

Fiscal Year 2021-22 Five-Year
Water Resource Development Work Program

Proposed October 20, 2021



NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT

NORTHWEST FLORIDA WATER MANAGEMENT DISTRICT

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DISTRICT OFFICES

Havana (Headquarters)
DeFuniak Springs
Youngstown
Milton

For additional information, write or call:
Northwest Florida Water Management District
81 Water Management Drive
Havana, Florida 32333-4712
(850) 539-5999
www.nfwwater.com

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1 INTRODUCTION

Florida’s water management districts are required by sections 373.036 and 373.709, Florida Statutes (F.S.), to conduct water supply planning in regions where existing sources of water are determined to be inadequate to supply water for existing and future reasonable-beneficial uses and to sustain water resources and related natural systems for at least a 20-year planning period. This determination is based on a technical assessment of all sources of water, existing water uses, anticipated future needs, and water conservation efforts. District governing boards re-evaluate the determination at least once every five years.

The Northwest Florida Water Management District (NFWFMD or District) established seven water supply planning regions in 1996 (Figure 1). The most recent districtwide water supply assessment (WSA) was completed in 2018. Consistent with the findings of successive assessments beginning in 1998, the Region II (Santa Rosa, Okaloosa, and Walton counties) RWSP was first approved and has been in implementation since February 2001. The plan was most recently updated in 2019 with a 2020-2040 planning horizon. Additional information is available at: <https://nwfwater.com/Water-Resources/Water-Supply-Planning>.

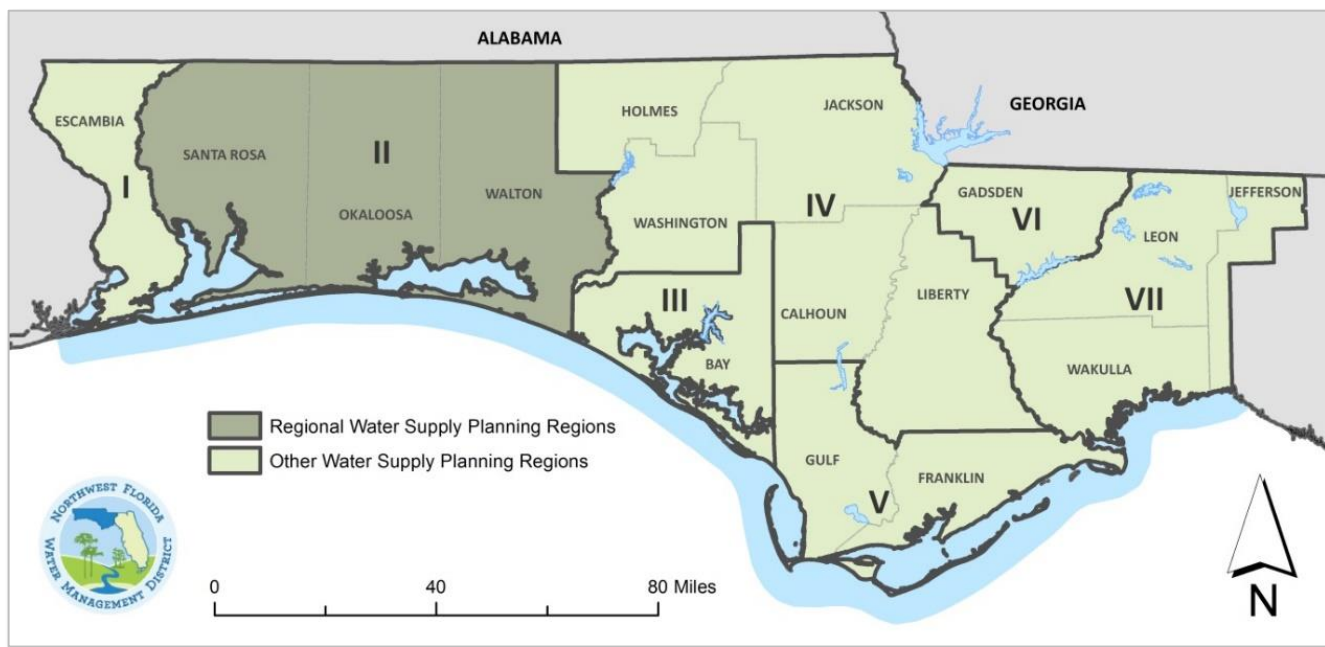


Figure 1. NFWFMD Water Supply Planning Regions

Districts are required by section 373.536(6)(a)4, F.S., to prepare a Five-Year Water Resource Development Work Program (WRDWP or Work Program) as a part of the annual budget reporting process. Work Programs describe implementation strategies and funding plans over a five-year period for water resource and water supply development, including alternative water supply development, for each approved regional water supply plan (RWSP) developed or revised under section 373.709, F.S.

This Work Program covers fiscal year (FY) 2021-22 through FY 2025-26 and is consistent with the strategies described in the Region II RWSP. Projects in this Work Program are reflected in Appendix C of the District’s final adopted budget.

1.1 PURPOSE

Pursuant to section 373.536(6)(a)4, F.S., the Work Program must address all elements of the water resource development component in the approved RWSP and identify water supply projects proposed for District funding and assistance. The annual funding plan identifies anticipated District funding and additional funding needs. The Work Program must also:

- Identify projects that will provide water;
- Explain how each water resource development and water supply development 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 RWSPs in supporting the implementation of minimum flows and minimum water levels (MFLs) and water reservations; and
- Ensure sufficient water is available to 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.

A proposed Work Program is furnished within 30 days after adoption of the District's final budget and posted on the District website for public review. The final Five-Year WRDWP is incorporated into the District's March 1 Consolidated Annual Report.

1.2 WORK PROGRAM SUMMARY

The Work Program presented herein, including the District's implementation strategy and five-year funding plan, has been developed to ensure water is available to meet the water supply needs of existing and future reasonable-beneficial uses for a 1-in-10-year drought event, to maintain the function of natural systems, and to avoid the adverse effects of competition for water supplies. The Work Program is specifically focused on implementation of the Region II RWSP, with additional description of districtwide and supporting activities.

The fiscal year 2021-22 Work Program describes current progress toward implementing water resource development projects included within the Region II RWSP. The Work Program also describes funded alternative water supply development projects. The Work Program further includes five-year funding plans for water resource development and water supply development projects, to include the current year budgeted amounts and proposed funding levels for the following years.

For fiscal year 2021-22, \$268,870 is budgeted for water resource development within Region II, and \$8,385,615 is budgeted for alternative water supply development and water conservation. The Work Program identifies approximately 3.9 million gallons per day (mgd) of reclaimed water to be made available through currently funded alternative water supply development projects within the region.

2 REGION II WORK PROGRAM

The 2019 update to the Region II RWSP was developed following the recommendation of the 2018 Water Supply Assessment. The 2019 Region II RWSP was approved by the District’s Governing Board on January 23, 2020. Water use was estimated to be about 70 mgd in 2015, and it is projected to climb 36 percent to approximately 95 mgd by 2040. Public supply and recreational landscape irrigation water uses are expected to remain approximately 85 percent of all Region II water demand through the planning horizon (Table 1).

Table 1. 2015 Estimated Water Use and 2020-2040 Demand Projections

Use Category	Estimates	Future Demand Projections - Average Conditions					2015-2040 Change	
	2015	2020	2025	2030	2035	2040	mgd	%
Public Supply	47.48	51.65	55.28	58.78	62.00	65.00	17.52	36.9%
DSS	3.96	4.33	4.67	4.63	4.58	4.44	0.49	12.3%
Agriculture	2.80	3.00	3.24	3.52	3.77	3.97	1.17	41.8%
Recreational	10.79	11.83	12.75	13.55	14.29	14.92	4.13	38.3%
ICI	4.71	6.07	6.32	6.55	6.55	6.55	1.84	39.0%
Power	-	-	-	-	-	-	n/a	n/a
TOTALS*	69.73	76.88	82.25	87.03	91.19	94.88	25.14	36.1%

*Figures expressed in million gallons per day (mgd). Numbers may not sum due to rounding

Public supply is estimated to represent about 67 to 69 percent of the future demand over the planning horizon. In drought conditions, public supply and recreational landscape irrigation together are projected to comprise about 86.5 percent of demand in 2040.

There are currently no adopted MFLs, no recovery or prevention strategies, and no water reservations in Region II.

2.1 WATER RESOURCE DEVELOPMENT

Water resource development is “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.”¹ As indicated in section 373.705, F.S., water resource development is primarily a role of the water management districts, although utilities may provide assistance.

The Region II RWSP includes six water resource development projects encompassing strategies for managing water resources and supporting alternative water supply development (Table 2).

¹ Section 373.019(24), F.S.

Table 2. Summary of Region II RWSP Water Resource Development Projects

Activity	Description	Water (mgd)^(A)
Surface Water	Resource evaluations to determine minimum flows needed to protect riverine habitats and associated resources.	TBD
Reuse	Coordination of reuse of reclaimed water projects and programs.	10
Conservation	Coordination of water conservation projects and programs.	6
Aquifer Storage and Recovery (ASR)	Technical support for aquifer storage and recovery or aquifer recharge as a component of individual water use permits.	2
Groundwater Evaluations	Sand-and-gravel aquifer resource evaluations to update alternative water supply assessments.	TBD
	Floridan aquifer resource evaluations; development and application of groundwater flow and saltwater intrusion models and coastal Floridan aquifer MFL technical assessment.	TBD
Data Collection and Analysis	Hydrologic and water quality data collection, monitoring, and analyses.	NA
	Water use data, analyses, planning, and water supply development support.	NA

(A) Estimates of water available or potential to be made available.

Surface Water Development

Surface water investigations and cooperative efforts have focused on the Shoal River as an alternative water supply source for Okaloosa County. This source has the potential to augment potable water supplies in mid-county and coastal areas of Okaloosa County, which will further support water resource sustainability and reduce reliance on Floridan aquifer withdrawals in coastal areas. Okaloosa County has acquired land along the Shoal River and has completed significant planning and analysis toward development of a future water supply source.

District staff developed an MFL Work Plan for the Shoal River and identified preliminary hydrologic data collection needs. In consideration of updated demand projections in Okaloosa County, the schedule for development of an MFL technical assessment for the Shoal River was moved to future years with the 2019 update to the MFL Priority List and Schedule. No additional surface water supply projects are currently under development within the region.

Reuse of Reclaimed Water

Developing reclaimed water sources is an important strategy for developing alternative sources of supply and meeting future demands in Region II. Reuse feasibility studies are required of water use permittees within the Region II Water Resource Caution Area (WRCA) and are encouraged in other areas. The District continues to work with local and regional partners to identify viable strategies to further develop and extend reclaimed water resources.

Reuse planning is focused on achieving potable offset by providing reclaimed water for such purposes as public access irrigation, toilet flushing, fire protection, and industrial uses. The RWSP identified a potential for up to 10 mgd of reclaimed water to be made available by 2040. Ongoing efforts are focused on project development in cooperation with local governments and utilities and identification of future opportunities for water reuse and development of integrated water quality and quantity strategies. Among the conceptual strategies and projects under consideration within Region II are cooperative reclaimed

water projects within Santa Rosa County. These may include efforts with the City of Milton and with Pace Water System to extend reclaimed water to additional industrial, commercial, and residential users.

Water Conservation

Like reuse, water conservation is an essential component of ensuring the long-term sustainability and sufficiency of water supplies within Region II. Enhanced water conservation measures are required of water use permittees within the coastal WRCA.

The RWSP identified a potential for up to six mgd in additional water conservation savings that may be achieved by 2040. Among potential implementation strategies are cost-share grants and incentive programs, funding for facility retrofits for improved efficiency and water loss prevention, conservation rate structures, improved utility data management, and public education and outreach. These complement continuing efforts on the part of utilities in response to regulatory requirements. Water use data and analysis have documented progress in reducing per capita water use rates.

During FY 2020-21, the District developed a water conservation cost-share grant program, which was submitted to the Florida Department of Environmental Protection (DEP) for funding consideration. In addition to providing conservation benefits, the program is designed to assist project partners in quantifying water saved. As funding becomes available, the District will work with utilities within Region II with additional emphasis on assisting financially disadvantaged small communities. District staff also continue to participate in inter-district coordination, advancing statewide efforts.

Aquifer Storage and Recovery

Depending on hydrogeologic characteristics, aquifer storage and recovery (ASR) has the potential to store large quantities of water for subsequent use. A few aquifer recharge projects have been permitted in the region for groundwater remediation and restoration. The RWSP estimated that approximately 2.0 mgd may be achieved over the 20-year planning horizon through ASR, including an existing ASR system permitted for 1.12 mgd. There are no current ASR projects included in the District's Budget or Five-Year Work Program.

Groundwater Evaluations

District groundwater evaluation programs include data collection, groundwater and saltwater intrusion modeling, MFL technical assessments, and associated resource assessments.

Sand-and-Gravel Aquifer

The District plans to incorporate sand-and-gravel aquifer resources into larger groundwater models and further evaluate the sustainability of the sand-and-gravel aquifer as an alternative water source. Groundwater levels within the sand-and-gravel aquifer are routinely monitored as part of District's Quarterly Water Level Trend and Continuous Monitoring networks. New monitoring wells completed in 2020 were instrumented with dataloggers to continuously monitor shallow groundwater levels in northern Walton County to monitor surface water/groundwater interactions. The District's 2020 MFL Priority List includes the sand-and-gravel aquifer in Okaloosa and Santa Rosa counties as a waterbody to be evaluated and scheduled, if necessary, for future years.

Floridan Aquifer

The Floridan aquifer functions as a regional aquifer system across inland and coastal areas. Data collection and groundwater model development for the Coastal Region II Upper Floridan Aquifer MFL technical assessment began in 2015 and continued through FY 2020-21. Completed tasks include construction of deep Floridan aquifer wells to monitor the saltwater interface, expanded water quality

data collection at existing wells, enhanced water quality and water level monitoring at new wells, and development of a regional groundwater flow model and a transport model.

Groundwater modeling and trend analysis of the Upper Floridan aquifer in support of the MFL technical assessment continued through FY 2020-21. The newly developed variable-density groundwater flow and saltwater transport (SEAWAT) model was used to assess effects of current and projected pumpage on saltwater movement in the Upper Floridan aquifer. Regional water quality data were evaluated for significant trends in saline indicators. Water level data were also evaluated for long-term trends. A draft MFL technical assessment was completed, incorporating the results of these groundwater evaluations. Planned groundwater modeling activities in Region II include a future update of the Region II MODFLOW model and expansion of the model domain to the north and east.

Data Collection and Analysis

Hydrologic Data

Hydrologic data collection, monitoring, and analyses are essential to multiple District functions and programs. In Region II, the District maintains a network of rainfall gauges, streamflow gauges, and monitoring wells. Hydrologic and water quality data collection are enhanced by continued cooperation with USGS and data provided by water use permittees. Data collected and the evaluation of long-term trends data inform water resource evaluation programs and activities.

The Coastal Floridan aquifer MFL technical assessment was supported by construction of saltwater interface monitor wells, discrete interval water quality sampling at new and existing wells to determine the position of the saltwater interface, and evaluation of water quality trends in saline indicators. Sand-and-gravel aquifer monitoring wells within Region II provide water level data used for numerical groundwater flow models and to better understand surface water and groundwater interactions. This enhanced data collection and monitoring are scheduled to continue through the five-year work plan period.

Water Use Data and Planning

Water use data collection and analysis support multiple District and state programs and reporting requirements. Data are analyzed to prepare water use estimates and report metrics annually, with future demand projections generated every five years in conjunction with WSA updates. Annually, water use permittees submit water use/pumpage reports detailing water use over the past year. District staff compile and evaluate these reports to assess water use trends and to calculate per capita use statistics.

During FY 2020-21, District staff began work toward developing the 2023 districtwide Water Supply Assessment. Over the past year, this included compiling 2020 data to provide base year water use estimates and conducting a geospatial population analysis of public water utility service areas to incorporate with other population data sources. Associated ongoing efforts include collaboration with the Florida Department of Agriculture and Consumer Services (FDACS) on Florida Statewide Agricultural Irrigation Demand (FSAID) annual reports, which will also be incorporated into the 2023 WSA. Additionally, District staff continue statewide water supply planning coordination with DEP and other water management districts and provide requested reviews and assistance for the Florida Legislature's Office of Economic and Demographic Research.

Water Resource Development Annual Funding Plan

The proposed annual funding plan to support accomplishment of the District’s water resource development priorities, as described above, is provided by Table 3.

Table 3. Region II Water Resource Development Annual Funding Plan

Water Resource Development Projects	Budget Activity	FY 20-21 Expenditures ¹	Anticipated Five Year Work Program					FY 21-22 to FY 25-26 Cost Estimate
			FY 21-22 Budget ²	FY 22-23	FY 23-24	FY 24-25	FY 25-26	
Surface Water	1.1.1 1.1.2	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Reuse	1.1.1 2.2.1	\$23,569	\$26,780	\$28,000	\$28,000	\$28,000	\$28,000	\$138,780
Conservation	1.1.1 2.2.1	\$16,961	\$24,100	\$25,000	\$25,000	\$25,000	\$25,000	\$124,100
Aquifer Storage and Recovery	2.2.1	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Groundwater Evaluations	1.1.2 2.2.1	\$114,625	\$90,550	\$90,000	\$90,000	\$90,000	\$90,000	\$450,550
Data Collection and Analysis	1.1.1 1.1.2 1.2.0	\$122,838	\$127,440	\$150,000	\$150,000	\$150,000	\$150,000	\$727,440
TOTAL		\$277,994	\$268,870	\$293,000	\$293,000	\$293,000	\$293,000	\$1,440,870

¹Preliminary figures. Final expenditures to be provided in the March 1, 2021, Consolidated Annual Report.

²Based on approved adopted budget.

Substantial water supply development funding is additionally budgeted to advance the reuse of reclaimed water and water conservation within the region, as described further below and listed in Table 4.

2.2 WATER SUPPLY DEVELOPMENT

Water supply development involves “the 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.”² Water supply development encompasses both traditional and alternative water supply development. Alternative water supply sources may include salt water, brackish waters, surface water captured predominately during wet weather flows, sources made available through the addition of new storage capacity, reuse of reclaimed water, downstream augmentation of water bodies with reclaimed water, stormwater, and any other water supply source designated as nontraditional.³ As indicated by section 373.705, F.S., water supply development is primarily the role of local governments, regional water supply authorities, and water utilities, although water management districts may provide assistance.

² Section 373.019(26), F.S.

³ Section 373.019(1), F.S.

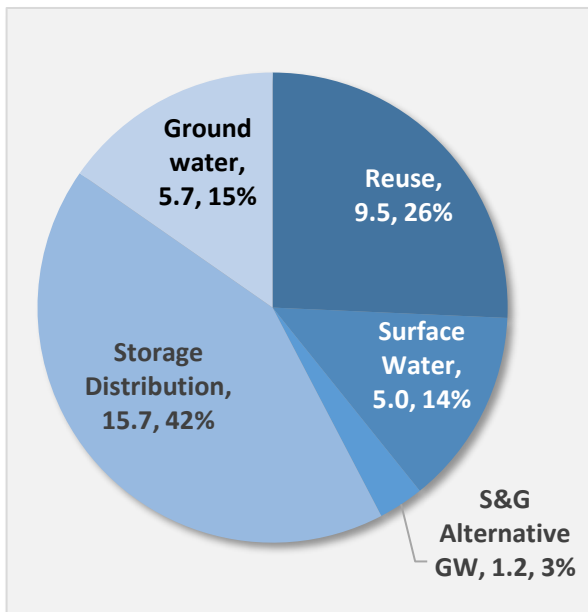


Figure 2. Potential Water Supply Development by Project Type (mgd)

The 2019 Region II RWSP identified water supply development options that may generate up to 37 mgd of water by 2040 for future needs (Figure 2). About 42 percent or 16 mgd are alternative supplies, including reclaimed water, surface water, and the sand-and-gravel aquifer as an alternative to coastal Floridan aquifer withdrawals.

Storage and distribution project options include water storage tanks, distribution infrastructure improvements, and system interconnections. Water conservation project options include infrastructure replacements and upgrades, advanced metering systems, and public information conservation programs.

Water conservation and alternative water supply projects meet the goals of the RWSP and are therefore preferred options. Traditional groundwater projects may also continue to be an option for inland areas.

The 2019 RWSP also includes, within the water supply development component, reuse project options submitted by utilities in all three Region II counties with a combined total potential reuse flow of 9.5 mgd. This is in addition to approximately 9.2 mgd of reclaimed water currently being provided by utilities in the region for public access irrigation. Most of the project options indicate some availability of local matching funds and proposed implementation within the next five to ten years.

State alternative water supply and Water Protection and Sustainability Program Trust Fund appropriations have been identified to leverage local and other resources for two major multijurisdictional reuse projects, summarized below. Additional proposed reuse projects are listed in the 2019 RWSP update.

- The Okaloosa County-Niceville-Eglin AFB Reclaimed Water Project will provide for construction of 11 miles of reclaimed water transmission main from Okaloosa County’s Arbennie Pritchett Water Reclamation Facility to the City of Niceville, with service connections to Eglin AFB. Upon completion, this project will increase the available capacity of reclaimed water by approximately 2.5 mgd.
- The South Santa Rosa Reuse Initiative, a cooperative effort between Santa Rosa County, the Holley-Navarre Water System, the City of Gulf Breeze, and Eglin AFB, will interconnect multiple utilities, improve water reclamation facilities, and expand reclaimed water systems, increasing the reclaimed water resource for the region and eliminating a wastewater discharge into Santa Rosa Sound. Upon completion, this project is expected to make 1.4 mgd of reclaimed water available.

Where resources and opportunities are available, expanding the reuse of reclaimed water will help achieve integrated water resource management goals, particularly water quality improvement when reuse helps facilitate improved wastewater treatment and elimination of wastewater discharges.

Table 4. Region II Water Supply Development Annual Funding Plan

Unique ID	Project Name	Cooperating Entity	Project Type	Project Status	Total Water (mgd) ⁽¹⁾	Prior District Funding	FY 2021-22 Budgeted	FY 2022-23	FY 2023-24	FY 2024-25	FY 2025-26	Cooperating Entity Match	Project Total
NF-00043A	Floridan Aquifer	Varies	Inland Groundwater	Complete	17.19	\$8,745,149	\$0	\$0	\$0	\$0	\$0	\$15,578,371	\$24,323,520
NF-00044A	Sand-and-Gravel Aquifer	Varies	Inland Groundwater	Complete	6.08	\$3,302,647	\$0	\$0	\$0	\$0	\$0	\$451,947	\$3,754,594
NF-00045A	Shoal River Surface Water	Okaloosa County	Surface Water Storage	Planning	TBD	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
NF-00046A	Reuse	Varies	Reclaimed Water for Potable Offset	Planning	TBD	\$6,061,125	\$500,000 ⁽²⁾	\$0	\$0	\$0	\$0	\$7,011,666	\$13,572,791
NWWS-00052A	Okaloosa, Eglin AFB, Niceville Reclaimed Water	Okaloosa County	Reclaimed Water for Potable Offset	Underway	2.50	\$1,377,901	\$2,500,000 ⁽³⁾	\$0	\$0	\$0	\$0	\$8,000,000	\$10,500,000
NWWS-00053 (A-D)	South Santa Rosa Reuse Initiative	Holley-Navarre Water System; Santa Rosa County; Gulf Breeze, City of	Reclaimed Water for Potable Offset	Underway	1.40	\$0	\$5,100,000 ⁽⁴⁾	\$2,500,000	\$2,500,000	\$0	\$0	\$22,775,000	\$32,875,000
	Conservation	Varies	PS and CII Conservation	Planning	TBD	\$0	\$285,615 ⁽⁵⁾	\$150,000	\$150,000	\$150,000	\$150,000	\$135,615	\$1,021,230
NF-00047A	Storage and Distribution	Varies	Distribution/Transmission Capacity	Planning	0	\$5,681,222	\$0	\$0	\$0	\$0	\$0	\$20,423,434	\$26,104,656

Notes

- (1) Total water made available or to be made available upon completion.
- (2) Reflects \$500,000 pending State allocation of alternative water supply funding from 2021 request. This corresponds with a portion of the Alternative Water Supply Funding (Pending Allocation) entry in Appendix C of the Tentative Budget report, with the remainder of that funding distributed between the South Santa Rosa Reuse and Conservation projects listed here.
- (3) \$1,377,901 expended late in FY 2020-21. The \$2,500,000 budgeted in FY 2021-22 is inclusive of this amount and represents the total NFWFMD grant for the Okaloosa-Eglin-Niceville reclaimed water project.
- (4) Includes \$2,600,000 funding carried forward and \$2,500,000 of additional state Alternative Water Supply Funding.
- (5) Includes \$135,615 in Water Protection and Sustainability Program Trust Fund budget carried forward, as well as \$150,000 in District funds.

3 DISTRICTWIDE AND SUPPORTING INITIATIVES

Implementation of water resource, water supply development, and water quality projects in Region II are complemented by broader regional and Districtwide programs and initiatives. Programs such as these, including in areas where RWSP development is not required, reflect proactive efforts that are protective of resources and advance resource sustainability Districtwide.

Water Supply Development

The District continues support for water supply development by assisting local governments and utilities with project development and in identifying funding sources and options. Limited additional grant funding may be provided as resources allow. Assisting utilities and local governments in developing reclaimed water projects with potable offset projects will remain a Districtwide priority, with implementation assistance depending on future funding availability.

Water Reuse

Helping local governments and utilities across northwest Florida identify opportunities to develop and expand the reuse of reclaimed water remains a District priority. Projects that both offset the use of potable water sources and reduce wastewater discharges have been identified in several regions. The District will continue to work with local cooperators and DEP to identify the funding resources needed for implementation.

Water Conservation

As funding becomes available, the District will extend water conservation cost-share assistance to utilities Districtwide, with emphasis on assisting financially-disadvantaged small communities. Among projects considered may be installation of modern water meters to enable rural communities to improve potable water conservation and management. Additional efforts include agricultural water use efficiency measures, as described below.

Water Resource Evaluations

The District conducts monitoring and assessment activities to assess the status and sustainability of water resources across northwest Florida. The 2023 districtwide WSA, described above, will include evaluations of the sustainability of water resources through 2045 for all seven regions of the District. Additionally, during FY 2021-22, the District will be conducting a hydrogeologic evaluation in Gulf County to assess the suitability of the intermediate aquifer as a water supply source.

Precision Agriculture Strategies and Systems (PASS) Cost Share Program

Significant efforts continue to enhance agricultural water use efficiency and support implementation of associated precision agriculture practices, targeted primarily for the Jackson Blue Spring basin of the Apalachicola River watershed. Together with the Northwest Florida Mobile Irrigation Laboratory, these efforts are increasing water use efficiency and reducing nutrient applications within the spring basin.

Through FY 2021-22, the District has received \$9.8 million of state spring restoration funding and other grant funds for these activities. The District provides a 75 percent cost-share to help

producers retrofit irrigation systems and to implement more efficient nutrient and water application systems. Through September 2021, approximately 122 projects with 91 producers have been implemented.

Well Abandonment

The District continues its program to properly plug abandoned and contaminated wells through well permitting and a cost-share assistance program. Well abandonments considered for financial assistance typically include financially constrained public water systems, wells located within a WRCA, and wells within areas delineated under Chapter 62-524, 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 cost-share program is coordinated with DEP and currently pays up to 50 percent of costs to properly plug and abandon eligible wells.

During FY 2020-21, approximately 821 permits were issued to plug abandoned or contaminated wells Districtwide. Approximately 53 percent of those were in Region II. As there were no requests for financial assistance, permits were issued at no cost to the District other than staff time.

Water Quality

The District's interrelated programs support achievement of statewide goals articulated in the Governor's Executive Order 19-12 to improve water quality, as well as to further development of alternative water supplies and to enhance coastal resilience. The District's Surface Water Improvement and Management (SWIM) program provides a watershed-based planning framework to support water quality protection and improvement throughout northwest Florida (<https://www.nfwwater.com/Water-Resources/Surface-Water-Improvement-and-Management>).

The program engages stakeholder-driven initiatives and complements and supports State water quality restoration efforts, including Total Maximum Daily Loads (TMDLs), Basin Management Action Plans (BMAPs), the Blue-Green Algae Task Force, nonpoint source management grants, and other cooperative funding programs (<https://protectingfloridatogether.gov/>).

Current project priorities, funding resources, and progress for watershed management and water quality protection and restoration are outlined in Chapter 9 of the District's March 1 Consolidated Annual Report.

Land Acquisition, Restoration, and Management

Since 1984, the District has protected 225,468 acres across northwest Florida for water resource purposes, either in fee simple or through conservation easements. The District acquires lands for water quality protection, flood protection and floodplain management, water recharge, and natural resource conservation. District lands within the Econfina Creek Recharge Area, purchased for water resource development purposes, serve to protect the quality and quantity of recharge for Deer Point Lake Reservoir, the primary source of water for Bay County.

4 FUNDING SOURCES AND NEEDS

The state constitution and statutory millage rate cap for NFWMD is 0.05, significantly less than the ad valorem taxing authority afforded to the other four water management districts. The District's FY 2021-22 ad valorem tax millage rate, as set by the Governing Board, is 0.0294. To meet its areas of responsibility, the District must rely on other sources of funding, as available. Funding sources used to support water resource and supply development include:

- State Legislative appropriations – Alternative Water Supply;
- Water Protection and Sustainability Program Trust Fund (WPSTF);
- Land Acquisition Trust Fund;
- District Fund Balance;
- State Legislative appropriations – General Operations;
- Local government match funding; and
- Ad valorem.

Since 2019, the Florida Legislature has made significant resources available for alternative water supply development. The funding is available to help communities develop alternative water supplies and to implement water conservation programs, with priority funding given to regional projects in the areas of the greatest need. The District conducts an annual grant cycle and submits recommended projects to the Governing Board for consideration. Board-approved projects are then forwarded to DEP, which evaluates projects from all five of the water management districts in making final funding awards.

The WPSTF, established by the 2005 Legislature, has enabled the District to provide cost-share assistance for construction of alternative water supply development projects and implementation of priority water resource development projects. In FY 2019-20, limited funding was appropriated to the water management districts for the first time since FY 2009-10. The District received \$100,000, which will help support the South Santa Rosa Reuse Initiative. An additional \$180,000 was appropriated in FY 2020-21, to provide additional support for alternative water supply development and water conservation.

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, as well as for construction of water supply development projects. All projects require substantial local investment once they reach the water supply development stage.

APPENDIX: BASIN MANAGEMENT ACTION PLAN PROJECTS

Basin Management Action Plans provide blueprints for achieving pollutant load reductions specified in TMDLs to meet State water quality standards. In 2016, the Florida Legislature amended section 373.036, F.S., to require identification of specific projects related to water quality or water quantity within a work program. To support this requirement, information related to BMAP projects or recovery or prevention strategies within regional water supply planning regions are included within the District's Water Resource Development Work Program. Additional information related to water quality projects and MFLs Districtwide will be reported in the District's March 1 Consolidated Annual Report.

Within northwest Florida, BMAPs have been adopted for three waterbodies: Bayou Chico (Escambia County), Jackson Blue Spring and Merritt's Mill Pond (Jackson County), the Upper Wakulla River and Wakulla Springs (with a contribution area in Wakulla, Leon, and Gadsden counties). Additionally, a small portion of Jefferson County within the NFWFMD is within the contribution area for the Wacissa River and Wacissa Spring Group BMAP.

As none of these BMAPs are within Regional Water Supply Planning Region II, there are no BMAP projects to include in this five-year work plan update. Moreover, there are no adopted MFLs in Region II and henceforth no recovery or prevention strategies to report on in this Work Program.