Northwest Florida Water Management District

Consolidated Annual Report
Fiscal Year 2018-2019
Publication Number: AR-19

Wakulla Spring

Northwest Florida Water Management District

Consolidated Annual Report

March 1, 2019

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT

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For additional information, write or call:

Northwest Florida Water Management District
81 Water Management Drive
Havana, Florida 32333-4712
(850) 539-5999
www.nwfwater.com

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, 2019, 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 2018-2019 Five-Year Water Resource Development Work Program
6. Florida Forever 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 elements or chapters that follow provide the status and record of accomplishments of District programs over the previous fiscal year (FY 2017-2018) that contribute to the implementation and success of the District's mission and responsibilities.

*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.*

FY 2017-2018 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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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 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 2017-2018 SWMP was approved on September 14, 2017. Listed below are the SWMP strategic priorities consistent with those in the District's adopted FY 2017-2018 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 2018-2022

- **Springs Restoration and Protection:** *Restore and Protect 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 restore freshwater inflow.*
- **Water Supply:** *Plan and facilitate sustainable water supplies for future reasonable and beneficial uses.*
- **Watershed Restoration and Protection:** *Restore and protect watershed resources and functions.*
- **Flood Protection and Floodplain Management:** *Maintain natural floodplain functions and minimize harm from flooding.*

Summary of FY 2017-2018 Accomplishments

Fiscal year 2017-2018 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. These accomplishments are described in further detail in the following sections.

1.1 Springs Restoration and Protection

Strategic Priority and Success Indicators

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

(1) Project accomplishment (percent complete)
(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 and Wakulla 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 Spring, Horn Spring in Leon County, and Econfina Blue springs within the Econfina Creek Water Management Area (WMA);
- Acquiring land to protect Wakulla Spring, 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;
- Completion of an investigation of the Claiborne aquifer as a potential alternative water source in the Jackson Blue Spring contribution area in May 2018; 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 2017-2018 that contribute to spring restoration and protection. A total of 21 projects were active or completed during the fiscal year within four major watersheds and five counties.

Table 1. 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 Restoration and Protection.

Table 1.1 Spring Restoration and Protection Projects

Project	Description/Cooperators	Total District Cost (or as noted)	Status	Percent Complete
Choctawhatchee River and Bay Watershed				
Cypress Spring Land Acquisition	Acquisition of up to 303.55 acres at Cypress Spring along Holmes Creek in Washington County	$1,100,000	Close-out	95%
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	$150,400	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	$872,480	Design/Engineering	15%
Econfina Land Acquisition - Hodson	Acquisition of up to 230 acres within Econfina Creek recharge area	$573,781	Complete	100%
Econfina Land Acquisition	Acquisition of up to 120 acres within Econfina Creek recharge area	$426,219	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 2017-2018	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	56%
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	10%
Land acquisition – Jackson Blue	Fee simple or less-than-fee simple acquisition of 160 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	Construction	40%

Project	Description/Cooperators	Total District Cost (or as noted)	Status	Percent Complete
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	Design/Engineering	5%
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	$354,121	Complete	100%
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	Close-out	90%
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	Design/Engineering	10%
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	$2,450,000	Project transferred to DEP in FY 2017-18.	NA
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	$1,500,000	Project transferred to DEP in FY 2017-18.	NA
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	$637,000	Construction	25%
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	$2,750,000	Project transferred to DEP in FY 2017-18.	NA
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	$1,750,000	Project transferred to DEP in FY 2017-18.	NA
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	Project transferred to DEP in FY 2017-18.	NA
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	$5,070,000	Construction	55%

Project	Description/Cooperators	Total District Cost (or as noted)	Status	Percent Complete
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	$7,265,811	Construction	55%
Wakulla Springs Land Acquisition	Fee simple or less-than-fee simple acquisition of 1,400 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. 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 1.2 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	0.21/Stable
Jackson Blue Spring	113/Variable[3]	3.49/Rising
St. Marks Rise	451/Variable, stable	0.03 – 0.31/Variable[4]
Wakulla Spring	442/Increasing	0.41/Decreasing[5]

[1]Periods of record (flow): Gainer Springs, 2002-2018; Jackson Blue Spring, 2003-2018; St. Marks Rise, 1997-2018; Wakulla Spring, 1997-2018.
[2]Periods of record (water quality): Gainer Springs, 2002-2018; Jackson Blue Spring, 2003-2018; St. Marks Rise, 2001-2018; Wakulla Spring, 1997-2018. 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.

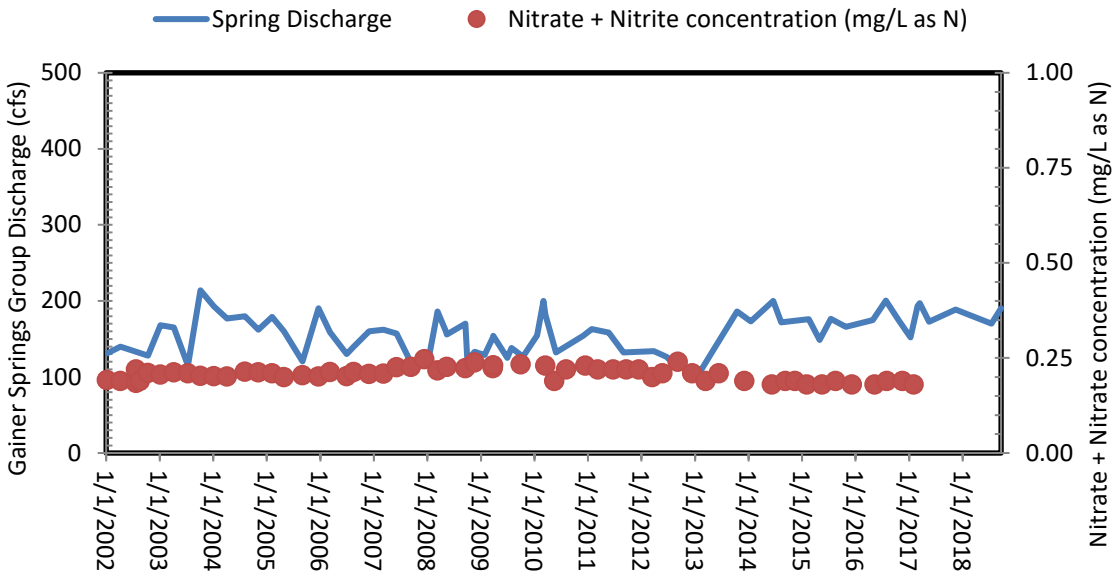

Figure 1.1 Nitrate and Nitrite Concentration and Discharge: Gainer Springs Group (2002-2018)

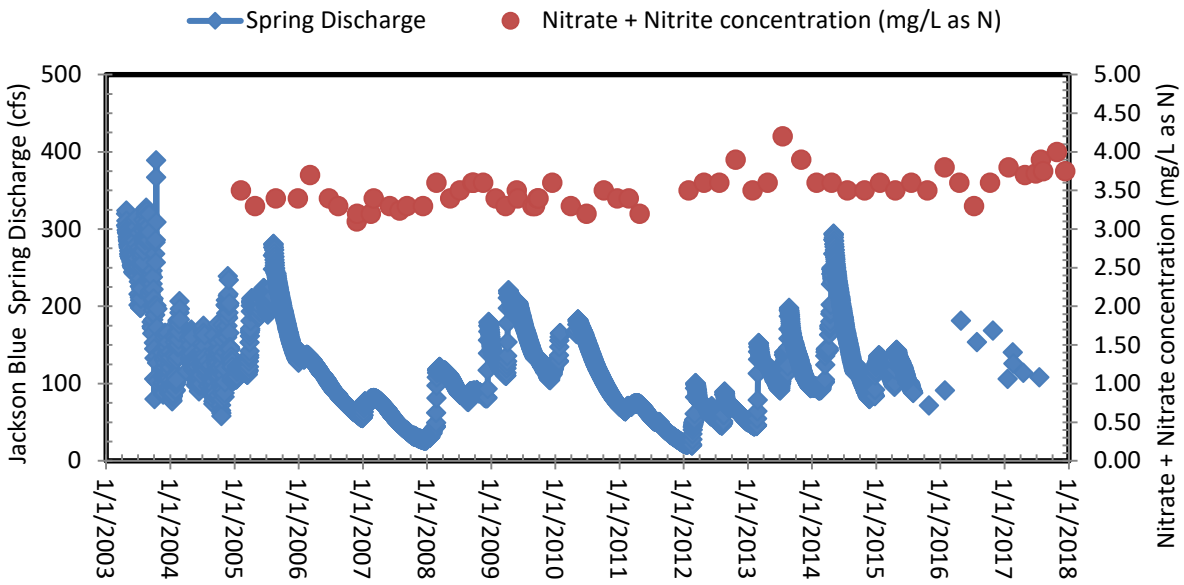

Figure 1.2 Nitrate and Nitrite Concentration and Discharge: Jackson Blue Spring (2003-2018)

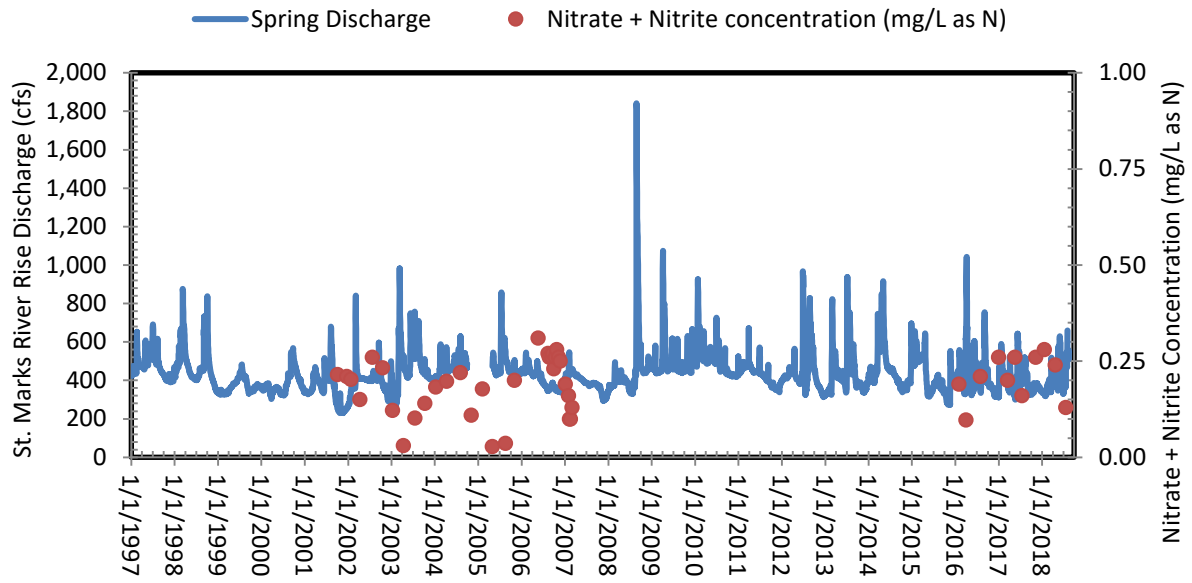

Figure 1.3 Nitrate and Nitrite Concentration and Discharge: St. Marks River Rise (1997-2018)

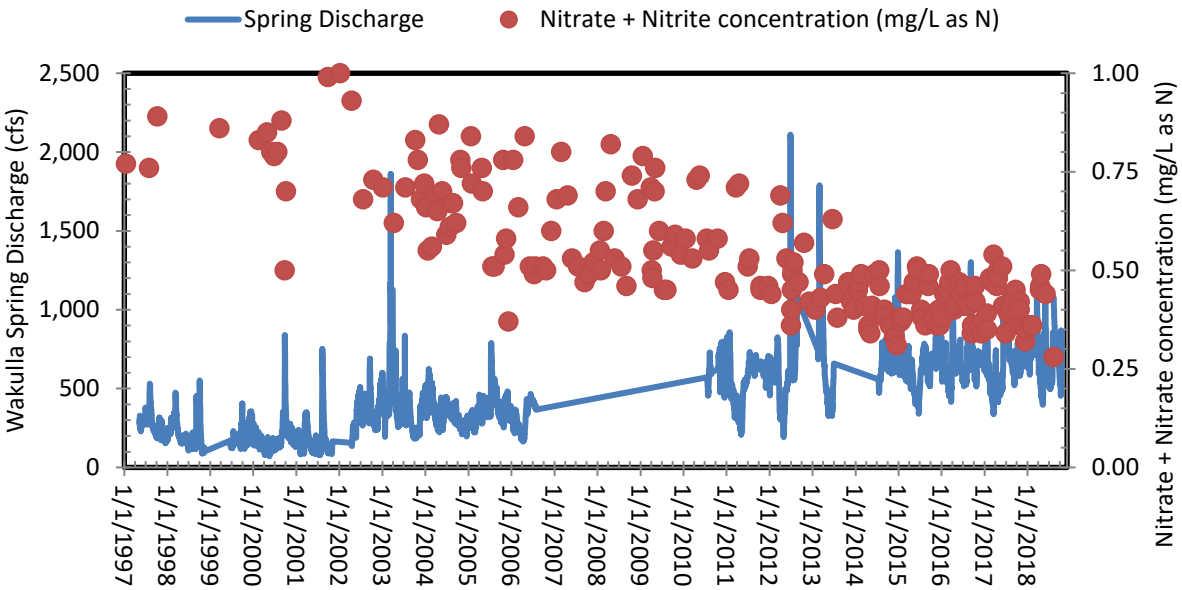

Figure 1.4 Nitrate and Nitrite Concentration and Discharge: Wakulla Spring (1997-2018)

Milestones and Deliverables

Table 1. shows the status of SWMP deliverables and milestones for Springs Restoration and Protection.

Table 1.3 Springs Restoration and Protection Milestones and Deliverables

Milestone	Target Date	Status
(1) Completion of spring streambank restoration projects	2018-2019	In progress
(2) Implementation of funded BMPs for farmers in the Jackson Blue Spring basin and Mobile Irrigation Lab evaluations	FY 2018-2019	In progress
(3) Completion of septic-to-sewer retrofit projects	FY 2019-2023	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 by mobile irrigation lab staff.
(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 (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 2018-2019 MFL priority list includes four first magnitude springs (St. Marks River Rise, Wakulla Spring, Gainer Spring Group, and Jackson Blue Spring), five 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 2017-2018 Accomplishments

During FY 2017-2018, the District staff was 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.

The St. Marks River Rise, a first magnitude spring in Leon County, will be the first MFL established by the NWFWMD. The draft MFL Technical Assessment for the St. Marks River Rise was completed in FY 2017-2018, as scheduled.

To support MFL development for the Wakulla Spring and Sally Ward Spring, hydrologic and water quality data continue to be collected at approximately 60 sites. Surface water models are being developed to evaluate the effects of flow reductions on recreation, fish and wildlife habitat, and other water resource values. The development of a regional groundwater flow model for the Eastern portion of the District is continuing. The technical assessments for Wakulla Spring and Sally Ward Spring remain on-schedule, with completion in 2020.

To support MFL development for Jackson Blue Spring, the collection of hydrologic data is ongoing. The technical assessment is on schedule to be completed in 2022.

To support MFL development for the coastal Floridan aquifer in Planning Region II (Walton, Okaloosa, and Santa Rosa counties), water quality sampling is continuing at 30 wells. The District will develop a regional model to evaluate groundwater flow and determine aquifer levels needed to prevent significant harm from long-term saltwater intrusion. The technical assessment is on-schedule to be completed in 2020.

District staff has also developed a draft MFL Work Plan for the Shoal River and identified preliminary hydrologic data collection needs. The District has also begun collection of spring flow data for the Gainer Spring Group.

Activities Planned for FY 2018-2019

During FY 2018-2019, rule development and rule adoption are scheduled for the St. Marks River Rise. Hydrologic data collection will continue for the remaining 10 waterbodies for which MFLs are currently under development. Surface water models will be refined to support MFL development for Wakulla Spring and Sally Ward Spring. Thermal data collection will continue to assess manatee thermal habitat at Wakulla Spring. The regional groundwater flow model for the eastern portion of the District will be evaluated and further refined.

To support MFL development for Jackson Blue Spring, hydrologic monitoring will continue. However, Hurricane Michael has disrupted some data collection efforts and altered aquatic habitats downstream of the spring. Evaluations will be performed in FY 2018-2019 to assess the effects of the hurricane on the MFL development process.

To support MFL development for the coastal Floridan aquifer in Planning Region II, 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.

To support MFL development for the Shoal River, new monitor wells will be installed. Stream surveys will be performed to assess riparian habitats and to collect elevation data needed for surface water models. Additional data collection had been planned to support MFL development for the Gainer Spring Group spring run and habitat associated with Devil's Hole Spring, Econfina Blue Spring Group, Sylvan Spring Group and Williford Spring Group. Hurricane Michael, however, has significantly impacted these ecosystems. Further evaluations of these systems will be performed in FY2018-2019.

Evaluation of Indicators

The number of MFL technical assessments, status, and percent complete are noted in Table 1.4

(1) MFL technical assessment accomplishment

Table 1.4 MFL Technical Assessment Status

MFL Waterbody	Target Date	MFL Status	Percent Complete
St. Marks River Rise	2018	Technical Assessment Complete Notice of Intent to Initiate Rule-making Published	100%
Wakulla Spring	2020	Under development	65%
Sally Ward Spring	2020	Under development	65%
Floridan Aquifer, Coastal Region II	2020	Under development	45%
Jackson Blue Spring	2022	Under development	30%
Shoal River System	2023	Under development	5%
Gainer Spring Group and 2nd Magnitude Springs on Econfina Creek	2024	Scheduled for completion 2024-2025	0%
Floridan Aquifer, Coastal Bay Co.	2026	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 (number and percentage)

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.

Table 1.5 MFL Milestones and Deliverables

Milestone	Target Date	Status
Adoption of MFLs for the St. Marks River Rise (2019), Wakulla Spring (2021), Sally Ward Spring (2021), the coastal Floridan aquifer in Region II (2021), and Jackson Blue Spring (2023).	2019-2023	The adoption of MFLs for St. Marks River Rise is scheduled for completion in 2019.

Deliverable	Status
Completed MFL technical assessments according to the approved schedule	St. Marks River Rise MFL Technical Assessment is complete. All remaining 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) Project accomplishment (percent complete)
(2) Area restored or treated (acres)
(3) Pollutant load reduction (pounds per year)

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.

The District continues to provide technical support for the State of Florida's United States Supreme Court trial, as well as assisting the Governor's Office and Florida Department of Environmental Protection (DEP) on related ACF freshwater allocation.

Staff are also coordinating with numerous state agencies including the Governor's Office, Florida Department of Agriculture and Consumer Services (FDACS), DEP, and the Florida Fish and Wildlife Conservation Commission (FWC) to improve water quality in Apalachicola Bay. As a result, planning for water quality improvement projects is aided by funding through the RESTORE (Resources and Ecosystems Sustainability, Tourism Opportunities and Revived Economies) Act and Natural Resource Damage Assessment (NRDA) process.

The District continued two projects and is planning for an additional project to improve water quality in Apalachicola Bay in FY 2017-18 (Table 1.7). The District is working with the City of Apalachicola for additional stormwater retrofit projects and the City of Carrabelle for the connection of existing residential units from onsite to central sewer wastewater treatment.

Evaluation of Indicators

(1) Cooperative project implementation

Table 1.6 Status of ACF Cooperative Stormwater Retrofit Projects

Project	Description	Status	Pollutant Load Reduction (lbs/yr)	Restoration/ Treatment Area (Acres)
Carrabelle Lighthouse Estates Septic to Sewer	Septic-to-sewer conversion project to reduce nitrogen runoff into St. George Sound	Design/ Engineering	TBD	NA
Carrabelle Lighthouse Estates Septic to Sewer, Phase II	Phase II of septic-to-sewer conversion project to reduce nitrogen runoff into St. George Sound	Planning	TBD	NA
Construction of Stormwater Retrofit Facilities	Stormwater retrofit project in cooperation with the City of Apalachicola	Design/ Engineering	NA	20

(2) Acres restored or treated

When the current stormwater project is complete, the City of Apalachicola will have collectively added about 260 acres of new stormwater treatment area since FY 2014-2015.

(3) Pollutant load reduction (pounds per year)

This metric will be calculated upon completion of the septic to sewer projects.

Milestones and Deliverables

Table 1.7 ACF River Basin Milestones and Deliverables

Milestone	Target Date	Status
(1) Completion of Apalachicola Bay water quality projects	2019-2021	In progress
(2) Continued participation in supporting state ACF Basin issues (2019-2023)	2019-2023	In progress

Deliverables	Status
(1) Grant project completion reports	As projects are completed

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 Million Gallons per Day [mgd] and percentage)
(2) Public supply uniform gross per capita water use (Gallons Per Capita Per Day (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)

Current Activities and Accomplishments

A Districtwide Water Supply Assessment (WSA) update projecting water demands and evaluating source sufficiency through 2040 was completed in December 2018. The Districts Governing Board approved staff's recommendation to discontinue the Regional Water Supply Plan (RWSP) for Region III, while continuing with a RWSP update for Region II. Staff is developing a work plan for a plan update, as well as coordinating with contractors to assist with technical aspects of the update. Work on the Region II RWSP will continue for the next fiscal year.

The District compiles average 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 2017-2018, 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 was the final year of the grant program, though project implementation will continue through 2019.

Evaluation of Indicators

(1) RWSP public supply water demands met (volume Million Gallons per Day [mgd] and percentage)

The District has one active RWSP: Region II (Santa Rosa, Okaloosa, and Walton counties). The Region II RWSP includes estimates and projections for all water use categories.[2] The public supply water use category is projected to change most significantly during the planning horizon.

This indicator refers to the quantity and percentage of projected public supply water demands within the RWSP areas that are estimated to be available with existing sources. The 2018 WSA showed a districtwide net increase in public supply water demand from 2015-2040 of 82 million gallons per day (mgd). Region II, with an increase of 17.5 mgd, is expected to account for approximately 21 percent of

[2] Estimates and projections from the 2018 WSA Update were used to complete this indicator.

this. Unmet demands will need to be addressed through water conservation, alternative water supply sources, or increased permitted allocations.

Table 1.8 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. The trend in gross per capita water use has been generally downward, as illustrated in Figure 1.5.

Table 1.9 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
2017	120	77

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

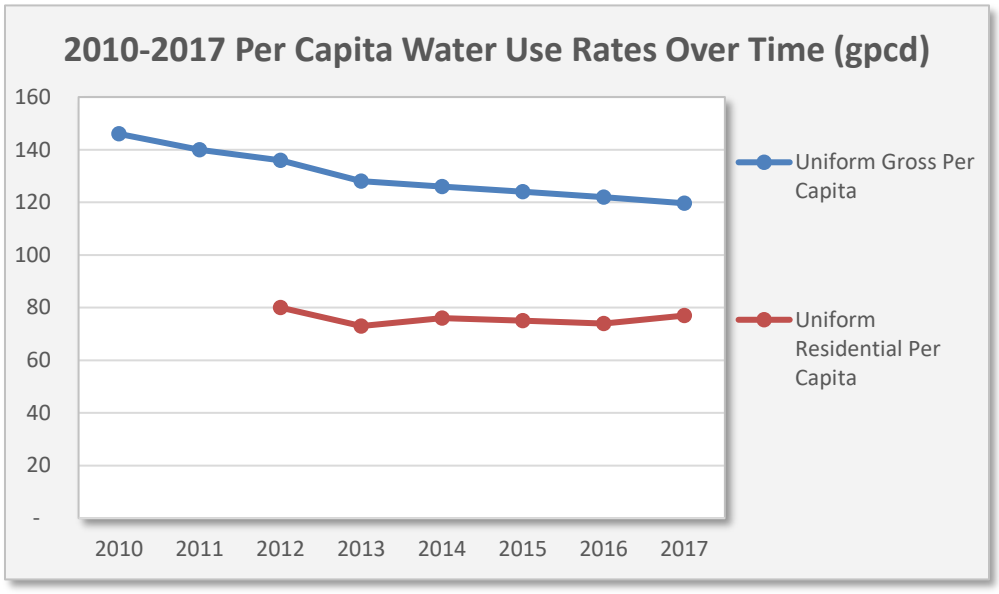

Figure 1.5 Public Supply Gross and Residential Per Capita Water Use Trends

(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 sources of water may include reclaimed water, brackish water, surface water or stormwater, or groundwater. 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 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. No update for this year has been received; therefore, Figure 1.6 reflects data through 2016.

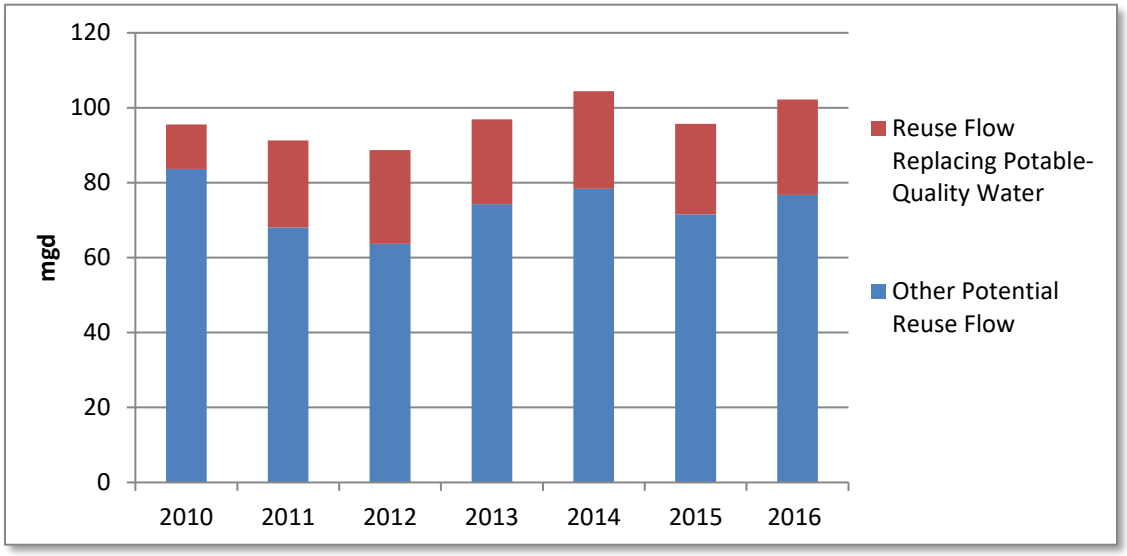

Figure 1.6 Wastewater Reuse Flows in NWFWMD (2010-2016)

(5) Project accomplishment (percent completion on schedule)

Through September 30, 2018, the District has assisted with 70 water supply development projects and awarded $21.6 million in financial assistance. District grant funds have leveraged more than $9 million in local funding, for a total investment of more than $30 million. Fifty-six (56), or about eighty percent, of these projects are complete. A map and more information on individual projects are available at: www.nwfwater.com/Water-Resources/Funding-Programs/Water-Supply-Grants.

Table 1.10 Summary of Water Supply Development Grants

Project Fiscal Year	No. Projects	Award $*	Local Match $	No. Complete	% Complete
FY 2013-2014	23	$10,482,930	$3,996,760	21	91%
FY 2014-2015	25	$7,376,871	$3,426,309	23	92%
FY 2015-2016	10	$1,975,404	$1,622,738	9	90%
FY 2016-2017	12	$992,610	$886,338	8	67%
TOTALS	**70**	**$20,827,815**	**$9,932,145**	**61**	**87%**

**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 1.11 Water Supply Milestones and Deliverables

Milestone	Target Date	Status
(1) Completion of local government water supply development grant projects	2018-2019	87% of all projects complete
(2) Completion of North Bay Wastewater Reuse project	2019-2020	In progress
(3) Region II RWSP Update	2018-2019	In progress

Deliverable	Status
(1) Water use data	Completed annually in September
(2) District-wide water supply assessment updates	Every 5 years, 2018 WSA approved December 2018
(3) RWSP updates	Region II in progress
(4) Grant project completion reports	As projects are completed

1.5 Watershed Restoration and Protection

Strategic Priority and Success Indicators

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

(1) Balance of released mitigation credits
(2) Cooperative project implementation (percent complete)
(3) Area restored (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 and grass-based crop rotation 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;
- Financial support for research and outreach through the University of Florida's Institute of Food and Agricultural Services (IFAS) Sod-Based Crop Rotation Program;
- Continuing assistance to local governments to complete stormwater and restoration projects that improve water quality and flood protection.

District staff continues to participate in multi-agency project planning and development for Gulf of Mexico restoration and protection. These include activities associated with the federal Resources and Ecosystems Sustainability, Tourist Opportunities, and Revived Economies of the Gulf Coast States Act (RESTORE Act), Triumph Gulf Coast, Inc., Gulf Environmental Benefit Fund (GEBF), and Natural Resource Damage Assessment (NRDA). 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 653 acres of longleaf pine habitat in January 2018. Approximately 474,078 longleaf pine tubelings were planted within the Econfina Creek Water Management Area (WMA). Of note, the fifteen millionth longleaf pine tree planted by the District was part of this year's restoration project.

The District completed hand planting of 145,200 wiregrass plugs and 30,000 sand hill herbaceous species on 30 acres of the Sand Hill Lakes Mitigation Bank. Additionally, 4,360 longleaf pine trees were planted on 10 acres at the bank. In the Escambia River floodplain, the District planted 2,396 wetland trees within 4.47 acres of freshwater forested wetlands at the Mystic Springs restoration site. At the Lafayette Creek hydric flatwoods restoration site, 72,600 toothache grass plugs were planted on 15 acres. In addition, the District burned 60 acres at Plum Creek, 230 acres at Ward Creek West, and 660 acres at the Sand Hill Lakes Mitigation Bank. These habitat restoration activities improve wetland functions and offset wetland losses caused by transportation projects.

Evaluation of Indicators

(1) Balance of released mitigation 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 2017-2018, 758.05 credits have been developed and released by permitting authorities. A total of 539.38 credits have been used ("debited") to offset wetland impacts associated with transportation or other projects, leaving an Umbrella Mitigation Plan balance of 247.07 credits at the end of the fiscal year. Over time, the number of mitigation credits developed and used annually through this program has been declining as private mitigation banks have come online for parts of northwest Florida. Additional information may be found at: https://www.nwfwater.com/.

(2) Cooperative project implementation (percent complete)
(3) Area restored (acres)

The status of cooperative watershed project implementation and restoration or stormwater treatment contributing area, if applicable, is found in Table 1. 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.

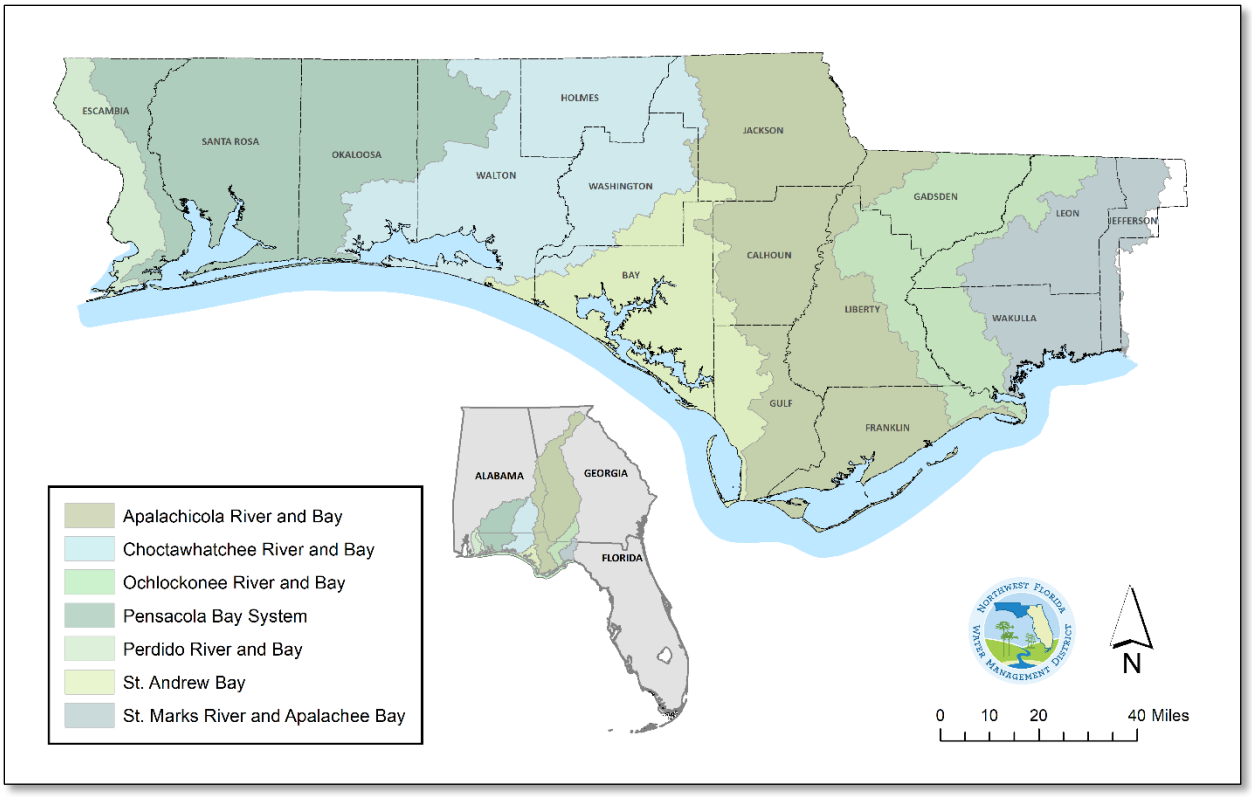

Figure 1.7 Watersheds of the Northwest Florida Water Management District

Table 1.12 Watershed Restoration and Protection 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 2017-2018	100%
St. Andrew Bay Watershed					
Port St. Joe Stormwater Improvements	Stormwater retrofit and development of stormwater master plan with funding provided by NRDA	$906,750	280	Planning	0%
Apalachicola River and Bay Watershed					
Construction of Stormwater Retrofit Facilities	Stormwater retrofit project in cooperation with the City of Apalachicola	$400,000	20	Design/ Engineering	10%
Carrabelle Lighthouse Estates Septic to Sewer	Septic-to-sewer conversion project to reduce nitrogen runoff into St. George Sound	$851,000	NA	Design/ Engineering	10%
Carrabelle Lighthouse Estates Septic to Sewer, Phase II	Second phase of septic-to-sewer conversion project to reduce nitrogen runoff into St. George Sound	$3,096,324	NA	Planning	0%
Sod-based Crop Rotation 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	20%
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 2017-2018	100%
Perdido River and Bay					
Perdido River Paddling Trail	Construction of new and improved public access facilities within the District's Perdido River WMA	$344,360	NA	Planning	0%

Milestones and Deliverables

Table 1.13 Watershed Restoration and Protection Milestones and Deliverables

Milestone	Target Date	Status
(1) Completion of stormwater retrofit and restoration projects	2019-2021	In progress
(2) Completion of Gulf of Mexico restoration projects	2020-2021	Planning

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 2018 with all projects meeting or exceeding success criteria. Monitoring reports were completed in accordance with permit requirements and posted to https://www.nwfwater.com/Water-Resources/Regional-Wetland-Mitigation-Program for public review.
(2) Grant project completion reports	As projects are completed

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 protect floodplain functions for the benefit of human communities and natural systems. Success indicators are:

(1) Area of floodplain protected through land acquisition (acres)
(2) Percent of the 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 manage surface waters and protect floodplain functions to avoid flood damage to property. The District purchased two conservation easements for springs protection in Bay and Washington Counties FY 2017-2018.

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. Risk MAP projects for the lower Ochlockonee River, Apalachicola River, New River, Chipola River, Pensacola Bay, Perdido Bay, Perdido River, Apalachee Bay – St. Marks River, and Pea watersheds are ongoing and projects for the St. Andrew – St. Joseph Bays, Lower Choctawhatchee, and the Escambia watersheds are in the planning stage.

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 land acquisition (acres)

Areas of floodplain protected through fee or less-than-fee acquisition is currently at 187,112 acres; representing 84% of total District managed area.

(2) Percent of the 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 are scheduled to be issued for Bay County in the spring of 2019. Final effective DFIRMs for Okaloosa and Walton counties are scheduled to be issued in FY 2018-2019. The final effective DFIRMs for the remaining coastal counties of Escambia, Santa Rosa, Bay, and Gulf counties are scheduled to be issued by FY 2019-2020.

Milestones and Deliverables

Table 1.14 Flood Protection and Floodplain Management Milestones and Deliverables

Milestone	Target Date	Status
(1) DFIRM completion incorporating coastal remapping studies for Escambia, Santa Rosa, Okaloosa, Walton, Bay, and Gulf counties	2019-2020	On schedule

Deliverable	Status
(1) Risk MAP regulatory and non-regulatory products according to discovery report for each HUC 8 watershed within the District	On schedule
(2) Florida Forever Work Plan Annual Report	Annual

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 2018-2019 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; 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.

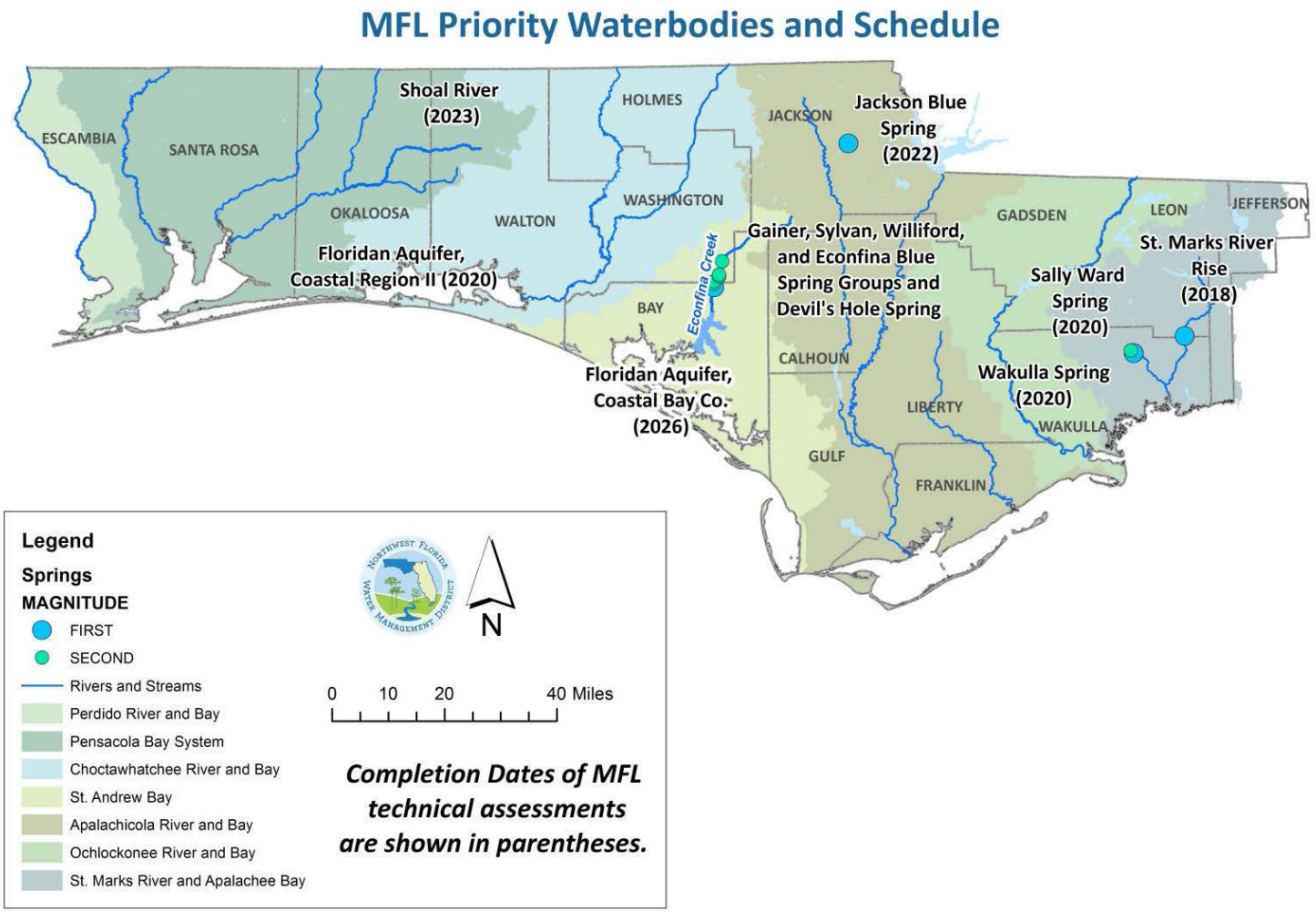

Figure 2.1 NWFWMD MFL Priority Waterbodies

Table 2.1 Northwest Florida Water Management District 2018 Priority List and Schedule

NWFWMD Minimum Flows and Levels to be adopted in 2019

New or Re-Evaluation	Waterbody Name or Compliance Point[1]	System Name[2]	Waterbody Type[3]	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude[4]	Longitude[4]	Rulemaking Status[5]
New	St. Marks River Rise	St. Marks River Rise	Spring - 1	Leon	Yes	To be determined	30.271431 (Newport) 30.285222 (Swallet)	-84.148251 (Newport) -84.151194 (Swallet)	Rule workshop held December 2018

NWFWMD Minimum Flows and Levels to be adopted in 2021

New or Re-Evaluation	Waterbody Name or Compliance Point[1]	System Name[2]	Waterbody Type[3]	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude[4]	Longitude[4]	Rulemaking Status[5]
New	Wakulla Spring	Wakulla Spring	Spring - 1	Wakulla	Yes	No	30.235208	84.302847	N/A
New	Sally Ward Spring	Sally Ward Spring	Spring - 2	Wakulla	Yes	No	30.237208	-84.303586	N/A
New	Coastal Floridan Aquifer	Coastal Floridan Aquifer	Aquifer	Walton, Okaloosa and Santa Rosa	Yes	No	To be determined	To be determined	N/A

NWFWMD Minimum Flows and Levels to be adopted in 2023

New or Re-Evaluation	Waterbody Name or Compliance Point[1]	System Name[2]	Waterbody Type[3]	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude[4]	Longitude[4]	Rulemaking Status[5]
New	Jackson Blue Spring	Jackson Blue Spring	Spring - 1	Jackson	Yes	No	30.790333	-85.140175	N/A

NWFWMD Minimum Flows and Levels to be adopted in 2024

New or Re-Evaluation	Waterbody Name or Compliance Point[1]	System Name[2]	Waterbody Type[3]	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude[4]	Longitude[4]	Rulemaking Status[5]
New	Shoal River	Shoal River	River	Okaloosa, Walton	Yes	No	To be determined	To be determined	N/A

NWFWMD Minimum Flows and Levels to be adopted in 2025

New or Re-Evaluation	Waterbody Name or Compliance Point[1]	System Name[2]	Waterbody Type[3]	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude[4]	Longitude[4]	Rulemaking Status[5]
New	Gainer Spring Group	Gainer Spring Group	Spring - 1	Bay	Yes	No	30.428594	-85.548020	N/A
New	Sylvan Spring Group	Sylvan Spring Group	Spring - 2	Bay	Yes	No	30.432593	-85.547897	N/A
New	Williford Spring Group	Williford Spring Group	Spring - 2	Washington	Yes	No	30.438556	-85.547997	N/A
New	Econfina Blue Spring Group	Econfina Blue Spring Group	Spring - 2	Washington	Yes	No	30.451477	-85.532236	N/A
New	Devils Hole Spring	Devils Hole Spring	Spring - 2	Washington	Yes	No	30.490818	-85.521520	N/A

NWFWMD Minimum Flows and Levels to be adopted in 2027

New or Re-Evaluation	Waterbody Name or Compliance Point[1]	System Name[2]	Waterbody Type[3]	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude[4]	Longitude[4]	Rulemaking Status[5]
New	Coastal Floridan aquifer	Coastal Floridan aquifer	Aquifer	Bay	Yes	No	To be determined	To be determined	N/A

[1]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.) Include on individual lines, with specific names, if it is known at this time that there will be multiple waterbodies or compliance points (such as springs or multiple river gages) associated with the MFL.

[2]Include a system name if the waterbody (or compliance point) is a part of a larger system (i.e. river and spring waterbodies belong to one overall system, multiple priority springs represent individual MFLs but belong to one system). If not, then the Waterbody Name and System should be the same.

[3]Aquifer, Estuary, Lake, River, River-Estuary, Spring-1, Spring-2, Spring-3, Wetland. Number indicates spring magnitude.

[4]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 vent. For aquifers, wetlands, and estuaries, use the coordinates for the wells or gage used to measure the water source's level. Please use Decimal Degrees (DD) formatting.

[5] Rulemaking Status would be the last action taken: Notice of Rule Development published; Notice of Proposed Rule published; Rule challenge pending; Rule adopted, Ratification not required; Rule adopted, Awaiting ratification; Rule adopted, Ratified. If formal rulemaking has not yet begun, enter N/A.

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 2018-2019 through 2022-2023. 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 2019-2023

2.0 ACQUISITION, RESTORATION, AND PUBLIC WORKS					
2.1 Land Acquisition					
Revenues ($)	**Fiscal Year**				
	2018-2019	**2019-2020**	**2020-2021**	**2021-2022**	**2022-2023**
DEP General Revenue (Springs)	237,025	226,615			
Florida Forever – Land Acquisition	0	0	0	0	0
District Land Acquisition Fund	0	0	0	0	0
Land Management Fund	0	0	0	0	0
Land Acquisition Trust Fund (Springs)	13,312,217	8,816,423	3,500,000	3,500,000	3,500,000
Land Acquisition Trust Fund	119,111	122,994			
TOTAL	**13,668,353**	**9,166,032**	**3,500,000**	**3,500,000**	**3,500,000**
Expenditures ($)	**Fiscal Year**				
	2018-2019	**2019-2020**	**2020-2021**	**2021-2022**	**2022-2023**
Acquisition of Land	13,188,341	8,799,767	2,375,000	2,375,000	2,375,000
Pre-acquisition Costs	480,012	366,265	175,000	175,000	175,000
TOTAL	**13,668,353**	**9,166,032**			

2.2 Water Source Development

Revenues ($)	Fiscal Year 2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**

Expenditures ($)	Fiscal Year 2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
	0	0	0	0	0
TOTAL	**0**	**0**	**0**	**0**	**0**

2.3 Surface Water Projects

Revenues ($)	Fiscal Year 2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
FDOT Mitigation Funds	1,017,373	1,032,401	900,000	900,000	900,000
TOTAL	**1,017,373**	**1,032,401**	**900,000**	**900,000**	**900,000**

Expenditures ($)	Fiscal Year 2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
FDOT Mitigation	1,017,373	1,032,401	900,000	900,000	900,000
TOTAL	**1,017,373**	**1,032,401**	**900,000**	**900,000**	**900,000**

2.5 Facilities Construction and Major Renovations

Revenues ($)	Fiscal Year 2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Florida Forever	0	0	0	0	0
Water Management Lands Trust Fund	0	0	0	0	0
Ad Valorem Tax	100,000	0	0	0	0
Regulatory General Fund	50,000	100,000	100,000	100,000	100,000
TOTAL	**150,000**	**100,000**	**100,000**	**100,000**	**100,000**

Expenditures ($)	Fiscal Year 2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Construction and Renovations	150,000	100,000	100,000	100,000	100,000
TOTAL	**150,000**	**100,000**	**100,000**	**100,000**	**100,000**

2.6 OTHER ACQUISITION AND RESTORATION ACTIVITIES

Revenues ($)	Fiscal Year 2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Natural Resource Damage Assessment	324,390	344,360	0	0	0
Florida Forever-Capital Improvement	372,480	372,480	0	0	0
Land Management Fund	100,000	100,000	0	0	0
DEP – State General Fund	0	0	0	0	0
Ecosystem Management Trust Fund	71,195	71,195	0	0	0
Land Acquisition Trust Fund	0	300,000	0	0	0
Land Acquisition Trust Fund (Springs)	1,000,000	960,711			
TOTAL	**1,868,065**	**1,848,746**	**0**	**0**	**0**

Expenditures ($)	Fiscal Year 2018-2019	2019-2020	2020-2021	2021-2022	2022-2023
Seven Runs Streambank Restoration	100,000	100,000	0	0	0
Devil's Hole Spring Restoration	71,195	71,195	0	0	0
Cypress Spring Restoration	500,000	500,000			
Blue Spring Restoration	872,480	833,191	0	0	0
Perdido River Paddling Trail	324,390	344,360	0	0	0
TOTAL	**1,868,065**	**1,848,746**	**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 preserve and protect 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 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 923 acres in fee simple and remainder interest in approximately 30.9 acres.

Expected Completion Date: On or before December 31, 2021

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 (923 acres) and remainder interest in 30.9 acres at a first magnitude springs complex along Econfina Creek in northern Bay County.

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 303.55 acres of property adjacent to a second magnitude spring.

Expected Completion Date: Closed on November 8, 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 303.55 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 was $819,585.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): Land acquisition ancillary costs known to date equal $58,654.56; however, this does not include all costs for legal fees.

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 1,357 acres of property approximate to a first magnitude spring comprised of land owned by four landowners.

Expected Completion Date: On or before June 30, 2021

Historical Background/Need for Project: The proposed Jackson Blue Spring acquisition projects will further the District's mission of protecting the water resources of Jackson Blue Spring through the acquisition of conservation easements on approximately 1,357 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 of each 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: 2.1 LAND ACQUISITION

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

Type: Unimproved land approximate to a first magnitude spring

Physical Location: Wakulla Spring basin, Leon and Wakulla Counties

Square Footage/Physical Description: Properties in Leon and Wakulla Counties in Priority Focus Area I and II of the Wakulla Springs Basin Action Management Plan.

Expected Completion Date: On or before May 30, 2021

Historical Background/Need for Project: The proposed Wakulla Spring acquisition project will further the District's mission of protecting the water resources of Wakulla Spring through the acquisition of conservation easements.

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 of each 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: 2.1 LAND ACQUISITION

Project Title: Econfina Creek Fee Simple or Less than Fee (Conservation Easement) Land Acquisition

Type: Unimproved land within the Econfina Creek Groundwater Contribution Area

Physical Location: Econfina Creek, Bay and Washington Counties

Square Footage/Physical Description: Properties in Bay and Washington Counties within the Econfina Creek Groundwater Contribution Area.

Expected Completion Date: On or before May 30, 2021

Historical Background/Need for Project: The proposed Econfina Creek acquisition project will further the District's mission of protecting the water resources of Econfina Creek and Gainer Springs through the acquisition of fee simple or conservation easements.

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 of a project proposed for conservation easement and less than fee simple purchase of a project proposed for fee simple acquisition

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): The District has a contract to purchase a conservation easement on 60 acres in Bay County for $53,994; however, the District endeavors to acquire other conservation easements or fee simple, subject to availability of funding.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): Land acquisition ancillary costs spent to date on the 60 acres mentioned above equals $5,346.47; however, ancillary costs yet to be incurred include the survey, environmental site assessment, baseline report, title insurance, additional legal fees, etc.

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, habitat restoration activities (hydrologic restoration, shrub reduction, planting, prescribed fire, herbicide, etc.), to include 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 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, Sand Hill Lakes Mitigation Bank Instrument, In-Lieu Fee Mitigation Program Final Instrument

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 and Establishing the DeFuniak Springs Office

Type: Headquarters - to be determined, DeFuniak Springs Office – furniture and equipment for new office

Physical Location: Headquarters – 81 Water Management Drive, Havana, FL 32333
DeFuniak Springs Office – 700 US Highway 331 South, DeFuniak Springs, FL 32435

Square Footage/Physical Description: Headquarters – to be determined, 5,000-square feet DeFuniak Springs Office – office furniture, equipment, supplies and computer hardware.

Expected Completion Date: September 30, 2019

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. The District will lease (10 years) an office building for the ERP program in DeFuniak Springs which will need office furniture, equipment, supplies and computer hardware.

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): Headquarters – to be determined, DeFuniak Springs Office – $50,000 is included for furniture, equipment, supplies and computer hardware for the DeFuniak Springs Office.

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 structural and non-structural techniques and natural vegetation restoration and enhancement. 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 September 30, 2019

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): $71,195 (Ecosystem Management and Restoration Trust Fund) for spring and adjacent shoreline restoration and protection, 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 structural and non-structural techniques.

Expected Completion Date: By September 30, 2019

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 have been impacted and are 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): $100,000 (District Land Management Fund) for materials for shoreline restoration and protection.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): Limited costs for construction planning and management

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 structural and non-structural measures such stream bank restoration, to include 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): $460,711 (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 the Perdido River

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

Square Footage/Physical Description: Seven elevated structures to be installed at five sites within the Perdido River Water Management Area. The project will also include restroom facilities, a canoe launch, and associated access and site improvements.

Expected Completion Date: By September 30, 2020

Historical Background/Need for Project: This project is among those funded through the Natural Resource Damage Assessment (NRDA) Restoration Plan (released September 2018). The project will improve and expand public access to compatible recreational use opportunities along the Perdido River and adjacent District lands. It will also enhance public awareness of water and related resources and add to broader efforts through the NRDA to address and mitigation impacts caused by the 2010 Deepwater Horizon oil spill.

Plan Linkages: Florida Forever Work Plan, Strategic Water Management Plan, Florida Trustee Implementation Group Draft Restoration Plan

Area(s) of Responsibility: Water Quality and Natural Systems

Alternative(s): None

Basic Construction Costs (includes permits, inspections, communications requirements, utilities outside building, site development, other): $324,390 grant for development of new and enhancement of existing recreation sites on District lands along the Perdido River. Improvements will include elevated camping shelters, restroom facilities, and access improvements.

Other Project Costs (includes land, survey, existing facility acquisition, professional services, other): $19,970 for construction management.

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. The 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 management and protection 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 management and protection 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: Restoration and protection 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, 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 2018-2019 Five-Year Water Resource Development Work Program

FY 2018-2019 Five-Year Water Resource Development Work Program

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

Introduction

Water Management Districts are required by section 373.709, Florida Statutes (F.S.), to evaluate water resources to ensure that existing sources of water are adequate to supply water for all existing and future reasonable-beneficial uses and to sustain the water resources and related natural systems for a 20-year planning period. A Regional Water Supply Plan (RWSP) is developed when a District determines that water supplies in a region are not sufficient to meet the region's needs in a sustainable manner. RWSPs include a technical analysis of current and future demands, evaluate available sources, and identify water resource development projects and water supply development projects to meet those demands.

The District is also required to prepare a Five-Year Water Resource Development Work Program (Work Program) as a part of its annual budget reporting process, pursuant to subsection 373.536(6)(a)4., F.S. The Work Program must describe the District's implementation strategy relating to its water resource development and water supply development (including alternative water supply development) components over the next five years. Further, the Work Program must:

- Address all the elements of the water resource development component in the District's approved RWSPs, as well as the water supply projects proposed for District funding and assistance;
- Identify both anticipated available District funding and additional funding needs for the second through fifth years of the funding plan;
- Identify projects in the Work Program which will provide water;
- Explain how each water resource and water supply project will produce additional water available for consumptive uses;
- Estimate the quantity of water to be produced by each project;
- Provide an assessment of the contribution of the District's RWSPs in supporting the implementation of minimum flows and minimum water levels and water reservations; and
- Ensure sufficient water is available to timely meet the water supply needs of existing and future reasonable-beneficial uses for a 1-in-10-year drought event and to avoid the adverse effects of competition for water supplies.

This Work Program covers the period from fiscal year (FY) 2018-19 through FY 2023-24 and is consistent with the planning strategies of the District's RWSPs. The District has developed two RWSPs, briefly summarized below and depicted in Figure 1. For additional information about the District's RWSPs, please see www.nwfwater.com/Water-Resources/Water-Supply-Planning.

- Region II RWSP includes Santa Rosa, Okaloosa and Walton counties. The 2012 RWSP provides estimates and projections for the 2015-2035 planning period. The primary concern in this region is water quality constraints on availability in the coastal Floridan aquifer caused by the effects of saltwater intrusion. An update to the plan is underway and included in the FY 2018-19 Work Program.
- Region III RWSP includes Bay County and was approved in 2014. The plan covers the 2015-2035

planning period. The primary goal of the RWSP is to develop an alternative surface water intake to ensure the primary water source for residents and industry in Bay County, the Deer Point Lake Reservoir, is protected from saltwater intrusion during storm events. In June 2015, the alternative pump station project was completed.

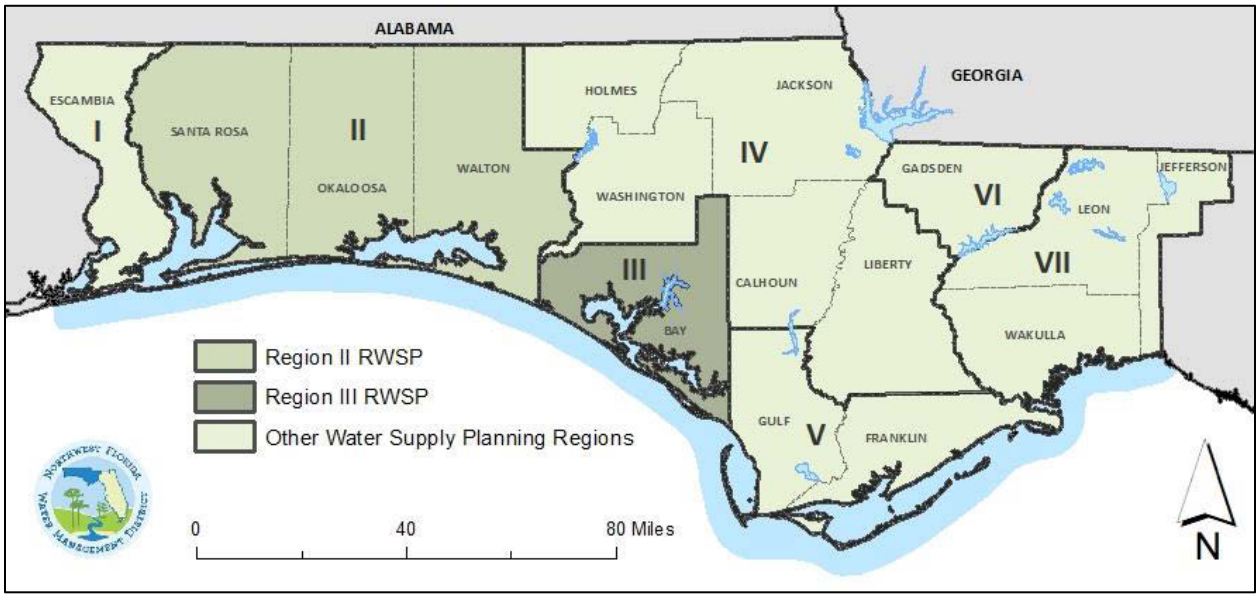

Figure 1. Map of NWFWMD Water Supply Planning Regions

This Work Program is presented in two sections: Water Resource Development and Water Supply Development, followed by summaries of districtwide water supply activities and of funding resources.

Work Program Summary

The Work Program presented herein is adequate to ensure water is available to timely meet the water supply needs of existing and future reasonable-beneficial uses for a 1-in-10-year drought event and to avoid the adverse effects of competition for water supplies. Over the next five years, this Work Program outlines the District's commitment to ensure the availability of adequate water supplies for all reasonable-beneficial uses and to maintain the function of natural systems.

In total, this Work Program outlines a FY 2018-19 budget of $10.27 million for water resource development and water supply development activities in Bay, Okaloosa, Santa Rosa, and Walton counties. The proposed funding for the Five-Year Work Program is approximately $13.3 million through FY 2022–23.

Water Resource Development

Water resource development (WRD) is defined in section 373.019(24), F.S., as "the formulation and implementation of regional water resource management strategies, including the collection and evaluation of surface water and groundwater data; structural and nonstructural programs to protect and manage water resources; the development of regional water resource implementation programs; the construction, operation, and maintenance of major public works facilities to provide for flood

control, surface and underground water storage, and groundwater recharge augmentation; and related technical assistance to local governments, government-owned and privately owned water utilities, and self-suppliers to the extent assistance to self-suppliers promotes the policies as set forth in s. 373.016."

The District is primarily responsible for implementing WRD activities and projects; however, project development, funding, and technical support may also come from utilities and other project partners.

In both RWSP regions, the District implements the following water resource development programs:

- Hydrologic Data Collection
- Water Reuse
- Water Conservation
- Regional Water Supply Planning.

Hydrologic Data Collection

The District has a data collection network of rainfall gauges, stream gauges, and monitoring wells throughout Regions II and III. 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 2017-18, three remaining monitor wells were instrumented, and enhanced water quality and quantity data continues to be collected. The data from these additional monitoring sites will support updated modeling of the coastal Floridan aquifer and the establishment of Minimum Flows and Minimum Water Levels (MFLs) for this resource by 2021.

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 within the county, all intended to characterize water resource conditions and trends within the region. In FY 2017-18, data collection continued at groundwater monitor wells in the Econfina Creek groundwater contribution area and two surface water stations were added along Econfina Creek to help calculate discharge for the Gainer Spring group. When combined with discrete discharge measurements collected at individual springs, this data will be used to develop MFLs for the Gainer, Williford, Sylvan, and Econfina Blue spring groups and Devils Hole Spring. Monitoring will continue through FY 2018-19.

Water Reuse

District staff will work with utilities and local governments to identify opportunities for expanded water reuse to meet non-potable water needs, as well as feasible funding sources and strategies. Significant

investments in reuse have been made in both water supply planning regions, particularly for golf course irrigation.

The District continued efforts to further identify opportunities for more integrated water management and resource sustainability in northwest Florida in FY 2017-18. For example, the District and the City of Panama City Beach partnered to design a project that would expand reclaimed water along Panama City Beach Parkway.

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

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.

Under Chapter 40A-2, Florida Administrative Code (F.A.C.), regulatory measures help to conserve water in the coastal Region II Water Resource Caution Area (WRCA). Additionally, with cooperative planning and regulatory incentives, numerous utilities implement water conservation measures that include inclining block rates, conservation plans, and the use of reclaimed water.

In Region II and III, the District has worked in cooperation with the Florida Department of Environmental Protection (DEP) and other water management districts to address public supply water conservation 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.

Limited staff time was spent on conservation activities in FY 2017-18, mainly focusing on quarterly coordination with water management districts implementation of regulatory practices noted previously. 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, educational and outreach materials and programs, 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 2017-18, staff continued working on the 2018 update to the districtwide water supply assessment (WSA); maintained collaboration with the Florida Department of Agriculture and Consumer Services (DACS) on the Florida Statewide Agricultural Irrigation Demand (FSAID) reports; maintained collaboration with DEP and the other water management districts on updates to the RWSP format and guidelines; and provided technical assistance to the Legislature's Office of Economic and Demographic Research.

Additionally, staff completed the request for proposals process for water supply planning services to assist in the update of the Region II RWSP. In FY 2018-19, staff will complete the 2018 WSA update, substantially complete an update to the Region II RWSP, and continue managing water supply development grants awarded in previous years.

Additional WRD projects specific to each region are included below.

Region II

Floridan Aquifer

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 will also be incorporated into this model update. The updated model will be used by both regulators and permittees to evaluate future withdrawal scenarios. Work on the groundwater flow model will be initially completed in FY 2018-19 with model refinement continuing into FY 2019-20.

The increase in resources for this project are tied to the initiation in 2014 of MFL development for the coastal Floridan aquifer in Planning Region II. Substantial data collection, monitor well installation, and model development activities have been achieved since that time. Continued monitoring of new and existing wells is scheduled for FY 2017-18. 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.

Previous District evaluations resulted in development of a groundwater flow model. The model includes the transient response of the aquifer to drought and climatic variability. This 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 previously.

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 evaluated 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 continued in FY 2017-18. As part of the MFL development, the western district regional groundwater flow model (described previously) will include refinements to better represent the permeable zones within the sand-and-gravel aquifer near the Shoal River.

Aquifer Storage and Recovery

Aquifer storage and recovery (ASR), depending on the 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 2018-19 Adopted Budget. However, the District will work with utilities on the feasibility of additional ASR activities within Region II, as needed or requested.

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.

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. 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. To date, the District has issued 9,029 permits for the plugging of abandoned wells within Region II, 259 of which were plugged in FY 2017-2018.

Table 1. FY 2019-2023 Region II Water Resource Development Project Funding

Water Resource Development Projects	Budget Activity	FY 17-18 Expen-ditures[1]	Anticipated Five Year Work Program					FY19-FY23 Cost Estimate
			FY 18-19 Budget[2]	FY 19-20	FY 20-21	FY 21-22	FY 22-23	
Floridan Aquifer	1.1.2 2.2.1	$120,471	$468,700	$473,750	$423,750	$198,750	$123,750	$1,688,700
Inland Sand-and-Gravel Aquifer	1.1.2 2.2.1	$42,859	$113,100	$81,250	$93,750	$176,250	$156,250	$620,600
Surface Water Sources	1.1.2 2.2.1	$14,730	$111,700	$75,000	$87,500	$170,000	$150,000	$594,200
Aquifer Storage and Recovery	2.2.1	$0	$0	$0	$0	$0	$0	$0
Water Reuse	2.2.1	$27,004	$25,100	$15,000	$15,000	$15,000	$20,000	$90,100
Water Conservation	1.1.1 2.2.1	$9,248	$10,900	$8,000	$8,000	$8,000	$8,000	$42,900
Regional Water Supply Planning	1.1.1	$35,328	$157,000	$75,000	$75,000	$75,000	$75,000	$457,000
Interconnect of Water Supply Systems[3]	1.1.1	$0	$0	$0	$0	$0	$0	$0
Hydrologic Data Collection	1.2.0	$104,000	$110,500	$100,000	$100,000	$100,000	$100,000	$510,500
Abandoned Well Plugging	4.2.0	$7,805	$10,000	$10,000	$10,000	$10,000	$10,000	$50,000
TOTAL		$361,446	$1,007,000	$838,000	$813,000	$753,000	$643,000	$4,054,000

[1] Final unaudited costs for fiscal year.

[2] FY 2018-19 figures based on adopted budget.

[3] Project completed during FY 2013-14.

Region III

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.

In FY 2017-18, construction of spring restoration and public access improvements at Devils Hole Spring was largely completed with additional improvements to be completed in FY 2018-19. Engineering work for restoration at Econfina Blue Spring Camp also began and construction will be completed in FY 2018-19. The District completed acquisition of the Hodson conservation easement on 229 acres within the Econfina Creek groundwater contribution area. Work also began on a 22.5-acre exchange between the District, Bay County and the Porter Family to provide public recreation access along Econfina Creek and to acquire a conservation easement on 60 acres in the northern portion of the groundwater contribution area. Both acquisitions are planned to be complete in FY 2018-19. Finally, work continued on acquisition of a major conservation easement to purchase up to 942 acres at Gainer Spring group, a first-magnitude springs group in northern Bay County.

Table 2. FY 2019-2023 Region III Water Resource Development Project Funding

Water Resource Development Projects	Budget Activity	FY 17-18 Expen-ditures[1]	Anticipated Five Year Work Program					FY19-FY23 Cost Estimate
			FY 18-19 Budget[2]	FY 19-20[3]	FY 20-21	FY 21-22	FY 22-23	
Econfina Creek & Groundwater Recharge Area Protection	2.1.0 2.5.0 2.6.0 3.1.0	$1,597,165	$8,144,000	TBD	TBD	TBD	TBD	$8,144,000
Hydrologic & Water Quality Data Collection	1.1.2 1.2.0 2.2.1	$42,410	$215,700	TBD	TBD	TBD	TBD	$215,700
Water Reuse	2.2.1	$17,201	$9,500	TBD	TBD	TBD	TBD	$9,500
Water Conservation	1.1.1 2.2.1	$3,144	$3,400	TBD	TBD	TBD	TBD	$3,400
Regional Water Supply Planning	1.1.1	$9,618	$9,100	TBD	TBD	TBD	TBD	$9,100
TOTAL		$1,669,538	$8,381,700	$0	$0	$0	$0	$8,881,700

[1]Final unaudited costs for fiscal year.

[2]FY 2018-19 figures based on adopted budget.

[3]Funding in future years will be budgeted based on RWSP determination to be made in FY 2018-19.

Water Supply Development

Water supply development components are those that involve "planning, design, construction, operation, and maintenance of public or private facilities for water collection, production, treatment, transmission, or distribution for sale, resale, or end use."[1] A list of all projects meeting these statutory definitions is provided in the Table 3. For the NWFWMD, most of the projects continuing in this Work Program are programmatic efforts, such as development of alternative water supplies, including inland groundwater, surface water, and reuse of reclaimed water; storage and interconnect of potable water; and water conservation. These projects differ from water resource development in the District *supports* efforts of utilities and local governments, such as through technical assistance or through grants, to implement utility-led initiatives. These projects may include alternative water supplies but may also include transmission and distribution improvements.

Fiscal Year 2016-17 marked the final year of the District's Water Supply Development Grant Program, which awarded more than $6 million in district reserves to funding 25 projects in Bay, Okaloosa, Santa Rosa, and Walton counties since FY 2013-14. In FY 2017-18, six of the nine remaining projects were completed totaling more than $1.5 million expended on water conservation, reclaimed water, engineering and planning efforts, and other water supply projects such as construction of storage facilities. Three projects are scheduled to be complete in FY 2018-19. It should be noted that completion of the grant program to local governments, does not reflect the need for water supply development activities in Regions II and III.

The District is 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. In 2016-17, the District awarded a $500,000 grant to Bay County for this reuse project which will reduce wastewater discharges to St. Andrew Bay, eliminate brackish surface water withdrawals for power generation, and position utilities to better meet future reclaimed water demand. An agreement with Gulf Power and Bay County was executed and engineering began in FY 2017-18. Construction of Phase I of the project will continue in FY 2018-19 but may be delayed due to impacts from Hurricane Michael.

As Table 3 shows and except for the projects noted above, funding in future years is limited to staff coordination and support to utilities and local governments.

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 2013-14, 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.

[1] Section 373.019(26), F.S.

Water Reuse

District staff continue to develop approaches for integrated planning of water and wastewater resources. In FY 2017-18, staff maintained geographic information system (GIS) data and facility information associated with wastewater treatment plants and effluent disposition, focusing on opportunities for water reuse. In FY 2018-19, staff will conclude development of 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 2017-18, the District has received $4.66 million 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. Through September 2018, approximately 50 percent of the available cost-share funds were distributed to 54 producers for implementation of BMPs. An additional $2.5 million in legislatively-approved funding to sustain this effort was awarded and is budgeted for FY 2018-19.

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 2017-18, approximately 948 permits were issued to plug wells districtwide at no cost to the District other than staff time.

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 2018-19 includes a millage rate of 0.0338 and the budgeted tax collections are $3,433,483. With a recurring operating budget of $16,752,671, 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.

Water resource development in northwest Florida historically depended on funding from the Water Management Lands Trust Fund. The Florida Legislature discontinued this fund in 2015, establishing 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 WRD and water supply development (WSD) 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 WSD projects and priority WRD and springs protection activities. No funding has been appropriated for the WPSPTF since FY 2009-10.

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. Florida Forever, however, has not had significant appropriations for NWFWMD programs since FY 2010-11.

Since FY 2013-14, Florida has dedicated more than $265 million statewide in funding for springs restoration and protection. The District has received $49.4 million toward restoration and protection projects, including those that 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.

Table 5.3. NWFWMD Water Supply Development Projects FY 2018-19 through FY 2022-23

Unique ID	Project Name	Cooperating Entity	Project Type	Project Status	RWSP Region Supported	Prior District Funding	FY 2018-19 Budgeted	FY 2019-20	FY 2020-21	FY 2021-22	FY 2022-23	Total Project Cost	Cooperating Entity Match	Project Total
NF00014A	Reclaimed Water System Improvements	Fort Walton Beach, City of	Reclaimed Water (for potable offset)	Complete	Region II	$87,500	$0	$0	$0	$0	$0	$87,500	$87,500	$175,000
NF00015A	Mid-County Tank #4	Okaloosa County Water and Sewer	Other Project Type	Complete	Region II	$1,193,602	$0	$0	$0	$0	$0	$1,193,602	$1,193,602	$2,387,205
NF00018A	Reclaimed Water Feasibility	Mary Esther, City of	Data Collection and Evaluation	Complete	Region II	$100,000	$0	$0	$0	$0	$0	$100,000	$0	$100,000
NF00020A	Dixonville Area Preliminary Engineering Report	Berrydale Water System	Data Collection and Evaluation	Complete	Region II	$35,000	$0	$0	$0	$0	$0	$35,000	$0	$35,000
NF00022A	US-331 Corridor Utilities Planning Study	Freeport, City of	Data Collection and Evaluation	Complete	Region II	$50,000	$0	$0	$0	$0	$0	$50,000	$0	$50,000
NF00026A	9th Street Watermain Replacement	Lynn Haven, City of	PS and CII Conservation	Complete	Region III	$49,725	$0	$0	$0	$0	$0	$49,825	$19,628	$69,453
NF00016A	Water Production Wells	Moore Creek Mount Carmel Utilities	Other Project Type	Construction/Underway	Region II	$0	$151,020	$0	$0	$0	$0	$151,020	$888,692	$1,039,712
NF00021A	Red Eye and Widner Circle Waterline Loop	DeFuniak Springs, City of	PS and CII Conservation	Construction/Underway	Region II	$2,806	$90,330	$0	$0	$0	$0	$93,136	$0	$93,136
NF00019A	Millside Road Waterline Loop	Laurel Hill, City of	PS and CII Conservation	Design	Region II	$3,685	$131,178	$0	$0	$0	$0	$134,863	$0	$134,863
NF00028A	North Bay Wastewater Reuse	Bay County	Reclaimed Water (for potable offset)	Design	Region III	$0	$500,000	$0	$0	$0	$0	$500,000	$3,500,000	$4,000,000
NF00043A	Inland Florida Aquifer Alternative Water Supply	Varies with specific project implemented	Water Resource Management Programs	Complete	Region II	$0	$0	$0	$0	$0	$0	$0	N/A	$0
NF00044A	Inland Sand-and-Gravel Aquifer Alternative Water Supply	Varies with specific project implemented	Water Resource Management Programs	Complete	Region II	$0	$0	$0	$0	$0	$0	$0	N/A	$0
NF00045A	Surface Water Supply Development	Varies with specific project implemented	Water Resource Management Programs	Design	Region II	$0	$0	$0	$0	$0	$0	$0	N/A	$0
NF00046A	Water Reuse Facilities	Varies with specific project implemented	Water Resource Management Programs	Design	Region II	$0	$0	$0	$0	$0	$0	$0	N/A	$0
NF00047A	Water Supply Management Projects	Varies with specific project implemented	Water Resource Management Programs	Design	Region II	$14,478	$6,165	$4,500	$4,500	$4,500	$4,500	$24,165	N/A	$24,165
NF00048A	Water Reuse Facilities	Varies with specific project implemented	Water Resource Management Programs	Design	Region III	$0	$0	$0	$0	$0	$0	$0	N/A	$0
NF00049A	Utility Interconnections and Infrastructure Enhancements	Varies with specific project implemented	Water Resource Management Programs	Complete	Region III	$0	$0	$0	$0	$0	$0	$0	N/A	$0
NF00050A	Water Conservation Projects that Result in Quantifiable Water Savings	Varies with specific project implemented	Water Resource Management Programs	Design	Region III	$2,896	$1,233	$0	$0	$0	$0	$53,181	N/A	$53,181

Appendix. Basin Management Action Plan and Recovery and Prevention Strategies in Regions II and III

Basin Management Action Plans are the "blueprint" for restoring impaired waters by reducing pollutant loadings to meet the allowable loadings established in a Total Maximum Daily Load (TMDL). In 2016, the Florida Legislature amended section 373.036, F.S., to require the identification of all specific projects that implement a Basin Management Action Plan (BMAP) or a recovery or prevention strategy in the Work Program. The District's Work Program has historically identified water resource development projects that support MFL recovery and prevention but has not included specific descriptions of projects primarily intended to implement BMAPs.

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, 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, was completed in late 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 2016-17, with the technical assessment planned for completion in 2023. In Region III, there are multiple MFL waterbodies on the current approved priority list with work assessment dates in future years: Gainer Spring Group (2024); Williford Spring Group (2024); Sylvan Spring Group (2024) and the Floridan aquifer in coastal Bay County (2026).

With no MFLs adopted to date, there are no recovery and prevention strategy projects to include in this five-year work plan update. However, consistent with section 373.036, F.S., and in coordination with DEP and all five water management Districts, the District will include a five-year funding outlook for specific projects, when needed in the future.

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Chapter 6

Florida Forever Water Management District
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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 18th 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
TOTAL	21,589	$43,254,337

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, 224,086 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 groundwater contribution area 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 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/OESWeb/FF2017/FLDEP_DSL_SOLI_2018FloridaForever5YrPlan_20180706.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, 2018

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
533.73 (less-than-fee)

(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 = 10,603 acres
Undergoing restoration or enhancement = 1,629 acres
Restoration completed = 23,019 acres
Restoration maintenance = 23,019 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 2018-2019 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.

Hurricane Michael substantially impacted northwest Florida in October 2018. According to a report by the Florida Forest Service (www.freshfromflorida.com/Divisions-Offices/Florida-Forest-Service/Our-Forests/Forest-Health/Forest-Recovery-After-a-Hurricane), over 2.8 million acres of forest land were damaged. Restoring and preserving flood protection and nutrient reduction capabilities inherent in these systems is vital not only to protecting the natural resources but to restoring the economy. To help in this effort, this plan identifies the hurricane impact area (as provided by National Weather Service and National Oceanic and Atmospheric Administration) as the Forest Restoration Acquisition Area (FRAA). The goal of FRAA is to work with willing sellers to restore and protect, through conservation easement acquisition, the water quantity and quality benefits afforded by silviculture and agricultural best management practices.

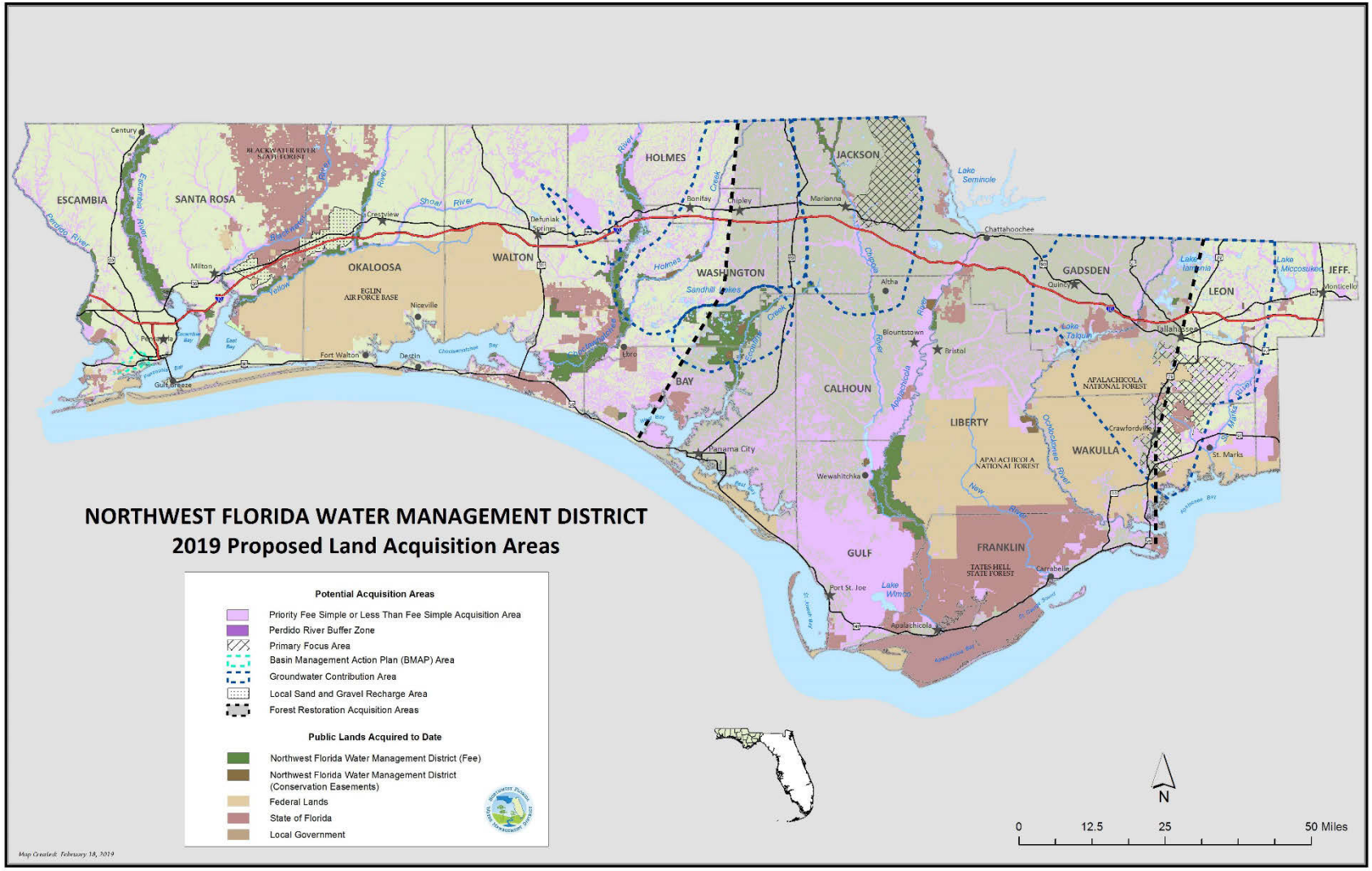

Figure 6.1 Proposed Land Acquisition Areas 2019

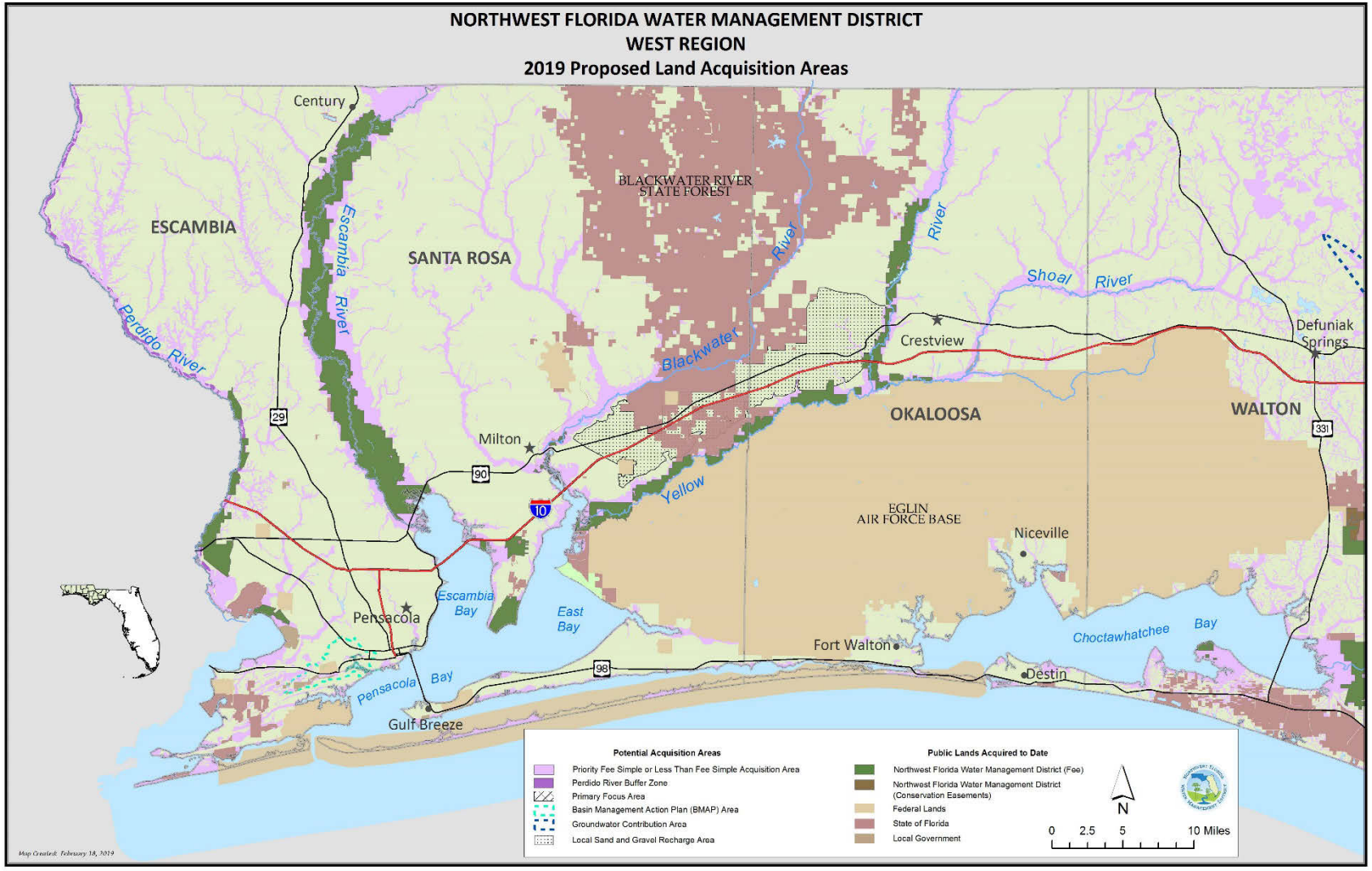

Figure 6.2 Proposed Land Acquisition Areas, 2019, West Region

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 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 6.2) 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.

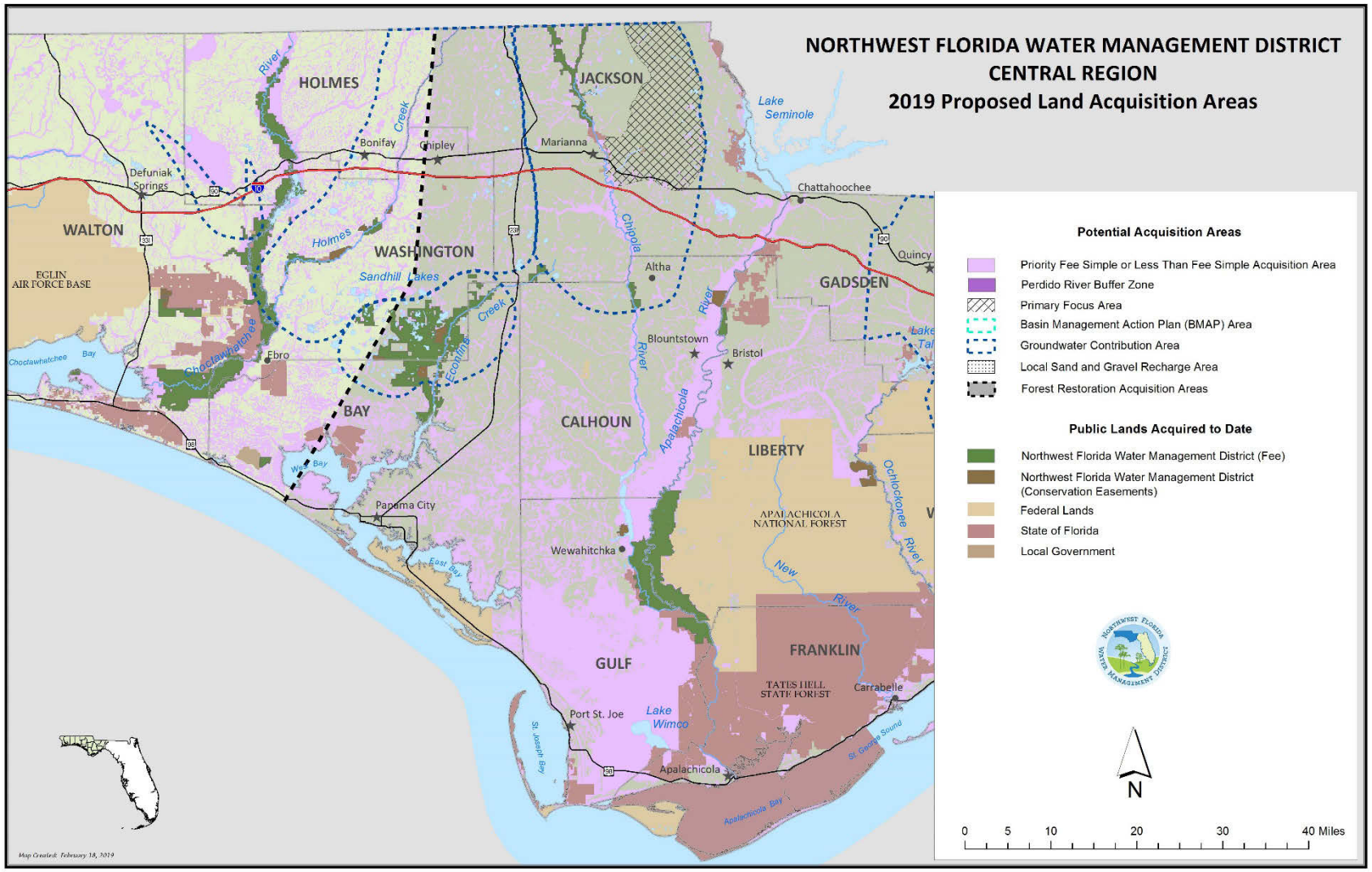

Figure 6.3 Proposed Land Acquisition Areas, 2019, Central Region

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 63,652 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 public use and water resource protection, 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.

Due to impacts of Hurricane Michael on October 10, 2018, this basin has been identified as part of the Forest Restoration Acquisition Area (FRAA) for potential conservation easement acquisition.

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 43,998 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.

Due to impacts of Hurricane Michael on October 10, 2018, this basin has been identified as part of the Forest Restoration Acquisition Area (FRAA) for potential conservation easement acquisition.

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.

Due to impacts of Hurricane Michael on October 10, 2018, this basin has been identified as part of the Forest Restoration Acquisition Area (FRAA) for potential conservation easement acquisition.

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.

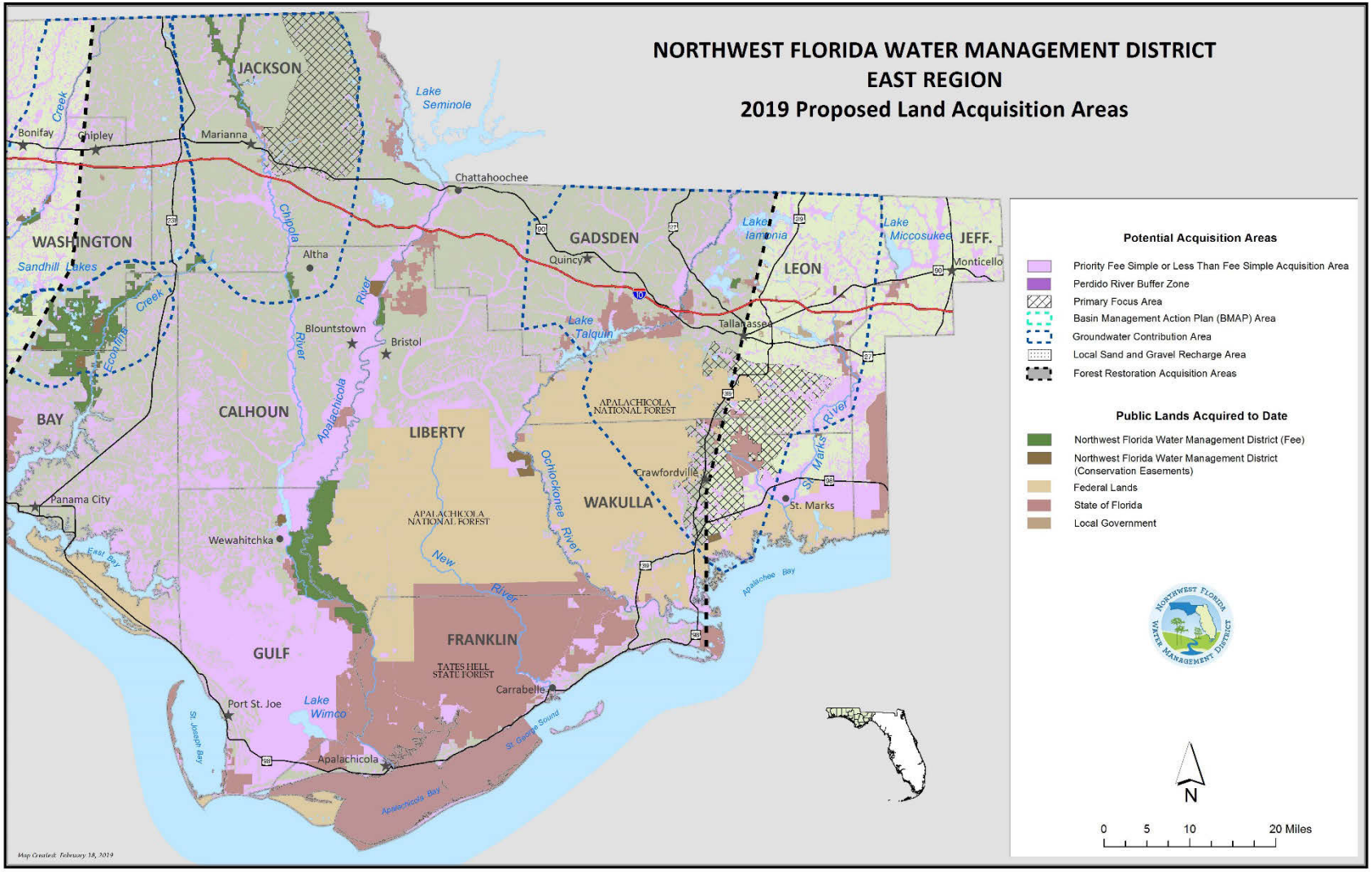

Figure 6.4 Proposed Land Acquisition Areas, 2019, East Region

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.

Due to impacts of Hurricane Michael on October 10, 2018, this basin has been identified as part of the Forest Restoration Acquisition Area (FRAA) for potential conservation easement acquisition.

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.

Due to impacts of Hurricane Michael on October 10, 2018, this basin has been identified as part of the Forest Restoration Acquisition Area (FRAA) for potential conservation easement acquisition.

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.

Due to impacts of Hurricane Michael on October 10, 2018, this basin has been identified as part of the Forest Restoration Acquisition Area (FRAA) for potential conservation easement acquisition.

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 River 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. 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	Construction	$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 2017-2018 Work Plan

Land Acquisition

In 2018, the District purchased two conservation easements on 533.73 acres for springs protection in Bay and Washington Counties to further protect Gainer Spring Group and Cypress Spring.

Land Management

The District completed numerous land management activities during Fiscal Year 2017-2018. Management and restoration efforts including prescribed burns, native species planting, and timber harvesting continue across the District's 211,149 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 Fiscal Year 2018-2019 staffing and management budget by WMA can be found in Table 6.7.

To date, the District has conserved and protected 224,086 acres primarily through fee simple acquisition. These lands help promote, wetland and floodplain functions, groundwater recharge, surface and groundwater quality, and fish and wildlife habitat, as well as protect natural systems. All District-owned lands are accessible to the public and are managed to provide 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 2017-2018)

- The District conducted prescribed burns on approximately 9,479 acres of District lands, as well as vegetation management (herbicide) and habitat enhancements on 1,962 acres.
- The District implemented the timber management database and growth and yield modeling to better strategize timber harvests for optimal revenue generation.
- 2,363 camping permits were issued at 88 reservation-only sites on District lands.
- 17 special resource area permits were issued for larger events on District property.
- 11 timber harvests totaling 4,687 acres were active, removing offsite sand pine and thinning loblolly, longleaf, and slash pine.
- More than 9,500 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 2017-2018)

- Shoreline restoration at Devils Hole Spring along Econfina Creek was accomplished in December 2017. At a cost of $146,900, this project included shoreline restoration using geo-technical bags with adjacent vegetative plantings and a stairway to allow for public access to the creek.
- The District completed hand planting of 663 acres of longleaf pine reforestation. These restoration activities improve groundcover and wetland functions within an important water recharge area and offset wetland losses caused by FDOT projects. This work included planting of 478,438 longleaf pine tubelings within the Econfina Creek WMA.

Table 6.5 Restoration, Enhancement and Maintenance (2018)

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	**29**	29													181
Garcon Point															
Blackwater River															
Yellow River	**1,333**	1,333													
Perdido River	**769**	769													
Choctawhatchee River	**1,449**	1,358		91							**869**	511	358		3,017
Econfina Creek	**2,079**	648	644	724	63	**653**		653			**1,415**			1,415	850
St. Andrews	**429**	429													
Carter Restoration	**1,180**	376		804		**10**		10							1
Ward Creek West	**392**			392											
Devils Swamp Restoration	**573**	573													
Chipola River											**165**	72	93		2
Apalachicola River															
Lake Jackson															500
Totals	**8,233**	**5,907**	**644**	**1,619**	**63**	**663**		**663**			**2,449**	**583**	**451**	**1,415**	**4,551**

Table 6.6 Access and Recreation Management (2018)

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		Maintained
Escambia River		6	11	12	28	11	10			1	2		27	581	31	7	2
Garcon Point			2	2						3					12		
Blackwater River		1	3	3		2					1				5		1
Yellow River			3	3		3			50				42		31		
Perdido River		3	3	4	1	4	10	6	15	6	1		32	98	40	10	1
Choctawhatchee River		12	15	15	24	14	10		15	11			103	406		108	11
Econfina Creek (incl. Carter Tract)		13	14	14	25	8	14	56	22	18	2		134	1,123	64	85	15
Chipola River		1	4	4	3	2	2	4	6	3			9	59			1
Apalachicola River		1	2	2	10	2	1						9	96			2
Lake Jackson		1	2	2			1	7		10		7	5				2
Totals		**38**	**59**	**61**	**91**	**46**	**48**	**73**	**108**	**52**	**6**	**7**	**361**	**2,363**	**183**	**210**	**35**

Table 6.7 Projected Funding, Staffing and Resource Management for FY 2018-2019

Region	Water Management Area	Acres	Assigned Staff	Total Funding	Funding for Resource Management
Western	Escambia	35,413		$154,114	$100,620
	Escambia Conservation Easements	19		$839	$500
	Garcon Point	3,245		$84,282	$35,000
	Yellow	16,553		$75,970	$25,500
	Blackwater	381		$12,150	$5,000
	Perdido	6,261		$193,383	$143,870
	Perdido Conservation Easements	4		$839	$500
	Western Region Total	**61,876**	**3**	**$521,577**	**$310,990**
Central	Choctawhatchee	60,810		$426,204	$265,658
	Choctawhatchee/Holmes Conservation Easements	2,841		$14,366	$13,000
	Econfina	39,179		$794,660	$542,257
	St. Andrew/Econfina Conservation Easements	2,664		$2,231	$750
	Ward Creek West	719		$0	$0
	Carter Restoration	2,154		$65,000	$65,000
	Central Region Total	**108,367**	**5**	**$1,302,461**	**$886,665**
Eastern	Chipola	9,094		$112,521	$45,702
	Apalachicola	36,823		$104,952	$55,400
	Apalachicola/Chipola Conservation Easements	2,359		$1,570	$500
	Lake Jackson	516		$39,365	$15950
	St. Marks Conservation Easements	1,376		$1,784	$500
	Ochlockonee Conservation Easements	3,675		$1,784	$500
	Eastern Region Total	**53,843**	**2**	**$261,976**	**$118,552**
Regional Totals		**224,086**	**10**	**$2,086,014**	**$1,316,207**

Projected Funding, Staffing and Resource Management for FY 2018-2019 (cont.)

Other Projects	Acres	Assigned Staff	Total Funding	Funding for Resource Management
Land Management Administration		4	$974,978	$407,751
IT Initiative			$465,258	$267,683
Land Management Database			$60,531	$53,727
Florida National Scenic Trail - Econfina Creek			$10,000	$10,000
Brunson Landing Tract	348		$21,876	$16,060
Washington County School Board Donation			$340	$340
Grand Total	**224,434**	**14**	**$3,618,997**	**$2,071,768**

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Chapter 7

Mitigation Donation
Annual Report

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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 2017-2018.

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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 comprise a combination of several individual projects or only a portion of a project to be consistent with the budget structure and guidelines.

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: if the WBID is impaired for one or more parameters other than mercury, and either:
  1. The WBID has a state-adopted total maximum daily load (TMDL), or
  2. The WBID has been prioritized for TMDL development through being included on the 303(d)-long-term vision list (i.e., the water is on the 2022 TMDL workplan list).
- Impaired: if the WBID is impaired for one or more parameters other than mercury.
- Not impaired: if the WBID has no impaired parameters.

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 2018-2019 Five-Year WRDWP Update was proposed on October 26, 2018. 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 2018 and March 2019.

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Consolidated Annual Report
Chapter 9

Surface Water Improvement and Management (SWIM) Program Annual Report

Surface Water Improvement and Management (SWIM) Program Annual Report

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Chapter 9. Surface Water Improvement and Management (SWIM) Program Annual 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 restore and protect 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.

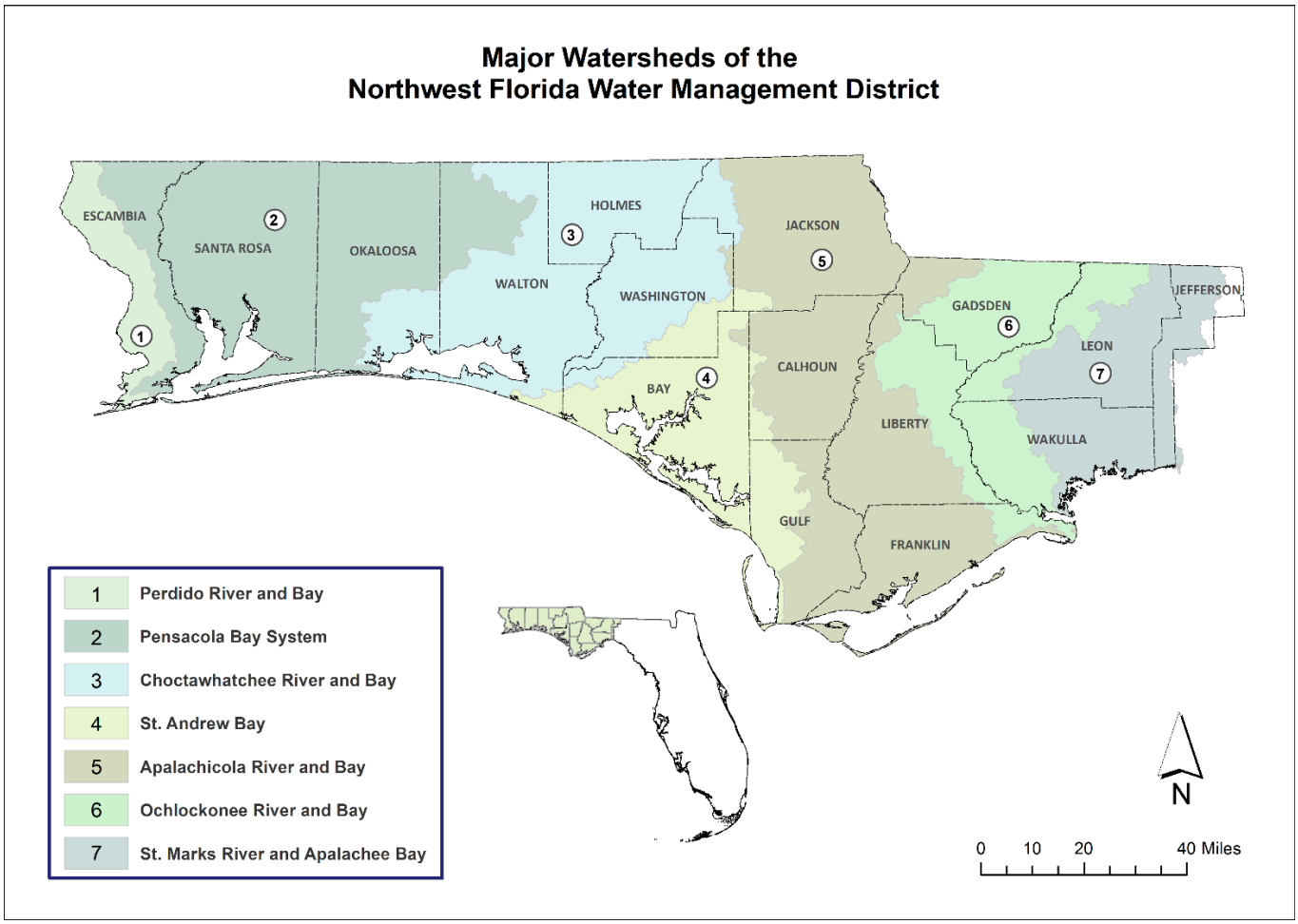

Figure 9.1 NWFWMD SWIM Priority Watersheds

SWIM Priority List

The Northwest Florida Water Management District's SWIM Priority list is provided in Table 9.1. All waterbodies, tributaries, sub-embayments, springs, and contributing basins are considered as being within the listed watersheds as priority waterbodies.

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 must be periodically reviewed and updated as needed. Any updates will be reflected in this section.

SWIM Plans and Updates

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

Since the late 1980s, the District has developed SWIM plans for all major watersheds. 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 restoration and protection projects that further SWIM plan objectives. Additionally, Gulf of Mexico restoration funding made available through Deepwater Horizon-related sources in many cases helps to restore and protect watershed resources in a manner consistent with the District's SWIM program. Cumulatively, the overall effort has resulted in significant improvement and protection of water resources Districtwide.

Current Project Priorities

The District continues to 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. The cities of Carrabelle and Apalachicola previously completed stormwater improvement projects. The District is currently funding additional stormwater treatment improvements for the City of Apalachicola and the Lighthouse Estates Septic to Sewer Phase I project for the City of Carrabelle.

Springs restoration and protection is carried out through the District's SWIM, MFL, Land Management and Acquisition, Agricultural cost-share program, 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) and grass-based crop rotation projects with producers in the Jackson Blue Spring basin; land acquisition projects to protect water quality in Jackson Blue Spring, Wakulla Spring, Cypress Spring, and the Econfina 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.

The District continues to focus on stormwater retrofit and nonpoint source pollution abatement, in cooperation with local governments. In addition to the previously noted Apalachicola Bay projects, a major stormwater retrofit project to improve water quality protection for St. Joseph Bay is planned in cooperation with the City of Port St. Joe. 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 (NRDA), 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. Currently, the District is planning implementation of the Perdido River Paddling Trail project and assistance for stormwater treatment improvements for the City of Port St. Joe and the City of Carrabelle's Lighthouse Estates Phase II septic to sewer project. Each of these three projects are expected to be funded by NRDA.

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-High	Ongoing
Bayou Chico Association	Bayou Chico Channel Dredging	Escambia	Stormwater	$68,000	$0	Reduced fecal coliform loading	Bayou Chico	Impaired-High	Completed
Bayou Chico Association	Aeration Systems in Tributary (Jones Creek)	Escambia	Stormwater	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired-High	On hold
Bayou Chico Association	Floating Islands	Escambia	Stormwater	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired-High	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-High	Complete
ECUA	FOG Program	Escambia	Wastewater	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired-High	Ongoing
ECUA	I&I Reduction	Escambia	Wastewater	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired-High	Ongoing
ECUA	SSO Response Plan	Escambia	Wastewater	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired-High	Ongoing
ECUA	Lift Station Upgrades	Escambia	Wastewater	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired-High	Ongoing
Escambia County	Stormwater Treatment	Escambia	Stormwater	$1,100,000	$0	Reduced fecal coliform loading	Bayou Chico	Impaired-High	Complete
Escambia County	Stormwater Pond Inspection & Maintenance Program	Escambia	Stormwater	$300,000	$300,000	Reduced fecal coliform loading	Bayou Chico	Impaired-High	Ongoing
Escambia County Health Department	Healthy Beaches Program	Escambia	Wastewater	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired-High	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-High	Ongoing
Escambia County Health Department	Septic to Sewer Enforcement Program	Escambia	Wastewater	Unknown	$0	Reduced fecal coliform loading	Bayou Chico	Impaired-High	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-High	Ongoing
Escambia County; Florida Department of Transportation	Illicit Discharge Detection	Escambia	Stormwater	$50,000	$50,000	Reduced fecal coliform loading	Bayou Chico	Impaired-High	Ongoing
Escambia County; US Navy	Retrofit Projects (Planned) Corry Field	Escambia	Stormwater	$500,000	$500,000	Reduced fecal coliform loading	Bayou Chico	Impaired-High	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-High	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-High	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-High	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-High	In progress
NWFWMD	Claiborne Aquifer Water Supply	Jackson	Study	$354,121	$0	Alternative water supply	Jackson Blue Spring	Impaired-High	Complete
NWFWMD	Lakeshore Farms II, LLC Land Acquisition	Jackson	Preservation	$2,686,568	$0	Natural systems protection	Jackson Blue Spring	Impaired-High	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-High	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-High	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-High	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-High	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.