PROPOSED

2020 Five-Year Water Resource Development Work Program

Southwest Florida
Water Management District

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Introduction/Purpose

The Water Management Districts are required to prepare a Five-Year Water Resource Development Work Program (Work Program) as a part of its annual budget reporting process. The Work Program describes the District's implementation strategy relating to water resource development (WRD) and water supply development (including alternative water supply development) components over the next five years. The Work Program must be submitted annually to the Governor, the President of the Senate, the Speaker of the House of Representatives, the chairs of all legislative committees and subcommittees having substantive or fiscal jurisdiction over the Districts, the Secretary of the Department of Environmental Protection (DEP), and the governing board of each county. Pursuant to Subsection 373.536(6)(a)4, Florida Statutes (F.S.), the Work Program must:

- Address all the elements of the water resource development component in the District's approved Regional Water Supply Plans (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 (MFLs) 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 report represents the District's 19th Work Program and covers the period from fiscal year (FY) 2020 through FY2024. In the summer of 2018, the DEP provided a guidance document and template spreadsheets to improve the consistency among the Water Management Districts' Work Program submittals. This Work Program utilizes the DEP guidance, and therefore several changes from prior year Work Programs will be apparent. This Work Program is consistent with the planning strategies of the District's 2015 Regional Water Supply Plan (RWSP) and the Central Florida Water Initiative 2015 Regional Water Supply Plan (CFWI Plan).

The water resource and water supply development components of the District's Work Program are presented in three sections:

- WRD Data Collection and Analysis Activities that include routinely funded programmatic efforts by the District to monitor and support the health of natural systems, evaluate and establish MFLs, conduct watershed management planning, and to improve water quality and stormwater storage and conveyance.
- WRD Projects that are undertaken by the District and/or partnering entities for the research of alternative water supplies, the Facilitating Agricultural Resource Management Systems (FARMS) projects to conserve and improve agricultural resources, and environmental restoration efforts including MFLs recovery projects.
- Water Supply Development Projects, which are usually led by other entities with District funding assistance, to develop and deliver new alternative potable water supplies, reclaimed water and reuse, aquifer storage and recovery (ASR) and aquifer recharge systems, and numerous conservation projects to help manage water needs.

Also included is an overview of funding mechanisms, a summary of the adequacy of District expenditures to ensure the availability of water for reasonable-beneficial uses and natural systems, and an appendix listing projects funded by the District to implement Basin Management Action Plans (BMAPs).

Water Resource Development

Water resource development 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 intent of WRD activities and WRD projects is to enhance the amount of water available for reasonable-beneficial uses and for natural systems. The District is primarily responsible for implementing WRD activities and projects; however, additional funding and technical support may come from state, federal, and local entities.

WRD Data Collection and Analysis Activities

Data collection and analysis activities are a critical part of the water resource development component implemented by the District. The District has budgeted approximately $40.8 million in FY2020 to implement and continue activities to collect scientific data necessary to manage water resources and evaluate new water supplies, support the evaluation and establishment of MFLs, conduct watershed management plans, improve groundwater quality, and implement best management practices (BMPs) for stormwater storage and conveyance. These activities are summarized in **Table 1**. Because budgets for the years beyond FY2020 have not yet been developed, future funding estimates for activities continuing through FY2024 are set equal to FY2020 funding.

Funding for these activities is primarily from the District's Governing Board; in some cases, additional funding is provided by water supply authorities, local governments, the Florida Fish and Wildlife Conservation Commission (FWC), and the United States Geological Survey (USGS). Each item was included in the District's Tentative Budget Submission Appendix C and can be referenced by the sub-activity code. Each activity is further described below

Hydrologic Data Collection

The District has a comprehensive monitoring program for hydrologic conditions that includes the assembly of information on key indicators as rainfall, surface water and groundwater levels, water quality, and stream flows. The program includes data collected by District staff and permittees as well as data collected as part of the District's cooperative funding program with the USGS. Data collected allows the District to gage changes in the health of water resources, monitor trends in conditions, identify and analyze existing or potential resource problems, and develop programs to correct existing problems and prevent future problems from occurring. The data collection activities support District flood control structure operations, water use and environmental resource permitting and compliance, MFLs evaluation and compliance, the Surface Water Improvement and Management (SWIM) program, the Southern Water Use Caution Area (SWUCA) recovery strategy, the Northern Tampa Bay Water Use Caution Area (NTBWUCA), the Dover/Plant City Water Use Caution Area (DPCWUCA), water supply planning in the District and CFWI regions, modeling of surface water and groundwater systems, and many resource evaluations and reports.

The categories of hydrologic data that are collected and monitored by District staff are discussed below. The District also evaluates the hydrologic data submitted by Water Use Permit (WUP) holders to ensure compliance with permit conditions and to assist with monitoring and documenting hydrologic conditions.

a) Surface Water Flows and Levels. Funding supports data collection at the District's 808 surface water level gauging sites, and cooperative funding with the USGS for discharge and water-level data collection at 129 river, stream, and canal sites. The USGS data are available to District staff and the public through the District's Water Management Information System (WMIS) and through the USGS Florida Water Science Center Web Portal.

Table 1. FY2020 - FY2024 Water Resource Development Data Collection and Analysis Activities

WRD Data Collection and Analysis Activities	Budget Reference[1]	FY2020 Costs ($)	FY2021 Costs ($)	FY2022 Costs ($)	FY2023 Costs ($)	FY2024 Costs ($)	Total Costs ($)	Funding Source[2]
1) Hydrologic Data Collection	1.2.1, p.65							District, other WMDs, USGS, DEP, FWC
a) Surface Water Flows & Levels		$2,715,842	$2,715,842	$2,715,842	$2,715,842	$2,715,842	$13,579,210	
b) Geologic (includes ROMP)		$3,149,091	$3,149,091	$3,149,091	$3,149,091	$3,149,091	$15,745,455	
c) Meteorologic Data		$278,408	$278,408	$278,408	$278,408	$278,408	$1,392,040	
d) Water Quality		$1,003,524	$1,003,524	$1,003,524	$1,003,524	$1,003,524	$5,017,620	
e) Groundwater Levels		$891,391	$891,391	$891,391	$891,391	$891,391	$4,456,955	
f) Biologic Data		$1,502,627	$1,502,627	$1,502,627	$1,502,627	$1,502,627	$7,513,135	
g) Data Support		$3,776,719	$3,776,719	$3,776,719	$3,776,719	$3,776,719	$18,883,595	
2) Minimum Flows and Levels Program	1.1.2, p.61							District, other WMDs, USGS, DEP, FWC
a) Technical Support		$1,718,986	$1,718,986	$1,718,986	$1,718,986	$1,718,986	$8,594,930	
b) MFL Establishment/Evaluation		$678,495	$678,495	$678,495	$678,495	$678,495	$3,392,475	
3) Watershed Management Planning	1.1.3, p.63	$7,456,686	$7,456,686	$7,456,686	$7,456,686	$7,456,686	$37,283,430	District, Local Cooperators
4) Quality of Water Improvement Program	2.2.3, p.87	$743,025	$743,025	$743,025	$743,025	$743,025	$3,715,125	District
5) Stormwater Improvements-Implementation of Storage and Conveyance BMPs	2.3.1, p.90	$16,927,435	$16,927,435	$16,927,435	$16,927,435	$16,927,435	$84,637,175	District, USGS
Totals		**$40,842,229**	**$40,842,229**	**$40,842,229**	**$40,842,229**	**$40,842,229**	**$204,211,145**	

Source: SWFWMD FY2020 Tentative Budget Submission.

[1] The Program Activity/Sub-Activity and page number in the Tentative Budget Submission is where the WRD Data Collection and Analysis Activities reside. The funding amount within this table are subsets of the referenced Program Activity/Sub-Activity.

[2] Acronyms: WMDs - Water Management Districts, USGS - United States Geological Survey, DEP - Florida Department of Environmental Protection, FWC - Florida Fish and Wildlife Conservation Commission, ROMP - District Regional Observation and Monitor-well Program, BMPs - Best Management Practices.

b) Geohydrologic Data Well Network. The Geohydrologic Data Well Network is a monitor well network that supports various projects throughout the District including the CFWI, Water Resource Assessment Projects, recovery strategies, the Springs Team, sea level rise and other salt-water intrusion assessments, and development of alternative water supplies. The network includes the Regional Observation and Monitor-well Program (ROMP) which has been the District's primary means for hydrogeologic data collection since 1974. Data from monitor well sites are used to evaluate seasonal and long-term changes in groundwater levels and quality, as well as the interaction and connectivity between groundwater and surface water bodies. Lithologic and hydrogeologic information is collected during construction of new well sites.

c) Meteorologic Data. The meteorologic data monitoring program consists of measuring rainfall totals at 171 rain gauges, most of which provide near real-time data. The funding is for costs associated with measurement of rainfall including sensors, maintenance, repair and replacement of equipment. Funding allows for the operation of one District evapotranspiration (ET) station for reference near Lake Hancock, and for District participation in a cooperative effort between the USGS and all five Florida water management districts to map statewide potential and reference ET using data measured from the Geostationary Operational Environmental Satellites (GOES). Funding also includes a collaborative effort between the five districts to provide high-resolution RADAR rainfall data for modeling purposes.

d) Water Quality Data. The District's Water Quality Monitoring Program (WQMP) collects data from water quality monitoring networks for springs, streams, lakes, and coastal and inland rivers. The Coastal Groundwater Quality Monitoring network, which involves sample collection and analysis from approximately 380 wells across the District, is used to monitor the saltwater intrusion and/or the upwelling of mineralized waters into potable aquifers.

e) Groundwater Levels. The funding provides for the maintenance and support of 1,618 monitor wells in the data collection network, including 856 wells that are instrumented with data loggers that record water levels once per hour, and 762 that are measured manually by field technicians once or twice per month.

f) Biologic Data. The District monitors ecological conditions as they relate to both potential water use impacts and changes in hydrologic conditions. Funding for biologic data collection includes support for routine monitoring of approximately 150 wetlands and a five-year assessment of over 400 wetlands to document changes in wetland health and assess level of recovery in impacted wetlands. Funding also supports SWIM Program efforts for mapping of seagrasses in Tampa Bay, Sarasota Bay, Charlotte Harbor, and the Springs Coast.

g) Data Support. This item provides administrative and management support for the WQMP, hydrologic and geohydrologic staff support, support for the chemistry laboratory, and support for the District's LoggerNet data acquisition system.

Minimum Flows and Levels Program (MFLs)

Minimum Flow and water levels are ecologically based, hydrologic standards that are used for permitting and planning decisions concerning how much water may be withdrawn from or near a water body without causing significant harm to water resources or ecology of the area. Chapter 373.042, F.S., requires the state water management districts or the DEP to establish MFLs for aquifers, surface watercourses, and other surface water bodies to identify the limit or level at which further withdrawals would be significantly harmful. Rivers, streams, estuaries, and springs require minimum flows; while minimum levels are developed for lakes, wetlands, and aquifers. MFLs are adopted into District rules, Chapter 40D-8, Florida Administrative Code (F.A.C.), and are used in the District's WUP and water supply planning programs.

Reservations are rules that reserve water from use by permit applications, as necessary for the protection of fish and wildlife or public health and safety. Reservations are adopted into District rules, Chapter 40D-2,F.A.C., pursuant to Chapter 272.223, F.S., and are also used for water use permitting and water supply planning.

The District's processes for establishing MFLs and reservations include opportunities for interested stakeholders to review and comment on proposed MFLs or reservations and participate in public meetings. An independent scientific peer review process is used for establishing MFLs for flowing water bodies, MFLs for all water body types that are based on methods that have not previously been subjected

to peer review, and for establishing reservations. Stakeholder input and peer review findings are considered by the Governing Board when deciding whether to adopt proposed MFLs and reservations. District monitoring programs provide data for evaluating compliance with the adopted MFLs and reservations, determining the need for MFLs recovery or prevention strategies and assessing the recovery of water bodies where significant harm has occurred.

As of August 2019, the District has preliminarily planned to monitor and assess the status of 210 adopted MFLs, including MFLs for 23 river segments, 10 springs or spring groups, 127 lakes, 41 wetlands, 7 wells in the NTBWUCA, and the Upper Floridan aquifer in the Most Impacted Area (MIA) of the SWUCA and in the DPCWUCA. The District is scheduling the establishment or reevaluation of 96 additional MFLs and one reservation through FY2029. The District's annual MFL Priority List and Schedule and Reservations List and Schedule is approved by the Governing Board in October, submitted to DEP for review in November, and subsequently published in the Consolidated Annual Report. The approved and proposed priority lists and schedules are also posted on the District's Minimum Flows and Levels Documents and Reports webpage at: https://www.swfwmd.state.fl.us/projects/mfl/documents-and-reports

Watershed Management Planning

The District addresses flooding problems in existing areas by preparing and implementing Watershed Management Plans (WMPs) in cooperation with local governments. The WMPs define flood conditions, identify flood level of service deficiencies, and evaluate BMPs to address those deficiencies. The WMPs include consideration of the capacity of a watershed to protect, enhance, and restore water quality and natural systems while achieving flood protection. The plans identify effective watershed management strategies and culminate in defining floodplain delineations and constructing selected BMPs.

Local governments and the District combine their resources and exchange watershed data to implement the WMPs. Funding for local elements of the WMPs is provided through local governments' capital improvement plans and the District's Cooperative Funding Initiative. Additionally, flood hazard information generated by the WMPs is used by the Federal Emergency Management Agency (FEMA) to revise Flood Insurance Rate Maps. This helps to better define flood risk and is used extensively for land use planning by local governments and property owners. Since the WMPs may change based on growth and shifting priorities, the District also cooperates with local governments to update the WMPs when necessary, giving decision-makers opportunities throughout the program to determine when and where funds are needed.

Quality of Water Improvement Program (QWIP)

The QWIP was established in 1974 through Chapter 373, F.S., to restore groundwater conditions altered by well drilling activities for domestic supply, agriculture, and other uses. The program's primary goal is to preserve groundwater and surface water resources through proper well abandonment. Plugging abandoned artesian wells eliminates the waste of water at the surface and prevents mineralized groundwater from contaminating surface water bodies. Thousands of wells constructed prior to current well construction standards were often deficient in casing, which interconnected aquifer zones and enabled poor-quality mineralized water to migrate into zones containing potable-quality water.

Plugging wells involves filling the abandoned well with cement or bentonite. Isolation of the aquifers is reestablished, and the mixing of varying water qualities and free flow is stopped. Prior to plugging an abandoned well, geophysical logging is performed to determine the reimbursement amount, the proper plugging method, and to collect groundwater quality and geologic data for inclusion in the District's database. The emphasis of the QWIP is primarily in the SWUCA where the Upper Floridan aquifer is confined. Historically, the QWIP has proven to be a cost-effective method to prevent waste and contamination of potable ground and surface waters.

Stormwater Improvements - Implementation of Storage and Conveyance BMPs

The District's WMPs and SWIM programs implement stormwater and conveyance BMPs for preventative flood protection to improve surface water quality, particularly in urban areas, and enhance surface and groundwater resources. The BMPs involve construction of improvements identified and prioritized in the development of watershed management plans. Most of the activities are developed through cooperative funding with a local government entity, DEP, or other state funding. As stormwater is a primary contributor of water quality degradation in older urban areas, the District seeks opportunities to retrofit or improve these systems to reduce impacts to receiving waters. FY2020 funding includes new storage and conveyance projects in the Tampa Bay area, particularly in Hillsborough and Pasco County, as well as

several continuing Tampa Bay projects.

WRD Projects

The District has budgeted for 35 WRD "projects" that have particular goals and schedules. At the start of FY2020 (October 1, 2019), the District has allocated approximately $14 million in the budget for these projects. If a project received funding in prior years and is still ongoing it remains in the Work Program until completion. District funding for a number of the projects is matched to varying degrees by local cooperators including municipalities, state agencies, private agricultural operations, and others. The total cost of these projects, including the cooperator shares, is approximately $151 million. It's estimated that approximately 78.6 million gallons per day (mgd) of additional water supply will be produced or conserved. The projects are listed in **Table 2** and are consistent with Programmatic Code 2.2.1 in the District's FY2020 budget. The WRD projects are organized into three groups:

Alternative Water Supply Feasibility Research and Pilot Projects

These projects are research and/or pilot projects designed to further the development of the innovative alternative water sources described in the RWSP. The projects for investigation the Lower Floridan aquifer are primarily District-led initiatives. The ASR and Aquifer Recharge projects may involve both technical and financial assistance from the District.

Facilitating Agricultural Resource Management Systems (FARMS)

The FARMS Program is an agricultural BMP cost-share reimbursement program. The program is a public/private partnership developed by the District and the Florida Department of Agriculture and Consumer Services (FDACS). The program provides incentives to the agricultural community within the District to implement agricultural BMPs that will provide resource benefits including the reduction of groundwater withdrawals from the Upper Floridian aquifer, improvement of ground and surface water quality impacted by groundwater withdrawals, and improvement of natural-system functions within wetlands and watersheds.

The FARMS Program operates under Rule 40D-26 F.A.C. to fund projects that provide these benefits while assisting in the implementation of the District's RWSP. This plan identifies strategic initiatives and regional priorities to meet the District's water management goals. These goals are based on improving and/or maintaining the water resource conditions of several regions within the District. Five primary goals for the FARMS Program are to:

1. Improve surface water quality in the Shell, Prairie, and Joshua Creek watersheds;
2. Improve natural systems in Upper Myakka River Watershed and restore hydro-periods to Flatford Swamp;
3. Reduce groundwater use by 40 million gallons per day (mgd) in the SWUCA;
4. Reduce groundwater use for Frost/Freeze Protection within the DPCWUCA by 20 percent per freeze event;
5. Reduce Upper Floridan aquifer groundwater use and nutrient loading impacts in the Springs Coast.

The FARMS projects implement FDACS-approved BMPs that offset groundwater use with surface water and/or increase the overall efficiency of irrigation water use. Many projects have the added benefit of reducing agricultural impacts to surface water features. Properly implemented BMPs protect and conserve water resources and may increase crop production.

Environmental Restoration and MFL Recovery Projects

These projects include MFL recovery projects for the upper Peace River, The lower Hillsborough River, Lake Jackson in Highlands County, and the Salt Water Intrusion Minimum Aquifer Level (SWMIAL) for the SWUCA Recovery Strategy. The SWIMAL Recovery project has the additional benefit of utilizing excess runoff that has adversely impacted the Flatford Swamp in the upper Myakka River watershed.

At the DEP's guidance, additional project details are available in spreadsheet format. The DEP will present Work Program project data from each of the water management districts on their website for public review, in accordance with Section 373.536(6)(b), F.S. The detailed spreadsheet includes project descriptions, schedules, cooperator and state funding levels, and the water bodies and planning regions supported. The District's proposed Work Program spreadsheet is available online at:
https://www.swfwmd.state.fl.us/resources/plans-reports/water-resource-development-work-program

Table 2. FY2020 - FY2024 District Funding and Total Project Cost for Water Resource Development Projects

WRD Projects (WUCA, Project Number) [1]		Total Prior District Funding	FY2020 District Cost	FY2021 District Cost	FY2022 District Cost	FY2023 District Cost	FY2024 District Cost	Total Cost District + Cooperator	Funding Source[1 2]	Quantity developed/ conserved[1]
1) Alternative Water Supply Feasibility Research and Pilot Projects (Programmatic Code 2.2.1.1)										
a)	South Hillsborough Aquifer Recharge Program (SHARP) (N287)	$1,382,500	$0	$0	$0	$0	$0	$2,765,000	District, Hillsborough County	2 mgd
b)	Bradenton Aquifer Protection Recharge Well (N842)	$1,500,000	$900,000	$100,000	$25,000	$0	$0	$5,050,000	District, City of Bradenton	5 mgd
c)	PRMRWSA Partially Treated Water ASR (N854)	$495,500	$0	$2,769,500	$0	$0	$0	$7,755,000	District, PRMRWSA	3 mgd
d)	Southern Hillsborough Aquifer Recharge Expansion (SHARE) Phase 1 (N855)	$4,500,000	$350,000	$0	$0	$0	$0	$9,700,000	District, Hillsborough County	4 mgd
e)	Braden River Utilities ASR Feasibility (N912)	$2,736,250	$0	$0	$0	$0	$0	$5,995,000	District, Braden River Utilities	TBD
f)	Hydrogeologic Investigation of LFA in Polk County (P280)	$11,375,000	$625,000	$0	$0	$0	$0	$12,000,000	District	NA
g)	Optical Borehole Imaging Data Collection from LFA Wells (P925)	$100,200	$0	$0	$0	$0	$0	$167,000	District, USGS	NA
h)	Sources/Ages of Ground-water in LFA Wells (P926)	$368,300	$0	$0	$0	$0	$0	$555,800	District, USGS	NA
i)	City of Venice Reclaimed Water Aquifer Storage Recovery (Q050)	$0	$82,500	$150,000	$2,200,000	$50,000	$50,000	$5,065,000	District, City of Venice	0.17 mgd
j)	Direct Aquifer Recharge-North Hillsborough Aquifer Recharge Program Phase 2 (Q064)	$0	$750,000	$0	$0	$0	$0	$1,500,000	District, Hillsborough County	NA
k)	Direct Aquifer Recharge-South Hillsborough Aquifer Recharge Program Phase 3 (Q088)	$0	$3,250,000	$812,500	$812,500	$812,500	$812,500	$13,000,000	District, Hillsborough County	6 mgd
2) Facilitating Agricultural Resource Management Systems (FARMS) (Programmatic Code 2.2.1.2)										
a)	FARMS Projects (H017) [3]	Annual Request	$6,000,000	$6,000,000	$6,000,000	$6,000,000	$6,000,000	$30,000,000	District, FDACS, State, private farms	40 mgd [4]
a.1)	FARMS - Tamiami Citrus-64 Grove (H730)	$655,000	$0	$0	$0	$0	$0	$1,310,000	District, Tamiami Citrus, LLC	0.2 mgd
a.2)	FARMS - Brenner Groves (H747)	$258,495	$0	$0	$0	$0	$0	$386,462	District, Brenner Groves	0.013 mgd
a.3)	FARMS - Marion County Equine Compost Facility Pilot (H751)	$100,000	$0	$0	$0	$0	$0	$200,000	District, FDACS	NA
a.4)	FARMS - QC Prairie River Ranch (H756)	$436,448	$0	$0	$0	$0	$0	$581,930	District, DeSoto Grove Ventures	0.1 mgd
a.5)	FARMS - KLM Farms (H757)	$221,938	$0	$0	$0	$0	$0	$295,917	District, KLM Farms, LLC	0.069 mgd

a.6)	FARMS - Doe Hill Citrus Phase 2 (H758)	$262,000	$0	$0	$0	$0	$0	$552,000	District, J.R. Paul Properties, Inc.	0.085 mgd
a.7)	FARMS - Farmland Reserve Inc - Sun City (H760)	$196,300	$0	$0	$0	$0	$0	$266,300	District, Farmland Reserve Inc	0.055 mgd
a.8)	FARMS - Ocean Breeze Properties (H763)	$79,030	$0	$0	$0	$0	$0	$105,372	District, Ocean Breeze Properties	0.017 mgd
a.9)	FARMS - Council Growers Inc (H764)	$576,600	$0	$0	$0	$0	$0	$924,500	District, Council Growers Inc.	0.142 mgd
a.10)	FARMS - Reynolds Farms Inc - Anne's Block (H766)	$99,749	$0	$0	$0	$0	$0	$133,379	District, Estate of Anne D Reynolds	0.033 mgd
a.11)	FARMS - Dixie Groves & Cattle Company (H767)	$254,000	$0	$0	$0	$0	$0	$467,000	District, Dixie Groves & Cattle	0.12 mgd
a.12)	FARMS - Hi Hat Ranch (H769)	$111,739	$0	$0	$0	$0	$0	$148,985	District, Hi Hat Ranch, LLLP	0.11 mgd
a.13)	FARMS - Bethel Farms - Hog Bay Farm (H770)	$191,662	$0	$0	$0	$0	$0	$280,552	District, Bethel Farms, LLLP	0.06 mgd
a.14)	FARMS - 734 LMC Groves - Lily Grove (H771)	$74,184	$0	$0	$0	$0	$0	$104,389	District, Alico, Inc.	0.027 mgd
b)	Mini-FARMS Program (H529) [3]	Annual Request	$150,000	$150,000	$150,000	$150,000	$150,000	$750,000	District	2 mgd
c)	FARMS Well Back-Plugging Program (H015) [3]	Annual Request	$30,000	$30,000	$30,000	$30,000	$30,000	$150,000	District	NA
d)	FARMS Meter Accuracy Support (P429) [3]	Annual Request	$25,000	$25,000	$25,000	$25,000	$25,000	$125,000	District	NA
3) Environmental Restoration/Minimum Flows and Levels Recovery [4] (Programmatic Code 2.2.1.3)										
a)	MFL Recovery Lake Hancock Design, Permit, Mitigation to Raise Lake (H008)	$6,882,240	$0	$0	$0	$0	$0	$6,882,240	District	2.7 mgd
b)	MIA Recharge SWIMAL Recovery at Flatford Swamp (H089)	$5,044,012	$1,534,467	$0	$3,000,000	$3,000,000	$3,000,000	$31,000,000	District	6.0 mgd
c)	Lower Hillsborough River Recovery Strategy (H400)	$5,464,712	100,000	$0	$0	$0	$0	$10,857,462	District, City of Tampa	3.1 mgd
d)	Pump Stations on Tampa Bypass Canal, Morris Bridge Sink (H404) [3]	Annual Request	$100,000	$150,000	$150,000	$150,000	$150,000	$700,000	District	3.9 mgd
e)	Lake Jackson Watershed Hydrology Investigation (N554)	$260,000	$0	$0	$0	$0	$0	$400,000	District, Highlands County, Sebring	NA
f)	Haines City Reclaimed Water MFL Recharge & Advanced Treatment Feasibility Study (N888)	$225,000	$43,282	$0	$0	$0	$0	$357,710	District, Haines City	0.7 mgd
WRD Project Totals		**$43,850,859**	**$13,940,249**	**$10,187,000**	**$12,392,500**	**$10,217,500**	**$10,217,500**	**$150,531,998**		**78.6 mgd[4]**

1. Acronyms: TBD - to be determined, NA - not applicable, mgd - million gallons per day, FDACS - Florida Department of Agriculture and Consumer Services, IFAS - University of Florida Institute of Agricultural Sciences, MIA - Most Impacted Area of the SWUCA, SWIMAL - Salt Water Intrusion Minimum Aquifer Level, USGS - United States Geological Survey.
2. Funding identified as the State of Florida is described in the *Funding Sources* section of this report.
3. Future funding budget estimates for which specific time frames are not yet determined are distributed evenly over future years.
4. The FARMS lead program (H017) and the subprojects are collectively counted as 40 mgd.

Water Supply Development Assistance

Water supply development is defined as 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 (Section 373.019(26), F.S). Regional water supply authorities, local governments, and public and privately-owned water utilities typically have the lead role in implementing water supply development projects (Section 373.705, F.S.). The District provides funding assistance to these entities for projects that are consistent with the District's Strategic Plan, Water Management Plans, Surface Water Improvement and Management Plans, and the District and CFWI RWSPs. Final decisions regarding the funding of projects are the exclusive responsibility of the District's Governing Board. The District's primary funding mechanism for water supply development assistance is the Cooperative Funding Initiative (CFI) Program, which is described in the Funding Sources section of this Work Program.

The District has 84 budgeted or ongoing water supply development projects in FY2020, including 6 water supply planning projects that support water supply development. As shown in **Table 3-h**, the District is funding approximately $17.8 million in FY2020 for water supply development assistance. The project budgets shown are consistent with the District's Programmatic Budget under activity codes 2.2.2 (water supply development) and 1.1.1 (water supply planning). The water supply projects are listed in **Table 3-a** to **3-g**, grouped by the following budget sub-categories and sorted by project code number:

- Surface Water Projects
- Regional Potable Water Interconnect Projects
- Reclaimed Water Projects
- Brackish Groundwater Development Projects
- ASR and Aquifer Recharge Projects (note: some have reclaimed water components)
- Conservation Projects
- Water Supply Planning Projects

Most water supply development projects are funded within one year, but large projects may have a construction budgets over multiple years to coincide with each year's predicted expenses. Since the District budget is adopted on an annual basis, the future funding for ongoing projects is estimated based on projected costs and schedules. Additional future funding will be needed for new projects that aren't yet proposed through the CFI Program. The District anticipates new reclaimed water and conservation projects will require funding levels similar to FY2020. The amount needed for new regional interconnects and water treatment facilities can vary greatly from year to year, peaking as large infrastructure projects move from design to construction phases. Significant new funding that may be proposed in the FY2021-24 timeframe for expansions of the PRMRWSA Regional Loop System, next phases of the Tampa Augmentation Project and the PRWC Southeast Wellfield, Tampa Bay Water's System Configuration 3 Projects, projects for septic to sewer conversion, and multiple new aquifer recharge projects.

The listed projects that have no FY2020 or future funding are ongoing with prior year funding. Projects are omitted from the Work Program when they are completed.

At the DEP's guidance, additional project details are available in spreadsheet format. The DEP will present Work Program project data from each of the water management districts on their website for public review, in accordance with Section 373.536(6)(b), F.S. The detailed spreadsheet includes project descriptions, schedules, cooperator and state funding levels, and the waterbodies and planning regions supported. The District's proposed Work Program project spreadsheet is available online at:
https://www.swfwmd.state.fl.us/resources/plans-reports/water-resource-development-work-program

Table 3-a. Surface Water Projects

Project Number	Water Supply Development Assistance - Surface Water Projects (Programmatic Budget 2.2.2.1)	Prior District Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	Total Project Cost	Supply (mgd)
Q061	Tampa Bay Water Regional Surface Treatment Plant Expansion Feasibility Study	$0	$225,000	$50,000	$0	$0	$0	$550,000	Study
Q063	Tampa Bay Water Desalination Facility Expansion Feasibility Study	$0	$550,000	$950,000	$0	$0	$0	$3,000,000	Study
Q133	PRWC-Peace River Study[1]	$480,550	$0	$0	$0	$0	$0	$961,100	Study
Total Surface Water Projects		**$480,550**	**$775,000**	**$1,000,000**	**$0**	**$0**	**$0**	**$4,511,100**	**0.000**

Table 3-b. Regional Potable Interconnects

Project Number	Water Supply Development Assistance - Regional Potable Water Interconnects (Programmatic Budget 2.2.2.2)	Prior District Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	Total Project Cost	Supply (mgd)
H094	Polk County Partnership [2]	$33,500,000	$5,000,000	$5,000,000	$5,000,000	$5,000,000	$0	$53,500,000	NA
N416	PRMRWSA Regional Loop System Phase 1 DeSoto to Punta Gorda	$6,000,000	$0	$0	$0	$0	$0	$12,000,000	NA
N823	PRMRWSA Regional Integrated Loop System Phase 3B	$6,930,000	$1,170,000	$0	$0	$0	$0	$16,700,000	NA
N965	TBW Tampa Bypass Canal Gates Automation	$210,700	$216,800	$88,500	$0	$0	$0	$1,032,000	NA
N998	TBW Regional Facility Site Pump Station Expansion	$108,000	$1,014,500	$77,500	$0	$0	$0	$2,400,000	NA
Total Regional Interconnect Projects		**$46,748,700**	**$7,401,300**	**$5,166,000**	**$5,000,000**	**$5,000,000**	**$0**	**$85,632,000**	**0.000**

Table 3-c. Reclaimed Water Projects

Project Number	Water Supply Development Assistance - Reclaimed Water Projects (Programmatic Budget 2.2.2.3)	Prior District Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	Total Project Cost	Benefit (mgd)
N339	Winter Haven #3 Reclaimed Interconnect, Storage, and Pumping	$2,750,000	$0	$0	$0	$0	$0	$9,466,000	0.300
N536	Auburndale Polytechnic Reclaimed Water Storage and Transmission	$1,500,000	$0	$0	$0	$0	$0	$3,000,000	1.500
N772	Polk County NERUSA Loughman/Ridgewood Reclaimed Water Transmission	$1,252,500	$0	$0	$0	$0	$0	$2,505,000	0.345
N796	City of Winter Haven Reuse Interconnect and Aquifer Recharge	$150,000	$0	$0	$0	$0	$0	$300,000	0.500
N862	Polk County Utilities NERUSA CR 547 Reclaimed Water Transmission Phase 1	$50,000	$0	$0	$0	$0	$0	$869,500	0.377
N868	Polk County Utilities NERUSA Ernie Caldwell Blvd Reclaimed Water Transmission	$1,056,500	$0	$0	$0	$0	$0	$2,113,000	0.414
N881	Arcadia Golf Course RW Storage Reservoir	$225,000	$0	$0	$0	$0	$0	$300,000	0.100
N888	Haines City Rapid Infiltration Basin and Reuse Improvements	$112,500	$0	$0	$0	$0	$0	$300,000	NA
N898	Haines City Reclaimed Water Tank and Pump Stations Project	$1,350,000	$1,635,000	$1,635,000	$0	$0	$0	$6,160,000	NA

Table 3-c. Reclaimed Water Projects (continued)

Project Number	Water Supply Development Assistance - Reclaimed Water Projects (Programmatic Budget 2.2.2.3)	Prior District Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	Total Project Cost	Benefit (mgd)
N899	Polk County Utilities Reclaimed Water Recharge Study in DPC WUCA & NW Polk	$500,000	$94,500	$0	$0	$0	$0	$1,189,000	1.500
N918	Polk County Utilities NERUSA FDC Grove Road Reclaimed Water Transmission	$848,000	$0	$0	$0	$0	$0	$1,696,000	0.142
N920	West Villages District Reclaimed Water transmission to South Sarasota County	$356,000	$0	$0	$0	$0	$0	$712,000	0.250
N983	Hernando Co Airport Water Reclamation Facility RW Main and Pumping Station	$375,000	$0	$0	$0	$0	$0	$16,000,000	2.000
P130	City of Crystal River/Duke Energy Reclaimed Water Interconnection	$4,290,000	$0	$0	$0	$0	$0	$6,573,625	0.440
Q021	Pasco Co Cypress Preserve RW Transmission Main - Grand Live Oak Blvd	$206,500	$0	$0	$0	$0	$0	$413,000	TBD
Q022	Bowling Green RW Transmission Line	$833,250	$0	$0	$0	$0	$0	$1,111,000	0.140
Q028	Tampa Augmentation Project Feasibility/Testing Phase II	$1,145,500	$0	$0	$0	$0	$0	$2,291,000	TBD
Q047	Hernando County Anderson Snow Park Reuse	$0	$200,000	$0	$0	$0	$0	$400,000	0.200
Q057	Zephyrhills-Zephyr Lakes & Hospital Reuse	$0	$710,650	$0	$0	$0	$0	$1,421,300	0.330
Q066	Polk County Utilities- NERUSA Lake Wilson Road Reuse	$0	$262,750	$0	$0	$0	$0	$525,500	0.180
Q067	Polk County Utilities-NERUSA Southeast Reuse Loop	$0	$1,093,375	$1,093,375	$0	$0	$0	$4,373,500	0.522
Q098	Pasco County Cypress Preserve Reuse Phase 3	$0	$239,000	$0	$0	$0	$0	$478,000	0.230
Q105	Citrus County Sugarmill Woods Golf Course Reuse	$0	$459,000	$1,500,000	$0	$0	$0	$3,918,000	0.500
Q113	City of Plant City McIntosh Park Indirect Potable Reuse Feasibility Study	$0	$300,000	$0	$0	$0	$0	$600,000	Study
Q117	Hillsborough County Columbus Sports Park Reuse	$0	$400,000	$0	$0	$0	$0	$800,000	0.090
Total Reclaimed Water Projects		**$17,000,750**	**$5,394,275**	**$4,228,375**	**$0**	**$0**	**$0**	**$67,515,425**	**10.060**

Table 3-d. Brackish Groundwater Projects

Project Number	Water Supply Development Assistance - Brackish Groundwater Development Projects (Programmatic Budget 2.2.2.4)	Prior District Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	Total Project Cost	Supply (mgd)
N600	Punta Gorda Reverse Osmosis Project - Brackish Wellfield Investigation	$1,500,000	$0	$0	$0	$0	$0	$3,000,000	Study
N780	Punta Gorda Reverse Osmosis Project - Facility Construction	$14,150,000	$2,200,000	$0	$0	$0	$0	$33,600,000	4.000
N882	PRWC West Polk County Lower Floridan Deep Wells [3]	$4,470,367	$0	$0	$0	$0	$0	$8,940,734	5.000
N905	PRWC Southeast Wellfield Lower Floridan [4]	$5,558,958	$0	$5,755,887	$37,523,952	$48,150,204	$19,260,082	$11,117,916	7.500
Q090	Belleair Brackish Feasibility Study & Testing	$0	$705,340	$176,335	$0	$0	$0	$1,763,350	Study
Total Brackish Groundwater Projects		**$25,679,325**	**$2,905,340**	**$5,932,222**	**$37,523,952**	**$48,150,204**	**$19,260,082**	**$58,422,000**	**16.500**

Table 3-e. Aquifer Recharge and Aquifer Storage and Recovery Projects

Project Number	Water Supply Development Assistance - Aquifer Recharge & ASR Projects (Programmatic Budget 2.2.2.5)	Prior District Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	Total Project Cost	Supply (mgd)
N665	City of Clearwater Groundwater Replenishment Project Phase 3	$12,185,600	$0	$0	$0	$0	$0	$32,716,000	2.400
Total Aquifer Recharge/ASR Projects		**$12,185,600**	**$0**	**$0**	**$0**	**$0**	**$0**	**$32,716,000**	**2.400**

Table 3-f. Water Conservation Projects

Project Number	Water Supply Development Assistance - Conservation Rebates, Retrofits, Etc. Projects (Programmatic Budget 2.2.2.7)	Prior District Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	Total Project Cost	Benefit (mgd)
B015	Water Incentives Supporting Efficient (WISE) Program	$50,000	$100,000	$50,000	$50,000	$50,000	$50,000	Annual Request	0.007
N820	Polk County Landscape & Irrigation Evaluation Program	$41,400	$0	$0	$0	$0	$0	$82,800	0.042
N846	Polk County Landscape and Irrigation Evaluation	$42,500	$0	$0	$0	$0	$0	$85,000	0.042
N860	Citrus County Water Sense Labeled Irrigation Controller Account Credit	$16,875	$0	$0	$0	$0	$0	$33,750	0.017
N876	New Port Richey Toilet Rebate Program Phase 4	$7,470	$0	$0	$0	$0	$0	$14,940	0.002
N890	St. Petersburg Residential Clothes Washer Rebate Pilot Project	$12,350	$0	$0	$0	$0	$0	$24,700	0.002
N909	St. Petersburg Sensible Sprinkling Program Phase 8	$50,000	$0	$0	$0	$0	$0	$100,000	0.056
N921	Bay Laurel Center CDD Irrigation Controller/ET Sensor Upgrade Project	$43,760	$0	$0	$0	$0	$0	$87,520	0.023
N948	PRWC Indoor Water Conservation Incentives	$78,000	$0	$0	$0	$0	$0	$156,000	0.092
N955	St. Petersburg Toilet Rebate Program Phase 17	$25,000	$0	$0	$0	$0	$0	$50,000	0.007
N958	Citrus County Water Sense Labeled Irrigation Controller Installation Phase 2	$16,875	$0	$0	$0	$0	$0	$33,750	0.011
N961	St. Petersburg Satellite Based Potable Water Leak Detection	$60,000	$0	$0	$0	$0	$0	$120,000	0.110
N971	PRWC Outdoor Best Management Practices	$96,250	$0	$0	$0	$0	$0	$192,500	0.113
N972	Tampa Water Use Information Portal Implementation	$150,000	$0	$0	$0	$0	$0	$300,000	0.133
N973	Winter Haven Consumption/Conservation Programs Data Management Software	$30,000	$30,000	$0	$0	$0	$0	$120,000	0.016
N979	North Port Water Distribution System Looping	$352,000	$0	$0	$0	$0	$0	$704,000	0.036
N982	Manatee County Toilet Rebate Phase 12	$75,500	$0	$0	$0	$0	$0	$151,000	0.264
N988	Hillsborough Soil Moisture Sensor Rain Shutoff Device Study and Education	$25,000	$0	$0	$0	$0	$0	$50,000	0.013
N992	Venice Toilet Rebate and Retrofit Phase 6	$29,450	$0	$0	$0	$0	$0	$58,900	0.005
N996	Lake Hamilton Distribution System Looping	$124,610	$0	$0	$0	$0	$0	$521,000	0.020
N999	Marion County Toilet Rebate Program Phase 5	$16,000	$16,000	$0	$0	$0	$0	$64,000	0.010
P920	Polk Regional Water Cooperative Outdoor BMPs	$166,075	$0	$0	$0	$0	$0	$332,150	0.053
P921	Polk Regional Water Cooperative Indoor Conservation Incentives	$121,275	$0	$0	$0	$0	$0	$242,550	0.087

Table 3-f. Water Conservation Projects (continued)

Project Number	Water Supply Development Assistance - Conservation Rebates, Retrofits, Etc. Projects (Programmatic Budget 2.2.2.7)	Prior District Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	Total Project Cost	Benefit (mgd)
P922	Polk Regional Water Cooperative Florida Water Star Builder Rebate Program	$350,000	$0	$0	$0	$0	$0	$700,000	0.066
Q014	Pasco County Toilet Rebate Phase 12	$50,000	$0	$0	$0	$0	$0	$100,000	0.140
Q018	NSCUDD Rain Sensor Inspect/Replacement Program	$20,000	$0	$0	$0	$0	$0	$40,000	0.010
Q020	Braden River Util. Soil Moisture Sensor Rebate Program Phase 2	$154,000	$0	$0	$0	$0	$0	$308,000	0.055
Q040	WRWSA Regional Irrigation System Audit Program Phase 5	$72,500	$0	$0	$0	$0	$0	$145,000	0.039
Q041	New Port Richey Toilet Rebate Phase 5	$7,470	$0	$0	$0	$0	$0	$14,940	0.002
Q068	Tarpon Springs Toilet Rebate Phase 1	$0	$10,000	$0	$0	$0	$0	$20,000	0.003
Q070	Citrus County Water Sense Irrigation Controller Phase 3	$0	$45,000	$0	$0	$0	$0	$90,000	0.027
Q073	City of Palmetto Toilet Rebate	$0	$20,000	$0	$0	$0	$0	$40,000	0.042
Q074	Temple Terrace GCC Advanced Irrigation System	$0	$255,000	$0	$0	$0	$0	$510,000	0.048
Q078	Pasco County Toilet Rebate Phase 13	$0	$50,000	$0	$0	$0	$0	$100,000	0.014
Q087	Tampa Bay Water Demand Management	$0	$549,775	$0	$0	$0	$0	$1,099,550	0.280
Q089	St. Petersburg Sensible Sprinkling Project Phase 3	$0	$50,000	$0	$0	$0	$0	$100,000	0.056
Q109	Pasco County Satellite Potable Leak Detection Study	$0	$30,000	$0	$0	$0	$0	$60,000	0.100
Q111	Manatee County Toilet Rebate Phase 13	$0	$75,500	$0	$0	$0	$0	$151,000	0.026
Q126	Venice Toilet Rebate and Retrofit Phase 7	$0	$29,450	$0	$0	$0	$0	$58,900	0.005
Total Conservation Rebates, Retrofits, Etc.		**$2,284,360**	**$1,260,725**	**$50,000**	**$50,000**	**$50,000**	**$50,000**	**$7,061,950**	**2.073**

Table 3-g. Water Supply Planning Projects

Project Number	Water Supply Development Assistance - Water Supply Planning (Programmatic Budget 1.1.1)	Prior District Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	Total Project Cost	Supply (mgd)
N945	WRWSA Regional Water Supply Plan Update	$150,000	$0	$0	$0	$0	$0	$300,000	NA
N946	PRMRWSA Integrated Reg Water Supply Master Plan	$225,000	$0	$0	$0	$0	$0	$450,000	NA
P179	Florida Framework for Potable Reuse	$40,000	$0	$0	$0	$0	$0	$110,000	NA
P180	National Framework for Potable Reuse	$10,000	$0	$0	$0	$0	$0	$70,000	NA
Q023	PRWC Water Demand Management Plan	$85,000	$85,000	$0	$0	$0	$0	$340,000	NA
N928	PRWC Peace Creek Integrated Water Supply Plan [5]	$990,125	$0	$0	$0	$0	$0	$1,980,250	TBD
Total Planning Projects		**$1,500,125**	**$85,000**	**$0**	**$0**	**$0**	**$0**	**$3,250,250**	**0.000**

Table 3-h. Summary of Funding for Water Supply Development Projects

Water Supply Development Assistance Project Totals (Programmatic Budget 2.2.2)	Prior District Funding	FY2020 Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	Total Project Cost	Supply (mgd)
Surface Water Projects	$480,550	$775,000	$1,000,000	$0	$0	$0	$4,511,100	0.000
Regional Potable Water Interconnects	$46,748,700	$7,401,300	$5,166,000	$5,000,000	$5,000,000	$0	$97,132,000	0.000
Reclaimed Water Projects	$17,000,750	$5,394,275	$4,228,375	$0	$0	$0	$67,515,425	10.060
Brackish Groundwater Development Projects	$25,679,325	$2,905,340	$5,932,222	$37,523,952	$48,150,204	$19,260,082	$58,422,000	16.500
Aquifer Recharge and ASR Projects	$12,185,600	$0	$0	$0	$0	$0	$32,716,000	2.400
Conservation Rebates, Retrofits, Etc. Projects	$2,284,360	$1,260,725	$50,000	$50,000	$50,000	$50,000	$7,061,950	2.073
Water Supply Planning Projects	$1,500,125	$85,000	$0	$0	$0	$0	$3,250,250	0.000
Total Funding	**$105,879,410**	**$17,821,640**	**$16,376,597**	**$42,573,952**	**$53,200,204**	**$19,310,082**	**$259,108,725**	**31.033**

Acronyms: ASR - aquifer storage and recovery, BMPs - best management practices, ET - Evapotranspiration, mgd - million gallons per day, NERUSA/NWRUSA - The Northeast/Northwest Regional Utility Service Areas of Polk County Utilities, PRMRWSA - Peace River Manasota Regional Water Supply Authority, PRWC - Polk Regional Water Cooperative, TECO - Tampa Electric Company, WRWSA - Withlacoochee Regional Water Supply Authority.

[1] Project Q133's current CFI agreement cost is shown in "Total Project Cost" but the cost of future options is estimated at approximately $221M.

[2] The H094 Polk County Partnership provides $65M in reserves for PRWC Projects. $11.5M has been transferred to projects N882, N905, N928, and Q133; and balance was deducted from "Total Project Cost" to avoid double-counting.

[3] Project N882's current CFI agreement cost is shown in "Total Project Cost" but the total cost is estimated at approximately $157M with future phases. The initial phase of construction will develop an estimated 5 mgd of alternative water supplies with future phases expanding to 15 mgd.

[4] Project N905's current CFI agreement cost is shown in "Total Project Cost" but the total cost is estimated at approximately $446M with future phases. The initial phase of construction will develop an estimated 7.5 mgd of alternative water supplies with future phases expanding to 30 mgd.

[5] Project N928's current CFI agreement cost is shown in "Total Project Cost" but the cost of future options is estimated at approximately $119M.

Funding Sources

The District provides significant financial assistance for water resource development and water supply development projects through the District's Cooperative Funding Initiative (CFI), and District Initiatives. The financial assistance is provided primarily to governmental entities, but private entities may also participate in these programs. Portions of state funding are allocated to the District through the DEP and legislative appropriations for the Springs Initiative, the Florida Forever Program, the Water Protection and Sustainability Program, and the District's FARMS Program. These sources are described below.

District Funding

Cooperative Funding Initiative - The District's primary funding mechanism is the CFI, which includes funding for major regional water supply and water resource development projects and localized projects throughout the District's 16-county jurisdiction. The CFI is a matching grant program that enables the Governing Board, through its regional sub-committees, to jointly participate with local governments and other entities to incentivize proper development, use, and protection of the regional water resources of the District. Projects of mutual benefit are generally funded 50 percent by the District and 50 percent by the public or private cooperators. Communities or counties qualifying under the Rural Economic Development Initiative (Section 288.0656, F.S.) may be eligible for greater matching shares. Projects with construction costs exceeding $5 million will undergo a third-party review at the 30 percent design stage to confirm costs, schedules, and ability to meet its resource benefits. Results of the third-party review are presented to the Governing Board before the project can proceed. Any state and federal funds received for the projects are applied directly against the project costs, with both parties benefitting equally. Since 1988, this program has been highly successful resulting in a combined investment (District and its cooperators) of approximately $3.3 billion in incentive-based funding assistance for a variety of water projects addressing its four areas of responsibility: water supply, natural systems, flood protection, and water quality.

District Initiatives - District Initiatives are projects of great importance or a regional priority, and in most cases the District provides total funding for the project. Examples of projects funded as District Initiatives include hydrologic investigations, MFL recovery in most-impacted areas, watershed management planning which may not have local cooperators, and the FARMS program which is a cost-share reimbursement program to implement agricultural best management practices.

State Funding

DEP Springs Initiative - The DEP Springs Initiative is a special legislative appropriation that has provided revenue for protection and restoration of major springs systems. From FY2013 through FY2019, the District has allocated more than $36 million of DEP Springs Initiative funding to projects that restore aquatic habitats and reduce groundwater withdrawals and nutrient loading within first-magnitude springsheds to improve the water quality and quantity of spring discharges. The District's FY2020 budget includes $11.75 million of DEP Springs Initiative funds for four projects that will improve water quality by providing sewer connections to homes with septic tanks in priority focus areas. These projects are listed in the Work Program Appendix A - Projects for Implementing BMAPs.

The Florida Forever Program - The 1999 Florida Forever Act was a $10 billion, 10-year statewide program. In 2008, the Legislature passed a bill to extend the Florida Forever program for 10 more years at $300 million annually and reduced the water management districts' annual allocation from $105 million to $90 million, with $22.5 million (25 percent) to be allocated to the District, subject to annual appropriation. The appropriations were limited during the economic recession, and the District hasn't received any new Florida Forever funding since FY2011. Eligible projects under the Florida Forever program include land acquisition, land and water body restoration, ASR facilities, surface water reservoirs, and other capital improvements.

The state's Florida Forever Trust Fund holds prior-year funds for this District and other water management districts that are available for release subject to approval by the DEP. The funds have been generated through the sale of easements to the U.S. Department of Agriculture/Natural Resources Conservation Services (NRCS) for the Wetland Reserve Program and the sale of land or easements for rights-of-way. The funds are available for potential land acquisitions consistent with the guidance provided by the DEP. The District's FY2020 budget includes $3.65 million of prior-year funds held in the Trust Fund. In addition, $11.8 million is budgeted with funds held in District investment accounts that were generated from the sale

of land or real estate originally acquired with Florida Forever funds. The District conducts a biennial Surplus Lands Assessment to identify and sell lands that do not meet the District's core mission. The proceeds from sold lands are used to purchase other lands that provide substantive environmental benefits.

State Funding for the FARMS Program - Operating under Chapter 40D-26, F.A.C., the FARMS Program, through the District, utilizes additional state funding when available. Since inception of the program in 2003, the District has utilized $7.3 million in state appropriations and $1.2 million from the FDACS. No funding has been provided by state appropriations since FY2009.

NRCS Environmental Quality Incentive Program (EQIP) - The EQIP provides technical, educational, and financial assistance to eligible farmers and ranchers to address soil, water, and related natural resource concerns on their lands. The program assists farmers and ranchers in compliance with federal, state of Florida, and tribal environmental laws that encourage environmental enhancement. In addition to the EQIP, the FARMS Program has partnered with NRCS through the Agriculture Water Enhancement Program and the Florida West Coast Resource Conservation and Development Council to bring additional NRCS cost-share funding to the SWUCA. The District's FARMS Program works cooperatively with these programs on both financial and technical levels and has coordinated dual cost-share projects whenever possible. The maximum funding for using both FARMS and EQIP is 75 percent of the total project cost.

Water Protection and Sustainability Program - The state's Water Protection and Sustainability Program was created in the 2005 legislative session through Senate Bill 444. The program provides matching funds for the District's CFI and District Initiative programs for alternative water supply development assistance which are applied toward a maximum of 20 percent of eligible project construction costs. In addition, the Legislature has established a goal for each water management district to annually contribute funding equal to 100 percent of the state funding for alternative water supply development assistance, which the District has exceeded annually.

Summary/Conclusions

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. It additionally illustrates the contributions of the District in support of MFLs and water reservations.

This Work Program outlines activities and projects that will make available 109.6 mgd of water upon completion, including reuse water and new potable supply. These benefits are associated with approximately $72.6 million budgeted for FY2020. The proposed funding for the 5-year Work Program is approximately $410.5 million through FY 2020-24. **Table 4** below summarizes the funding categorized in the Work Program as WRD data collection and analysis activities, WRD Projects, and Water Supply Development Projects.

Table 4. Work Program Summary

WRD Data Collection and Analysis Activities	Sum of Current Year District Funding (FY2020)	Sum of Five-Year District Funding (F2020-24)	Sum of Water Made Available (mgd)
Water Resource Development - Data Collection and Analysis Activities (Table 1)	$40,842,229	$204,211,145	NA
Water Resource Development - Projects (Table 2)	$13,940,249	$56,954,749	78.6
Water Supply Development - Projects (Table 3-h)	$17,821,640	$149,282,475	31.0
Totals	**$72,604,118**	**$410,448,369**	**109.6**

At the DEP's guidance, specific project details are provided in spreadsheet format. The DEP will present Work Program project data from each of the water management districts on their website for public review, in accordance with Section 373.536(6)(b), F.S. The detailed spreadsheet includes project schedules, cooperator and state funding levels, and the waterbodies and planning regions supported. The District's proposed Work Program projects spreadsheet is available online at: https://www.swfwmd.state.fl.us/resources/plans-reports/water-resource-development-work-program

The WRD and water supply projects set forth a commitment to develop projects associated with the implementation MFLs, recovery/prevention strategies, and water reservations. The majority of projects are located within the SWUCA or NTBWUCA and support their recovery strategies by reducing impacts to the Upper Floridan aquifer. These projects represent 88.9 mgd of the 109.6 mgd above. The remaining projects are located in the District's Northern Planning Region, where a proactive, preventative approach is taken to optimize available water resources.

The data collection and analysis activities are a critical part of the WRD component implemented by the District. These activities support the District's MFLs programs. At the beginning of FY2020, the District has established and continues to monitor 210 adopted MFLs and has scheduled the establishment or revaluation of 96 MFLs and one reservation through FY2029. The District's annual MFLs Priority List and Schedule and Reservations List and Schedule is published in the Consolidated Annual Report, and can also be found on the District's webpage at: https://www.swfwmd.state.fl.us/projects/mfl/documents-and-reports

Other data collection and analysis activities include conducting watershed management planning, the QWIP program to preserve water resources through proper well abandonment, and the Implementation of stormwater storage and conveyance BMPs.

Appendix A
District Projects for Implementing Basin Management Action Plans

Basin Management Action Plans (BMAPs) provide technical direction 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 BMAP or a recovery or prevention strategy in the Work Program. The Work Programs have historically identified water resource development projects that support MFL recovery and prevention but haven't included projects primarily intended to implement BMAPs. Consistent with section 373.036, F.S., and in a manner coordinated with DEP and the five water management Districts, this Appendix A of the Work Program provides a five-year funding outlook for projects specifically identified in an adopted BMAP.

The District budgeted for four BMAP projects, each benefitting the water quality of first-magnitude springs priority focus areas (PFAs) in the District's northern planning region.

Kings Bay/Crystal River Priority Focus Area

- Crystal River - Indian Water Septic to Sewer Phase II (W430)
- Citrus County Cambridge Greens Septic to Sewer (W432)
- Crystal River Southern Septic to Sewer Project (W434)

Chassahowitzka, Homosassa Springs Priority Focus Area

- Citrus County Old Homosassa West Septic to Sewer Project (WH04)
- Citrus County Old Homosassa East Septic to Sewer project (Q134)

The projects are categorized under the District's Programmatic Budget activity code 2.3.1 - Surface Water Management. District funding shares are presented in **Table A-1**. Additional funding is anticipated from the DEP and local cooperator shares, including state appropriations. Consistent with the District's CFI policy, projects with construction costs exceeding $5 million will undergo a third-party review at the 30 percent design stage to confirm costs, schedules, and resource benefits. Project details are available in the Work Program spreadsheet available online at:
https://www.swfwmd.state.fl.us/resources/plans-reports/water-resource-development-work-program

Table A-1. Projects for Implementing BMAPs.

Projects for Implementing BMAPs	FY2020 Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	Total Project Cost	Funding Sources
Crystal River - Indian Water Septic to Sewer Phase II (W430)	$1,125,000	$0	$0	$0	$0	$4,500,000	District, DEP, City of Crystal River
Citrus County Cambridge Greens Septic to Sewer (W432)	$1,450,500	$0	$0	$0	$0	$6,500,000	District, DEP, Citrus County, State
Crystal River Southern Septic to Sewer Project (W434)	$1,625,000	$0	$0	$0	$0	$6,500,000	District, DEP, City of Crystal River
Citrus County Old Homosassa West Septic to Sewer Project (WH04)	$1,382,200	$0	$0	$0	$0	$6,000,000	District, DEP, Citrus County, State
Citrus County Old Homosassa East Septic to Sewer Project (Q134)	$250,000	$1,874,875	$1,874,875	$0	$0	$15,000,000	District, DEP, Citrus County, State
Totals	**$5,832,700**	**$1,874,875**	**$1,874,875**	**$0**	**$0**	**$38,500,000**	