totals	**223,555**	**10**	**$2,226,529**	**$1,544,743**

Table 5.6 Projected Funding, Staffing and Resource Management for FY 2015-2016 (Continued)

Other Projects	Acres	Assigned Staff	Total Funding	Funding for Resource Management
Land Management Administration		4	$1,156,619	$587,710
IT Initiative			$381,967	$349,198
Land Management Database			$94,453	$76,920
Florida National Scenic Trail - Econfina Creek			$10,000	$10,000
Williford Spring Restoration			$20,402	$0
Live Oak Streambank Restoration			$6,774	$0
Hightower Streambank Restoration			$6,785	$0
Spurling Streambank Restoration			$6,774	$0
Devils Hole Spring Streambank Restoration			$8,023	$0
Cotton Landing Streambank Restoration			$8,023	$0
Brunson Landing Tract	348		$35,739	$15,250
Washington County School Board Donation			$340	$340
Grand Total	**223,903**	**14**	**$3,962,428**	**$2,584,161**

5.2 Capital Improvement Work Plan

As required by section 373.199(2), F.S., the five-year work plan includes capital improvement projects that further the goals of the Florida Forever Act (section 259.105, F.S.). These include priorities identified in approved SWIM plans and other restoration plans, water resource development projects, and other eligible Florida Forever projects and improvements to District lands and facilities approved by the Governing Board.

Priority waterbody and water resource descriptions are outlined in approved SWIM plans and RWSPs. These plans respectively are available at www.nwfwater.com/water-resources/swim/ and www.nwfwater.com/water-resources/wsp/rwsp/.

From 2003 to 2008, the District offered grant funding to local governments for capital improvements that help implement SWIM projects, water resource development projects, and projects included within stormwater master plans. More than $23 million was awarded for 55 stormwater retrofit, restoration, and reuse projects under the program. These grants leveraged significant additional funding, with more than $52 million in local and other match funding being allocated to the approved projects. Facility ownership, permitting, and long-term maintenance remain the responsibilities of the grantees, as provided through cooperative grant agreements. Due to the lack of new Florida Forever funding, grant cycles have not been offered for the past several years.

Performance measures for restoration projects are incorporated within the Strategic Water Management Plan (www.nwfwater.com/data-publications/reports-plans/water-management-plans/) and described in Chapter 1: of the Consolidated Annual Report. Cooperative local grant project accomplishment is also described in this section and in Chapter 1: and Chapter 7:.

Implementation of the 2014-2015 Five Year Work Plan

No new projects were undertaken in FY 2014-2015 utilizing Florida Forever funding. The District continues to implement several water resource restoration and protection projects from other funding sources, as discussed in Strategic Water Management Plan Annual Report and the SWIM Annual Report, Chapter 1: and 7, respectively. Any remaining Florida Forever funding will be applied to projects as discussed in the next section.

Fiscal Year 2016-2019 Capital Improvement Work Plan

Table 5.7 lists projects considered eligible for Florida Forever capital improvement funding. Such funding is limited, however, as significant appropriations have not been made since FY 2008-2009. Funding from Legislative special appropriations, the Land Acquisition Trust Fund, federal grants, local governments, remaining funds in the Water Management Lands and Ecosystem Management and Restoration trust funds, and potentially other sources may contribute to accomplishment of these projects, augmented by Florida Forever to the extent possible. Where implementation is precluded due to current funding limitations, projects are identified here to assist in long-term project planning and prioritization. Final approval of funding for any project requires specific Governing Board approval.

Table 5.7 Projects Currently Eligible for Florida Forever Funding

Project	Description	Status	Estimated Cost[1]
Unpaved road sedimentation abatement	Unpaved road stabilization to reduce sedimentation and nonpoint source pollution; supports water quality improvement and habitat restoration objectives of SWIM plans for all District watersheds	Preliminary planning	TBD
Spring habitat restoration	Construction activities to restore riparian and aquatic habitat associated with northwest Florida springs	Preliminary planning	TBD
Stormwater retrofit facilities	Construction of additional cooperative stormwater retrofit projects, providing water quality improvement and improved flood protection, in accordance with approved SWIM plans; funding indicated represents estimated available Florida Forever contribution; total costs to be determined	Preliminary planning and in progress	$372,480
Hydrologic and shoreline Restoration	Water resource restoration of shoreline and riparian habitats, and flow regimes, consistent with SWIM plans	Preliminary planning	TBD

Figure 7.2 Watershed Protection and Water Resource Projects in the Surface Water Improvement and Management Program Summary Report chapter illustrates the distribution of current and past capital improvement projects Districtwide. Additional preservation, enhancement, and restoration projects accomplished to meet regional mitigation needs are described in the Northwest Florida Umbrella, Watershed-based, Regional Mitigation Plan ("Umbrella Plan"), available at www.nwfwmdwetlands.com/.

Chapter 6: Mitigation Donation Annual Report

The Northwest Florida Water Management District implemented Environmental Resource Permitting jointly with DEP beginning on November 1, 2010. The ERP and Management and Storage of Storm Water (MSSW) programs were combined during FY 2012-2013 as a result of the adoption of the Statewide Environmental Resource Permitting (SWERP) rules in Chapter 62-330, F.A.C.

Section 373.414(1)(b)2, F.S., requires the District and DEP to report by March 1 of each year, as part of this report, all cash donations accepted as mitigation for use in duly noticed environmental creation, preservation, enhancement, or restoration projects that offset impacts permitted under Chapter 373, Part IV, F.S., Management and Storage of Surface Waters.

The report is required to include a description of the endorsed mitigation projects and, except for projects governed as mitigation banks or regional offsite mitigation, must address, as applicable, success criteria, project implementation status and timeframe, monitoring, long-term management, provisions for preservation, and full cost accounting. The report specifically excludes contributions required under section 373.4137, F.S. (regional mitigation for specified transportation impacts). Any cash donations accepted by the District as mitigation during the current fiscal year will be reported annually in this report.

No cash donations were received in FY 2014-2015.

Chapter 7: Surface Water Improvement and Management Program Summary Report

7.1 Introduction

Section 373.036(7)(d), F.S., provides that districts may include in the Consolidated Annual Report additional information on the status or management of water resources as deemed appropriate. The NWFWMD has a long-term program to protect and restore watershed resources. The Surface Water Improvement and Management (SWIM) program provides the framework for watershed and project planning for the major riverine-estuarine watersheds indicated below (Figure 7.1).

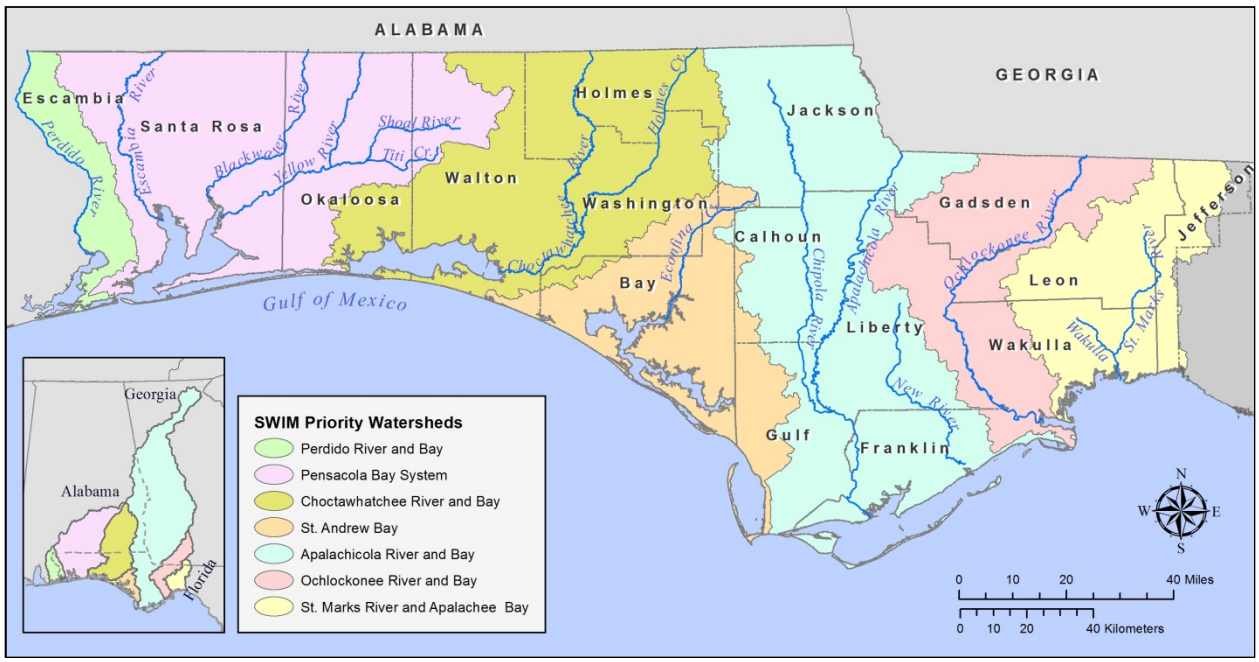

Figure 7.1 NWFWMD SWIM Priority Watersheds

7.2 SWIM Priority List

The Northwest Florida Water Management District's SWIM Priority list is provided in Table 7.1. Pursuant to section 373.453, F.S., the SWIM priority list may be periodically reviewed with updates reflected in this section. In addition to respective watersheds, the list identifies major tributaries and waterbodies. All waterbodies, tributaries, sub-embayments, springs, and contributing basins are considered as being within the listed watersheds as priority waterbodies.

Table 7.1 NWFWMD SWIM Priority List (West to East)

Perdido River and Bay Watershed
Pensacola Bay System
Choctawhatchee River and Bay Watershed
St. Andrew Bay Watershed
Apalachicola River and Bay Watershed
Ochlockonee River and Bay Watershed
St. Marks River and Apalachee Bay Watershed

* Includes all named waterbodies within each watershed.

SWIM plans are developed to address cumulative anthropogenic impacts to water quality, aquatic habitats, and related public benefits within the District's priority waterbodies. The plans incorporate comprehensive strategies to both restore and protect watershed resources and functions. Implementation is accomplished through a variety of activities, such as retrofitting stormwater management systems to improve water quality and flood protection; restoring wetland and aquatic habitats; evaluating water resources and freshwater needs; protecting springs; and public outreach and awareness. The SWIM program also supports coordination of state and federal grants and implementation of cooperative capital improvement projects with local governments.

Since the late 1980s, the District has developed SWIM plans for all major watersheds, although two plans (for the Perdido and Ochlockonee river and bay watersheds) remain in a draft status (Table 7.2).

Table 7.2 NWFWMD SWIM Plans

Watershed	Plan Approval Date
Deer Point Lake	1988 (Superseded)
Apalachicola River and Bay	1996
Lake Jackson	1997
Pensacola Bay System	1997
St. Andrew Bay Watershed	2000
Choctawhatchee River and Bay	2002
St. Marks River/Apalachee Bay	2009
Perdido River and Bay	2011 (Draft)
Ochlockonee River and Bay	2012 (Draft)

Figure 7.2 below illustrates the distribution of completed and ongoing watershed protection and water resource projects implemented across the District with SWIM program planning and coordination and other funding sources.

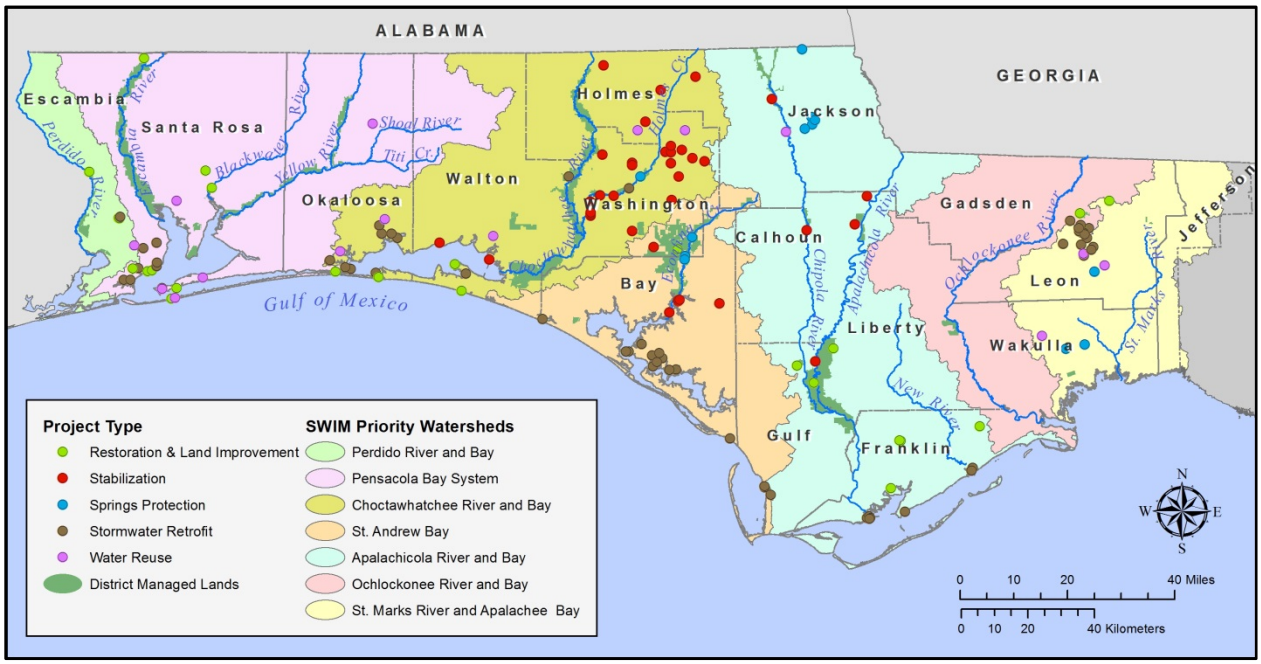

Figure 7.2 Watershed Protection and Water Resource Projects

Historically, SWIM plan implementation has integrated and leveraged a variety of funding sources, including SWIM (sections 373.451-373.459, F.S.), the Water Management Lands Trust Fund (former section 373.59, F.S.), the Ecosystem Management and Restoration Trust Fund (former section 403.1651, F.S.), Florida Forever (section 259.105 and section 373.199, F.S.), legislative special appropriations, the Water Protection and Sustainability Program (section 403.890, F.S.), state and federal grants, and funding through local government partnerships. The recently established Land Acquisition Trust Fund (section 375.041, F.S.) has funded spring protection and restoration projects that further SWIM plan objectives. Cumulatively, the overall effort has resulted in significant protection and improvement of water resources Districtwide.

In 2015, the District was awarded grant funding from the National Fish and Wildlife Foundation's Gulf Environmental Benefit Fund (GEBF) to support updates to SWIM plans for each of the District's major watersheds. Work on these updates has been initiated, and they are scheduled to be completed in 2017. This work is associated with a multi-agency effort, also funded by the GEBF, to develop an integrated restoration strategy to prioritize and develop projects that address Gulf of Mexico restoration needs in Florida. In addition to the NWFWMD, participating agencies include the Florida Fish and Wildlife Conservation Commission, Florida Department of Environmental Protection, and the Suwannee River Water Management District.

7.3 Current Project Priorities

In 2012, the District established a renewed focus on the Apalachicola River and Bay and St. Andrew Bay watersheds, applying remaining Ecosystem Management and Restoration Trust Fund revenues appropriated by past legislatures to address acute problems within these two systems. Additionally, significant legislative funding has been appropriated to implement priority water quality improvement projects and to update a three dimensional hydrodynamic model for Apalachicola Bay.

Springs protection and restoration is carried out through the District's SWIM, MFL, Land Management and Acquisition, Consumptive Use Permitting, and Environmental Resource Permitting programs. Current initiatives and priorities include efforts to improve conditions in Wakulla Spring, Jackson Blue Spring, and springs associated with Holmes Creek and Econfina Creek. The District is continuing water quality monitoring at Wakulla, Jackson Blue, Pitt, Econfina Blue, and Williford springs and measuring continuous spring flows at Jackson Blue and Wakulla springs and the Spring Creek springs group in coastal Wakulla County. A major initiative to help agricultural producers in the Jackson Blue Spring basin is underway to facilitate the integration of an array of best management practices (BMPs) into their farming operations. These practices are expected to conserve water and improve water quality without compromising production yields. Restoration activities are underway at Devil's Hole Spring within the Econfina Creek Water Management Area (WMA) and at Live Oak, Hightower Springs, Spurling, and Cotton landings along Holmes Creek within the Choctawhatchee River and Holmes Creek WMA. Major projects have also been initiated to acquire conservation lands within the Jackson Blue Spring basin and to extend central sewer to areas currently served by septic systems within the Wakulla Spring and Jackson Blue Spring contribution areas.

Projects completed over the past two years include the Battery Park Stormwater Retrofit in the Apalachicola Bay watershed; the Spring Avenue stormwater retrofit, Panama City pollutant separators, and Ed Lee Road stabilization projects in the St. Andrew Bay watershed; and the Williford Spring restoration project in the Econfina Creek WMA and St. Andrew Bay watershed. Several additional stormwater retrofit projects are underway to benefit Apalachicola Bay and St. Andrew Bay, as are the efforts noted above to protect and restore major spring systems.

For a list of priority SWIM projects currently underway or in the planning stages, please refer to Table 1.12 in the Section 1.6 of this report. Note that there is overlap between the project priorities listed there and those within the Florida Forever Capital Improvement Plan Table 5.7, particularly for construction projects requiring multiple funding sources to complete. Additional funding sources, including from local governments and state and federal grant sources, may be identified to complement District-provided funding.

7.4 Potential Funding Related to the Deepwater Horizon Oil Spill

District staff continue to assist state agencies, local governments, and other stakeholders in identifying project priorities and participating in project development for potential funding related to the Deepwater Horizon Oil Spill. The Federal RESTORE Act, GEBF, Natural Resource Damage Assessment, and associated funding sources have the potential to significantly help address current problems and challenges affecting the region's coastal waters and contributing watersheds. The District's SWIM plans provide a planning context for project development and prioritization, and their update, as described above, will be an important part of this effort.

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