Northwest Florida Water Management District

2018 Consolidated Annual Report

Fiscal Year 2018-2019

Publication Number: AR-18

Cypress Spring (Holmes Creek)

Northwest Florida Water Management District

Consolidated Annual Report

March 1, 2018

Cover Photo: Cypress Spring (J. Crowe)

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Executive Summary

This Consolidated Annual Report fulfills section 373.036(7), Florida Statutes (F.S.), which 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 to the Florida Department of Environmental Protection (DEP). 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 in the District, also receive copies. The report is available to the public online at nwfwater.com/data-publications/reports-plans/consolidated-annual-reports/.

The March 1, 2018, NWFWMD Consolidated Annual Report includes all elements required by statute, updated in 2016 in accordance with Senate Bill 552, as specified in section 373.036(7)(b), F.S. The report also includes one optional chapter on the District's Surface Water Improvement and Management (SWIM) program. Contents of the report are:

1. Strategic Water Management Plan Annual Work Plan Report
2. Minimum Flows and Minimum Water Levels (MFL) Annual Priority List and Schedule
3. Annual Five-Year Capital Improvements Plan
4. Alternative Water Supplies Annual Report
5. FY 2017-2018 Five-Year Water Resource Development Work Program
6. Florida Forever Water Management District Work Plan Annual Report
7. Mitigation Donation Annual Report
8. Water Projects in the Five-Year Water Resource Development Work Program
9. Surface Water Improvement and Management (SWIM) Program Annual Report

*The **mission** of the Northwest Florida Water Management District is to implement the provisions of Chapter 373, Water Resources, Florida Statutes (F.S.), in a manner that best ensures the continued welfare of the residents and water resources of northwest Florida.*

*The District works with state and federal agencies and local governments to achieve its mission through four interrelated **areas of responsibility**: water supply, water quality, flood protection, and natural system protection.*

The elements or chapters that follow provide the status and record of accomplishments of District programs over the previous fiscal year (FY 2016-2017) that contribute to the implementation and success of the District's mission and responsibilities.

FY 2016-2017 accomplishments include: implementation of numerous spring restoration, stormwater retrofit, and water supply development projects; monitoring of springs water quality and flows; continued development of minimum flow and minimum water level technical assessments; management of District lands and recreation sites; and floodplain risk mapping. Strategic priorities approved by the District's Governing Board, as noted in the Strategic Water Management Plan (Chapter 1), provide guidance and a framework for implementing all District programs and activities.

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Consolidated Annual Report
Chapter 1

Strategic Water Management Plan
Annual Work Plan Report

Strategic Water Management Plan (SWMP) Annual Work Plan Report

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Chapter 1. Strategic Water Management Plan (SWMP) Annual Work Plan Report

Overview

The mission of the Northwest Florida Water Management District (NWFWMD or District) is to implement the provisions of Chapter 373, Water Resources, Florida Statutes (F.S.), in a manner that best ensures the continued welfare of the residents and water resources of northwest Florida. The District works to achieve its mission through four interrelated areas of responsibility: water supply, water quality, flood protection, and natural system protection. Water management plans developed pursuant to section 373.036(2), F.S., guide the implementation of the District's mission and responsibilities.

The District's Governing Board annually approves a Strategic Water Management Plan (SWMP) for a five-year planning horizon. This element of the District's Consolidated Annual Report is the annual work plan report on the implementation of the Strategic Water Management Plan for the previous fiscal year (section 373.036(2)(e)4.). The FY 2016-2017 SWMP was approved on December 8, 2016 and listed below are the SWMP strategic priorities consistent with those in the District's adopted FY 2016-2017 budget. Addressed in this annual work plan report for each strategic priority are, at a minimum, success indicators, deliverables, and milestones.

Strategic Priorities for Fiscal Years 2017-2021

- **Springs Protection and Restoration:** *Protect and restore water quality and flows within the major spring systems of northwest Florida.*
- **Minimum Flows and Minimum Water 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.*

Summary of FY 2016-2017 Accomplishments

FY 2016-2017 accomplishments include implementation of numerous spring restoration, stormwater retrofit, and water supply development projects; monitoring of springs water quality and flows; continued development of MFL technical assessments; and floodplain risk mapping. Table 1.1 provides a summary of FY 2016-2017 accomplishments for each strategic priority.

Table 1.1 Snapshot of Strategic Priority FY 2016-2017 Achievements

Strategic Priorities	Success Indicators	Milestones	Deliverables
Springs Protection and Restoration: *Improve water quality and flows within the major spring systems of northwest Florida*	1) Project accomplishment (percent complete) 2) Trends in nitrate concentrations 3) Trends in spring flows	Completion of four springs restoration projects along Holmes Creek and one site along Econfina Creek. Also includes substantial completion of a third year of agricultural BMP projects and initiation of a new sod-based crop rotation pilot project with producers.	Project completion reports for spring restoration projects and re-opening ceremony at Cotton Landing; MIL quarterly reports; and water savings calculations.
Minimum Flows and Minimum Water Levels (MFLs): *Develop and implement science-based MFLs that protect water resources and associated natural systems.*	1) MFL technical assessment accomplishment (percent complete per the approved schedule) 2) Waterbodies meeting their adopted MFLs (number and percentage)	Progress toward completion of technical assessments for the St. Marks River Rise, Wakulla Spring, Sally Ward Spring, the coastal Floridan aquifer in Walton, Okaloosa, and Santa Rosa counties Jackson Blue Spring, and the Shoal River System.	Surface water model; hydrographic data on St. Marks River Rise, Sally Ward Spring and Wakulla Spring; draft MFL work plan for Shoal River System.
Apalachicola-Chattahoochee-Flint River Basin: *Protect Apalachicola River and Bay water quality and freshwater inflow*	1) Project accomplishment (percent complete) 2) Area restored/treated (acres) 3) Pollutant load reduction (pounds per year)	Continued technical assistance for tristate litigation, completion of three stormwater retrofit projects treating 176 acres in the City of Apalachicola, and initiation of water quality improvement project with the City of Carrabelle.	Project completion reports for Avenue I, Prado Outfall, and US 98 & 16th Street stormwater projects for projects.
Water Supply: *Plan and facilitate sustainable water supplies for future reasonable and beneficial uses*	1) RWSP public supply water demands met (volume [MGD] and percentage) 2) Public supply uniform gross and residential per capita water use (GPCD and trend) 3) Alternative water supply made available (volume [MGD] and trend) 4) Project accomplishment (percent complete)	Completion of 17 water supply development grant projects (45 total projects or 64% complete). Overall declining gross per capita water use from 146 gpcd in 2010 to 122 in 2016.	Annual water use data; grant completion reports.

Strategic Priorities	Success Indicators	Milestones	Deliverables
Watershed Protection and Restoration: *Protect and restore watershed resources and functions.*	1) Balance of released mitigation credits 2) Cooperative project implementation (percent complete) 3) Area restored/area treated (acres)	Completion of seven new or updated SWIM plans for all watersheds in northwest Florida; completion of three stormwater retrofit projects in the City of Apalachicola.	Final SWIM plans and project completion reports.
Flood Protection and Floodplain Management: *Protect floodplain functions for the benefit of human communities and natural systems*	1) Area of floodplain protected through land acquisition (acres) 2) Percent of the District with updated DFIRMs meeting FEMA standards and criteria	Preliminary DFIRM updates issued for one coastal county in 2017 (five of six counties total or 83% complete).	Preliminary DFIRM maps for Escambia County.

(A) Not all success indicators are addressed or have accomplishments every year.

1.1 Springs Protection and Restoration

Strategic Priority and Success Indicators

The goal of the Springs Protection and Restoration strategic priority is to protect and restore water quality and flows within the major spring systems of northwest Florida. Success indicators are:

(1) Project accomplishment (percent completion on schedule)
(2) Trends in nitrate concentrations
(3) Trends in spring flows

Current Activities and Accomplishments

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 and municipalities with septic-to-sewer retrofits within the contribution areas of the Jackson Blue and Wakulla springs systems;
- Restoring habitat at Devil's Hole, Walsingham, and Econfina Blue springs within the Econfina Creek Water Management Area (WMA) and along Holmes Creek (Washington County);
- Acquiring land to protect Jackson Blue Spring, the Gainer Spring Complex on Econfina Creek, and Cypress Spring on Holmes Creek;
- Evaluating potential advanced septic treatment systems for rural areas in Leon and Wakulla counties;

- 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

(1) Project accomplishment (percent completion on schedule)

The District had several new and ongoing projects in FY 2016-2017 that contribute to spring protection and restoration. A total of 21 projects were active or completed during the fiscal year within four major watersheds and five counties.

Table 1.2 below lists projects by major watershed from west to east. A map of the seven major watersheds within the district is in Section 1.5: Watershed Protection and Restoration.

Table 1.2 Spring Protection and Restoration Projects

Project	Description/Cooperators	Total District 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	$235,000	Complete	100%
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	$190,000	Complete	100%
Cypress Spring Land Acquisition	Acquisition of up to 302 acres at Cypress Spring along Holmes Creek in Washington County	$1,100,000	In progress	10%
St. Andrew Bay Watershed				
Devil's Hole Spring Streambank Restoration	Restoration of 100 LF of shoreline and stormwater management at spring on Econfina Creek, along with compatible public access improvements. DEP	$145,000	Project substantially complete by December 2017	99%
Streambank Restoration – Econfina	Restoration of shoreline and habitat along recent acquisition parcel	$22,100	Complete	100%
Gainer Springs Land Acquisition	Acquisition of up to 982 acres and spring bank restoration along Econfina Creek	$6,000,000	In progress	10%
Econfina Blue Spring Camp Improvements	Public access improvements and shoreline restoration along Econfina Creek	$871,500	Design/Engineering	10%
Econfina Land Acquisition	Acquisition of up to 289 acres within Econfina Creek recharge area	$1,000,000	In Progress	10%
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 2016-2017	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	$4,739,500	Years 1 -3 complete; Year 4 in progress and Year 5 in planning	42%
Sod-based Crop Rotation Pilot Project	Four-year pilot project to reduce nutrient application to crops in the Jackson Blue Spring BMAP	$806,032	In progress	5%

Project	Description/Cooperators	Total District Cost (or as noted)	Status	Percent Complete
Land acquisition – Jackson Blue	Fee simple or less-than-fee simple acquisition of 167 acres in the Jackson Blue Spring area	$697,192	In progress	10%
Jackson County Septic to Sewer Retrofit – Indian Springs	Convert residential subdivision in Jackson Blue Spring area from septic to sewer to reduce nitrogen loading. Jackson County and City of Marianna	$3,450,000	Design/Engineering	10%
Jackson County Septic to Sewer Retrofit – Blue Spring Road	Convert county park and residential subdivision in Jackson Blue Spring area from septic to sewer. Jackson County and City of Marianna	$3,566,749	In progress	0%
Claiborne Aquifer Evaluation	Construct test and monitoring wells and perform testing to determine the aquifer's viability as an alternate source to reduce demands on Jackson Blue Spring	$440,000	Well construction and aquifer pump test complete	75%
Malone High School Sanitary Sewer Connection Project	Convert 10 septic systems at Malone High School to central sewer to reduce nitrogen loading. Town of Malone	$432,077	Design/Engineering	5%
Jackson Blue Spring Recreation Area Stormwater Improvements	Design and construct a stormwater management system that captures and treats stormwater at Jackson Blue Spring. Jackson County	$751,200	Contracting / Planning	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	Construction bid	10%
Leon County Septic to Sewer Retrofit – Woodville Phase I	Design to convert residential community in Wakulla Spring area from septic to sewer to reduce nitrogen loading. Leon County	$3,000,000	Design/Engineering	0%
Leon County Septic to Sewer Retrofit – Priority Focus Area 1	Convert residential subdivision in Wakulla Spring area from septic to sewer to reduce nitrogen loading. City of Tallahassee	$2,587,000	Construction	15%
Leon County Septic to Sewer Retrofit – Lake Munson	Convert residential subdivision in Wakulla Spring area from septic to sewer to reduce nitrogen loading. Leon County	$5,500,000	Contracting / Planning	0%
Leon County Septic to Sewer Retrofit – Belair/Annawood	Convert residential subdivision in Wakulla Spring area from septic to sewer to reduce nitrogen loading. Leon County	$3,500,000	Contracting / Planning	0%

Project	Description/Cooperators	Total District Cost (or as noted)	Status	Percent Complete
Advanced Septic Systems Pilot Project	Convert two neighborhoods to advanced septic systems within Leon and Wakulla counties to reduce nitrogen loading. Leon County; Wakulla County; DEP; FDOH	$1,500,000	Contracting / Planning	0%
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	Construction	35%
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	$11,462,880	Construction	35%
Wakulla Springs Land Acquisition	Fee simple or less-than-fee simple acquisition of 1,427 acres in the Wakulla Springs Priority Focus Areas 1 and 2	$2,400,000	In progress	0%
Horn Spring Restoration	Restoration improvements at second magnitude spring. DEP	$500,000	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 1.3 and Figures 1.1-1.4. The table below indicates apparent trends based on examination of changes in flows and concentrations over time. It should be noted that trends are based on visual examination of data and may not be statistically significant. Additional and updated information on major springs in northwest Florida is available at www.nwfwater.com/water-resources/springs/.

Table 1.3 Trends in Spring Flows and Nitrate/Nitrite Concentrations Indicator

Spring/Spring System	Average Flow[1] (cfs)/Trend	Nitrate Concentration (mg/L)[2]
Gainer Springs Group	158/Variable, stable	0.18/Stable
Jackson Blue Spring	106/Variable[3]	3.60/Rising
St. Marks Rise	560/Variable, stable	0.05 – 0.20/Variable[4]
Wakulla Spring	550/Increasing	0.41/Decreasing[5]

[1]Periods of Record (flow): Gainer Springs, 2002-2017; Jackson Blue Spring, 2003-2017; St. Marks Rise, 1997-2017; Wakulla Spring, 1997-2017.
[2]Periods of Record (water quality): Gainer Springs, 2002-2015; Jackson Blue Spring, 2005-2017; St. Marks Rise, 1999-2017; Wakulla Spring, 1997-2017. Value presented is the most recent five year median.
[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]Median Nitrate Concentration over the most recent five years of data.

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

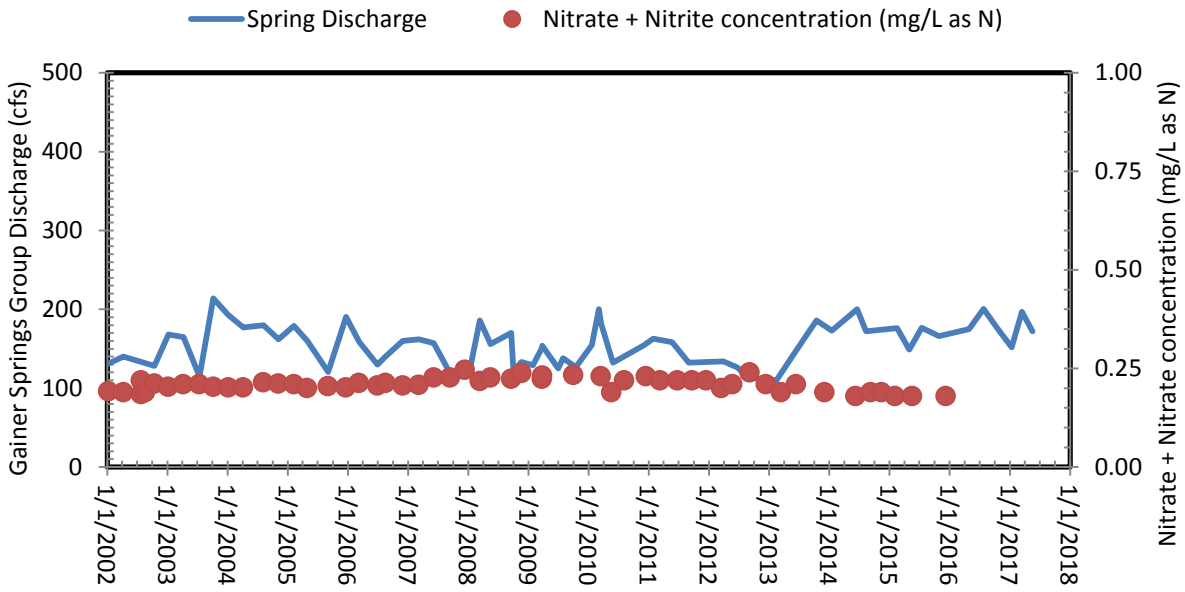

Figure 1.1 Nitrate and Nitrite Concentration and Discharge: Gainer Springs Group (2002-2017)

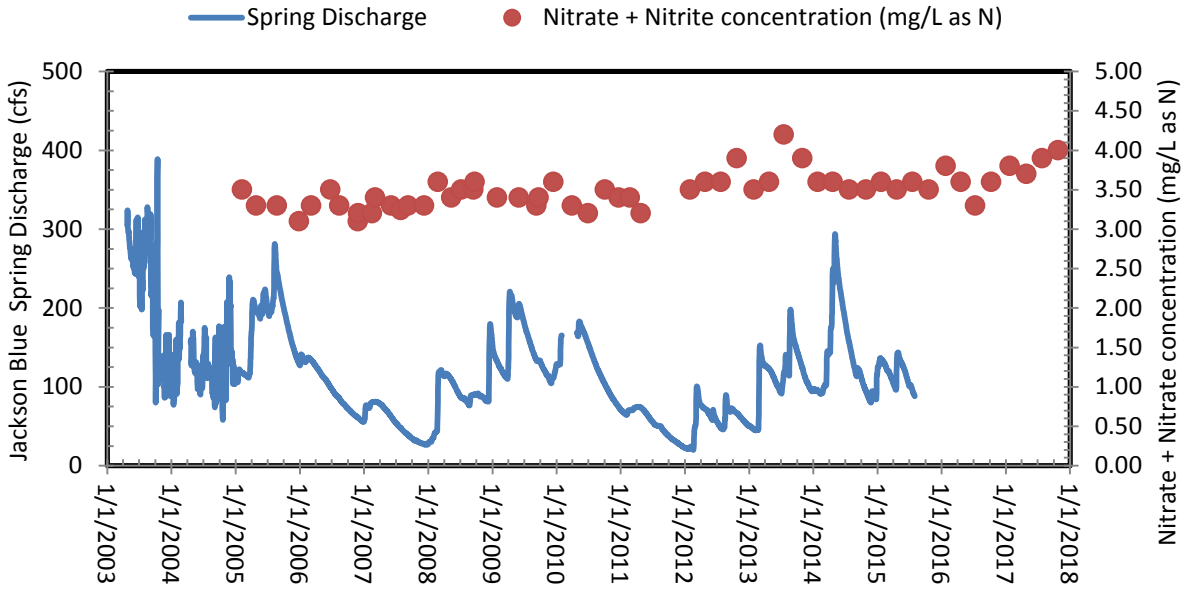

Figure 1.2 Nitrate and Nitrite Concentration and Discharge: Jackson Blue Spring (2003-2017)

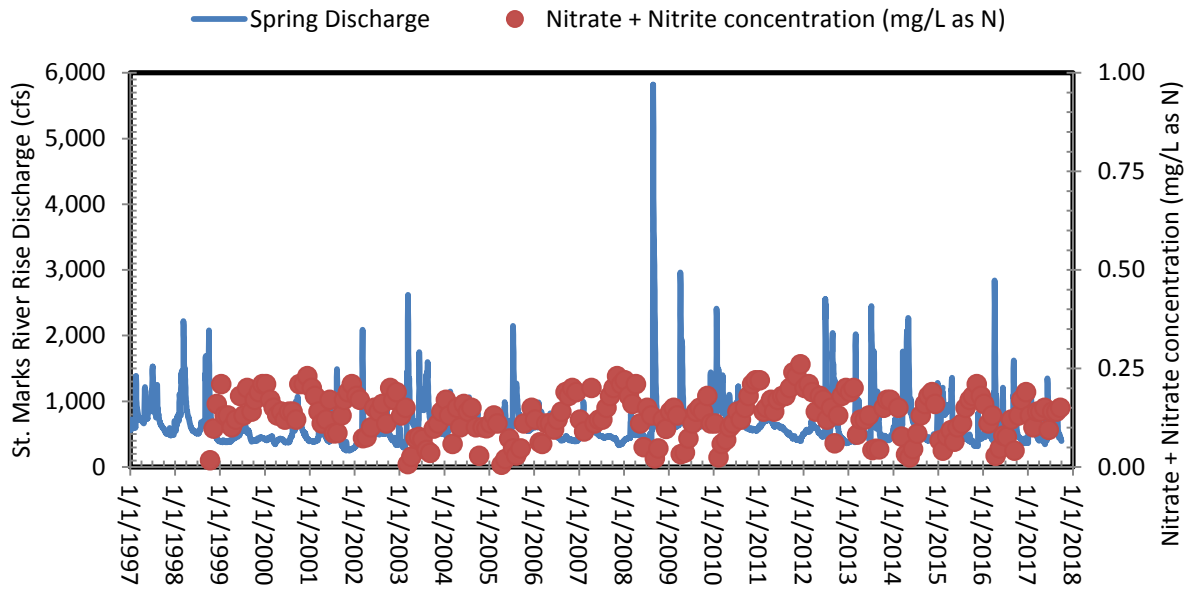

Figure 1.3 Nitrate and Nitrite Concentration and Discharge: St. Marks River Rise (1997-2017)

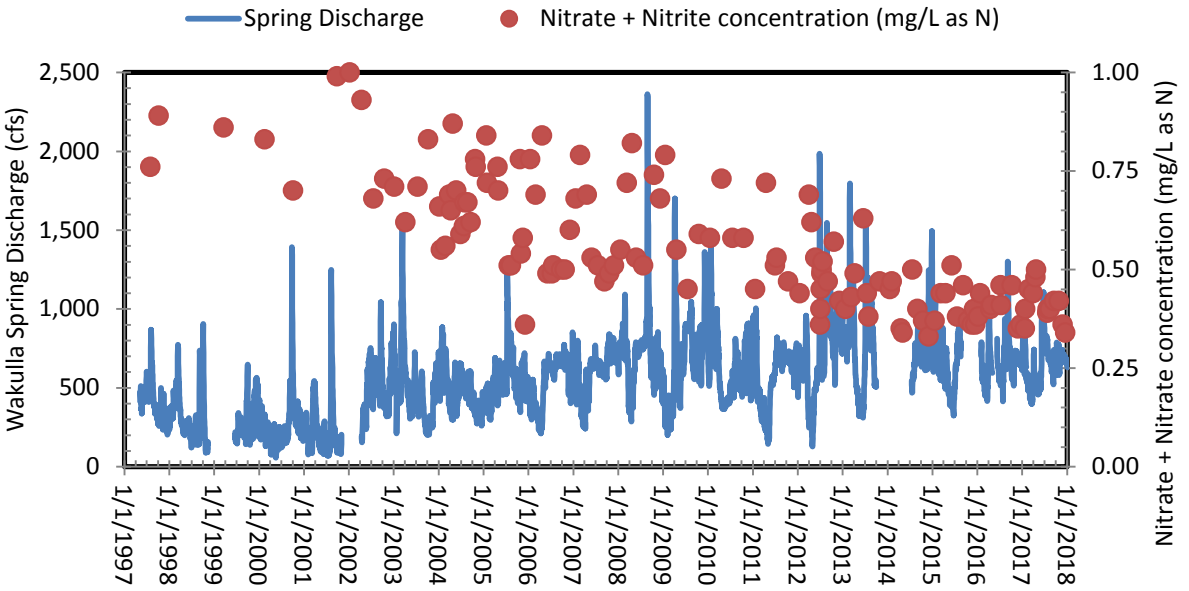

Figure 1.4 Nitrate and Nitrite Concentration and Discharge: Wakulla Spring (1997-2017)

Milestones and Deliverables

Table 1.4 shows the status of SWMP deliverables and milestones for Springs Protection and Restoration.

Table 1.4 Springs Protection and Restoration Milestones and Deliverables

Milestone	Target Date	Status
(1) Completion of Devil's Hole spring stream bank restoration	2017	Close-out
(2) Completion of Cotton Landing streambank stabilization	2017	Complete
(3) Completion of Econfina Blue Spring Camp restoration	2018	Design/engineering
(4) Implementation of funded BMPs for producers in the Jackson Blue Spring basin and Mobile Irrigation Lab evaluations	FY 2017-2018	In progress
(5) Completion of multiple septic-to-sewer retrofit projects in Jackson, Leon and Wakulla counties	FY 2017-2019	In progress

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	Select water quality, level and flow data is available for direct download from the NWFWMD Hydrologic Web Portal: www.nwfwater.com/Data-Publications/Hydrologic-Data/Active-Stations-Map

1.2 Minimum Flows and Minimum Water Levels

Strategic Priority and Success Indicators

The goal of the Minimum Flows and Minimum Water Levels (MFLs) strategic priority is to develop and implement science-based MFLs that protect water resources and associated natural systems. Success indicators are:

(1) MFL technical assessment accomplishment (number and percent complete per the approved schedule)
(2) Waterbodies meeting their adopted MFLs (number and percentage)

Current Activities and Accomplishments

The District continues to move forward to develop minimum flows and minimum water levels (MFLs) in northwest Florida. The NWFWMD FY 2017-2018 MFL priority list includes four first magnitude springs (St. Marks River Rise, Wakulla Spring, Gainer Spring Group, and Jackson Blue Spring), six second magnitude springs, two coastal aquifer systems, and the Shoal River. 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 2016-2017 Accomplishments

District staff is working concurrently on six MFL waterbodies: St. Marks River Rise, Wakulla Spring, Sally Ward Spring, Jackson Blue Spring, the coastal Floridan aquifer in Planning Region II (Okaloosa, Santa Rosa, and Walton counties), and the Shoal River.

Hydrologic and water quality data continue to be collected at approximately 60 sites to support MFL development for the Wakulla Spring, Sally Ward Spring, and the St. Marks River Rise system. A HEC-RAS surface water model was developed and calibrated to evaluate the effects of flow reductions on recreation and fish and wildlife habitat. Hydrographic data (temperature, salinity, stage) was collected and a hydrodynamic model of estuarine habitats was developed and calibrated. The development of a regional groundwater flow model for the Eastern portion of the District is continuing. The technical assessments are on-schedule, with the MFL technical assessment for the St. Marks River Rise to be completed in 2018, and the assessments for Wakulla Spring and Sally Ward Spring in 2020.

To support MFL development for Jackson Blue Spring, ecological and soil sampling were performed at floodplain transects to assess fish and wildlife habitat. Channel bathymetry and structure elevations were surveyed along Spring Creek to support the development of a HEC-RAS model. The collection of spring flow, stream stage and discharge, and aquifer levels is continuing. The technical assessment is on schedule to be completed in 2022.

For the coastal Floridan aquifer in Planning Region II (Walton, Okaloosa, and Santa Rosa counties), construction of four deep Floridan aquifer saltwater intrusion monitoring wells was completed. Discrete interval sampling was performed at nearly a dozen existing wells to better define the location of the saltwater interface. The District is continuing to update and expand a groundwater flow model for the western portion of the District. The technical assessment is on-schedule to be completed in 2020.

Staff has also developed a draft MFL Work Plan for the Shoal River and identified preliminary hydrologic data collection needs.

Activities Planned for FY 2017-2018

During FY 2017-2018, enhanced hydrologic data collection will continue for all six waterbodies for which MFLs are under development. The draft MFL Technical Assessment will be completed for the St. Marks River Rise early 2018. The draft assessment will undergo voluntary peer review prior to being finalized. Rule development will begin after the MFL Technical Assessment for the St. Marks River Rise is finalized in late 2018. Hydrologic models will continue to be refined to support MFL development for Wakulla Spring and Sally Ward Spring. Thermal data collection will be performed to better assess manatee habitat at Wakulla Spring. The regional groundwater flow model for the eastern portion of the District will be calibrated and tested. To support MFL development for Jackson Blue Spring, hydrologic monitoring will continue and a HEC-RAS model will be developed. Instream habitat modeling may be performed to assess instream biota.

To support MFL development for the coastal Floridan aquifer in Planning Region II, enhanced water quality monitoring will continue and analysis of long-term trends in coastal water quality will be performed. The expansion and refinement of a groundwater flow model for this region is also anticipated to be completed in 2019.

Evaluation of Indicators

The number of MFL technical assessments, status, and percent complete are noted in Table 1.5.

(1) MFL technical assessment accomplishment

Table 1.5 MFL Technical Assessment Status

MFL Waterbody	Target Date	MFL Status	Percent Complete
St. Marks River Rise	2018	Under development	75%
Wakulla Spring	2020	Under development	60%
Sally Ward Spring	2020	Under development	60%
Floridan Aquifer, Coastal Region II	2020	Under development	40%
Jackson Blue Spring	2022	Under development	25%
Shoal River System	2023	Under development	5%
Econfina Creek & Spring complex*	2025	Scheduled for completion 2024-2025	0%
Floridan Aquifer, Coastal Bay Co.	2027	Scheduled for completion 2026-2027	0%

** Includes Gainer Spring Group, Williford Spring Group, Sylvan Spring Group, Econfina Blue Spring Group, and Devils Hole Spring*

(2) Waterbodies meeting their adopted MFLs

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

Milestones and Deliverables

Deliverables and milestones for the MFL strategic priority include completed technical assessments according to the approved schedule. Target dates and status are shown in Table 1.6.

Table 1.6 MFL Milestones and Deliverables

Milestone	Target Date	Status
Completion of technical assessment for the St. Marks River Rise (2018), Wakulla Spring (2020), Sally Ward Spring (2020) and coastal Floridan (2020)	2018-2020	Within the current SWMP horizon, the technical assessment for St. Marks River Rise is scheduled for completion in 2018.

Deliverable	Status
Completed MFL technical assessments according to the approved schedule	All technical assessments currently on schedule.

The current Department-approved MFL Priority List and schedule can be found in Chapter 2 of this report and on the website: www.nwfwater.com/water-resources/minimum-flows-levels/.

1.3 Apalachicola-Chattahoochee-Flint River Basin

Strategic Priority and Success Indicators

The goal of the Apalachicola-Chattahoochee-Flint River Basin strategic priority is to protect Apalachicola River and Bay water quality and freshwater inflow. Success indicators are:

(1) Cooperative project implementation (number and percent complete)
(2) Area restored (acres)
(3) Stormwater treatment area (acres)

Current Activities and Accomplishments

The District continues to provide technical assistance to cooperators within the ACF River Basin. These efforts have included agricultural BMPs; an updated Apalachicola Bay hydrodynamic model, including a freshwater flow model for the Apalachicola River, delta, and Tate's Hell Swamp; and resource assessments.

Four stormwater retrofit projects to improve water quality in Apalachicola Bay have been completed by the City of Apalachicola and City of Carrabelle (Table 1.7). The District is working with both cities and with the Eastpoint Water and Sewer District to develop additional water quality improvement projects, including connection of existing residential units from onsite to central sewer wastewater treatment and stormwater retrofit.

Evaluation of Indicators

(1) Cooperative project implementation

Table 1.7 Status of ACF Cooperative Stormwater Retrofit Projects

Project	Description	Status	Restoration Area (Acres)	Treatment Area (Acres)
Marine Street Basin Retrofit	Stormwater retrofit project in cooperation with the City of Carrabelle	Complete in FY 2015-2016	N/A	11
Prado Outfall Basin Retrofit	Stormwater retrofit project in cooperation with the City of Apalachicola	Complete in FY 2016-2017	N/A	46
US 98 & 16th Street Basin Retrofit	Stormwater retrofit project in cooperation with the City of Apalachicola	Complete in FY 2016-2017	N/A	76
Avenue I Basin Retrofit	Stormwater retrofit project in cooperation with the City of Apalachicola	Complete in FY 2016-2017	N/A	54

(3) Stormwater treatment area

With the Battery Park Stormwater Retrofit project completed in FY 2014-2015 and the cooperative stormwater retrofit projects noted in Table 1.7, the City of Apalachicola has collectively added about 240 acres of new stormwater treatment area.

Milestones and Deliverables

Table 1.8 ACF River Basin Milestones and Deliverables

Milestone	Target Date	Status
(1) Completion of cooperative stormwater retrofit projects: Marine Street Basin Retrofit (Carrabelle)	2015-2016	Complete
(2) Completion of additional cooperative stormwater retrofit projects with City of Apalachicola: US 98 and 16th Street basin, Prado Outfall basin, and Avenue I basin	2015-2017	Complete
(3) Support to state ACF Basin issues	2015-2020	Ongoing

Deliverables	Status
(1) Grant project completion reports	Complete

1.4 Water Supply

Strategic Priority and Success Indicators

The goal of the Water Supply strategic priority is to ensure sufficient water is available for all existing and future reasonable-beneficial uses and natural systems. Success indicators are:

(1) RWSP public supply water demands met (volume [MGD] and percentage)
(2) Public supply uniform gross per capita water use (GPCD and trend)
(3) Public supply uniform residential per capita water use (GPCD and trend)
(4) Alternative water supply made available (volume [MGD] and trend)
(5) Project accomplishment (percent complete)

Current Activities and Accomplishments

A Districtwide Water Supply Assessment (WSA) update projecting water demands and evaluating source sufficiency through 2040 was partially completed by the end of FY 2016-2017. The draft update will be available by June 2018 with the final assessment completed by September 2018. An update of the Region II Regional Water Supply Plan (RWSP) is planned to follow completion of the WSA update.

The District compiles average annual water use for all use categories on an annual basis, including public supply uniform gross and residential per capita water use. The District also compiles data annually on wastewater systems that provide reclaimed water as a potential alternative water supply source.

The District's Water Supply Development (WSD) Grant Program has been ongoing since FY 2013-2014. Through FY 2016-2017, the District has awarded more than $21.6 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. Funding is distributed across the District, with emphasis on supporting financially disadvantaged communities. FY 2016-2017 marks the final year of the grant program, though project implementation will continue through 2019.

Evaluation of Indicators

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

The District has two active RWSPs: Region II (Santa Rosa, Okaloosa and Walton counties), and Region III (Bay County). Both RWSPs include estimates and projections for all water use categories[2]. The public supply water use category is projected to change most significantly in both regions during the planning horizon.

This indicator refers to the quantity and percentage of projected public supply water demands within the two RWSP areas that are estimated to be available with existing sources. The 2013 WSA showed a districtwide net increase in public supply water demand from 2015-2035 of 26.3 million gallons per day (mgd). Regions II and III, combined at 17.8 mgd, are expected to account for approximately 68 percent or about two-thirds of this increase in demand. Given existing permitted allocations, 90 percent of

[2] Estimates and projections from the 2013 WSA Update were used to complete this indicator.

public supply demands are met in the two RWSP regions. Unmet demands will need to be addressed through water conservation, alternative water supply sources, or increased permitted allocations.

Table 1.9 RWSP Public Supply Water Demands Met

Indicator	2015-2035 Net demand change (mgd)	Future demand met within existing allocation (mgd)	Percent of net demand change met
RWSP water demands met	17.8	16.0	90%

(2) Public supply uniform gross and (3) 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. District gross and residential per capita water use values are shown in Table 1.10. The trend in both gross and residential per capita water use has been generally downward, as illustrated in Figure 1.5.

Table 1.10 Public Supply Gross and Residential Per Capita Water Use

Year	Annual public supply uniform gross per capita water use[1]	Public supply uniform residential per capita water use[1]
2010	146	-
2011	140	-
2012	136	80
2013	128	73
2014	126	76
2015	124	75
2016	122	74

[1]Gallons per person per day (gpcd).

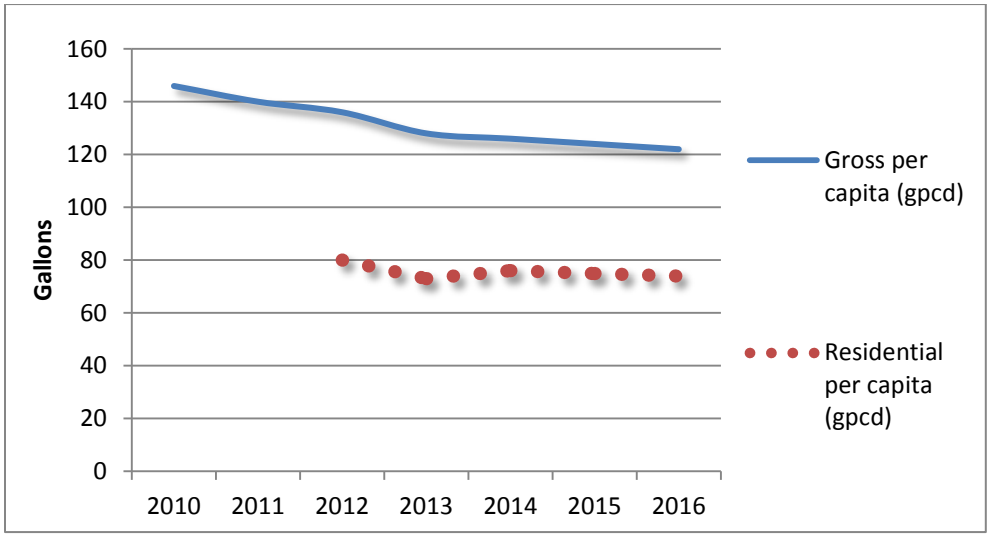

Figure 1.5 Public Supply Gross and Residential Per Capita Water Use Trends

(4) Alternative water supply made available (volume [MGD] and trend)

Alternative sources of water and conservation potential are evaluated as part of water resource and water supply assessments to meet regional demands. Alternative water may include reclaimed water, brackish water, surface water or stormwater, or groundwater recharge. Water conservation is not alternative water per se, but more efficient use of existing water supplies and can offset or delay the need to develop alternative water supply resources.

Alternative water supply has been made available through cooperative projects with funding sources such as the Water Protection and Sustainability Trust Fund, the District's Water Supply Development (WSD) grant program, local match funds, and other sponsor partner funding. Through these initiatives, inland wellfields have been expanded, alternative water intake infrastructure developed, new reuse of reclaimed water projects implemented, and surface water sources improved to potable-quality standards. Reuse flow made available to date in Region II is 2.3 mgd. Two new reuse projects in Bay County began in 2017.

As Figure 1.6 below shows, the quantities of reuse water providing potable quality offset has increased since 2010 and there remain additional alternative water supply opportunities with wastewater reuse water.

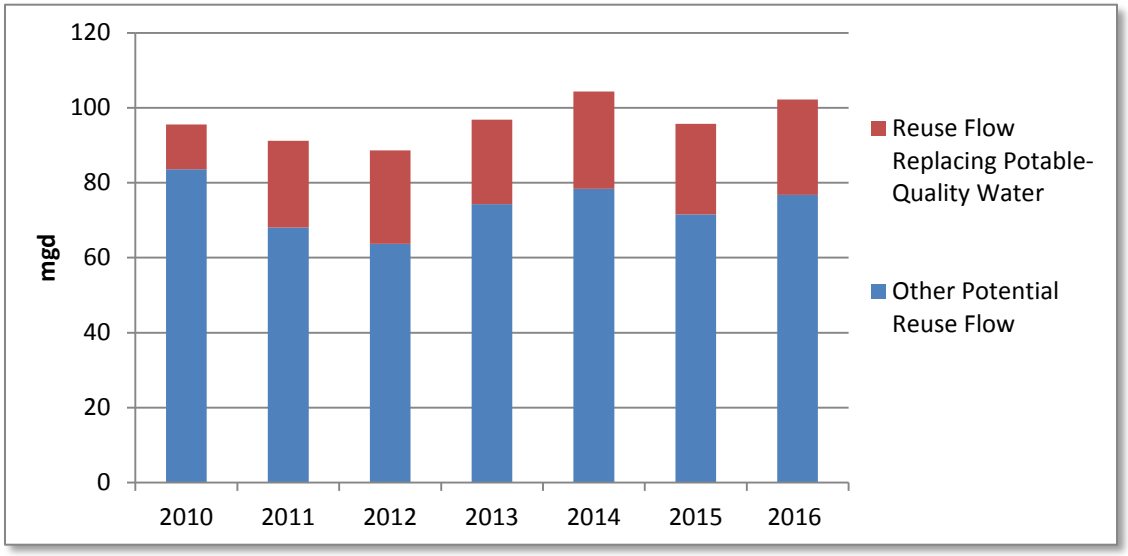

Figure 1.6 Wastewater Reuse Flows in NWFWMD (2010-2016)

(5) Project accomplishment (percent completion on schedule)

Through September 30, 2017, the District has assisted with 70 water supply development projects and awarded $21.6 million in financial assistance. Local matching funds have leveraged more than $9 million, for a total planned investment of more than $30 million. Forty-five (45) or about two-thirds of these projects are now complete. A map and more information on individual projects are available at: www.nwfwater.com/Water-Resources/Funding-Programs/Water-Supply-Grants.

Table 1.11 Summary of Water Supply Development Grants

Project Fiscal Year	No. Projects	Award $*	Local Match $	No. Complete	% Complete
FY 2013-2014	23	$10,656,991	$3,568,922	18	78%
FY 2014-2015	25	$7,368,071	$3,366,655	21	84%
FY 2015-2016	10	$1,975,534	$1,601,896	5	50%
FY 2016-2017	12	$1,014,336	$854,966	1	8%
TOTALS	**70**	**$21,015,003**	**$9,392,439**	**45**	**64%**

**Note total award by fiscal year less than overall awarded amount due to changes to individual projects or completion of projects under budget.*

Milestones and Deliverables

Table 1.12 Water Supply Milestones and Deliverables

Milestone	Target Date	Status
(1) Completion of local government water supply development grant projects	2016-2019	64% of all projects complete
(2) Completion of Western District Groundwater Model	2018	Delayed; Western model to coincide for MFL development; Eastern District Model to be completed in FY 2017-2018
(3) Districtwide Water Supply Assessment (WSA) Update	2018	In Progress and on schedule to be completed by September 2018
(4) Region II RWSP Update	2018-2019	To begin upon completion of WSA Update
(5) Completion of Central District Groundwater Model	2019	Delayed; project may be combined with other models

Deliverable	Status
(1) Water use data	Completed annually in September
(4) Grant project completion reports	Completion reports for all 45 completed projects

1.5 Watershed Protection and Restoration

Strategic Priority and Success Indicators

The goal of the Watershed Protection and Restoration strategic priority is to protect and restore watershed resources and functions. Success indicators are:

(1) Balance of released mitigation credits, reflective of net functional lift achieved under the District's Umbrella Mitigation Plan (credits)
(2) Cooperative project implementation (number and percent complete)
(3) Area restored (acres)
(4) Stormwater treatment area (acres)

Current Activities and Accomplishments

The District continues to focus on implementation of cooperative stormwater retrofit, water quality, water conservation, and habitat restoration projects. Specific efforts include the following:

- 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 septic-to-sewer retrofit projects in the Indian Springs subdivision on Merritt's Mill Pond and Jackson Blue Spring;
- Cooperative funding to the City of Carrabelle for a septic-to-sewer retrofit project in the Lighthouse Estates subdivision adjacent to Apalachicola Bay.
- Financial support for research and outreach on University of Florida's Institute of Food and Agricultural Services (IFAS) Sod-Based Crop Rotation Program;
- Completion of cooperative stormwater retrofit projects to improve water quality in St. Andrew Bay and Apalachicola Bay watershed in FY 2016-2017; and
- Continuing assistance to local governments to complete stormwater retrofit projects that improve water quality and flood protection in the Apalachicola Bay watershed.

District staff continues to participate in multi-agency project planning and development for Gulf of Mexico protection and restoration. These include activities associated with the federal Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act (RESTORE Act), Gulf Environmental Benefit Fund (GEBF), and Natural Resource Damage Assessment (NRDA). During the past year, the District has completed updates to Surface Water Improvement and Management (SWIM) plans districtwide, with funding from the National Fish and Wildlife Foundation's GEBF. Additionally, the District has continued to fund restoration and associated outreach activities conducted by the Choctawhatchee Basin Alliance.

In its ongoing reforestation and groundcover habitat restoration program, the District completed hand planting of 663 acres of longleaf pine habitat in January 2018. Approximately 478,438 longleaf pine tubelings were planted within the Econfina Creek Water Management Area (WMA). In addition, the District completed hand planting of 145,200 wire grass, 30,000 sand hill herbaceous species and 4,360 acres of longleaf pine habitat at the Sand Hill Lakes Mitigation Bank. The District planted 2,396 mixed forested wetland trees at a rate of 536 trees per acre within 4.47 acres of freshwater forested wetlands

connected to the floodplain of the Escambia River at the Mystic Springs Restoration Area. These habitat restoration activities enhance groundwater recharge, improve wetland functions, and offset wetland losses caused by transportation projects.

Evaluation of Indicators

(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 improvement (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, have also been used. Since the establishment of the District's wetland mitigation program in 1997 to comply with section 373.4137, F.S., and through the end of FY 2016-2017, 758.05 credits have been developed and released by permitting authorities. A total of 535.54 credits have been used ("debited") to offset wetland impacts associated with transportation or other projects, leaving an Umbrella Mitigation Plan balance of 222.51 credits at the end of the fiscal year. Additional information may be found at: www.nwfwetlands.com.

(2) Cooperative project implementation (number and percent complete)
(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, is found below in Table 1.13. The table lists projects by major watershed identified by the District's Surface Water Improvement and Management (SWIM) program, illustrated in Figure 1.7 below. Many of the projects are also shared with the springs restoration and protection strategic priority, as shown previously in Table 1.2.

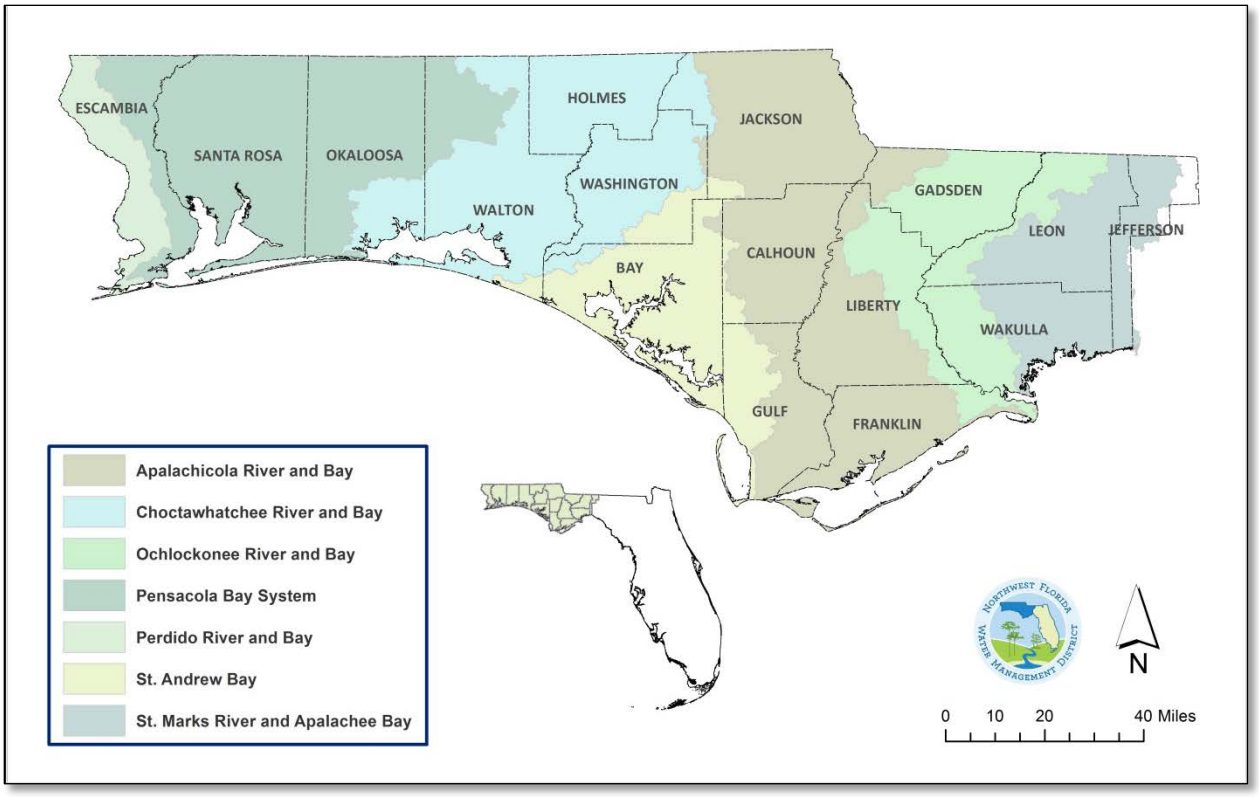

Figure 1.7 Watersheds of the Northwest Florida Water Management District

Table 1.13 Watershed Protection and Restoration Cooperative Projects

Project	Description/Cooperators	Total District Cost (or as noted)	Restoration or Treatment Area (Acres)	Status	Percent Complete
Choctawhatchee River and Bay Watershed					
Choctawhatchee Basin restoration Program	Shoreline restoration and education and outreach around Choctawhatchee Bay. Choctawhatchee Basin Alliance.	$50,000	2.11	All funds expended and project complete for FY 2016-2017	100%
St. Andrew Bay Watershed					
Panama City Beach North Glades Trail Stormwater Improvements	Stormwater conveyance retrofit project to reduce flooding and add stormwater BMPs. City of Panama City Beach	$50,000	14.5	Planning	0%
Apalachicola River and Bay Watershed					
Apalachicola Water Quality Improvements	Stormwater retrofit project with the City of Apalachicola for three stormwater basins: Prado Outfall, US 98 & 16th Street and Avenue I	$1,481,763	184	Complete	100%
Carrabelle Lighthouse Estates Septic to Sewer	Septic-to-sewer conversion project to reduce nitrogen runoff into St. George Sound	$851,000	NA	Design/ Engineering	5%
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 ($806,032 total)	NA	In progress	5%
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	$64,000 (annual cost)	NA	All funds expended and project complete for FY 2016-2017	100%
Districtwide					
NFWF SWIM	Development and update to seven SWIM plans	$695,000	NA	Complete November 2017	100%

Milestones and Deliverables

Table 1.14 Watershed Protection and Restoration Milestones and Deliverables

Milestone	Target Date	Status
(1) Completion of four cooperative stormwater retrofit projects in the Apalachicola River and Bay Watershed: Marine Street, US 98 and 16th Street basin, Prado Outfall basin, and Avenue I basin	2017	Complete
(2) Completion of updated SWIM plans	2017	Complete

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 2016 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 March 1, 2017 Consolidated Annual Report.
(3) Draft and updated SWIM plans	Updates complete. Final plans available at: www.nwfwater.com/Water-Resources/SWIM.

1.6 Flood Protection and Floodplain Management

Strategic Priority and Success Indicators

The goal of the Flood Protection and Floodplain Management strategic priority is to maintain natural floodplain functions and minimize harm from flooding. Success indicators are:

(1) Area of floodplain protected through fee or less-than-fee acquisition (acres)
(2) Percent of District with updated DFIRMs meeting FEMA standards and criteria

Current Activities and Accomplishments

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 floodplain functions and manage surface waters to avoid flood damage to property. No land or conservation easements were purchased in FY 2016-2017.

The District continues to work in cooperation with the Federal Emergency Management Agency (FEMA) on the Risk Mapping, Assessment, and Planning (Risk MAP) program. 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 provide detailed Light Detection and Ranging (LiDAR)-based elevation and surface feature data for properties across northwest Florida. The data provided is 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. Additionally, the District makes detailed floodplain information available to the public through http://portal.nwfwmdfloodmaps.com.

Evaluation of Indicators

(1) Area of floodplain protected through fee or less-than-fee acquisition (acres)

Areas of floodplain protected through fee or less-than-fee acquisition is currently at 177,808 acres; representing 78% of total District managed area.

(2) Percent of District with updated DFIRMs meeting FEMA standards and criteria

One hundred percent of the District had updated digital flood insurance rate maps (DFIRMs) meeting FEMA standards and criteria in 2014. Preliminary DFIRMs were issued for Escambia County in January 2017. Preliminary DFIRMs are scheduled to be issued for Bay County by March 2018. Final effective DFIRMs for these six coastal counties are scheduled to be issued in FY 2018-2019. DFIRM completion incorporating coastal remapping studies for Escambia, Santa Rosa, Okaloosa, Walton, Bay, and Gulf counties are scheduled for FY 2018-2019.

Milestones and Deliverables

Table 1.15 Flood Protection and Floodplain Management Milestones and Deliverables

Milestone	Target Date	Status
(1) Completion of coastal remapping studies for Escambia, Santa Rosa, Okaloosa, Walton, Bay, and Gulf counties	2016	Complete
(2) Completion of DFIRM updates for Escambia, Santa Rosa, Okaloosa, Walton, Bay, and Gulf counties	2018-2019	On schedule

Deliverable	Status
(1) Risk MAP regulatory and non-regulatory products according to discovery report for each study area	On schedule
(2) Coastal DFIRMs for Escambia, Santa Rosa, Okaloosa, Walton, Bay, and Gulf counties	2018-2019

Consolidated Annual Report
Chapter 2

Minimum Flows and Minimum Water Levels
Annual Priority List and Schedule

Minimum Flows and Minimum Water Levels
Annual Priority List and Schedule

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Chapter 2. MFLs Annual Priority List and Schedule

Introduction

Section 373.042, F.S., requires each water management district to develop minimum flows and minimum water levels (MFLs) for specific surface and ground waters within its jurisdiction. The MFL for a given waterbody is the limit at which further withdrawals would significantly harm 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 per 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 anticipated within the next 20 years will result in flows or levels below an adopted MFL.

MFL Priority List and Schedule

The NWFWMD FY 2017-2018 MFL priority list and schedule includes: four first magnitude springs (St. Marks River Rise, Wakulla Spring, Gainer Spring Group, and Jackson Blue Spring); five second magnitude springs (Sally Ward Spring, Williford Spring Group, Sylvan Spring Group, Econfina Blue Spring Group, and Devils Hole Spring); two coastal aquifer systems; Deer Point Lake reservoir; and the Shoal River system (Table 2.1).

Additional waterbodies are anticipated to be scheduled in future years (Table 2.2). The priority list represents an ambitious yet achievable MFL program, which is being implemented in an efficient and technically sound manner.

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 are re-evaluated annually and adjustments made as appropriate.

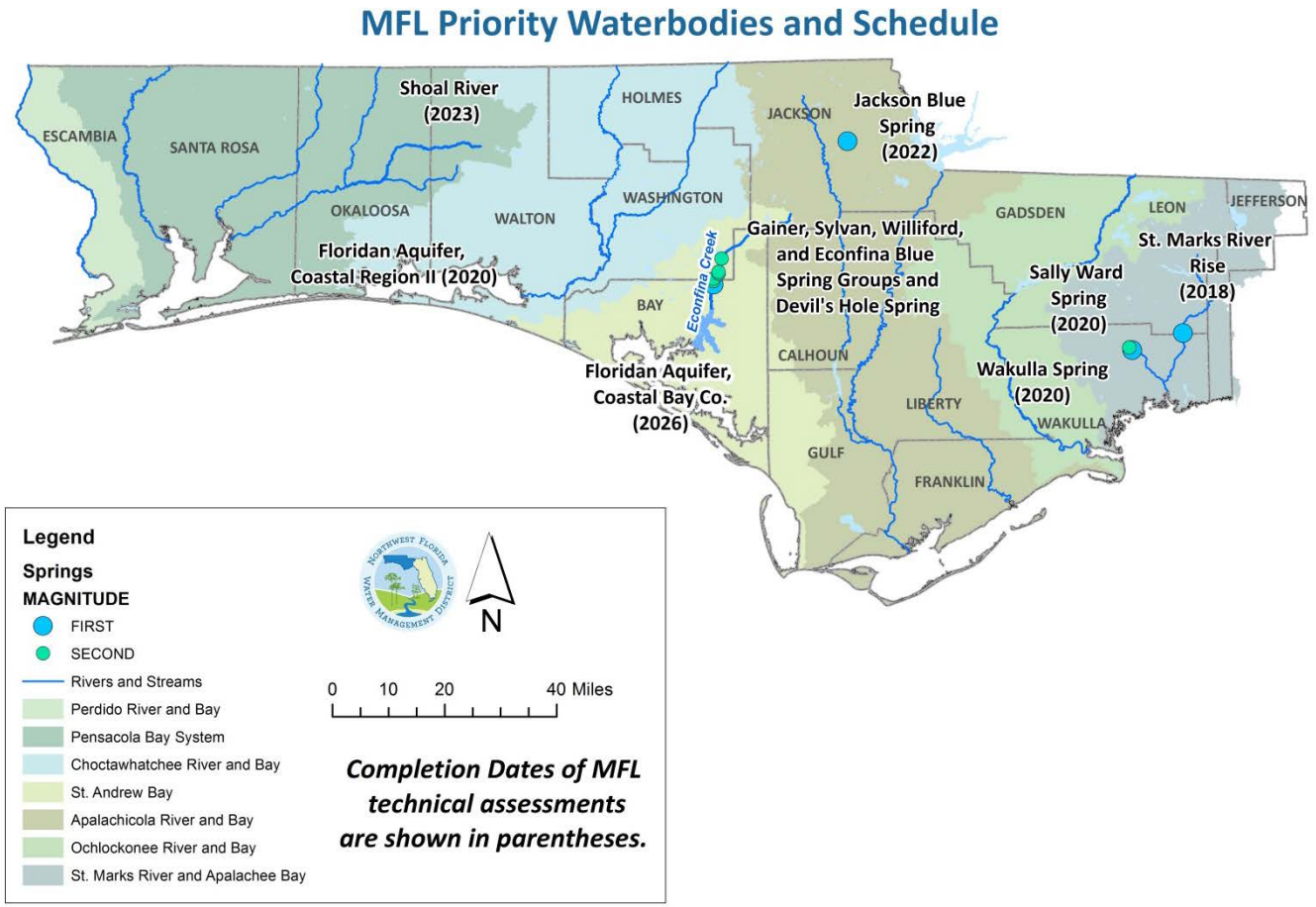

Figure 2.1 NWFWMD MFL Priority Waterbodies

Table 2.1 Northwest Florida Water Management District 2017 Priority List and Schedule

Northwest Florida Water Management District Minimum Flows and Levels to be adopted in 2019

New or Re-Evaluation	Waterbody Name *	Waterbody Type**	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude***	Longitude
New	St. Marks River Rise	Spring-1	Leon	Yes	No	30.285222	-84.151194

Northwest Florida Water Management District Minimum Flows and Levels to be adopted in 2021

New or Re-Evaluation	Waterbody Name	Waterbody Type**	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude	Longitude
New	Wakulla Spring	Spring-1	Wakulla	Yes	No	30.234789	-84.301463
New	Sally Ward Spring	Spring-2	Wakulla	Yes	No	30.237219	-84.303583
New	Coastal Floridan aquifer	Aquifer	Walton, Okaloosa and Santa Rosa	Yes	No	Wells not yet determined	Wells not yet determined

Northwest Florida Water Management District Minimum Flows and Levels to be adopted in 2023

New or Re-Evaluation	Waterbody Name	Waterbody Type**	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude	Longitude
New	Jackson Blue Spring	Spring-1	Jackson	Yes	No	30.79014	-85.140025

Northwest Florida Water Management District Minimum Flows and Levels to be adopted in 2024

New or Re-Evaluation	Waterbody Name	Waterbody Type**	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude	Longitude
New	Shoal River System	River	Okaloosa, Walton	Yes	No	Gage Site to be determined	Gage Site to be determined

Northwest Florida Water Management District Minimum Flows and Levels to be adopted in 2025

New or Re-Evaluation	Waterbody Name	Waterbody Type**	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude	Longitude
New	Gainer Spring Group	Spring-1	Bay	Yes	No	30.428594	-85.54802
New	Williford Spring Group	Spring-2	Washington	Yes	No	30.4385622	-85.5479933
New	Sylvan Spring Group	Spring-2	Bay	Yes	No	30.4326	-85.5479
New	Econfina Blue Spring Group	Spring-2	Washington	Yes	No	30.4515494	-85.532075
New	Devils Hole Spring	Spring-2	Washington	Yes	No	30.4905278	-85.5220556

Northwest Florida Water Management District Minimum Flows and Levels to be adopted in 2027

New or Re-Evaluation	Waterbody Name	Waterbody Type**	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude	Longitude
New	Coastal Floridan aquifer	Aquifer	Bay	Yes	No	Wells not yet determined	Wells not yet determined

Northwest Florida Water Management District Reservations Priority List

Waterbody Name	Waterbody Type	County(s)	Proposed Year
N/A			

*A spring with one vent should be labeled as "Example Spring." A spring with multiple associated vents should be labeled as "Example Springs." Multiple springs grouped together in a system should be labeled as "Example Spring Group." (Please refer to Florida Spring Classification System and Spring Glossary, Special Publication No. 52, for more details.)

**River, Lake, Spring- Magnitude, Wetland, Aquifer.

***For rivers, use the coordinates for the most upstream gage used to measure flow. For lakes, use the lake's center point. For springs, use the coordinates for the gage used to measure flow unless the gage is not located on the spring/spring run, in which case, use the spring's center point. For aquifers, wetlands, and estuaries, use the coordinates for the wells or gauge used to measure the water source's level. Please use Decimal Degrees (DD) formatting.

Table 2.2 Waterbodies for Future Years

New or Re-Evaluation	Waterbody Name	Waterbody Type**	County(s)
New	Horn Spring	Spring - 2	Leon
New	Morrison Spring	Spring - 2	Walton
New	Holmes Blue Spring	Spring - 2	Holmes
New	Ponce De Leon Spring	Spring - 2	Holmes
New	Baltzell Spring Group	Spring - 2	Jackson
New	Blue Hole Spring	Spring - 2	Jackson
New	Mullet Spring	Spring - 2	Washington
New	Telogia Creek	River	Gadsden

**River, Lake, Spring- Magnitude, Wetland, Aquifer.

Reservations

Regulatory reservations have been established for the Apalachicola and Chipola rivers (Table 2.3).

Table 2.3 Waterbodies Subject to Regulatory Reservations

Waterbody	Counties	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	

Consolidated Annual Report
Chapter 3

Annual Five-Year
Capital Improvements Plan

Annual Five-Year Capital Improvements Plan

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Chapter 3. Annual Five-Year Capital Improvements Plan

Introduction

The five-year capital improvements plan (CIP) includes projected revenues and expenditures for capital improvements from fiscal years 2017-2018 through 2021-2022. 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, 2.2.2 Water Supply Development Assistance, 2.3 Surface Water Projects, 2.5 Facilities Construction and Major Renovations and 2.6 Other Acquisition and Restoration Activities. The NWFWMD has applicable CIP projects in categories 2.1, 2.3, 2.5 and 2.6.

Activities under program 3.0 Operation and Maintenance of Lands and Works that may include capital improvement projects are: 3.1 and 3.2. The NWFWMD does not have any applicable capital improvement projects in these activities.

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. Therefore, land management activities and small capital projects less than $50,000 may be included in the District's budget, but not reported in the CIP.

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.

District plans that also provide information on long-range capital improvements include: the Florida Forever Work Plan, Five-Year Water Resource Development Work Program, and Northwest Florida Umbrella, Watershed-based, Regional Mitigation Plan.

Table 3.1 NWFWMD Five-Year Capital Improvements Plan, Fiscal Years 2018-2022

2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS					
2.1 Land Acquisition					
Revenues ($)	**Fiscal Year**				
	2017-2018	**2018-2019**	**2019-2020**	**2020-2021**	**2021-2022**
DEP General Revenue	237,025				
Florida Forever – Land Acquisition	0	0	0	0	0
District Land Acquisition Fund	0	0	0	0	0
Land Management Fund	0	0	0	0	0
Land Acquisition Trust Fund (Springs)	10,949,543	3,400,000	3,500,000	3,500,000	3,500,000
Land Acquisition Trust Fund	77,628	73,451			
TOTAL	**11,264,196**	**3,473,451**			
Expenditures ($)	**Fiscal Year**				
	2017-2018	**2018-2019**	**2019-2020**	**2020-202**	**2021-2022**
Acquisition of Land	10,789,443	3,200,000	2,375,000	2,375,000	2,375,000
Pre-acquisition Costs	474,753	273,451	175,000	175,000	175,000
TOTAL	**11,264,196**	**3,473,451**			

2.2 Water Source Development

Revenues ($)	Fiscal Year 2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**

Expenditures ($)	Fiscal Year 2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**

2.3 Surface Water Projects

Revenues ($)	Fiscal Year 2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
FDOT Mitigation Funds	1,062,581	1,038,145	900,000	900,000	900,000
TOTAL	**1,062,581**	**1,038,145**	**900,000**	**900,000**	**900,000**

Expenditures ($)	Fiscal Year 2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
FDOT Mitigation	1,062,581	1,038,145	900,000	900,000	900,000
TOTAL	**1,062,581**	**1,038,145**	**900,000**	**900,000**	**900,000**

2.5 Facilities Construction and Major Renovations

Revenues ($)	Fiscal Year 2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
Florida Forever	0	0	0	0	0
Water Management Lands Trust Fund	0	0	0	0	0
Land Management Fund	0	0	0	0	0
District General Fund	85,000	100,000	100,000	100,000	100,000
TOTAL	**85,000**	**100,000**	**100,000**	**100,000**	**100,000**

Expenditures ($)	Fiscal Year 2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
Renovations and Major Repairs	85,000	100,000	100,000	100,000	100,000
TOTAL	**85,000**	**100,000**	**100,000**	**100,000**	**100,000**

2.6 OTHER ACQUISITION AND RESTORATION ACTIVITIES

Revenues ($)	Fiscal Year 2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
Natural Resource Damage Assessment	294,430	324,390	0	0	0
Florida Forever-Capital Improvement	372,480	0	0	0	0
Land Management Fund	25,000	0	0	0	0
DEP – State General Fund	30,000	0	0	0	0
Ecosystem Management Trust Fund	72,000	0	0	0	0
Land Acquisition Trust Fund		300,000	0	0	0
Land Acquisition Trust Fund (Springs)	520,000	200,000			
TOTAL	**1,313,910**	**824,390**	**0**	**0**	**0**

Expenditures ($)	Fiscal Year 2017-2018	2018-2019	2019-2020	2020-2021	2021-2022
Seven Runs Streambank Restoration	25,000	0	0	0	0
Devil's Hole Spring Restoration	122,000	0	0	0	0
Blue Spring Restoration	872,480	500,000	0	0	0
Perdido River Paddling Trail	294,430	324,390	0	0	0
TOTAL	**1,313,910**	**824,390**	**0**	**0**	**0**

TOTAL CAPITAL EXPENDITURES ($)

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: Pre-acquisition costs for land acquisition purchases

Type: N/A

Physical Location: N/A

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, Strategic Water Management 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): N/A

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): Land acquisition ancillary costs to include appraisals, surveys, legal fees, and other professional services and fees associated with the purchase of lands; specific costs are estimated and will vary based on individual land acquisition purchases.

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

Anticipated Additional Operating Costs/Continuing: N/A

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

Project Title: Gainer Springs Fee Simple and Less than Fee (Conservation Easement) Land Acquisition

Type: Improved and Unimproved land with pasture adjacent to Gainer Spring Group

Physical Location: Econfina Creek basin, Bay County

Square Footage/Physical Description: Approximately 80 acres in fee simple and approximately 789 acres in less than fee (conservation easement) and remainder interest in approximately 30.9 acres.

Expected Completion Date: On or before September 30, 2018

Historical Background/Need for Project: The Gainer Springs Land Acquisition project will further the District's mission of protecting the water resources for first magnitude springs and Econfina Creek. This land acquisition project will be a combination fee and less than fee acquisition of up to 899 acres at a first magnitude springs complex along Econfina Creek in northern Bay County. The portion being proposed as a conservation easement would also maintain the property on the County's tax rolls.

Plan Linkages: Florida Forever Work Plan, Strategic Water Management Plan

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

Alternative(s): Less than fee simple purchase for the entire project

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): Purchase price 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, type of land, and purpose of land acquired.

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

Project Title: Cypress Spring Less than Fee (Conservation Easement) Land Acquisition

Type: Unimproved land adjacent to a second magnitude spring

Physical Location: Holmes Creek basin, Washington County

Square Footage/Physical Description: Approximately 302 acres of property adjacent to a second magnitude spring.

Expected Completion Date: On or before September 30, 2018

Historical Background/Need for Project: The acquisition project will further the District's mission of protecting the water resources of Holmes Creek as well as provide enhanced protection for this second magnitude spring through the acquisition of a conservation easement on approximately 302 acres. The project also provides the ability to conduct future spring restoration and protection measures, as well as enhanced public access (by water) and recreational facilities, subject to available funding.

Plan Linkages: Florida Forever Work Plan, Strategic Water Management Plan

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

Alternative(s): Fee simple acquisition for the entire project

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): Purchase price 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): $1,000,000 for spring restoration activities and public access improvements (including professional services)

Anticipated Additional Operating Costs/Continuing: Maintenance costs for law enforcement and sanitation services are estimated at $45,000. Monitoring costs associated with the conservation easement are included in the Division of Asset Management's overall responsibilities.

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

Project Title: Jackson Blue Spring Less than Fee (Conservation Easement) Land Acquisition

Type: Pasture and unimproved land approximate to a first magnitude spring

Physical Location: Jackson Blue Spring basin, Jackson County

Square Footage/Physical Description: Approximately 163 acres of property approximate to a first magnitude spring

Expected Completion Date: On or before September 30, 2018

Historical Background/Need for Project: The proposed Jackson Blue Spring acquisition project will further the District's mission of protecting the water resources of Jackson Blue Spring through the acquisition of a conservation easement on approximately 163 acres.

Plan Linkages: Florida Forever Work Plan, Strategic Water Management Plan

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

Alternative(s): fee simple acquisition for the entire project

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): Purchase price 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: Monitoring costs associated with the conservation easement are included in the Division of Asset Management's overall responsibilities.

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 FDOT wetland impacts

Physical Location: Various locations; watersheds within the District

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

Area(s) of Responsibility: Water Quality, Water Supply, 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 FDOT, a transportation authority if applicable, or the District.

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): Variable; 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 typically estimated for engineering design work, surveying, land appraisals, environmental audits, etc.

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): Variable; multiple projects. Costs are determined by project type (habitat restoration, hydrologic restoration and enhancement, land acquisition, etc.).

Anticipated Additional Operating Costs/Continuing: Variable; 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: Headquarters Renovations

Type: To be determined

Physical Location: 81 Water Management Drive, Havana, FL 32333

Square Footage/Physical Description: To be determined

Expected Completion Date: September 30, 2018

Historical Background/Need for Project: Headquarters office building (40 years old) periodically requires updates or improvements; however, a specific project has not yet been determined.

Plan Linkages: Strategic Water Management Plan, District Budget

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

Alternative(s): To be determined

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): To be determined

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): To be determined

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): To be determined

Anticipated Additional Operating Costs/Continuing: $100,000 annual budget is to cover cost of renovations or major repairs that extend the life of the headquarters facilities.

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS
ACTIVITY: 2.6 OTHER ACQUISITION AND RESTORATION ACTIVITIES

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

Type: Spring and Shoreline Restoration and Protection

Physical Location: Located off Walsingham Bridge Road within the Econfina Creek Water Management Area

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 was completed in September 2016. Construction was substantially completed in December 2017.

Expected Completion Date: By March 31, 2018

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: Florida Forever Work Plan, Strategic Water Management 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): $30,000 (DEP State General Fund), $20,000 (DEP LATF Springs) and $72,000 (State Ecosystem) for spring and adjacent shoreline protection and restoration, and materials 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).

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

Anticipated Additional Operating Costs/Continuing: None. Maintenance costs for law enforcement and sanitation services are already provided by the District.

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS
ACTIVITY: 2.6 OTHER ACQUISITION AND RESTORATION ACTIVITIES

Project Title: Seven Runs Shoreline Restoration and Protection

Type: Shoreline Restoration and Protection

Physical Location: Located on the northwest side of Highway 81 in Walton County at the junction of Highway 81 and Seven Runs Creek within the Choctawhatchee River Water Management Area.

Square Footage/Physical Description: Shoreline restoration and protection utilizing geotextile bags, native landscape plants and other non-structural techniques.

Expected Completion Date: By September 30, 2018

Historical Background/Need for Project: The Seven Runs Creek recreation area has experienced significant shoreline erosion which has caused adverse impacts to the creek shoreline, natural vegetation and increased sedimentation into the creek. Approximately 100 feet of shoreline along Seven Runs Creek has been impacted and is scheduled for restoration and protection.

Plan Linkages: Florida Forever Work Plan, Strategic Water management 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): $25,000 (District Land Management Fund) for materials for shoreline protection and restoration.

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: None. Walton County provides management and maintenance of the site and site security is already being provided.

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS
ACTIVITY: 2.6 OTHER ACQUISITION AND RESTORATION ACTIVITIES

Project Title: Blue Spring Restoration

Type: Spring and Spring Shoreline Restoration and Protection

Physical Location: Located off Blue Springs Road in Washington County within the Econfina Creek Water Management Area

Square Footage/Physical Description: Spring and spring shoreline restoration utilizing non-structural techniques and site access improvements.

Expected Completion Date: By September 30, 2019

Historical Background/Need for Project: Blue Spring has a long history of significant recreational use and the spring has experienced significant shoreline erosion due to the lack of stormwater facilities and unregulated access. Specific restoration measures will be determined by a qualified engineer and shall include non-structural measures such as geotextile bags and other materials and the installation of native landscape trees and plants. Other site improvements needed include constructing stormwater treatment and parking, walkways for sensitive karst features, and other public access amenities.

Plan Linkages: Florida Forever Work Plan, Strategic Water Management 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): $500,000 (Land Acquisition Trust Fund) and $372,480 (Florida Forever) less engineering and professional services costs (below).

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): $50,000 for geotechnical, survey and structural engineering services

Anticipated Additional Operating Costs/Initial (includes salaries, benefits, equipment, furniture, expenses): $7,500 for materials for a new road and $25,000 for improvements for additional campsites. Tract should require minimal staff time once the site is restored and developed.

Anticipated Additional Operating Costs/Continuing: A public works inmate crew will provide recreation site cleanup and an OPS employee will provide trash pickup. Site security is already being provided. An additional portable toilet will be placed at the new campsite for an annual cost of $2,340.

PROGRAM: 2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS
ACTIVITY: 2.6 OTHER ACQUISITION AND RESTORATION ACTIVITIES

Project Title: Perdido River Paddling Trail

Type: Recreation facilities along paddling trail

Physical Location: Various locations along Perdido River in Escambia County within the Perdido River Water Management Area

Square Footage/Physical Description:

Expected Completion Date: By September 30, 2019

Historical Background/Need for Project:

Plan Linkages: District's Florida Forever Work Plan, Strategic Water Management 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): $294,430 grant for development of new and enhancement of current recreation sites on District lands along the Perdido River. Improvements will include restroom facilities, overnight camping areas, and river access improvements.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): $26,000 for survey, engineering and permitting.

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

Anticipated Additional Operating Costs/Continuing: $13,500 in annual costs for maintenance of three composting toilets and one portable toilet and $5,000 in annual costs for recreation site cleanup and general maintenance.

Appendix

Definitions for programs and activities used in this Five-Year Capital Improvement Program are included below. These definitions follow the water management district standard budget format.

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.

2.6 Other Acquisition and Restoration Activities: Protection and restoration of springs, spring shorelines and creek and river shorelines located on District lands while allowing for public access and recreation.

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.

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Consolidated Annual Report
Chapter 4

Alternative Water Supplies
Annual Report

Alternative Water Supplies Annual Report

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Chapter 4. Alternative Water Supplies Annual Report

Section 373.707(8)(n), F.S., directs each water management district to submit a report annually on the disbursal of all budgeted amounts for alternative water supply projects funded from the Water Protection and Sustainability Program Trust Fund (WPSPTF).

Table 4.1 on the following page lists District alternative water supply projects completed with funding received in FY 2005-2006 through FY 2008-2009. The Bay County Alternative Pump Station project was the final project to be completed in June 2015. In total, the District and cooperators completed 10 alternative water supply projects generating an estimated 62 mgd from alternative water sources. The majority of the $90 million total investment is from local contributions, with less than 25 percent ($21.47M) funded by the District.

If future funding becomes available from the WPSPTF, other specific appropriations or other sources, the District will consider potential projects in accordance with Section 373.707, F.S.

Table 4.1 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	Complete	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%
Totals						**62.1 mgd**	**$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

Consolidated Annual Report
Chapter 5

FY 2017-2018 Five-Year Water Resource Development Work Program

FY 2017-2018 Five-Year Water Resource Development Work Program

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Chapter 5. FY 2017-2018 Five-Year Water Resource Development Work Program

Introduction

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 water sources are considered inadequate to supply water for all existing and future reasonable-beneficial uses while sustaining water resources and natural systems over a 20-year planning period. Regional water supply plans 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 (see 373.709, F.S.).

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 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 largely responsible 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 5.1). 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 drawdown in the coastal Floridan aquifer caused by groundwater 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. This ratio of water use is projected to remain similar through the 2015-2035 planning period. The Governing Board discontinued the RWSP 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.

A draft update to the WSA is currently under development and a draft document is anticipated to be completed in the spring of 2018. The report will include updated estimates and projections and an evaluation of sources through 2040.

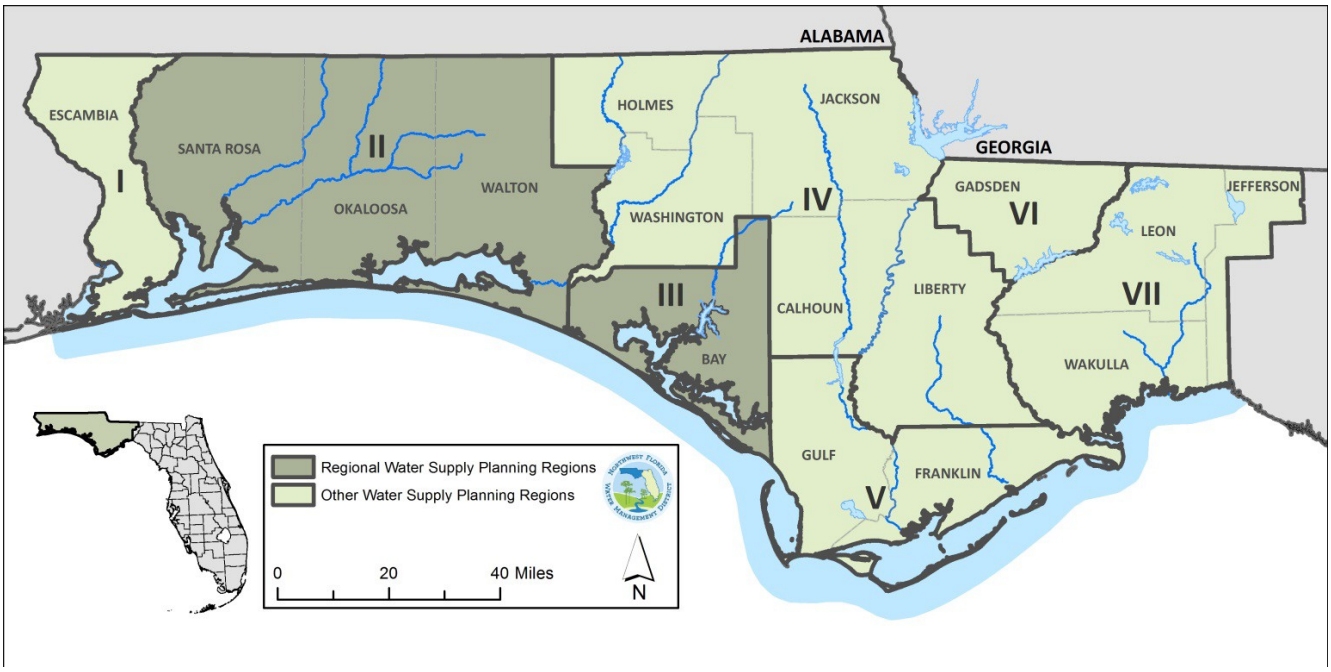

Figure 5.1 Water Supply Planning Regions

Funding for Water Resource and Supply Development

The state constitution limits the NWFWMD to 1/20th (0.05 mills) of one mill, significantly less than the ad valorem taxing authority afforded the other four water management districts. The budget for FY 2017-2018 includes a millage rate of 0.0353. Based on taxable values provided by the 16 counties in the District, tax collections are projected to be $3,538,881 for FY 2017-2018. Because the District has historically collected slightly less than the amount estimated (about 96%), ad valorem was budgeted at

$3,395,217 or 4.0% less than projected. With a recurring operating budget of $16,956,126, 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 Fund Balance;
- 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 for NWFWMD programs since FY 2010-2011.

Since FY 2013-2014, the Governor and Florida Legislature have allocated $215,000,000 statewide in funding for springs restoration and protection. The District has received more than $48.4 million toward restoration and protection projects, including those that assess, protect, and improve water quality and quantity within the groundwater contribution areas of major spring systems. Additional funding benefitting water resource development has also been provided for springs data collection and monitoring.

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.

Funding budgeted for water resource development is listed in summary tables for water supply

planning regions II and III in the following sections (Tables 2 and 6, respectively). The approved water resource development funding for FY 2017-2018 is $10,735,000. The anticipated five year water resource development implementation cost through FY 2021-2022 is $15,971,202.

Since FY 2013-2014, the District has approved $21.6 million from reserve funds for water supply development assistance grants across northwest Florida. As of July 1, 2016, this report includes funding budgeted for water supply development activities in water supply planning regions II and III. Summary tables are included in the following sections (Tables 4 and 8, respectively). The approved water supply development funding for FY 2017- 2018 is $1,677,796. The anticipated five year water supply development implementation cost through FY 2021- 2022 is $2,031,915.

In total, this represents a FY 2017-2018 budget for water resource and water supply development activities of $12,412,796 in Bay, Okaloosa, Santa Rosa, and Walton counties.

Region II: Santa Rosa, Okaloosa, and Walton Counties

Since the 1940s, Santa Rosa, Okaloosa, and Walton counties (Figure 5.2) have been characterized by significant growth in water demands within coastal portions of the region. Extensive pumping of the coastal Floridan aquifer caused formation of a substantial cone of depression, creating a risk of salt water intrusion and damage to public supply wells. Resource regulation and water supply planning 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.

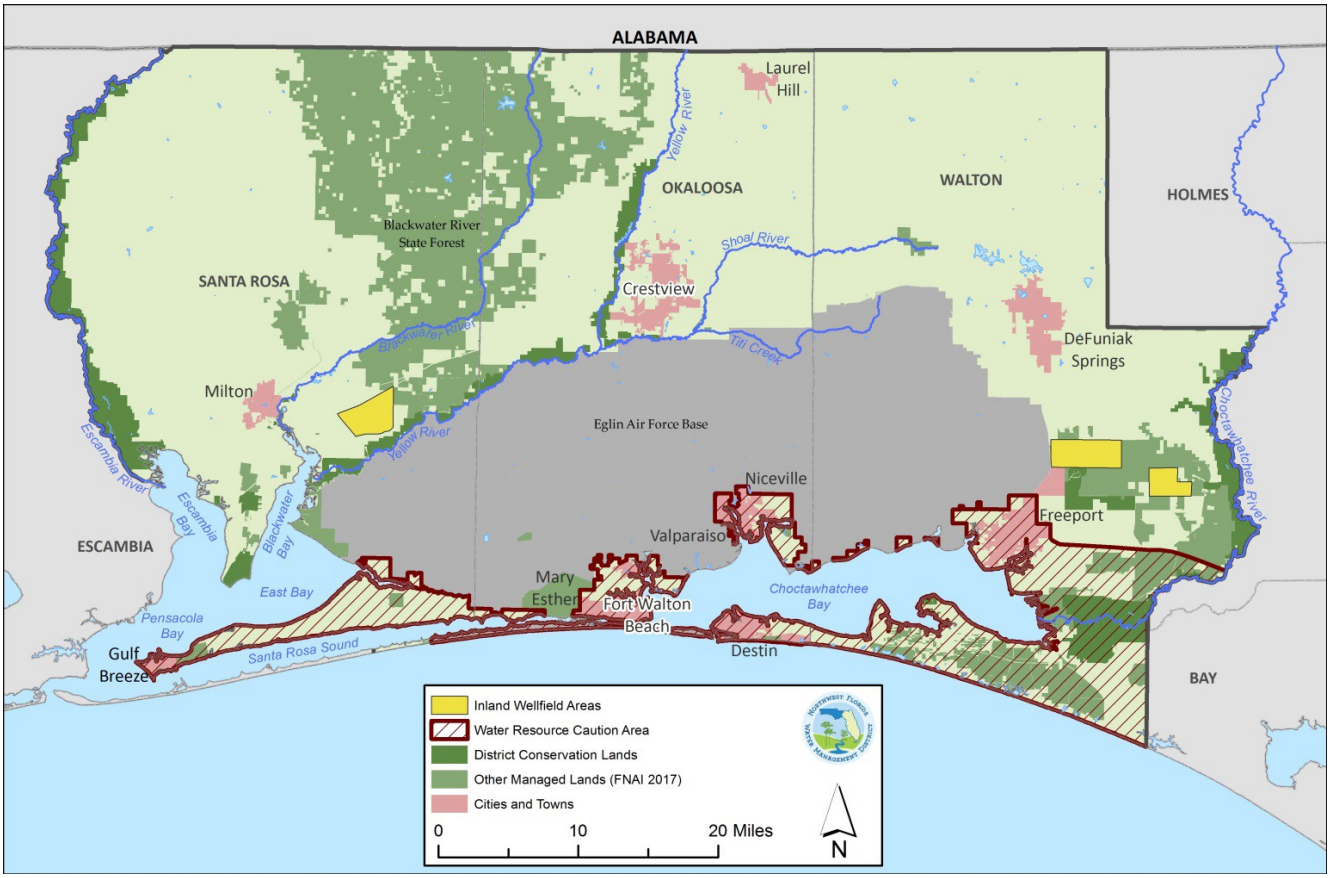

Figure 5.2 Water Supply Planning Region II

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 (nearly 19 percent) (Countryman et al. 2014). It is expected that public supply demand within the region will increase through the planning horizon, although its relative proportion of water use will decline slightly.

Region II Water Resource Development Projects

The Region II RWSP includes 10 water resource development projects encompassing strategies for preserving water resources and in support of alternative water supply development (Table 5.1). 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 updated analyses or project implementation.

Table 5.1 Region II Water Resource Development Projects

Project	Activity	Water Identified (mgd)
Floridan Aquifer	Development and application of a regional groundwater flow model and salt water intrusion models to identify regional availability from the coastal Floridan aquifer.	30
Inland Sand-and-Gravel Aquifer	Development and application of a three-dimensional, transient groundwater flow model.	18
Surface Water Sources	Identification and development of feasible surface water sources and optimal facilities.	25*
Aquifer Storage and Recovery	Development of aquifer storage and recovery systems, primarily to support the reuse of reclaimed water.	2
Water Reuse	Assistance in the development of reclaimed water to offset and conserve potable water resources.	5
Water Conservation	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 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

Preserving the coastal Floridan 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 salt water intrusion into potable portions of the Floridan aquifer may 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.

Since late 2014, the District has worked to develop a new groundwater flow modelling tool within Region II. A western district regional model, which includes portions of Escambia and Bay counties, in addition to coastal Region II, incorporates newer monitoring data and updated water demand projections, in addition to being 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 by both regulators and permittees to evaluate future withdrawal scenarios. Work on the groundwater flow model will be completed in FY 2017-2018 and updated to convert the flow model into a transport model in FY 2018-2019.

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. In October 2015, 12 existing wells were logged to evaluate downhole conditions and the suitability of the wells for use in an expanded monitoring network. Between August 2016 and September 2017 well construction and testing activities were performed at four new well sites in Region II. A total of eight new monitoring wells were installed and tested to provide additional water level and water quality data. These data will be used to evaluate the current position of the saltwater interface along the coast. Continued monitoring of new and existing wells is scheduled for FY 2017-2018. Monitoring will include discrete and composite water quality sampling and continuous water level recording. 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

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 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 6.5mgd in 2016.

Previous District evaluations indicate that total groundwater production of up to 18 mgd, inclusive of current withdrawals, may be available from the inland sand-and-gravel aquifer between the Blackwater River and Yellow River in Santa Rosa and Okaloosa counties. 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. A groundwater flow model was subsequently developed and calibrated. The model includes the transient response of the aquifer to drought and climatic variability. The development of the inland sand-and-gravel aquifer model has produced a better understanding of the shallow groundwater flow system which acts regionally as a source of water for the deeper Floridan aquifer. Elements of the sand-and-gravel aquifer model will be incorporated into the western district model described above.

Surface Water Sources

In 2006, the District and its water supply consultants prepared an analysis of potential surface water supply sources in Okaloosa County, presented in the report “Conceptual Alternative Water Supply Development Projects and Planning Level Cost Estimates” (PBS&J 2006). 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 feasible.

Okaloosa County continues 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. In 2015, the county completed a major land acquisition and has facilitated public workshops jointly with the U.S. Army Corps of Engineers as part of its long-range water supply planning efforts. The District will continue efforts to support planning for alternative surface water development, including MFL development for the Shoal River system, which began in FY 2016-2017. As part of the MFL development, the western district regional groundwater flow model described above will include refinements to better represent the permeable zones within the sand-and-gravel aquifer in the vicinity of the Shoal River.

Aquifer Storage and Recovery

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. Destin Water Users has developed an ASR system for storage of reclaimed water in the sand-and-gravel aquifer. This reclaimed water is available to meet irrigation demands, helping to conserve potable water resources and mitigate 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. There are no current ASR projects included in the District's FY 2017-2018 Adopted Budget. However, the District will work with utilities on the feasibility of additional ASR activities within Region II, as needed or requested.

Water Reuse

The Region II RWSP previously identified approximately 5 mgd of new beneficial reuse available to offset demands on the coastal Floridan aquifer. 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 2016, 27 reuse applications associated with 10 reuse systems in Region II were permitted for public access reclaimed water, producing an estimated 9.53 mgd for public access reuse (DEP 2017). These facilities supported landscape irrigation for approximately 3,010 residences, 16 golf courses, 11 parks, three schools, and three 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.

The District continued efforts to further identify opportunities for more integrated water management and resource sustainability in northwest Florida in FY 2016-2017. Additionally, the District continued to support projects with utilities to expand the use of reclaimed water to meet non-potable water needs through the districtwide water supply grant program. Since 2013, $1,083,923 has been awarded for six 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. With grant funding from the District, the City of Mary Esther will complete a reclaimed water feasibility study by June 2018.

Assisting utilities and local governments in developing beneficial reuse projects will remain a priority, with implementation depending on funding availability. Future water reuse projects may include assessments matching reclaimed water generators with users, feasibility studies, pilot projects, and demonstration projects. Projects of highest priority 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. Additionally, reuse information for the District will be updated annually.

Water Conservation

A significant effort to increase water conservation has been underway in Region II for some time, largely in response 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 preservation. To support this effort, an updated evaluation of water conservation potential was completed in 2015-2016. It includes 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 and expanded withdrawals from the Floridan aquifer for non-potable uses are not permitted within the coastal WRCA. Additionally, in response to resource limitations, cooperative planning, and regulatory requirements and incentives, numerous utilities implement water conservation measures that include inclining block rates, conservation plans, and the reuse of reclaimed water. 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 more than 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) District 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 analysis methods and tools, common supporting technical references, 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.).

Limited staff time was spent on conservation activities in FY 2016-2017, mainly focusing on quarterly coordination with water management districts. Staff will continue to maintain efforts with other water management districts, local governments and utilities to further improve water use efficiency for public supply and other water use categories.

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. Other ongoing efforts include working with local governments and state and regional agencies to better coordinate land use and water supply planning. During FY 2016-2017, District staff maintained collaboration with the Florida Department of Agriculture and Consumer Services (DACS) and other water management districts on the Florida Statewide Agricultural Irrigation Demand (FSAID) reports.

Staff continued working on the next update to the districtwide water supply assessment including completion of draft estimates and projections in Region II and districtwide. The WSA Update draft will be completed in spring 2018 and presented to the Governing Board for approval by the end of FY 2017-2018. Additionally, work on an update to the Region II RWSP will begin in 2017. These timelines are consistent with those listed in last year's work plan, while accounting for emerging priorities such as MFL development and springs restoration and protection projects.

Staff are also assisting communities and utilities through water supply development projects. In FY 2016-2017, four of the 12 water supply development grants were awarded to Region II totaling nearly $313,000, all to financially disadvantaged small local governments and utilities in the region. Additionally, staff maintain relationships with the Walton/Okaloosa/Santa Rosa Regional Utility Authority and other utilities in the region on project funding needs and collaboration opportunities.

Interconnection of Water Supply 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.

No expenditures are planned for this project in the five-year planning horizon. The District will continue to support local governments and utilities planning interconnect projects that help ensure available and reliable water supplies, particularly in coastal areas.

Hydrologic Data Collection

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. 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.

Expansion of the groundwater and rainfall monitoring in Region II continues to support resource evaluations and development of improved modeling tools for both planning and consumptive use permitting. In FY 2016-2017, eight new monitor wells were constructed and one existing well was rehabilitated to improve water quality sampling and allow for continuous monitoring of the water level. Seven of the new wells were instrumented and instrumentation of the remaining two wells along with instrumentation of the rehabilitated well are expected to occur early in FY 2017-2018. Additionally 16 existing wells will be instrumented with water level loggers in FY 2017-2018. The data from these additional monitoring sites 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 active effort to plug abandoned artesian wells. The overall goal of the program is to protect available groundwater resources from aging, uncontrolled, or improperly constructed wells that are no longer in use. The District achieves proper abandonment of such wells through two methods: requiring contractors to plug abandoned wells found on site during new well construction or initiating a well abandonment contract with a well owner or local government. 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 the District implements where feasible, in partnership with stakeholders and local governments.

To date, the District has facilitated the plugging of 7,956 abandoned wells within Region II, 223 of which were plugged in FY 2016-2017. Note the historical count of permits changes from previously reported data as final completion reports are received and some permits are cancelled. For example the count of permits through September 2016 changed from 7,737 in the FY 2016-2017 report to 7,733 in this report.

Funding Summary: Region II Water Resource Development Projects

Table 5.2 displays past year expenditures, current year budget, and anticipated future expenditures for water resource development within Region II.

Table 5.2 2018-2022 Region II Water Resource Development Project Funding

Water Resource Development Projects	Budget Activity	FY 16-17 Expen-ditures[1]	Anticipated Five Year Work Program					FY18-FY22 Cost Estimate
			FY 17-18 Budget[2]	FY 18-19	FY 19-10	FY 20-21	FY 21-22	
Floridan Aquifer	1.1.2 2.2.1	$645,228	$345,000	$308,750	$496,035	$371,481	$206,936	$1,728,202
Inland Sand-and-Gravel Aquifer	1.1.2 2.2.1	$164,246	$126,900	$106,250	$93,750	$93,750	$93,750	$514,400
Surface Water Sources	1.1.2 2.2.1	$4,634	$121,400	$100,000	$87,500	$87,500	$87,500	$483,900
Aquifer Storage and Recovery	2.2.1	$0	$0	$0	$0	$0	$0	$0
Water Reuse	2.2.1	$23,093	$26,100	$15,000	$15,000	$15,000	$15,000	$86,100
Water Conservation	1.1.1 2.2.1	$8,524	$10,200	$8,000	$8,000	$8,000	$8,000	$42,200
Regional Water Supply Planning	1.1.1	$29,383	$149,300	$75,000	$35,000	$35,000	$35,000	$329,300
Interconnect of Water Supply Systems[3]	1.1.1	$0	$0	$0	$0	$0	$0	$0
Hydrologic Data Collection and Analysis	1.2.0	$78,305	$117,100	$100,000	$100,000	$100,000	$100,000	$517,100
Abandoned Well Plugging	4.2.0	$7,805	$12,000	$10,000	$10,000	$10,000	$10,000	$52,000
TOTAL		$961,218	$908,000	$723,000	$845,285	$720,731	$556,186	$3,753,202

[1]Final unaudited costs for fiscal year.
[2]FY 2017-2018 figures based on adopted budget.
[3]Project completed during FY 2013-2014.

The budget for FY 2017-2018 reflects a slight increase in anticipated spending as compared to that presented in the previous WRDWP. This increase reflects a focus on reuse and conservation projects through the development of an update to the Region II RWSP.

Changes to future budget years, as compared to last year's WRDWP, reflect the acceleration of the Shoal River system MFL development, which benefits both the *Surface Water Sources* and the *Inland Sand-and-Gravel Aquifer* projects. Decreases in the five-year costs for the *Floridan Aquifer* project reflect progress on tasks for the Floridan Aquifer, Coastal Region II MFL as well as some of the Shoal River system MFL tasks being completed with staff instead of through contractual services.

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 5.3.

Table 5.3 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 Shoal River surface water source; represents preliminary estimate.

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.

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 maintains efforts to make additional water supplies available to meet future needs, particularly focusing on 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 and to avoid the adverse effects of competition for water supplies.

Additionally, $312,999 in funding was awarded for four projects in Region II during FY 2016-2017 through the District's water supply development grant program. These projects include improving the reliability and capacity of potable water supply systems through waterline replacements (City of DeFuniak Springs and the City of Laurel Hill) and completing a preliminary engineering report

(Berrydale Water System, Santa Rosa County). Additionally, funding will assist the City of Freeport complete a US-331 Corridor Utilities Planning Study. See Appendix A, Table 5.9 for more information.

Funding Summary: Region II Water Supply Development Projects

Table 5.4 displays past year expenditures, current year budget, and anticipated future expenditures for water supply development within Region II.

Table 5.4 2018-2022 Region II Water Supply Development Project Funding

Water Supply Development Projects	Budget Activity	FY 15-16 Expen-ditures[1]	Anticipated Five Year Work Program					FY17-FY21 Cost Estimate
			FY 16-17 Budget[2]	FY 17-18	FY 18-19	FY 19-20	FY 20-21	
Inland Floridan Aquifer Alternative Water Supply	2.2.2	$0	$1,260,000	$40,000	$0	$0	$0	$1,300,000
Inland Sand-and-gravel aquifer Alternative Water Supply	2.2.2	$0	$42,302	$0	$0	$0	$0	$42,302
Surface Water Supply Development	2.2.2	$0	$0	$0	$0	$0	$0	$0
Water Reuse Facilities	2.2.2	$15,682	$170,535	$0	$0	$0	$0	$170,535
Water Supply Management Projects	2.2.2	$24,354	$151,778	$297,019	$4,500	$4,500	$4,500	$462,297
TOTAL		$40,036	$1,624,615	$337,019	$4,500	$4,500	$4,500	$1,975,134

[1]Final unaudited costs for fiscal year.

[2]FY 2017-2018 figures based on adopted budget.

The budget for FY 2017-2018 reflects completion of several previously-awarded and multi-year water supply development grant projects with local governments and utilities in Region II. Funding for these projects, as well as planning and staff support, is reflected in the table above under Water Supply Management Projects. The decrease in Water Reuse Facilities reflects a reduced scope of work for the City of Fort Walton Beach reuse project.

Overall, the decrease in budgeted funds for Water Supply Development projects reflects the completion of the grant program to local governments, based upon spending down of District reserve funds, and does not reflect the need for water supply development activities across Santa Rosa, Okaloosa and Walton counties. Upon completion of projects, staff will continue to work with utilities and local governments on water supply development activities.

Region III: Bay County

The RWSP for Region III (Figure 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 completion of this project has increased the resiliency of Deer Point Lake Reservoir to withstand storm surge impacts while providing safe drinking water to nearly all the county.

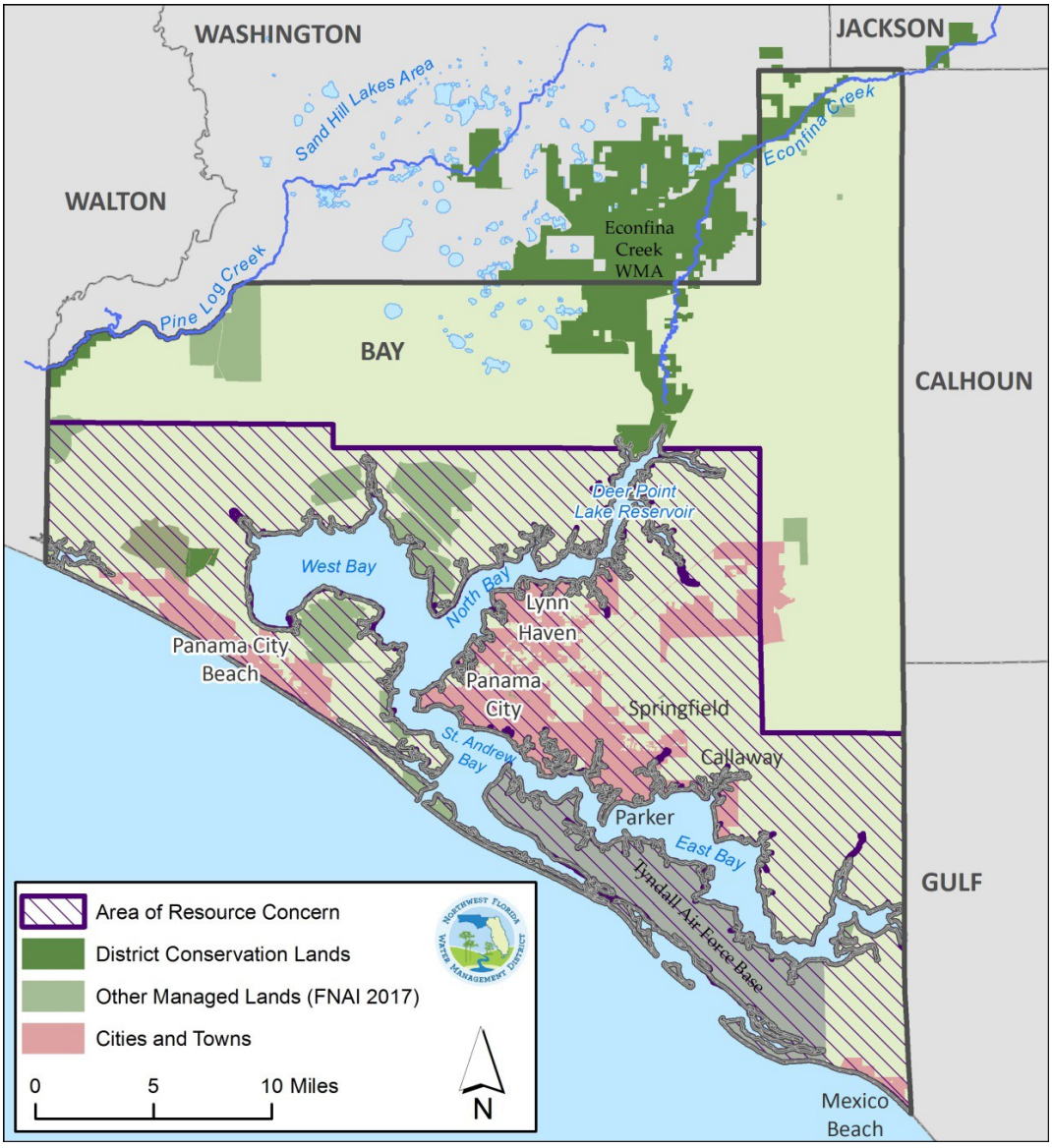

Figure 5.3 Water Supply Planning Region III

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 existing and reasonably anticipated surface water supplies are adequate to meet projected regional demands through 2035, although the reservoir was vulnerable to salt water intrusion from storm surge associated with hurricanes or tropical storms.

Region III Water Resource Development

The Region III RWSP update includes five water resource development strategies. These are summarized in Table 5.5. Descriptions of the strategies and progress to date follow.

Table 5.5 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 supports 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 more than 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 FY 2016-2017, a shoreline restoration project at the James Tract along Econfina Creek was completed (parcel acquired in FY 2015-2016). Construction of spring restoration and public access improvements at Devil's Hole Spring began in August 2017 and due to project delays, will be completed

in early FY 2017-2018. Work continued on an acquisition of a major conservation easement to purchase up to 942 acres along Econfina Creek and adjacent to Gainer Springs, a first magnitude springs group in northern Bay County.

For FY 2017-2018, legislative appropriations for springs restoration and protection were again awarded to the District toward two projects in the Econfina WMA. Additional funding was provided for the Econfina Blue Spring Camp Improvements project, for a new project total of $500,000 to reduce erosion and sedimentation while making public access improvements. Additionally, $1,000,000 was provided for the purchase of approximately 200 acres near Gainer Spring.

Hydrologic and Water Quality Data Collection

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 maintains data collection stations for 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 intended to characterize water resource conditions and trends within the region.

In FY 2016-2017, data collection continued at five groundwater monitor wells in the Econfina Creek springs complex groundwater contribution area instrumented for continuous Floridan aquifer water level monitoring. This monitoring will be combined with discrete discharge measurements collected at individual springs to assist with development of the Econfina Creek and Spring Complex MFL. This monitoring will continue through FY 2017- 2018.

Water Reuse

District staff 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. As of 2016, five reuse applications associated with two reuse systems in Region III were permitted for public access reclaimed water, producing an estimated 2.93 mgd for public access reuse (DEP 2017). These facilities supported landscape irrigation for approximately 1,492 residences, one golf course, four parks, and three schools.

In FY 2015-2016, the District began working with utilities in Region III on a project 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 reduce wastewater discharges to St. Andrew Bay, to eliminate brackish surface water withdrawals for power generation, and to position utilities to better meet future reclaimed water demand. In FY 2016-2017, the District entered into contract with Bay County providing $500,000 in grant funding to construct Phase I of the project.

Future water reuse projects may include assessments matching reclaimed water generators with users, feasibility studies, pilot projects, and demonstration projects. Projects of highest priority 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 2017-2018, a project with the City

of Panama City Beach to expand reclaimed water for a new sports complex near Breakfast Point is planned. The District will contribute $50,000 toward design of the project. Additionally, in reuse information for the District will be updated annually.

Water Conservation

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. Limited staff time was spent on conservation activities in FY 2016-2017, mainly focusing on quarterly coordination with water management districts. Staff will continue to maintain efforts with other water management districts, local governments, and utilities to further improve water use efficiency for public supply and other water use categories.

Regional Water Supply Planning

This project includes 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 2016-2017, District staff reviewed the FSAID reports, developed by DACS, and provided additional planning and technical assistance for future updates. Staff also continued an update to the water supply assessment, including completing draft estimates and projections of water use. Completion of the WSA Update is planned to be completed in FY 2017-2018.

Funding Summary: Region III Water Resource Development Projects

Table 5.6 displays past year expenditures, current year budget, and anticipated future expenditures for water resource development within Region III.

Table 5.6 2018-2022 Region III Water Resource Development Project Funding

Water Resource Development Projects	Budget Activity	FY 16-17 Expen-ditures[1]	Anticipated Five Year Work Program					FY18-FY22 Cost Estimate
			FY 17-18 Budget[2]	FY 18-19	FY 19-20	FY 20-21	FY 21-22	
Econfina Creek & Groundwater Recharge Area Protection	2.1.0 2.5.0 2.6.0 3.1.0	$734,609	$8,921,900	$2,100,000	TBD	TBD	TBD	$11,021,900
Hydrologic & Water Quality Data Collection and Analysis	1.1.2 1.2.0 2.2.1	$45,355	$311,100	$265,000	TBD	TBD	TBD	$576,100
Water Reuse Funding and Technical Assistance	2.2.1	$15,302	$576,900	$15,000	TBD	TBD	TBD	$591,900
Water Conservation Funding and Technical Assistance	1.1.1 2.2.1	$2,760	$4,100	$3,000	TBD	TBD	TBD	$7,100
Regional Water Supply Planning, Coordination, and Technical Assistance	1.1.1	$8,036	$13,000	$8,000	TBD	TBD	TBD	$21,000
TOTAL		$806,062	$9,827,000	$2,391,000	$0	$0	$0	$12,218,000

[1]Final unaudited costs for fiscal year.
[2]FY 2017-2018 figures based on adopted budget.
[3]Funding in future years will be budgeted based on RWSP determination to be made in FY 2018-2019.

The FY 2017-2018 budget reflects a substantial increase in expenditures due to continuation and the addition of new spring restoration projects in the Econfina Creek and Groundwater Recharge Area Protection project. The increase also reflects carry forward of a Water Reuse grant project with Bay County ($500,000) and a new reuse water project with Panama City Beach. The spring restoration projects include carry forward of the Gainer Springs land acquisition ($6 million) on Econfina Creek as well as restoration improvements at Devil's Hole Spring, and Econfina Blue Spring within the Econfina WMA. Additional funding for the Econfina Blue Spring restoration project and $1 million in new funding for land acquisition are also included.

Other increases for FY 2017-2018 include Hydrologic and Water Quality Data Collection efforts for the Econfina Creek and Springs Complex MFL.

Region III Water Supply Development

Water supply development strategies identified in the Region III RWSP Update are listed in Table 7.

Table 5.7 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	Construction of water reuse facilities to provide reclaimed water for landscape irrigation and other non-potable uses.	TBD	5
Utility Interconnections	Assist with delivery system interconnections and facility improvements. Specifically includes potential 48" pipeline emergency interconnect between southern Bay and Walton counties.	$25,700,000	N/A
Water Conservation	Implementation of water conservation and efficiency programs and practices by local utilities.	TBD	TBD

[1] Final cost.
[2] Capacity of alternate raw water intake.

Bay County completed the development of an upstream intake for Deer Point Lake Reservoir in June 2015. The Deer Point Lake Reservoir is anticipated to be sufficient to meet demands through 2035 under both normal and 1- in-10 year drought conditions and to avoid the adverse effects of competition for water supplies.

During FY 2016-2017, an agreement with Bay County was executed for the collaborative reclaimed water project with Gulf Power in the North Bay area (see Water Resource Development section). Staff also continued to collaborate with other utilities on increasing or enhancing reclaimed water and conservation projects. The Governing Board awarded one water supply grant project for $49,825 to the City of Lynn Haven for water line improvements in November 2016 (Appendix A, Table 9). Project construction was substantially completed by September 2017 and the project was completed in November 2017.

Funding Summary: Region III Water Supply Development Projects

Table 5.8 displays past year expenditures, current year budget, and anticipated future expenditures for water supply development within Region III.

Table 5.8 2018-2022 Region III Water Supply Development Project Funding

Water Supply Development Projects	Budget Activity	FY 16-17 Expen-ditures[1]	Anticipated Five Year Work Program					FY18-FY22 Cost Estimate
			FY 17-18 Budget[2]	FY 18-19	FY 19-20[3]	FY 20-21	FY 21-22	
Development of Upstream Intake for Surface Water Supply[4]	2.2.2	$0	$0	$0	$0	TBD	TBD	$0
Water Reuse	2.2.2	$0	$0	$0	$0	TBD	TBD	$0
Utility Interconnections	2.2.2	$0	$0	$0	$0	TBD	TBD	$0
Water Conservation	2.2.2	$4,871	$53,181	$3,600	$0	TBD	TBD	$56,781
TOTAL		**$4,871**	**$53,181**	**$3,600**	**TBD**	**TBD**	**TBD**	**$56,781**

[1]Final unaudited costs for fiscal year.
[2]FY 2017-2018 figures based on adopted budget.
[3]Funding in future years will be budgeted based on RWSP determination to be made in FY 2018-2019.
[4]Project completed during FY 2014-2015.

The FY 2017-2018 budget consists of funding for one water supply development project with the City of Lynn Haven. This project, as well as planning and staff support, is reflected in table above in the Water Conservation project. The decrease in budgeted funds for Water Supply Development projects reflects the completion of the grant program to local governments, based upon spending down of District reserve funds, and does not reflect the need for water supply development activities in Bay County. Upon completion of this grant project, staff will continue to work with utilities and local governments in Bay County on water supply development activities.

Districtwide Initiatives

Water Supply Development Grant Initiative

The District continues to implement previously approved water supply development funding assistance for local governments and utilities. Since FY 2013-2014, the Governing Board has approved 70 projects totaling nearly $21.6 million for the water supply development assistance grant program. As all available funds have now been encumbered, no grant cycles are planned for this or future fiscal years.

Water Reuse

District staff continue to develop approaches for integrated planning of water and wastewater resources. In FY 2016-2017, staff maintained geographic information system (GIS) data and facility information associated with wastewater treatment plants and effluent disposition, focusing on opportunities for water reuse. Staff will maintain efforts to develop a Districtwide water reuse evaluation 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. Through FY 2016-2017, the District has received $3,239,500 of spring restoration funding for these activities. The District provides a 75 percent cost-share to help producers retrofit center pivot irrigation systems and to implement more efficient nutrient and water application systems. Together with the Northwest Florida Mobile Irrigation Laboratory, these efforts are expected to significantly enhance efficient use of both water and nutrients within the spring basin. As of June 2016, 89 percent of the available cost- share funds were under contract or distributed to producers for implementation of BMPs. An additional $1.5 million in legislatively-approved funding to sustain this effort was awarded and is budgeted for FY 2017-2018.

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: 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 currently pays up to 50 percent of costs to plug and abandon eligible wells. During FY 2016-2017, approximately 900 permits were issued to plug wells districtwide at no cost to the District other than staff time. The District worked with Escambia County for the proper abandonment of four deep monitor wells, providing $4,240 to assist with the abandonment of these wells. The District also provides funding assistance for the abandonment of a domestic well in the groundwater contamination areas in Jackson County.

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Appendix A. Water Supply Development Projects in Regions II and III

Table 5.9 presents additional water supply development assistance and alternative water supply development projects funded in regions II and III 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 5.9 Water Supply Development Assistance Projects in Regions II and III

Project	Local Sponsor	Project Type	Region	Activity	Status	Completion	NWFWMD Contribution	District Funding Source*
Chumuckla Water System Upgrades	Chumuckla Water System	Water Supply	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	Reuse	II	Replacement and upgrade of reuse lines to increase capacity	Complete	FY 2014-2015	$95,923	District General Fund
Santa Rosa Soccer and Horse Complex Reclaimed Water Extension	Pace Water System, Inc.	Reuse	II	Reuse transmission main construction	Complete	FY 2014-2015	$160,000	District General Fund
Water Main Replacement	City of DeFuniak Springs	Water Supply	II	Replacement of asbestos cement water main; installation of additional hydrants	Complete	FY 2015-2016	$473,750	District General Fund
Town of Jay Asbestos Water main Replacement	Town of Jay	Water Supply	II	Replacement of asbestos cement water main	Complete	FY 2015-2016	$687,024	District General Fund
West Destin Water Supply Analysis	Destin Water Users	Water Supply	II	Develop system model to analyze water system improvements throughout the western and northern service area	Complete	FY 2015-2016	$40,000	District General Fund
U.S. Hwy 98 Water Line Extension Phase VI	Regional Utilities (FCSC of Walton County)	Water Supply	II	Phase IV of major upgrade of potable water transmission lines along the U.S. Highway 98 corridor	Complete	FY 2015-2016	$487,620	District General Fund
Holt-Baker Interconnection	Holt Water Works, Inc.	Water Supply	II	Construct a 1,100 LF 6” interconnection with Baker Water System, Inc.	Complete	FY 2015-2016	$8,700	District General Fund
Golf Course Re-Use Line Replacement	Holley-Navarre Water System, Inc.	Reuse	II	Increase size of reclaimed water line serving the Hidden Creek Golf Course and surrounding neighborhood	Complete	FY 2015-2016	$295,000	District General Fund
South Santa Rosa Utility System Reclaimed Water Elevated Storage Tank	City of Gulf Breeze	Reuse	II	Construction of a 300,000 gallon elevated reclaimed water storage tank	Complete	FY 2016-2017	$345,500	District General Fund
Waterline Loop System	Town of Jay	Water Supply	II	Construction of a looped water system to reduce water loss	Complete	FY 2016-2017	$173,563	District General Fund

Project	Local Sponsor	Project Type	Region	Activity	Status	Completion	NWFWMD Contribution	District Funding Source*
Well No. 7 and Transmission Line	Fairpoint Regional Utility System	Water Supply	II	Design, permitting, and administration for future new well, treatment facility, and water transmission line	Close-out	FY 2016-2017	$123,947	District General Fund
Reclaimed Water System Improvements	City of Fort Walton Beach	Reuse	II	Design, engineering, and demolition preparation to provide reclaimed water to cemetery and athletic complex	In progress	FY 2017-2018	$87,500	District General Fund
Mid-County Tank #4	Okaloosa County Water and Sewer	Water Supply	II	Construction of 1 MG elevated water tank for northern wellfield	Construction	FY 2017-2018	$1,250,000	District General Fund
Water Production Wells	Moore Creek Mount Carmel Utilities	Water Supply	II	Construction of 1 MG elevated water tank for northern wellfield	Design/ Permitting	FY 2016-2017	$151,020	District General Fund
Nokuse Well Field Expansion	Regional Utilities (FCSC of Walton County)	Water Supply	II	Construction of two inland potable water production wells	Complete	FY 2016-2017	$245,149	District General Fund
Reclaimed Water Feasibility	City of Mary Esther	Reuse	II	Planning and feasibility study evaluating reclaimed water reuse program and partnership with Fort Walton Beach	In progress	FY 2017-2018	$100,000	District General Fund
Millside Road Waterline Loop	City of Laurel Hill	Water Supply	II	Install 5,100 LF of 6” water main and two fire hydrants	Design/ Permitting	FY 2018-2019	$134,863	District General Fund
Dixonville Area Preliminary Engineering Report	Berrydale Water System	Water Supply	II	Completion of a preliminary engineering report that will be the basis for a capital improvement plan	In progress	FY 2018-2019	$35,000	District General Fund
Red Eye and Widner Circle Waterline Loop	City of DeFuniak Springs	Water Supply	II	Install 3,200 LF of6” water main, provide looped system and fire protection	Design/ Permitting	FY 2018-2019	$93,136	District General Fund
US-331 Corridor Utilities Planning Study	City of Freeport	Water Supply	II	Engineering, hydraulic modeling, and surveying of major water system improvements along US- 331.	In progress	FY 2018-2019	$50,000	District General Fund
Alternative Inland Pump Station	Bay County	Alternative Water Supply	III	Construction of alternative surface water intake for the Deer Point Lake Reservoir	Complete	FY 2014-2015	$5,470,000	WPSPTF
Water System Improvements – Gate Valve Replacement	City of Parker	Water Supply	III	Replace the City’s 30 non- functioning gate valves	Complete	FY 2015-2016	$271,481	District General Fund

Project	Local Sponsor	Project Type	Region	Activity	Status	Completion	NWFWMD Contribution	District Funding Source*
Water System Improvements 2015	City of Springfield	Water Supply	III	Install 6,300 LF of 6" to 8" water line	Complete	FY 2015-2016	$499,192	District General Fund
Highway 2297 Bridge Water Line Relocation	City of Callaway	Water Supply	III	Relocate and replace water main serving Laird Bayou	Complete	FY 2015-2016	$168,374	District General Fund
9th Street Water main Replacement	City of Lynn Haven	Water Supply	III	Replace water line serving an elementary school and add fire protection capacity	Construction	FY 2017-2018	$49,825	District General Fund
PCB Parkway Reuse System Extension	City of Panama City Beach	Reuse	III	Design and engineering to support expansion of reclaimed water system to new sports complex	In progress	FY 2017-2018	$50,000	LATF
				TOTAL	**27**		**$11,647,288**	

* WPSPTF = Water Protection and Sustainability Program Trust Fund (See Section 403.891, F.S.)
LATF = Land Acquisition Trust Fund (See Section 375.041, F.S.)

Appendix B. BMAP and Recovery and Prevention Strategies in Regions II and III

In 2016, the Florida legislature amended section 373.036, F.S. relating to information required in the Consolidated Annual Report and potentially the Five-Year Water Resource Development Work Program. To meet the statutory intent of these changes, as well as to ensure consistency with the other water management districts, this appendix has been added to describe the Basin Management Action Plan (BMAP) projects and minimum flows and minimum water levels (MFLs) recovery and prevention strategy projects.

Basin Management Action Plans (BMAPs) have been adopted for three areas within the District: Bayou Chico in Escambia County; the Upper Wakulla River and Wakulla Springs basin in portions of Wakulla, Leon, and Gadsden counties; and the Jackson Blue Spring and Merritts Mill Pond basin in Jackson County. As none of these BMAPs are within Regional Water Supply Planning regions II or III, there are no BMAP projects to include in this five-year work plan update.

The District is currently working to develop MFLs for several waterbodies, including three Outstanding Florida Springs located in northwest Florida. The technical assessment of the first MFL, St. Marks River Rise, will be completed in 2018. Work on development of an MFL for the Floridan aquifer in coastal Planning Region II is underway, with the technical assessment scheduled to be completed by 2020. The Shoal River system MFL, also in Region II, was initiated in FY 2016-2017, with the technical assessment completed in 2023. In Region III, there are three MFL waterbodies on the current approved priority list with work initiation dates in future years: Econfina Creek and Spring complex (2019); Deer Point Lake (2020); and the Floridan aquifer in coastal Bay County (2021).

With no MFLs adopted to date, there are no recovery and prevention strategy projects to include in this five-year work plan update.

Consolidated Annual Report
Chapter 6

Florida Forever Water Management District Work Plan Annual Report

Florida Forever Water Management District Work Plan
Annual Report

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

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. The 17th annual update of the plan contains information on projects eligible to receive funding under the Florida Forever Act and Land Acquisition Trust Fund and also reports on land management activities, surplus lands or exchanged and the progress of funding, staffing and resource management of projects for which the District is responsible. This plan also applies to land acquisition funds deposited into the Land Acquisition Trust Fund pursuant to s.28(a), Art. X of the State Constitution.

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.

Table 6.1 Land Acquisition Expenditures by Water Management Area

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 protect the floodplain of our major rivers and creeks. To date, more than 223,553 acres have been protected for water resource purposes through the land acquisition efforts of the District either in fee simple or through conservation easements.

Acquisition Planning

The District employs a watershed approach to select and prioritize the water resources and natural systems within the springsheds and major river basins of northwest Florida. Primary among the

considerations in this process are how specific floodplain or buffer areas help satisfy the District's water resources and natural system protection objectives; the availability of funds; the seller's willingness; how different areas fit into the District's land management strategy; 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 fee simple or less than fee simple (Conservation Easements) projects that protect the quality and quantity of water that flows into and out of springs. The District's acquisition efforts will focus on acquiring fee or less than fee simple interest in properties located within the Jackson Blue, Econfina and Wakulla Springs Groundwater Contribution Areas. 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.

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 6.2 Approved 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	Bosel Springs Chipola River Springs Waddell Springs		West Bay Buffer
Lafayette Creek	Choctawhatchee River including Holmes Creek	Cypress Spring		Sandy Creek Basin
	Escambia River	Hays Springs		Apalachicola Bay and St. Vincent Sound Buffer
	Blackwater River including Juniper, Big Coldwater and Coldwater creeks	Econfina Springs		
	Ochlockonee River and its major tributaries	Jackson Blue Spring		
	Yellow and Shoal Rivers	Wakulla Spring		
	Perdido River and Bay			

Groundwater Recharge Areas

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.

Donated Lands

The District may 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 on occasion 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 in 2013.

Table 6.3 District Surplus Lands

WMA	Acres	County	Acquired Date	Status
Choctawhatchee River	38	Walton	July 31, 1992	For Sale
Econfina Creek	8.39	Washington	December 19, 1997	For Sale
Escambia River	115	Escambia	April 26, 1994	For Sale

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 Asset Management 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 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 resource protection goals. Such less than fee methods can provide a number of public benefits. First, acquisition funding can be conserved, thereby enabling the protection of more land with limited funds. Also, 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 make these kinds of transactions the preferred alternative to the District's typical fee-simple land purchases.

DEP Florida Forever Priority List

The Florida Forever Priority List can be found at:
http://publicfiles.dep.state.fl.us/DSL/OES/FloridaForeverAnnualRpts/FLDEP_DSL_OES_FloridaForeverAnnualReport2017_20170920.pdf

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, 2017

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 = 41,335 acres (incl. fee and less than fee)
3,663 Florida Forever acres
(Incl. fee and less-than-fee)

(2)(d)3. Acquisitions for groundwater recharge areas critical to springs, sinks, aquifers = 3.13 acres

(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 = 12,232 acres
Undergoing restoration or enhancement = 530 acres
Restoration completed = 22,489 acres
Restoration maintenance = 22,489 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 2017-2018 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.

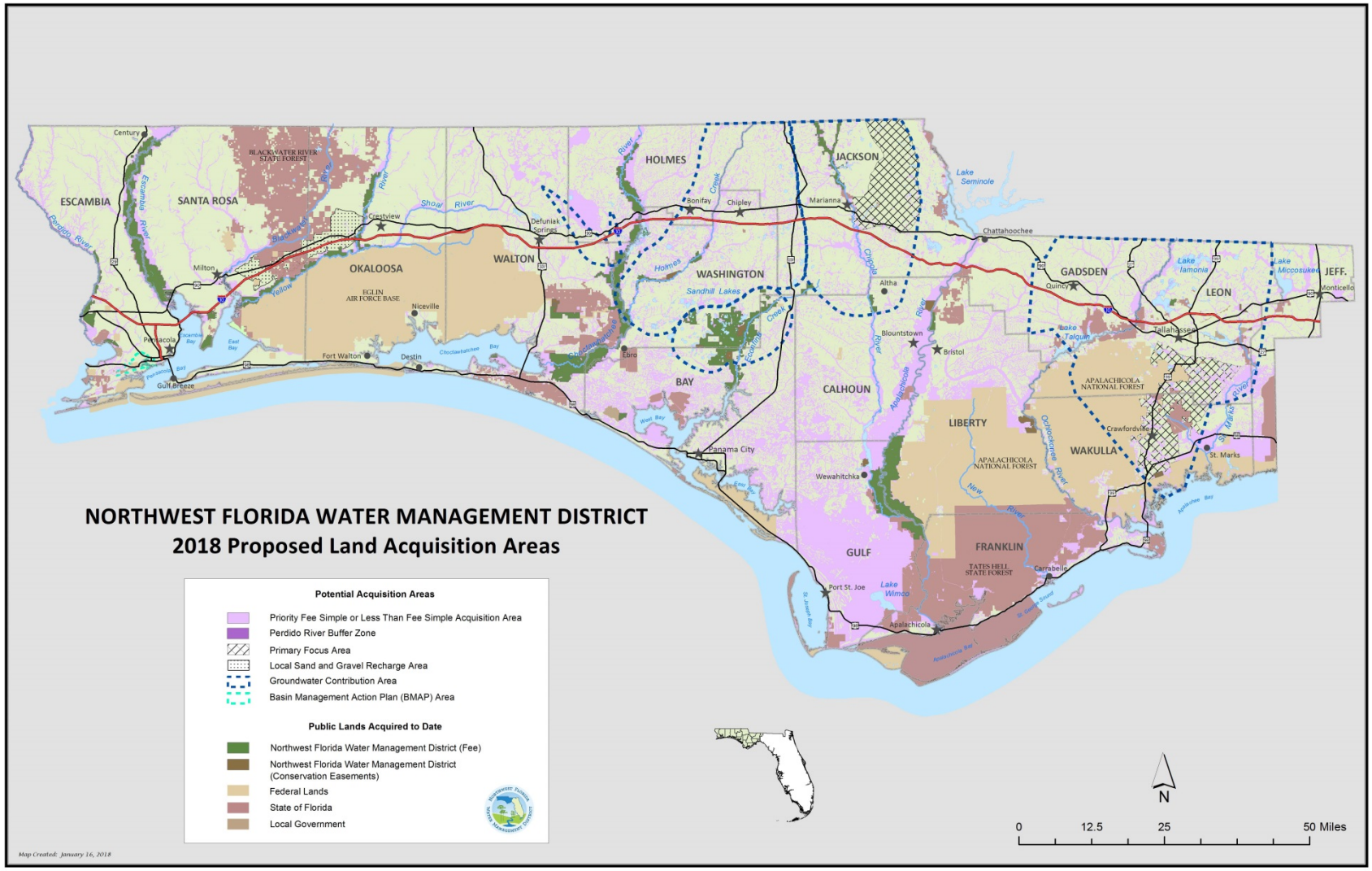

Figure 6.1 Proposed Land Acquisition Areas 2018

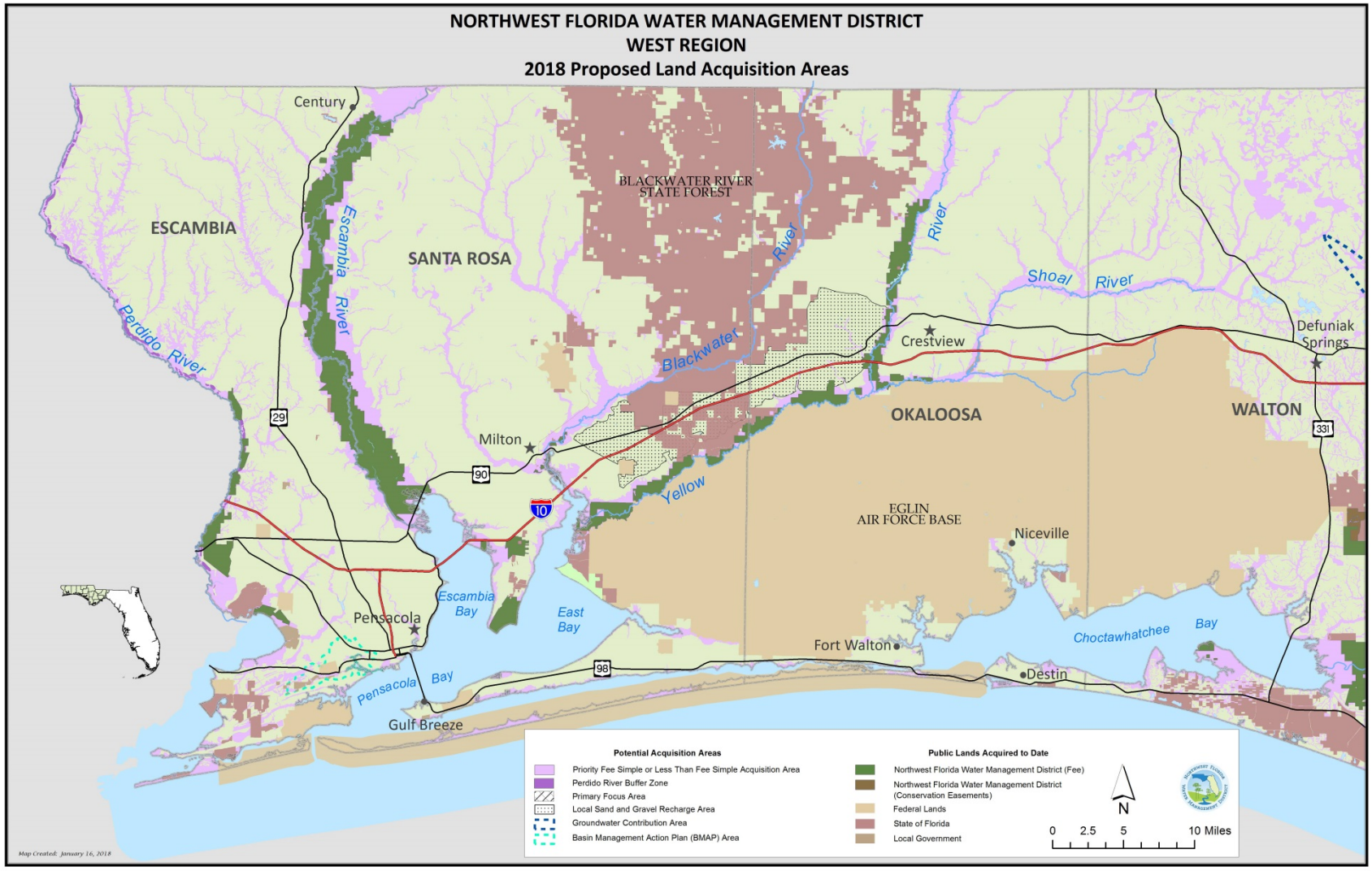

Figure 6.2 Proposed Land Acquisition Areas, 2018, West Region

FLORIDA FOREVER LAND ACQUISITION PROJECT

Perdido River and Bay Basin

The Perdido River serves as the state line, separating Florida from Alabama (see Figure 6.2). 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.

Purchases within the Priority Fee Simple or Less than Fee Simple Acquisition Area will be concentrated on floodplain parcels 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.

Purchases within the Priority Fee Simple or Less than Fee Simple Acquisition Area will be concentrated on floodplain parcels adjacent to the bay which can enhance water quality protection.

Public Access

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

Land 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: availability of funds, Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; and available staff resources.

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 (see Figure 6.2). These, in turn, comprise portions of the Pensacola and Perdido bay watersheds. The Priority Fee Simple or Less than Fee Simple Areas border a major urban area containing residential and commercial development.

Protecting the ecological integrity of this area is important to the quality of water resources in the Pensacola and Perdido bay systems. Acquisition will help limit nonpoint pollution and untreated stormwater runoff by preventing channelization. Wetlands and upland buffers will also be preserved, and riparian buffer zones will be maintained. Additionally, public access will be improved and fish, wildlife, and estuarine productivity will be protected.

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

Basin Management Action Plan (BMAP) Area

Designated area has groundwater 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 activities. Access issues are addressed on a parcel-by-parcel basis.

Land 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: availability of funds, Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; and available staff resources.

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 (see Figure 6.2Figure 6.2) 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 and 19 acres in less than fee along the river.

Purchases within the Priority Fee Simple or Less than Fee Simple Acquisition Area will be concentrated on floodplain parcels 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 activities. Access issues are addressed on a parcel-by-parcel basis.

Land 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: availability of funds, Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; and available staff resources.

FLORIDA FOREVER LAND ACQUISITION PROJECT

Garcon Point Ecosystem

The Priority Fee Simple or Less Than Fee Simple acquisition area contains a portion of the Garcon Point Peninsula, which borders Pensacola, Escambia, East and Blackwater bays (see Figure 6.2). 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 stormwater filtration and a storm buffer area, as well as providing erosion controls to the neighboring uplands. A minimum of 13 endangered or threatened species are known to live in the region including the recently listed federally endangered reticulated flatwoods salamander. The northern wet prairie portion is known to be an outstanding pitcher plant habitat.

Purchases within the Priority Fee Simple or Less than Fee Simple Acquisition Area will be concentrated on floodplain parcels adjacent to Escambia and East Bays. Currently the District owns 3,245 acres 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 activities. Access issues are addressed on a parcel-by-parcel basis.

Land 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: availability of funds, Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; and available staff resources.

FLORIDA FOREVER LAND ACQUISITION PROJECT

Blackwater River Basin

Originating in the Conecuh National Forest in Alabama, the Blackwater River (see Figure 6.2) 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. Currently the District owns 381 acres along the Blackwater River immediately north and south of Milton in Santa Rosa County.

The Priority Fee Simple or Less than Fee Simple Acquisition Area includes considerable floodplain. Purchases within the Priority Fee Simple or Less than Fee Simple Acquisition Area will be concentrated on these parcels. In addition, purchase of lands north and 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 constrained potable water sources in southern Santa Rosa and Okaloosa counties. Acquisitions in this area are consistent with the Regional Water Supply Plan for Okaloosa, Santa Rosa, and Walton counties to protect future supply sources.

Local Sand and Gravel Recharge Area

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 surface 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. This area encompasses approximately 52,000 acres.

Public Access

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

Land 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: availability of funds, Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; and available staff resources.

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 (see Figure 6.2). The proposed acquisitions would bring floodplain of the Yellow River in Florida under public ownership. Included in the project is a segment of the lower Shoal River, the largest tributary to the Yellow River. The Priority Fee Simple or Less than Fee Simple Acquisition Area will be given to tracts containing considerable floodplain. Currently the District owns 16,553 acres 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 Priority Fee Simple or Less than Fee Simple Acquisition Area would provide water quality protection beginning at the Alabama border. Purchase of lands north and 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.

Local Sand and Gravel Recharge Area

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 Okaloosa County would protect recharge areas that are important for future water supply sources. This area encompasses approximately 52,000 acres.

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

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: availability of funds, Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; and available staff resources.

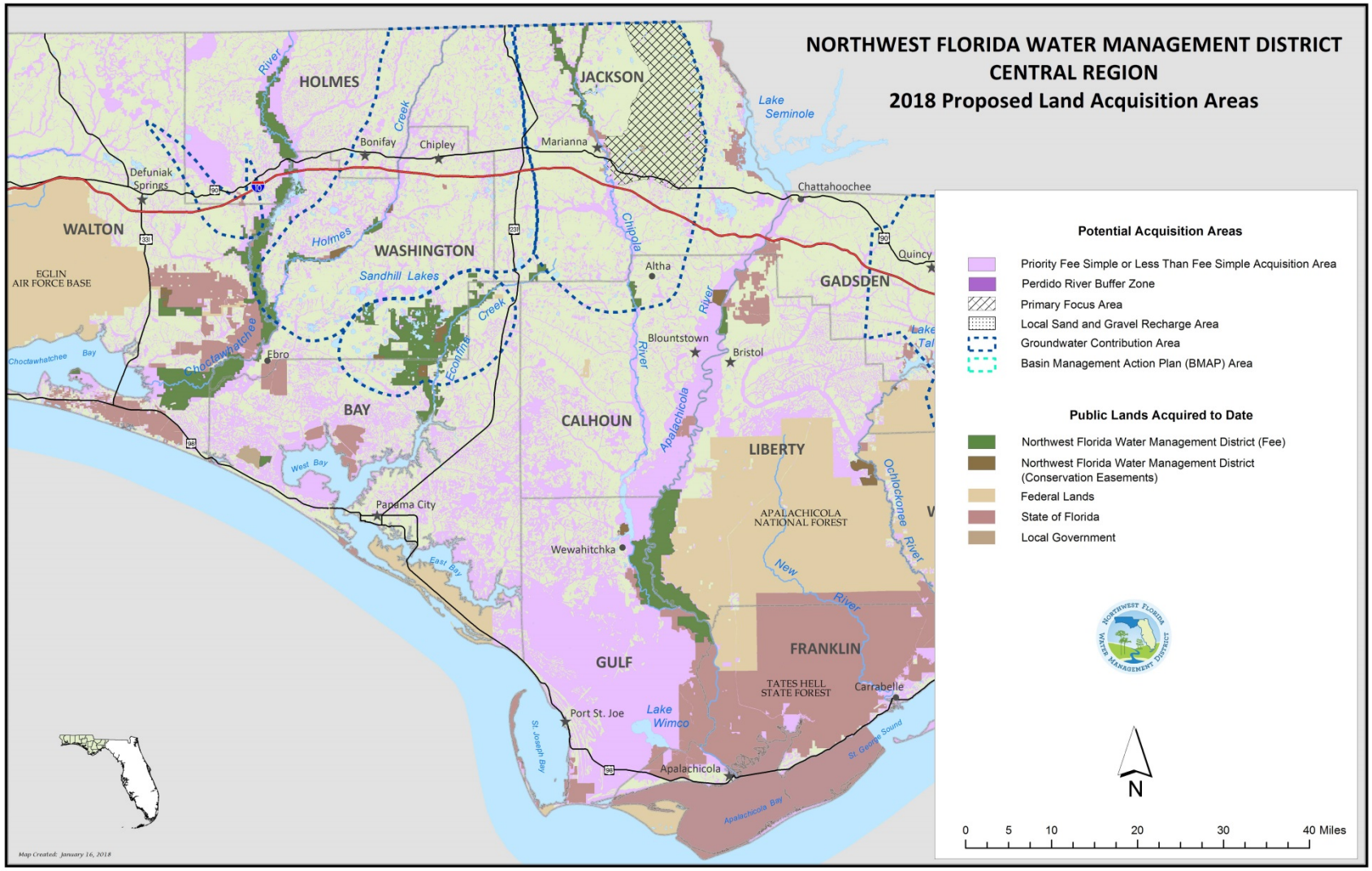

Figure 6.3 Proposed Land Acquisition Areas, 2018, Central Region

FLORIDA FOREVER LAND ACQUISITION PROJECT

Lafayette Creek

Originating in south central Walton County, the Lafayette Creek drainage basin is located northeast of Freeport, Florida (see Figure 6.3). 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. Purchases with the Priority Fee Simple or Less than Fee Simple Acquisition Area will protect a portion of Magnolia and Wolf creeks, both of which are significant tributaries to Lafayette Creek, as well as protect many diverse natural communities and habitat types. Currently, the District owns 3,160 acres along the creek, including 420 acres for DOT mitigation purposes.

Public Access

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

Land 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: availability of funds, Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; and available staff resources.

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 (see Figure 6.3). 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 57 springs on Holmes Creek 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 along the river, creek and bay in fee and less than fee. Purchases within the Priority Fee Simple or Less than Fee Simple Acquisition Area will be concentrated on parcels containing floodplain along the river, designated tributaries such as Holmes Creek.

Groundwater Contribution Area

In addition, a portion of the Choctawhatchee River and all of Holmes Creek is captured within the Groundwater Contribution Area. Properties within this contribution area may be considered as a potential acquisition, especially those properties improving the quality or quantity of water for springs.

Public Access

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

Land 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: availability of funds, Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; and available staff resources.

FLORIDA FOREVER LAND ACQUISITION PROJECT

West Bay Buffer

West Bay is the westernmost embayment of the St. Andrew Bay estuary (see Figure 6.3). 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. Acquisitions within the Priority Fee Simple or Less than Fee simple Acquisition Area would help prevent such degradation by preserving intact and extensive ecosystem of forests, scrub, salt marshes, and freshwater wetlands. Preserving the associated wetland and upland communities in the vicinity of the bay protects water quality by providing a substantial riparian buffer and maintaining the natural hydrology in the vicinity of the bay. The District currently owns 719 acres in the West Bay Buffer.

In addition to providing for water resource protection and public use, this acquisition will be consistent with several ongoing initiatives, including the West Bay Sector Plan. These 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 activities. Access issues are addressed on a parcel-by-parcel basis.

Land 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: availability of funds, Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; and available staff resources.

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 (see Figure 6.3). Properties 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 project area features high rolling sandhill habitat, 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 18 species of rare or endangered plants inhabit the sand hills area. The District currently owns more than 43,771 acres in fee and less than fee, including the 2,155-acre Sand Hill Lakes Mitigation Bank. Purchases will be concentrated on parcels within the Groundwater Contribution Area as well as purchases that improve the quality or quantity of water for springs.

Groundwater Contribution Area

The upper portion of the acquisition project is a significant groundwater contribution area of the Floridan Aquifer and properties within this contribution area may be considered as a potential acquisition, especially those properties improving the quality and quantity of water for springs. The majority of the acreage purchased by the District and targeted for future purchase is one of the most important groundwater contribution 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.

Public Access

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

Land 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: availability of funds, Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; and available staff resources.

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 (see Figure 6.3). The creek's basin is characterized by extensive wet 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 will protect a major tributary basin of East Bay. In so doing, it would preserve water quality and a mosaic of interconnected upland, wetland, stream, and estuarine habitats. Purchases within the Priority Fee Simple and Less than Fee Simple Acquisition Area would 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 activities. Access issues are addressed on a parcel-by-parcel basis.

Land 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: availability of funds, Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; and available staff resources.

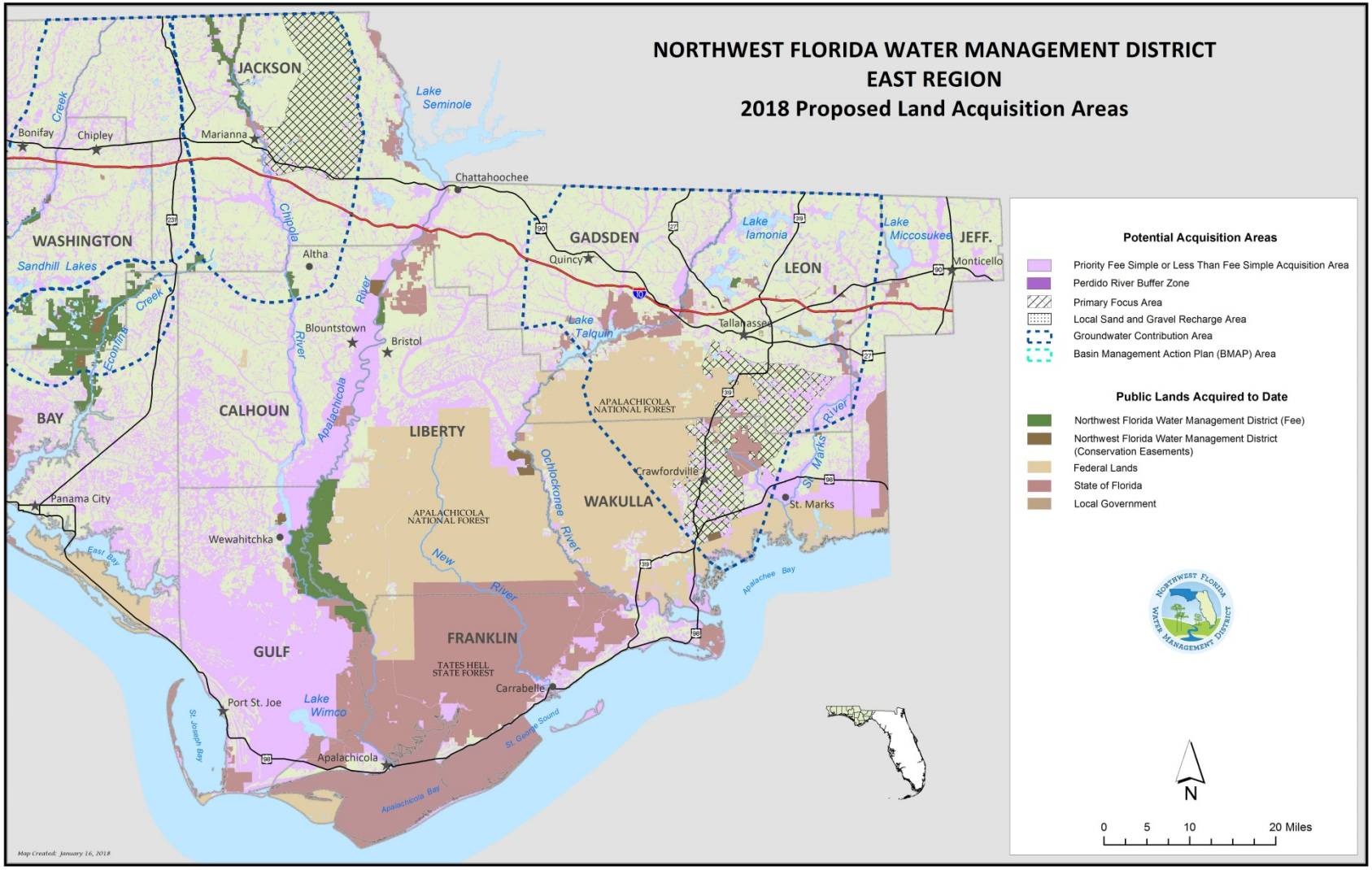

Figure 6.4 Proposed Land Acquisition Areas, 2018, East Region

FLORIDA FOREVER LAND ACQUISITION PROJECT

Chipola River Basin

Areas along the Chipola River have been identified as a Priority Fee Simple or Less than Fee Simple Acquisition Area. The area lies in Calhoun and Jackson counties (see Figure 6.4). Acquisitions along the Chipola River will help protect miles of the river bank. 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 holds a conservation easement on 810 acres in the Chipola River Basin.

An additional area is identified for Priority Fee Simple or Less than Fee Simple Acquisition along the Chipola River. Spring Lake Spring Group is located in central Jackson County. Acquisition of land in the Spring Lake Spring Group area with its numerous springs, and tributaries which flow into the Chipola River will provide enhanced water resource protection to the area.

Groundwater Contribution Area

The Jackson Blue Spring Groundwater Contribution Area, east of the Chipola River, has been identified for fee simple or less than fee simple acquisition to provide protection to Blue Spring and the groundwater contribution area in Jackson County. Properties within this contribution area may be considered as a potential acquisition, especially those properties improving the quality or quantity of water for springs.

Public Access

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

Land 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: availability of funds, Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; and available staff resources.

FLORIDA FOREVER LAND ACQUISITION PROJECT

Apalachicola Bay and River

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 (see Figure 6.4). State and federal agencies, as well as the NWFWMD, have made extensive investments in acquiring and protecting lands throughout the basin.

Like other northwest Florida estuaries, Apalachicola Bay is vulnerable to impacts associated with development. Such potential impacts include the long-term effects of non-point source pollution and habitat loss and fragmentation. The proposed acquisition would help prevent such degradation by preserving 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 channelization from new impervious surfaces.

The Apalachicola River begins below Lake Seminole at the confluence of Chattahoochee and Flint rivers (see Figure 6.4). 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. The District owns 36,823 acres of river floodplain and holds a conservation easement on 1,550 acres.

Major habitat types along the Apalachicola River include coastal marshes, freshwater marshes, flatwoods, and bottomland hardwood swamp. Water tupelo, Ogeechee tupelo, Bald cypress, Carolina ash and Swamp tupelo have been identified in the floodplain, as well as numerous species of rare fish. Substantial additional acreage of the Apalachicola system is owned by other public agencies and private conservation organizations. Purchases will be concentrated on parcels within the Priority Fee Simple or Less than fee Simple Acquisition Area.

Public Access

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

Land 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: availability of funds, Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; and available staff resources.

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 (see Figure 6.4). 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 will reduce 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 activities. Access issues are addressed on a parcel-by-parcel basis.

Land 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: availability of funds, Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; and available staff resources.

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 (see Figure 6.4). 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. 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.

Wakulla Springs BMAP and Primary Focus Area

Within the Wakulla Springs and Upper Wakulla River BMAP, the Primary Focus 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. Properties within this contribution area may be considered as a potential acquisition, especially those properties improving the quality or quantity of water for springs.

Land 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: availability of funds, Governing Board policy; threats to the resource; availability of willing sellers; tract size; general market conditions; and available staff resources.

Florida Forever District Work Plan

As required by section 373.199(2), F.S., a District five-year work plan identifies and includes projects that further the goals of the Florida Forever Act (section 259.105, F.S.). These include priorities identified in approved surface water improvement and management (SWIM) plans, Save Our Rivers land acquisition lists, stormwater management and water resource development projects, springs and water body restoration projects, and other eligible activities that would assist in meeting the goals of Florida Forever.

From 2003 to 2008, the District provided grant funding to local governments for capital improvements that help implement SWIM projects, water resource development projects, and projects included within stormwater master plans. The program awarded more than $23 million for 55 stormwater retrofit, restoration, and reuse projects. These grants leveraged significant additional funding, with more than $52 million in local and other match funding allocated to the approved projects.

No significant appropriations of Florida Forever funds have been made since FY 2008-2009. No new projects were undertaken in FY 2016-2017. Table 6.4 lists conceptual projects considered eligible for Florida Forever capital improvement funding.

Table 6.4 Projects Currently Eligible for Florida Forever Funding

Project	Description	Status	Estimated Cost
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	Planning	TBD
Spring habitat restoration	Construction activities to restore and increase public access to riparian and aquatic habitats and shorelines associated with northwest Florida springs	Design/engineering	$372,480
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	Planning	TBD
Hydrologic and shoreline restoration	Water resource restoration of shoreline and riparian habitats, and flow regimes, consistent with SWIM plans	Planning	TBD

Project specifics, as noted in section 373.199(2), (3), (4) and (5), F.S., will be provided in the future if projects are able to advance beyond the preliminary planning stage.

Future Florida Forever or special legislative appropriations, and funding from the Land Acquisition Trust Fund, federal grants, local governments, other local matching resources, and potentially other sources may contribute to the implementation of these projects. Final approval of funding for any project requires District Governing Board approval.

Implementation of the 2016-2017 Work Plan

Land Acquisition

During 2017, the District pursued the purchase of several conservation easements for springs protection. No transactions had closed through the end of the fiscal year although several are planned to be complete in 2018.

Land Management

The District completed numerous land management activities during Fiscal Year 2016-2017. Management and restoration efforts including prescribed burns, native species planting, and timber harvesting continue across the District's 211,150 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 6.5 and Table 6.6 provide additional information on specific land restoration activities completed during the year. The projected Fiscal Year 2017-2018 staffing and management budget by WMA can be found in Table 6.7.

To date, the District has conserved and protected 223,553 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. All District-owned lands are 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 groundwater contribution to Deer Point Lake Reservoir.

Land Management Accomplishments (FY 2016-2017)

- The District conducted prescribed burns on approximately 5,143 acres of District lands, as well as vegetation management (herbicide) and habitat enhancements on 1,964 acres.
- The District implemented the timber management database and growth and yield modeling to better strategize timber harvests for optimal revenue generation.
- 2,272 camping permits were issued at 88 reservation-only sites on District lands.
- 16 special resource area permits were issued for larger events on District property.
- 10 timber harvests totaling 4,506 acres were active, removing offsite sand pine and thinning loblolly, longleaf, and slash pine.
- More than 8,898 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, longleaf reforestation and mitigation.

Approved NWFWMD plans with substantial restoration components include the following:

- *Apalachicola River and Bay SWIM Plan* (2017)
- *Capital Improvements Plan (Annual)*
- *Choctawhatchee River and Bay SWIM Plan* (2017)
- *Ochlocknee River and Bay SWIM Plan* (2017)
- *Pensacola Bay System SWIM Plan* (2017)
- *Perdido River and Bay SWIM Plan* (2017)
- *St. Andrew Bay Watershed SWIM Plan* (2017)
- *St. Marks River and Apalachee Bay Watershed SWIM Plan* (2017)
- *Tate's Hell State Forest Hydrologic Restoration Plan* (2010)
- *NWFWMD In-Lieu Fee Mitigation Program Final Instrument* (2014)

Restoration Accomplishments (FY 2016-2017)

- The restoration project for Cotton Landing along Holmes Creek was completed in 2017 and opened to the public with a ribbon cutting ceremony on August 22, 2017. At a total cost of more than $190,000, this project included improvements for an ADA access ramp, canoe and kayak launch and access steps and shoreline restoration. Other improvements include stormwater facilities, enhanced parking, rail fencing and landscape plant installation.
- The streambank restoration project was completed at the James tract off Highway 20 in Bay County in 2017. Restoration included shoreline restoration using geo-technical bags. In addition, the adjacent floodplain was planted with native vegetation.
- Two cooperative projects to restore the eroding shorelines and address stormwater impacts along Holmes Creek were completed in FY 2016-2017. These projects include Live Oak and Hightower Springs landings. These projects were constructed by Washington County with funding assistance from the District.
- The District completed hand planting of 691 acres of longleaf pine reforestation. These restoration activities enhance groundwater recharge, improve groundcover and wetland functions, and offset wetland losses caused by FDOT projects. This project involved the planting of 501,666 longleaf pine tubelings within the Econfina Creek and Escambia River WMAs.

Table 6.5 Restoration, Enhancement and Maintenance (2017)

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	Hardwood	**Total**	Restoration	Thinning	Habitat Restoration	For Invasive, Non-native or Off-site Species
Escambia River	**141**	141				**25**		19		6					175
Garcon Point	**2,238**	2,238													1,020
Blackwater River															
Yellow River	**124**	124													150
Perdido River	**1,058**	1,058													890
Choctawhatchee River	**220**	220				**50**	50				**313**		313		
Econfina Creek	**454**	454				**673**		673			**700**			700	1,400
St. Andrews	**379**	379													
Carter Restoration						**37**	37								
Ward Creek West	**355**	355													896
Devils Swamp Restoration															
Chipola River	**140**	140									**579**	75	504		
Apalachicola River	**76**	76													
Lake Jackson	**333**	333													
Totals	**5,518**	**5,518**				**785**	**87**	**692**		**6**	**1,592**	**75**	**817**	**700**	**4,531**

Table 6.6 Access and Recreation Management (2017)

Water Management Area	Picnic Areas	Day Use Sites	Parking Areas	Reserved Camp Sites	Boat, Canoe/Kayak 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	468	35	7	2
Garcon Point		2	2						3					15	2	
Blackwater River	1	3	3		2					1				10		1
Yellow River		3	3		3			50				42		35	4	
Perdido River	3	3	4	1	4	10	6	15	6	1		32	98	45	12	1
Choctawhatchee River	12	15	15	21	14	10		15	11			103	314		103	8
Econfina Creek (incl. Carter Tract)	13	14	14	25	8	14	56	22	18	2		134	1,130	125	80	15
Chipola River	1	4	4	3	2	2	4	6	3			9	47	204		1
Apalachicola River	1	2	2	10	2	1						9	79	101	2	2
Lake Jackson	1	2	2			1	7		10		7	5		18	1	2
Totals	**38**	**59**	**61**	**88**	**46**	**48**	**73**	**108**	**52**	**6**	**7**	**361**	**2,136**	**588**	**211**	**32**

Table 6.7 Projected Funding, Staffing and Resource Management for FY 2017-2018

Region	Water Management Area	Acres	Assigned Staff	Total Funding	Funding for Resource Management
Western	Escambia	35,413		$104,897	$47,370
	Escambia Conservation Easements	19		$830	$500
	Garcon Point	3,245		$76,222	$23,000
	Yellow	16,553		$79,538	$29,250
	Blackwater	381		$12,292	$5,000
	Perdido	6,261		$180,001	$131,070
	Perdido Conservation Easements	4		$830	$500
	Western Region Total	**61,876**	**3**	**$454,610**	**$236,690**
Central	Choctawhatchee	60,810		$388,937	$241,945
	Choctawhatchee/Holmes Conservation Easements	2,537		$14,308	$13,000
	Econfina	39,180		$918,764	$666,737
	St. Andrew/Econfina Conservation Easements	2,433		$2,168	$750
	Ward Creek West	719		$0	$0
	Carter Restoration	2,155		$65,000	$65,000
	Central Region Total	**107,834**	**5**	**$1,389,177**	**$987,432**
Eastern	Chipola	9,094		$125,126	$57,202
	Apalachicola	36,823		$70,747	$23,400
	Apalachicola/Chipola Conservation Easements	2,359		$1,525	$500
	Lake Jackson	516		$70,932	$32,434
	St. Marks Conservation Easements	1,376		$1,731	$500
	Ochlockonee Conservation Easements	3,675		$1,731	$500
	Eastern Region Total	**53,843**	**2**	**$271,792**	**$114,536**
	Regional Totals	**223,553**	**10**	**$2,115,579**	**$1,338,658**

Projected Funding, Staffing and Resource Management for FY 2017-2018 (cont.)

Other Projects	Acres	Assigned Staff	Total Funding	Funding for Resource Management
Land Management Administration		4	$990,620	$421,906
IT Initiative			$441,755	$406,150
Land Management Database			$60,531	$49,500
Florida National Scenic Trail - Econfina Creek			$10,000	$10,000
Brunson Landing Tract	348		$20,907	$14,160
Blue Spring Campsite Restoration			$6,466	$0
Seven Runs Streambank Restoration			$5,910	$0
Washington County School Board Donation			$340	$340
Grand Total	**223,901**	**14**	**$3,652,108**	**$2,240,714**

Consolidated Annual Report
Chapter 7

Mitigation Donation
Annual Report

Chapter 7. Mitigation Donation Annual Report

The Northwest Florida Water Management District implemented Environmental Resource Permitting (ERP) jointly with DEP beginning on October 1, 2007. The adoption of the Statewide Environmental Resource Permitting (SWERP) rules in Chapter 62-330, F.A.C., on October 1, 2013, included consolidation of the Management and Storage of Surface Water (MSSW) program under ERP.

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 preceding fiscal year are reported annually.

The District received no cash donations in FY 2016-2017.

Consolidated Annual Report
Chapter 8

Water Projects in the Five-Year Water Resource Development Work Program

Water Projects in the Five-Year Water Resource Development Work Program

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Chapter 8. Water Projects in the Water Resource Development Five-Year Work Program

Section 373.036, Florida Statutes (F.S.), was amended in 2016 by the adoption of Senate Bill 552. The legislation added two new sections to the consolidated annual report required pursuant to section 373.036(7)(b). The two additional elements include the following:

1. Information on all projects related to water quality or water quantity as part of a 5-year work program, including:
    a. A list of all specific projects identified to implement a basin management action plan or a recovery or prevention strategy;
    b. A priority ranking for each listed project for which state funding through the water resources development work program (section 373.536(6), F.S.) is requested, which must be made available to the public for comment at least 30 days before submission of the consolidated annual report;
    c. The estimated cost for each listed project;
    d. The estimated completion date for each listed project;
    e. The source and amount of financial assistance to be made available by the department, a water management district, or other entity for each listed project; and,
    f. A quantitative estimate of each listed project's benefit to the watershed, water body, or water segment in which it is located.

2. A grade for each watershed, water body, or water segment in which a project is located representing the level of impairment and violations of adopted minimum flow or minimum water levels. The grading system must reflect the severity of the impairment of the watershed, water body, or water segment.

Water Projects Approach

The District's Water Resource Development Work Program (WRDWP) applies to the two water supply planning regions in northwest Florida that have regional water supply plans: Okaloosa, Santa Rosa and Walton counties (Region II) and Bay County (Region III). The other 12 counties within the District's jurisdiction do not have a regional water supply plan and are therefore not included in the current WRDWP. This chapter includes all water resource development (WRD) and water supply development (WSD), including alternative water supply projects within the WRDWP. Note that the projects from the WRDWP document are also linked to the District's budget. As such, what constitutes a "project" within the plan may actually be a combination of several individual projects to be consistent with the budget structure and guidelines. For example, the WRDWP includes a WSD project for "Water Reuse Facilities" in Region II that includes portions of three separate reuse projects with the cities of Fort Walton Beach, Gulf Breeze, and Mary Esther.

Basin Management Action Plans have been adopted for three areas within the District: Bayou Chico in Escambia County; the Upper Wakulla River and Wakulla Springs basin in portions of Wakulla, Leon, and Gadsden counties; and Jackson Blue Spring and Merritts Mill Pond basin in Jackson County. As none of these BMAPs are within Regional Water Supply Planning regions II or III, no BMAP projects are included in the WRDWP. See Chapter 9 (Table 9.3) for additional information on BMAP projects.

Section 373.036(7)(b)(9), F.S. requires a grade representing the impacted waterbody level of impairment and violations of adopted MFLs. As the District is currently developing MFLs for northwest Florida with none yet adopted, the water projects listed only include a grade for level of impairment. The grade was provided by DEP and is represented as follows:

- Impaired—High: This grade is assigned if the waterbody is impaired for one or more parameters other than mercury and based on a consideration of other factors, including the number of impairments, the presence of Outstanding Florida Waters, the proximity to ongoing or planned restoration activities, the ecological priority of the water for endangered and threatened species, environmental justice concerns, the amount of anthropogenic land use, and local aquifer vulnerability.
- Impaired: This grade is assigned if the waterbody is impaired for one or more parameters other than mercury.
- Not impaired: This grade is assigned if the waterbody is not impaired for any parameters other than mercury.

WRDWP projects are also required to be ranked if state funding may be requested. As the District relies on state funding for operations and implementation of projects, a ranking is included for projects in Table 8.1 below. The projects are ranked as high, low or complete. High represents projects that are currently or planned to be underway, are ongoing efforts, or that represent a priority for the five-year planning timeframe. Projects ranked low are those that have limited activities planned or funding budgeted by the District in the planning timeframe, but that remain applicable activities should funding become available.

Project Ranking and Waterbody Grade

Table 8.1 Ranking and Grades for WRDWP Projects in the NWFWMD

Project Name	Project Type[1]	Priority Ranking	Water body, or water segment	Level of Impairment
Region II (Okaloosa, Santa Rosa and Walton counties)				
Floridan Aquifer	WRD	High	Floridan aquifer	N/A
Inland Sand-and-Gravel Aquifer	WRD	High	Sand-and-gravel aquifer	N/A
Surface Water Sources	WRD	High	Shoal River	Impaired
Aquifer Storage and Recovery	WRD	Low	Floridan aquifer; sand-and-gravel aquifer	N/A
Water Reuse	WRD	High	Floridan aquifer; sand-and-gravel aquifer	N/A
Water Conservation	WRD	High	Floridan aquifer; sand-and-gravel aquifer	N/A
Regional Water Supply Planning	WRD	High	Floridan aquifer; sand-and-gravel aquifer	N/A
Interconnect of Water Supply Systems	WRD	Complete	Floridan aquifer; sand-and-gravel aquifer	N/A
Hydrologic Data Collection and Analysis	WRD	High	Floridan aquifer; sand-and-gravel aquifer	N/A
Abandoned Well Plugging	WRD	Low	Floridan aquifer; sand-and-gravel aquifer	N/A

Region II (Okaloosa, Santa Rosa and Walton counties)				
Inland Floridan Aquifer Alternative Water Supply	WSD	High	Floridan aquifer	N/A
Inland Sand-and-Gravel Aquifer Alternative Water Supply	WSD	High	Sand-and-gravel aquifer	N/A
Surface Water Supply Development	WSD	High	Shoal River	Impaired
Water Reuse Facilities	WSD	High	Floridan aquifer; sand-and-gravel aquifer	N/A
Water Supply Management Projects	WSD	High	Floridan aquifer; sand-and-gravel aquifer	N/A
Region III (Bay County)				
Econfina Creek and Groundwater Recharge Area Protection	WRD	High	Floridan aquifer	N/A
Hydrologic and Water Quality Data Collection and Analysis	WRD	High	Floridan aquifer; Deer Point Lake	Not Impaired
Water Reuse Funding and Technical Assistance	WRD	High	Floridan aquifer; Deer Point Lake; North Bay	Impaired (North Bay)
Water Conservation Funding and Technical Assistance	WRD	High	Floridan aquifer; Deer Point Lake	Not Impaired
Regional Water Supply Planning, Coordination, and Technical Assistance	WRD	High	Floridan aquifer; Deer Point Lake	Not Impaired
Development of Upstream Intake for Surface Water Supply	WSD	Complete	Floridan aquifer; Deer Point Lake	Not Impaired
Water Reuse	WSD	High	Floridan aquifer; Deer Point Lake; North Bay	Impaired (North Bay)
Utility Interconnections	WSD	Low	Floridan aquifer; Deer Point Lake	Not Impaired
Water Conservation	WSD	High	Floridan aquifer; Deer Point Lake	Not Impaired

[1] WRD = Water Resource Development; WSD = Water Supply Development; both are defined in sections 373.019 and 373.705, F.S.

Public Review Period

Florida law requires the projects within the work plan seeking state funds be available for public comment at least 30 days before being finalized. The District's Fiscal Year 2017-2018 Five-Year WRDWP Update was proposed on October 27, 2017. The proposed work plan was submitted to the Governor, the President of the Senate, the Speaker of the House of Representatives, the Secretary of DEP, chairs of legislative committees with substantive or fiscal jurisdiction over the district, the governing boards of counties within the districts jurisdiction, and posted on the district website for public review. The finalized version incorporating any comments received is included as Chapter 5 of this report. No projects were added or deleted between October 2017 and March 2018.

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Consolidated Annual Report
Chapter 9

Surface Water Improvement and Management (SWIM) Program Annual Report

SWIM Program Annual Report

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Chapter 9. Surface Water Improvement and Management (SWIM) Program Summary Report

Introduction

Section 373.036(7)(d), F.S., provides that districts may include in the Consolidated Annual Report additional information on the status or management of water resources as deemed appropriate. 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 in Figure 9.1 below.

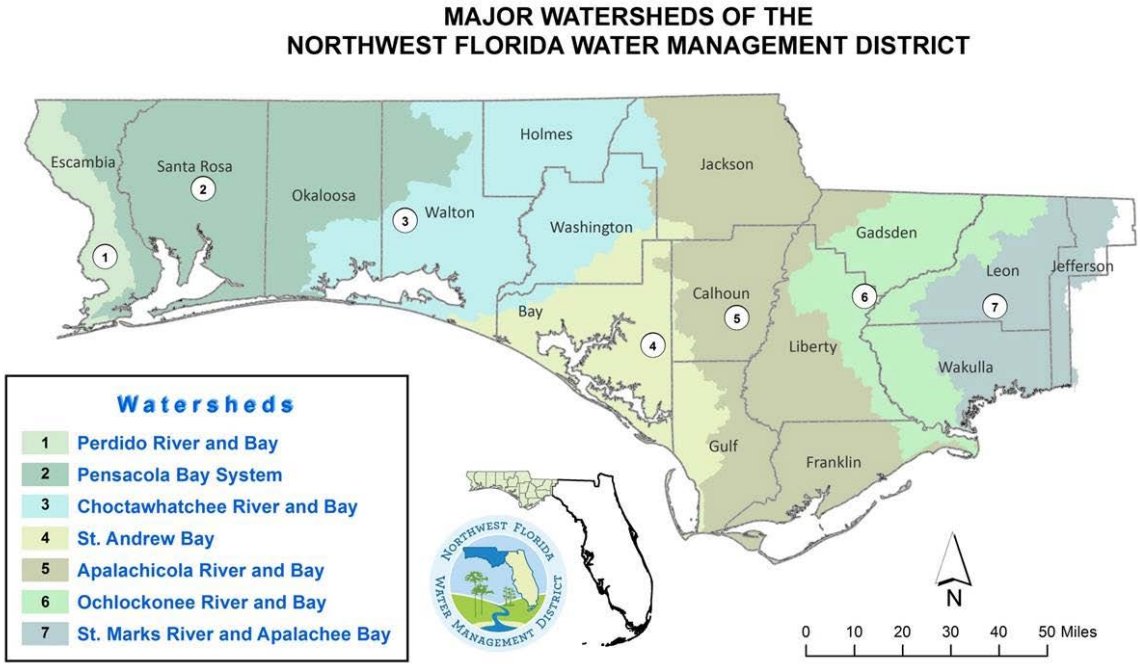

Figure 9.1 NWFWMD SWIM Priority Watersheds

SWIM Priority List

The Northwest Florida Water Management District's SWIM Priority list is provided in Table 9.1.

Table 9.1 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.

Pursuant to section 373.453, F.S., the SWIM priority list may be periodically reviewed with updates reflected in this section. All waterbodies, tributaries, sub-embayments, springs, and contributing basins are considered as being within the listed watersheds as priority waterbodies.

SWIM Plans and Updates

SWIM plans are developed to address cumulative anthropogenic (human induced) 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. 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. Seven watershed plans were completed over the course of two years, finishing in November 2017 (Table 9.2). More information on the final plans can be found at: https://www.nwfwater.com/Water-Resources/SWIM.

Table 9.2 NWFWMD SWIM Plans

Watershed	Plan Approval Dates
Deer Point Lake	1988 (Superseded)
Apalachicola River and Bay	1996, 2017
Lake Jackson	1997 (Superseded)
Pensacola Bay System	1997, 2017
St. Andrew Bay Watershed	2000, 2017
Choctawhatchee River and Bay	2002, 2017
St. Marks River/Apalachee Bay	2009, 2017
Perdido River and Bay	2017
Ochlockonee River and Bay	2017

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 (sections 259.105 and 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 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.

Current Project Priorities

In 2012, the District established a renewed focus on restoration activities within the Apalachicola River and Bay and St. Andrew Bay watersheds, applying remaining Ecosystem Management and Restoration Trust Fund revenues appropriated by past legislatures to improve water quality 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. Projects include continued implementation of agricultural best management practices (BMPs) with producers in the Jackson Blue Spring basin; land acquisition projects to protect water quality in Jackson Blue Spring, Wakulla Spring, Cypress Spring, Econfina Springs Group and Gainer Springs Group; conversion of areas currently served by septic systems to central sewer within the Wakulla Spring and Jackson Blue Spring contribution areas; spring restoration projects along Econfina and Holmes creeks and at Jackson Blue Spring; and water quality monitoring at first magnitude and other springs.

Several stormwater retrofit and nonpoint source pollution abatement projects have been completed in the St. Andrew Bay and Apalachicola River and Bay watersheds over the last several years. Stormwater retrofit projects were completed by Bay County and the cities of Callaway, Panama City, Mexico Beach, and Parker. The City of Carrabelle completed a water quality improvement project on Marine Street in June 2016, and the City of Apalachicola completed three stormwater retrofit projects in June 2017. Additional water quality projects are underway and planned in Franklin County. For a list of priority SWIM projects currently underway or in the planning stages, please refer to Chapter 1 of this report. Note that there is overlap between the project priorities listed there and within other chapters in this report, 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.

Note also that many of the projects listed in Chapter 1 help implement Basin Management Action Plans (BMAPs). BMAPs have been adopted by the Department of Environmental Protection for three areas within the District: Bayou Chico in Escambia County; the Upper Wakulla River and Wakulla Springs basin in portions of Wakulla, Leon, and Gadsden counties; and Jackson Blue Spring and Merritts Mill Pond basin in Jackson County. Table 9.3 provides additional information on current BMAP projects.

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 participate 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 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.

Table 9.3 Current BMAP Projects in the NWFWMD

Cooperator	Project Name	County	Project Type	Five-Year Total Costs	State Requested Funding*	Benefit Description	Water Resource or TMDL Waterbody	Watershed/ Waterbody Grade	Project Status
Bayou Chico (Pensacola Basin) BMAP									
Bayou Chico Association	Clean Marina Pensacola Yacht Club	Escambia	Other NPS Pollution	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired	Ongoing
Bayou Chico Association	Bayou Chico Channel Dredging	Escambia	Stormwater	$68,000	$0	Reduced fecal coliform loading	Bayou Chico	Impaired	Completed
Bayou Chico Association	Aeration Systems in Tributary (Jones Creek)	Escambia	Stormwater	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired	On hold
Bayou Chico Association	Floating Islands	Escambia	Stormwater	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired	On hold
City of Pensacola; Emerald Coast Utilities Authority, Inc. (ECUA)	West Avery St. Drainage Improvements	Escambia	Stormwater	$1,400,000	$0	Reduced fecal coliform loading	Bayou Chico	Impaired	Complete
ECUA	FOG Program	Escambia	Wastewater	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired	Ongoing
ECUA	I&I Reduction	Escambia	Wastewater	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired	Ongoing
ECUA	SSO Response Plan	Escambia	Wastewater	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired	Ongoing
ECUA	Lift Station Upgrades	Escambia	Wastewater	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired	Ongoing
Escambia County	Stormwater Treatment	Escambia	Stormwater	$1,100,000	$0	Reduced fecal coliform loading	Bayou Chico	Impaired	Complete
Escambia County	Stormwater Pond Inspection & Maintenance Program	Escambia	Stormwater	$300,000	$300,000	Reduced fecal coliform loading	Bayou Chico	Impaired	Ongoing
Escambia County Health Department	Healthy Beaches Program	Escambia	Wastewater	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired	Ongoing

*Projects with state funding requested may include match or contributing funding from local, federal or other sources.

Current BMAP Projects in the NWFWMD (cont.)

Cooperator	Project Name	County	Project Type	Five-Year Total Costs	State Requested Funding*	Benefit Description	Water Resource or TMDL Waterbody	Watershed/ Waterbody Grade	Project Status
Bayou Chico (Pensacola Basin) BMAP									
Escambia County Health Department	OSTDS Permitting	Escambia	Wastewater	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired	Ongoing
Escambia County Health Department	Septic to Sewer Enforcement Program	Escambia	Wastewater	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired	Ongoing
Escambia County; Bay Area Resource Council; Bayou Chico Association	Public Education and Outreach	Escambia	Education & Outreach	$10,000	$10,000	Reduced fecal coliform loading	Bayou Chico	Impaired	Ongoing
Escambia County; Florida Department of Transportation	Illicit Discharge Detection	Escambia	Stormwater	$50,000	$50,000	Reduced fecal coliform loading	Bayou Chico	Impaired	Ongoing
Escambia County; US Navy	Retrofit Projects (Planned) Corry Field	Escambia	Stormwater	$500,000	$500,000	Reduced fecal coliform loading	Bayou Chico	Impaired	Planning
Escambia County; US Navy	Bayou Chico/Jones Creek Stormwater Retrofit - West Side of Corry Station	Escambia	Stormwater	$500,000	$500,000	Reduced fecal coliform loading	Bayou Chico	Impaired	Planning
Escambia County; US Navy; Gulf Coastal Plain Ecosystem Partnership	Jackson's Branch Headwater Restoration	Escambia	Stormwater	$500,000	$500,000	Reduced fecal coliform loading	Bayou Chico	Impaired	Planning
Florida Fish and Wildlife Conservation Commission	Compliance and Inspection Sweeps	Escambia	Other NPS Pollution Prevention	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired	Ongoing

*Projects with state funding requested may include match or contributing funding from local, federal or other sources.

Current BMAP Projects in the NWFWMD (cont.)

Cooperator	Project Name	County	Project Type	Five-Year Total Costs	State Requested Funding*	Benefit Description	Water Resource or TMDL Waterbody	Watershed/ Waterbody Grade	Project Status
Jackson Blue Spring and Merritts Mill Pond BMAP									
NWFWMD; Jackson County	Indian Springs Sewer Extension Phase I	Jackson	Wastewater	$1,950,000	$0	Reduced nutrient loading	Jackson Blue Spring	Impaired	In progress
NWFWMD	Claiborne Aquifer Water Supply	Jackson	Study	$440,000	$0	Alternative water supply	Jackson Blue Spring	Impaired	In progress
NWFWMD	Lakeshore Farms II, LLC Land Acquisition	Jackson	Preservation	$2,686,568	$0	Natural systems protection	Jackson Blue Spring	Impaired	Partially complete
NWFWMD	Jackson Blue Spring Agricultural BMP Producer Cost Share Grant Program	Jackson	Water Quality	$1,333,333	$1,000,000	Reduced nutrient loading	Jackson Blue Spring	Impaired	In progress
NWFWMD; Florida Department of Agriculture and Consumer Services	Mobile Irrigation Laboratory	Jackson	Water Quantity	$673,938	$71,125	Water conservation	Jackson Blue Spring	Impaired	Ongoing
NWFWMD; University of Florida Institute of Food and Agricultural Sciences (IFAS)	Sod-Based Crop Rotation	Jackson	Water Quality	$806,032	$326,000	Reduced nutrient loading and water conservation	Jackson Blue Spring	Impaired	In progress
NWFWMD; IFAS	Sod-Based Crop Rotation	Jackson	Water Quality; Education & Outreach	$415,000	$64,000	Reduced nutrient loading and water conservation	Jackson Blue Spring	Impaired	Ongoing

*Projects with state funding requested may include match or contributing funding from local, federal or other sources.

Current BMAP Projects in the NWFWMD (cont.)

Cooperator	Project Name	County	Project Type	Five-Year Total Costs	State Requested Funding*	Benefit Description	Water Resource or TMDL Waterbody	Watershed/ Waterbody Grade	Project Status
Upper Wakulla River and Wakulla Springs BMAP									
City of Tallahassee	Public Education & Outreach	Leon	Education & Outreach	$1,700,000	$0	Reduced nutrient loading	Wakulla Spring	Impaired	Ongoing
City of Tallahassee	Eastgate Flood Relief Project Phase II	Leon	Stormwater	$2,700,000	$0	Reduced nutrient loading	Wakulla Spring	Impaired	In progress
City of Tallahassee	Gaines St. – Madison St. Supplemental SW Outfall 2	Leon	Stormwater	$300,000	$0	Reduced nutrient loading	Wakulla Spring	Impaired	In progress
City of Tallahassee	SPI – Bradford Road Stormwater Outfall	Leon	Stormwater	$325,000	$0	Reduced nutrient loading	Wakulla Spring	Impaired	In progress
City of Tallahassee	SPI – Limerick Drive Stormwater Outfall Improvements	Leon	Stormwater	$60,648	$0	Reduced nutrient loading	Wakulla Spring	Impaired	In progress
City of Tallahassee	Street Sweeping	Leon	Stormwater	$1,500,000	$0	Reduced nutrient loading	Wakulla Spring	Impaired	Ongoing
City of Tallahassee	Assessment and Rehabilitation of Sewer Collection System	Leon	Wastewater	$10,000,000	$10,000,000	Reduced nutrient loading	Wakulla Spring	Impaired	Ongoing
Leon County	Street Sweeping	Leon	Stormwater	$75,500	$0	Reduced nutrient loading	Wakulla Spring	Impaired	Ongoing
Leon County	Florida Yards and Neighborhoods Program	Leon	Stormwater; Education & Outreach	$55,000	$0	Reduced nutrient loading	Wakulla Spring	Impaired	Ongoing
Leon County	Water Quality Sampling	Leon	Study; Water Quality	$250,000	$250,000	Reduced nutrient loading	Wakulla Spring	Impaired	Ongoing

*Projects with state funding requested may include match or contributing funding from local, federal or other sources.