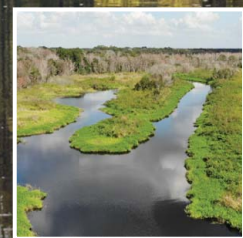


Board Approved
February 23, 2021

Consolidated Annual Report

March 1, 2021

Southwest Florida
Water Management District



Consolidated Annual Report

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Chapter 7. Polk Regional Water Cooperative Status Report.....	Joseph Quinn
Chapter 8. Florida Forever Work Plan	Carmen Sanders
Chapter 9. Mitigation Donation Annual Report	Michelle Hopkins
Chapter 10. 2021-2025 Strategic Plan (updated February 2021) and the Annual Work Plan Report.....	Trisha Neasman



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For further information regarding this report, contact the Planning Department Section at (352) 796-7211, or Planning@swfwmd.state.fl.us. This report is also available at the District's website at: www.WaterMatters.org.

The Southwest Florida Water Management District (District) does not discriminate on the basis of disability. This nondiscrimination policy involves every aspect of the District's functions, including access to and participation in the District's programs, services and activities. Anyone requiring reasonable accommodation, or who would like information as to the existence and location of accessible services, activities, and facilities, as provided for in the Americans with Disabilities Act, should contact Teresa Jepma, Human Resources Office Chief, at 2379 Broad St., Brooksville, FL 34604-6899; telephone (352) 796-7211 or 1-800-423-1476 (FL only), ext. 4747; or email ADACoordinator@WaterMatters.org. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1-800-955-8771 (TDD) or 1-800-955-8770 (Voice). If requested, appropriate auxiliary aids and services will be provided at any public meeting, forum, or event of the District. In the event of a complaint, please follow the grievance procedure located at WaterMatters.org/ADA.

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Executive Summary

Section 373.036, F.S. requires the water management districts to prepare a “Consolidated Water Management District Annual Report” consisting of several reporting documents that had historically been submitted separately. The legislation requires the consolidated report to be submitted by March 1 of each year to the Governor, DEP, the President of the Senate and the Speaker of the House of Representatives. In addition, copies must be provided, “... to the chairs of all legislative committees having substantive or fiscal jurisdiction over the districts and the governing body of each county in the district having jurisdiction or deriving any funds for operations of the district. Copies of the consolidated report must be made available to the public, either in printed or electronic format.”

This consolidated report is a significant communication tool for the District. The report’s components were formerly individually distributed at various times of the year. The consolidation results in streamlining the reporting documents in one package. It also allows greater efficiency in comparing different reporting mechanisms.

Descriptions and highlights from the chapters that make up the 2021 Consolidated Annual Report follow:

The Water Management District Performance Measures Annual Report Noteworthy metrics in this report include a continued general decline in uniform gross per capita water use, from 113 gallons per capita per day (gpcd), when first measured in 2008, to 100 gpcd in 2019. The growth in the amount of domestic wastewater reused has been relatively stable. Usage has increased from 104 mgd in 1995 to 219 mgd in 2019. Since, 2003, a total of 48.2 mgd of water supply has been made available by water resource projects. There has been a decline in uniform residential per capita water use from 76 gpcd, when first measured in 2008, to 69 gpcd in 2019. Water quality (nitrate concentrations) in District springs remained the same overall compared to last year’s report. Finally, the District continues to make progress establishing and reevaluating MFLs. Rulemaking for 32 priority water bodies was completed in FY2020.

The Minimum Flows and Levels Annual Priority List and Schedule The District's expenditures for minimum flows and levels (MFLs) adoption have changed from approximately \$1 million in fiscal year 1998 to a peak of \$4.9 million in 2009, with \$1.8 million expended in 2020. As of FY2020, 205 MFLs, including 91 that have been reevaluated and revised or repealed as necessary, and those for all five Outstanding Florida Springs within the District and two water reservations, have been adopted. By the end of 2023, seven new MFLs are scheduled for adoption, and 12 existing MFLs are scheduled for reevaluation.

The Minimum Flows and Levels/Water Quality Grade for Projects Report This document satisfies new reporting called for in Section 373.036(7)(b)9, F.S. The report contains grades for each watershed, water body or water segment expected to be impacted by a project listed in the Five-Year Water Resource Development Work Program. Two grades are provided: 1) a grade that reflects the severity of a water quality impairment, and 2) a grade that represents the level of violation of an adopted minimum flow or minimum level. A total of 132 projects from the Work Program are listed with the corresponding impacted watershed, water body or water segment, the water quality impairment grade and the minimum flow or level grade.

The Annual Five-Year Capital Improvements Plan includes projected revenues and expenditures for planned improvements for fiscal year (FY) 2020-21 through FY2024-25. Some of the major highlights for FY2020-21 include:

Research, Data Collection, Analysis and Monitoring:

- \$1,512,155 budgeted for coring, drilling, testing, and construction of monitor wells at Regional Observation and Monitor-well Program (ROMP) sites and special project sites within the Central Florida Water Initiative (CFWI) region.

Land Acquisition:

- \$17,500,000 budgeted for land acquisition under the Florida Forever program. These funds represent \$575,000 in prior year appropriations from the Florida Forever Trust Fund (FFTF) and \$16,925,000 generated from the sale of land or real estate interests.

Facilities Construction and Major Renovation:

- \$623,900 budgeted for renovations at the Brooksville and Sarasota facilities. This includes \$298,900 for replacement of HVAC system equipment and breakroom renovations at the Brooksville office; and \$175,000 for resurfacing of the Sarasota office parking lot.
- \$357,000 budgeted for replacement of Districtwide Building Automation and Access Controls System to increase access security and remote capabilities of facility operations at all public and field District offices.

Works:

- \$400,000 budgeted for the replacement of the Lake Pretty Water Conservation Structure's gates that have exceeded their life expectancy and continue to fail due to corrosion below the water line. The structure is located within Hillsborough County.
- \$300,000 budgeted for the completion of construction of Nettles Water Conservation Structure. This is a new structure located within Hillsborough County to allow controlled flow between Lake Hanna and Lake Stemper in order to meet established low and high guidance levels.

The Alternative Water Supplies Annual Report This report describes alternative water supply projects funded as well as the quantity of new water to be created as a result of these projects. The report also accounts for other funding sources, such as grants or the use of District lands or facilities to implement regional water supply plans. Fiscal year 2021 marks the 35th year of District alternative water supply funding, which to date has resulted in the funding of 387 reclaimed water projects that are anticipated to supply 182 mgd of reuse and result in 133 mgd of water resource benefits. In FY2021 alone, the District has budgeted more than \$18 million for alternative water supply projects, including reclaimed water, brackish desalination, potable reuse, surface water/stormwater reuse and seawater desalination, forecasted to provide more than 32 mgd of water supply. In addition to funding alternative source infrastructure, the District continues to participate in studies and research with utilities and entities. The scientific substantiation of alternative water sources increases the District's confidence in meeting its mission to find and maintain adequate and ecologically sustainable resources.

The Five-Year Water Resource Development Work Program The Work Program describes the District's implementation strategy for the Water Resource Development component of the District's 2020 Regional Water Supply Plan (RWSP) and the Central Florida Water Initiative 2020 RWSP. This 20th edition of the Work Program covers the period from FY 2021 to 2025. The Work Program presents the data collection and analyses activities and more narrowly defined "projects" that the District is financially and technically undertaking to enhance the water available to meet projected demands. To meet Subsection 373.536(6) F.S., the Work Program includes the anticipated five-year funding for Water Supply Development Assistance projects that are developed by cooperating water providers and qualify for District financial assistance, and an appendix of projects that help to implement Basin Management Action Plans (BMAPs). The Work Program outlines activities and projects that will make available 135.4 mgd of water upon completion, including reuse water and new potable supply. These benefits are associated with approximately \$95.7 million budgeted for FY2021.

The Polk Regional Water Cooperative Status Report This annual report provides a status on Polk Regional Water Cooperative projects receiving priority state funding. For the 2019 report, the cooperative and its members identified 42 prioritized projects and requested FY2020-21 funding by the Florida Legislature; however, no funding was received. For this 2020 report, a prioritized list of three Cooperative and 17 local member government projects are being submitted for FY2021-22 funding consideration by the Florida Legislature. For FY2021-22, a total of \$59.9 million would be required to implement all 20 projects, with \$12.2 million committed in local member government funding and \$6.3 million committed in District or other funding for these projects. The remaining \$41.4 million for the 20

priority projects is being requested from the state and their implementation is subject to approval of state funding for the FY2021-22 budget year.

The Florida Forever Work Plan The Florida Forever Act has been a successful land acquisition initiative that has included the Save Our Rivers and Preservation 2000 programs, providing funding to state agencies, water management districts, and local governments. Florida Forever funds allocated to the water management districts are used for land acquisition including acquisition of less-than-fee interests, water resource development, and water body restoration. Over the life of the program, at least 50 percent of the funds allocated to each water management district must have been used for land acquisition.

As required by Section 373.199(7), F.S., the District must submit an annual update of its Florida Forever Work Plan (Work Plan). The Work Plan identifies conservation lands, lands necessary for water resource development projects and waterbody restoration projects that meet acquisition criteria outlined in the Florida Forever Act (259.105, F.S.) as well as sets forth acres owned, managed, and surplus and funds budgeted. Modification to the 2021 Work Plan include updating land acquisition project maps, acres owned, lands managed, lands surplus and acquisition funds budgeted.

The Mitigation Donation Annual Report This report identifies all cash donations, if any, accepted during the preceding fiscal year for wetland mitigation purposes. Like last year, there were no donations received.

The 2010 - 2024 Strategic Plan (updated February 2021), and the 2020 Strategic Plan Annual Work Plan The Strategic Plan is the guiding document for the District, identifying targets and how success will be achieved and measured. The plan identifies 11 Districtwide strategic initiatives, including regional water supply planning, alternative water supplies, reclaimed water, water conservation, water quality assessment and planning, water quality maintenance and improvement, minimum flows and levels establishment and monitoring, natural systems conservation and restoration, flood protection maintenance and improvement, floodplain management and emergency flood response and 38 regional priorities/objectives. The plan has a five-year time horizon and is updated on an annual basis. Significant updates to the plan were made for 2021.

The Strategic Plan Annual Work Plan details progress on efforts implementing priorities and objectives of the Strategic Plan. Notable accomplishments for the Northern region include the completion of mapping and evaluation of submerged aquatic vegetation for the Weeki Wachee, Chassahowitzka and Homosassa river systems. In addition, the Governing Board supported a water quality metric to measure the success in funding projects that achieve a nitrogen reduction in the five first-magnitude springs' BMAP boundaries. District staff evaluated performance by analyzing data for projects completed or funded for June 2018 through FY2020. This evaluation revealed that 11 District-funded projects within the five first-magnitude springs that are expected to reduce nitrogen loading by 41,383 lbs/year. This achieves 52 percent of the primary goal and exceeds the associated goal/objective. For regions within the SWUCA (i.e., Heartland, Southern and Tampa Bay regions), the District has offset approximately 28 mgd of groundwater through its FARMS projects, includes those that are operational, under construction and/or have contracts pending. A goal for the Heartland region is to reduce the 2011 regional average compliance per capita by five percent by 2020. To date the region's average compliance per capita has declined eight percent to 97 gpcd in 2019. In addition, the District approved the 2020 Central Florida Water Initiative RWSP in November. This document details how to best meet the regional water supply needs for the region to 2040. In the Southern region, the goal is to reduce the 2011 average compliance per capita by five percent by 2020. To date the region has no utilities above 150 gpcd and the regional average compliance per capita has declined by nine percent since 2011 to 79 gpcd in 2019.

Consolidated **Annual
Report**

March 1, 2021

2020 *Water Management District*
**Performance
Measures** *Annual
Report*

Southwest Florida
Water Management District



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Water Management Performance Measures

Government, like any meaningful enterprise, needs to measure the results of its actions to ensure that services provided are effective and efficient. The purpose of any measurement process must be aimed at accomplishing sound resource management while improving accountability. If measures are successfully developed, and communicated, they can be expected to:

- Provide better information for decision making;
- Document to taxpayers their dollars are being spent wisely;
- Spot potential problems before they become crises; and
- Coordinate effective resource management among agencies.

The water management districts and the DEP jointly developed these performance measures. They are organized around the four primary areas of responsibility of the districts: Water Supply, Water Quality, Natural Systems and Flood Protection. Base years, assumptions and data sources for each measure were mutually agreed upon as one means of achieving consistency among districts. The time frames associated with each measure may vary, based upon the availability of data. A number of measures are provided for the areas of responsibility. The concept is that a few key measures for each of the District's responsibilities will be tracked over time to identify trends as they are reported annually. These measures will continue to be refined and coordinated with other agencies and the public, and periodic assessments will be necessary to ensure a measuring system that provides true accountability.

Summary of Water Management Performance Measures

Water Supply Measures

Objective 1: Increase available water supplies and maximize overall water use efficiency to meet identified existing and future needs.

- a. Percentage of domestic wastewater reused
- b. Uniform gross per capita water use (Public Supply) by District and water supply planning regions
- c. Uniform residential per capita water use (Public Supply) by District and water supply planning regions
- d. Within each water supply planning region: 1) the estimated amount of water supply to be made available through the water resource development component of the Regional Water Supply Plan; 2) percent of estimated amount under development; and 3) percent of estimated amount of water actually made available
- e. Within each water supply planning region, the estimated additional quantities of water supply made available through District water supply development assistance

Objective 2: Prevent contamination of water supplies.

- a. Percentage of surface water supply sources for which water quality fully attains the designated use

Water Quality Measures

Objective 1: Protect and improve surface water quality.

- a. Percentage of surface waters with healthy nutrient levels
- b. Percentage of surface waters with healthy biological conditions

Objective 2: Protect and improve groundwater quality.

- a. Improving, degrading and stable trends in nitrate concentrations in springs

Natural Systems Measures

Objective 1: Maintain the integrity and functions of water resources and related natural systems.

- a. Number of MFLs, by water body type, established annually and cumulatively
- b. Percentage of MFLs established in accordance with previous year's schedule
- c. For the previous fiscal year, the total acres of wetlands or other surface waters authorized by Environmental Resource Permit (ERP) to be impacted and the number of acres required to be created, enhanced, restored and preserved

Objective 2: Restore degraded water resources and related natural systems to a naturally functioning condition.

- a. Acres of invasive nonnative aquatic plants in inventoried public waters

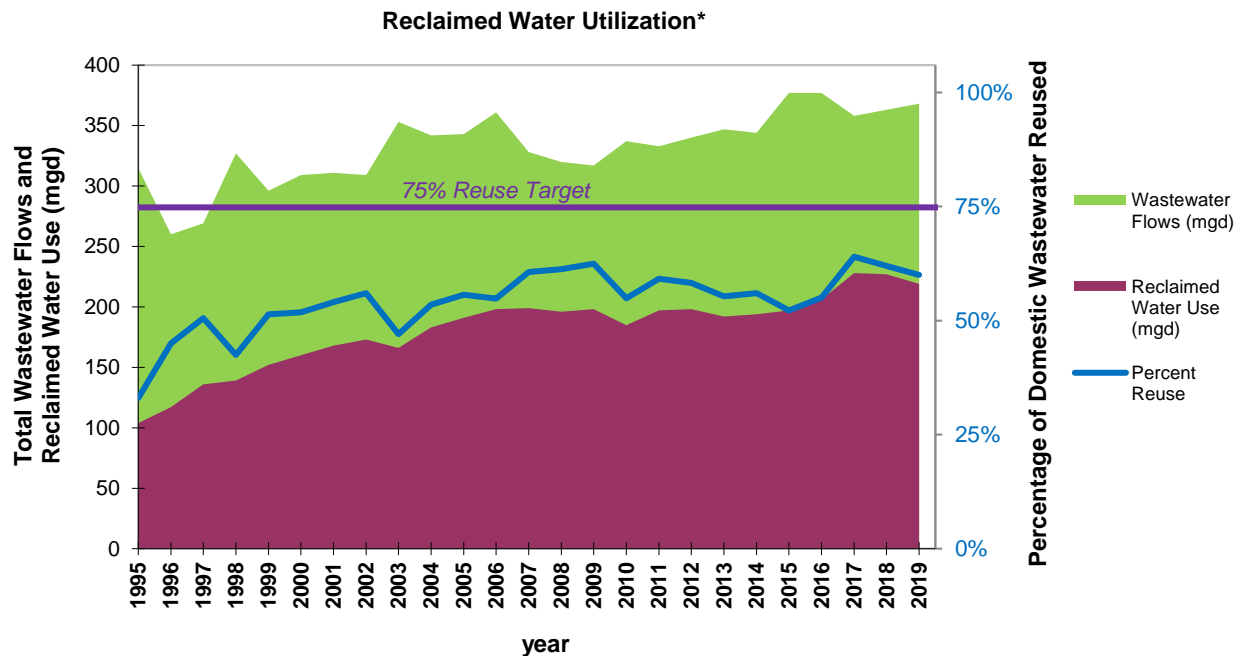
Flood Protection Measures

Objective 1: Minimize damage from flooding.

- a. Percentage of District works maintained on schedule

Water Supply Measure 1a: Percentage of domestic wastewater reused

The State and the District emphasize the beneficial use of reclaimed water as part of water supply planning strategies. This water resource has become an important alternative for potable quality supplies for such beneficial uses as irrigation, industrial processing, power generation and environmental enhancement. This measure is intended to reflect the quantity of reclaimed water available and reused.



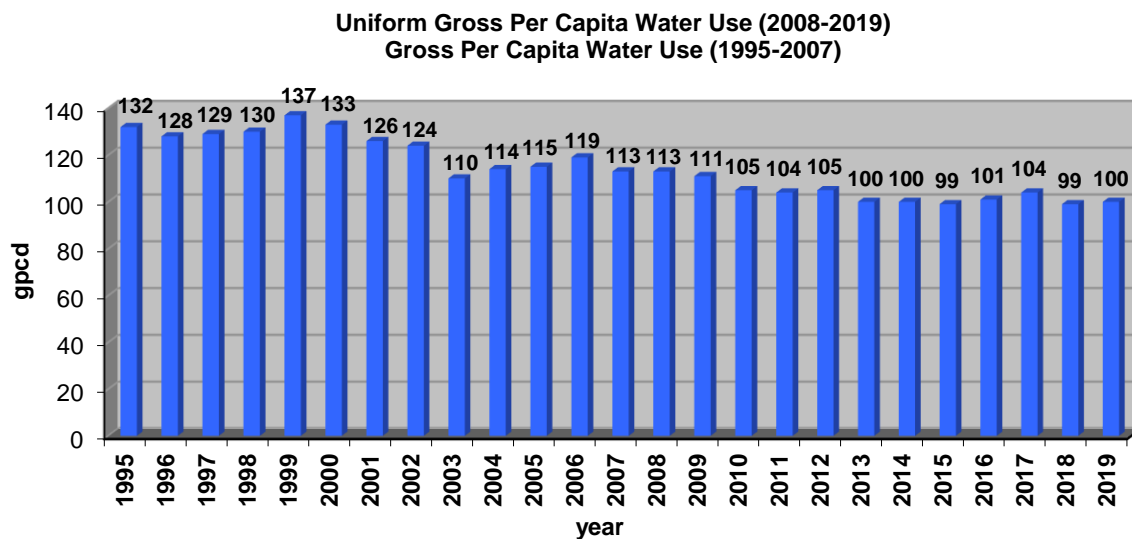
Source: 2019 Reuse Inventory, Florida Department of Environmental Protection, 2020.

The amount of domestic wastewater reused in the District has increased, from 104 million gallons per day (mgd) in 1995 to 219 mgd in 2019, based on available data. The percentage of wastewater reused has also increased, reaching 60 percent in 2019. The data show that there has been relatively stable growth in wastewater plant flows (i.e., reclaimed water available) and the amount of reclaimed water used over the past 25 years. The long-term increase in reclaimed water flows is associated with the increased number of online reclaimed water projects. Newly completed reclaimed water projects resulted in thousands of additional customers connected in 2019. Districtwide, reclaimed water customer numbers now exceed 151,000. This represents an increase in customers of more than 444 percent since 2000.

* Data reflect the DEP's definition of reclaimed water, which includes rapid infiltration basins (RIBs) at treatment plants and sprayfields. The reduced reuse percentages in some years reflect elevated wastewater treatment plant flows associated with increased infiltration and inflow of stormwater into sanitary sewer systems. The 75 percent reuse target goal by 2040 is based on wastewater flows and is applied Districtwide. District estimates of "beneficial" reuse flows for other planning and tracking exercises may vary based upon regional water supply goals.

Water Supply Measure 1b: Uniform gross per capita water use (Public Supply) by District and water supply planning regions

Public supply represents one of the largest water use sectors and is experiencing sustained year-to-year growth. Public supply water use includes the water distributed by most public and private water utilities. This measure is intended to show the trend of such use, recognizing that water conservation can serve as a significant source of “new water” to meet public needs. In 2008, the DEP and the water management districts established uniform statewide methods of measuring per capita for public water supply for the purposes of consistent statewide assessment of water conservation performance, reporting, program evaluation and for public communication. The Uniform Gross Per Capita is defined as utility service area finished water use divided by utility service area residential population and is reported for 2008-2019. Other years (1995-2007) were generated using an earlier methodology for gross per capita public supply use, calculated by dividing the total publicly supplied water used (in gallons per day) by the functional population (includes seasonal and tourist) served.

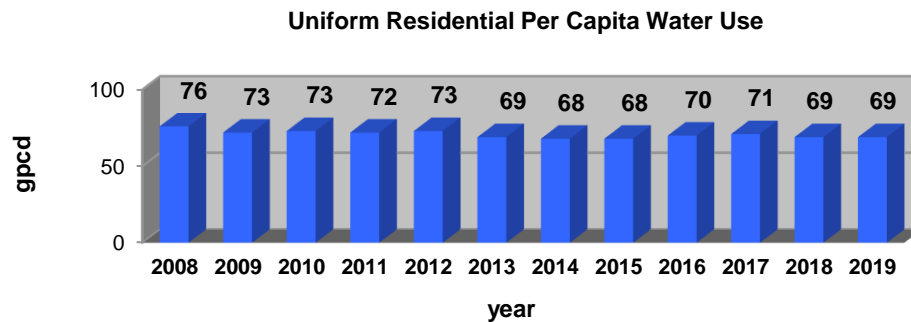


Source: SWFWMD Estimated Water Use Reports, 1995-2018, draft 2019.

The graphic reports gross per capita water use for the last 25 years. While it is recognized that many factors influence water use (e.g., rainfall), there has been a clear trend toward reduced per capita rates. This trend can be attributed in part to the increasing availability of reuse systems, water conservation programs, enhanced public awareness and related efforts. The per capita figures for 1999 and 2000 are reflective of the severe drought experienced Districtwide and resulting higher demand levels, in contrast to the per capita reduction in 2001 and 2002 “wet years.” Years 2003 to 2007 reflect a general trend toward lower per capita use rates. Years 2008 to 2019, which are based on uniform per capita water use, continue to show a general downward trend. This is credited to the continued increase in non-residential reclaimed water use and the implementation of conservation practices.

Water Supply Measure 1c: Uniform residential per capita water use (Public Supply) by District and water supply planning regions

This measure accounts for the portion of publicly supplied water that is used for residential purposes only. The uniform residential per capita is defined as the utility service area finished water used by dwelling units (not connections) divided by the utility service area residential population. The DEP and the five water management districts agreed on this per capita definition in 2008, and to include the data in the annual progress report. This is the twelfth reporting year for the residential uniform per capita measure.



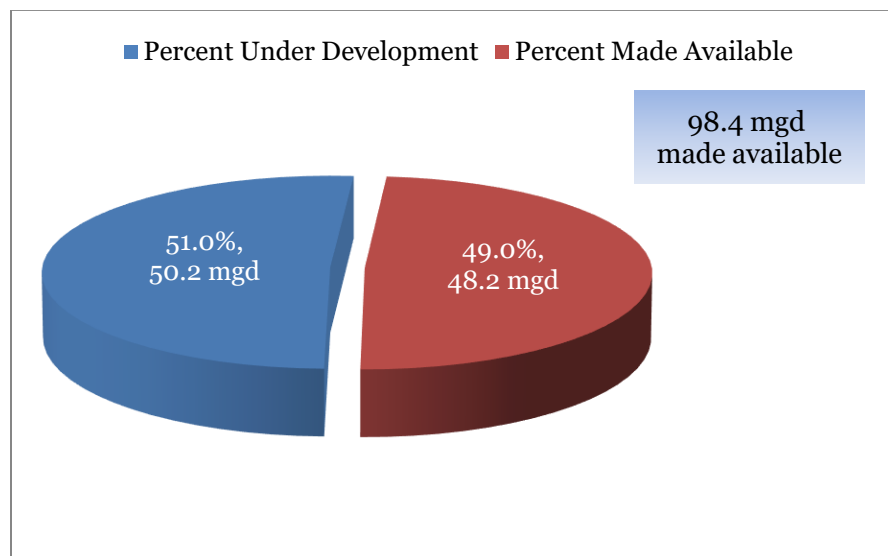
Source: SWFWMD Estimated Water Use Reports, 2008-2018, draft 2019.

To ensure a sustainable water supply, utilities are tapping alternative sources and emphasizing conservation. Opportunities exist for all public supply users to conserve, including residential users, which make-up a significant portion of the public supply customers. The District has devoted considerable resources to encourage the implementation of water conserving rate structures and indoor/outdoor practices for residential water users. These efforts have resulted in a uniform residential per capita water use decline of seven gallons per day since the methodology was implemented in 2008. Additionally, the District has implemented improvements to the reporting process to further ensure data accuracy.

Water Supply Measure 1d: Within each water supply planning region: 1) the estimated amount of water supply to be made available through the water resource development component of the Regional Water Supply Plan (RWSP); 2) percent of estimated amount under development; and 3) percent of estimated amount of water actually made available

The District is charged with expanding the "water pie" to assure future water supply availability. This can be done, in part, through water resource development. Projects receiving District funding assistance are categorized as either Water Resource Development (WRD) or Water Supply Development assistance. This measure is intended to document progress toward WRD. The District typically has the lead role in identifying and implementing WRD efforts.

Water Resource Development



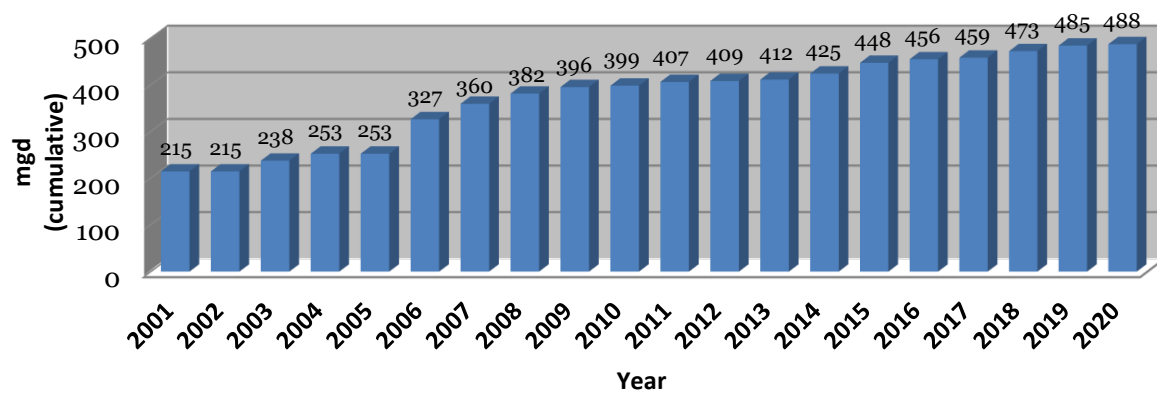
Source: SWFWMD 2021 Five-Year Water Resource Development Work Program, District Water Resources Staff, 2020

The District's WRD component takes two forms: activities and projects. The WRD "activities" are routine efforts that include hydrologic data collection, the evaluation and establishment of Minimum Flows and Levels (MFLs), watershed management planning, the Quality of Water Improvement Program that plugs abandoned wells to protect water quality, and stormwater storage and conveyance best management practice implementation. The District's WRD "projects" have particular goals and schedules and are intended to enhance the amount of water available for reasonable-beneficial uses and for natural systems. Current WRD projects include alternative water supply research and pilot projects, agricultural water conservation projects, and environmental restoration/MFL recovery projects. The water quantities produced or conserved by many WRD projects are difficult to measure until the projects are completed and the benefits are realized. Based on WRD projects undertaken and quantified since 2003, a total of 48.2 mgd has already been made available.

Water Supply Measure 1e: Within each water supply planning region, the estimated additional quantities of water supply made available through District water supply development assistance

The Water Supply Development (WSD) component of the District's RWSP identifies water supply options from which regional authorities, local governments, private utilities, and other water users can choose to meet their individual needs. The options are provided as reasonable concepts that water users may pursue for their water supply planning efforts. Water users are primarily responsible for developing these options and are encouraged to apply for funding assistance from the District. Some options are large scale alternative water supply projects that would likely be implemented by a regional water supply authority or a group of users. Other options, such as reclaimed water infrastructure and conservation programs, could be implemented by individual utilities and other users.

Water Supply Development

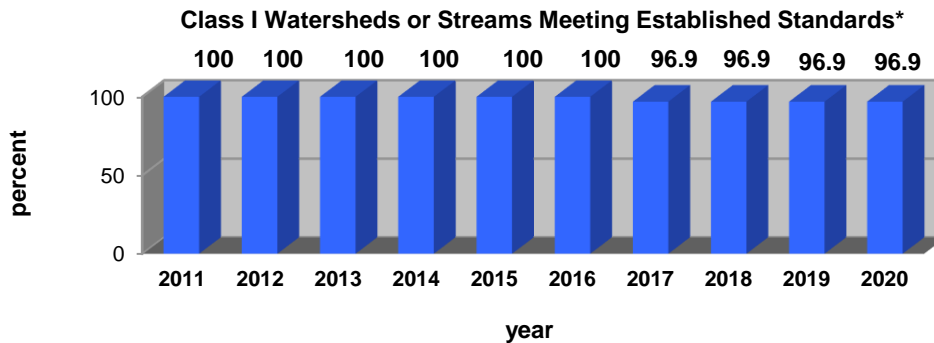


Source: District Water Resources Staff, 2020.

This graphic shows water supply made available or developed on a cumulative basis through WSD funding assistance. An estimated 488 mgd has been made available by completed projects. From 1994 through 2020, the District provided \$1.063 billion in project funding to develop and conserve water supplies. District funds are typically matched on a 50/50 cost-share basis with the partnering entity. Major accomplishments of the District's WSD component in FY2020 included completion of reclaimed water recharge studies in northwestern Polk County and in the Dover/Plant City Water Use Caution Area.

Water Supply Measure 2a: Percentage of surface water supply sources for which water quality fully attains the designated use

Protecting and maintaining high quality water for human use is a critical component of water management. It is essential these sources be monitored and maintained in a high-quality state for future water supply use. Under Florida's water quality monitoring programs, surface water bodies are regularly assessed to determine whether designated uses are being attained.



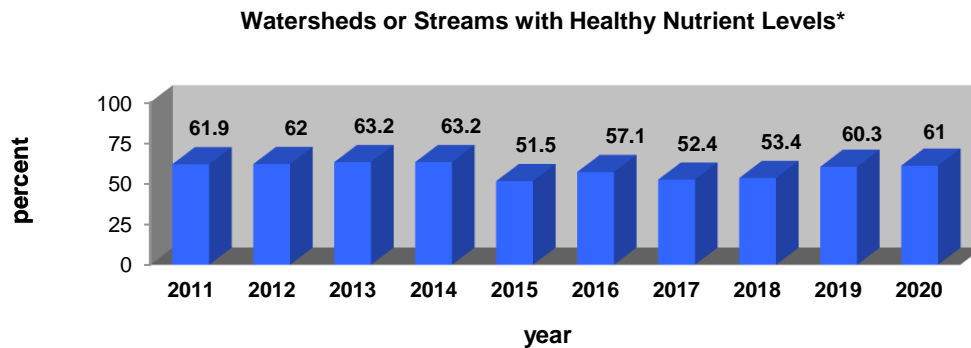
Source: Florida Department of Environmental Protection, 2011-2020.

Of the 62 Class I water body identification units (WBIDs) in the District, 32 water bodies were assessed in 2020. Data indicate these surface waters are currently meeting their designated use, except for iron impairment in one water body.

Since the 2011 reporting period, the methodologies utilized for determining whether a Class I Water is meeting its designated use have been based on assessment of toxic parameters (metals, pesticides, chemicals and un-ionized ammonia). In 2015, DEP implemented new reporting criteria for this metric. Since the differences between the old and new reporting criteria are minimal, comparisons to prior years can still be made.

Water Quality Measure 1a: Percent of surface waters with healthy nutrient levels

The District has an abundance of surface waters used for a variety of purposes by the people who live and work here, by those who are visiting, and by the fish and wildlife that depend on these waters. Excessive nutrient loading remains the largest single threat to these resources. While nutrients are essential to life and ecosystem functions, excessive nutrients can cause nuisance algal and plant growth, oxygen depletion, loss of water clarity, loss of desirable species, loss of biodiversity, flavor effects on drinking water, increased probability of human and animal pathogens and other water quality impairments. This measure documents the percentage of surface waters with healthy nutrient levels.



Source: Florida Department of Environmental Protection, 2011-2020.

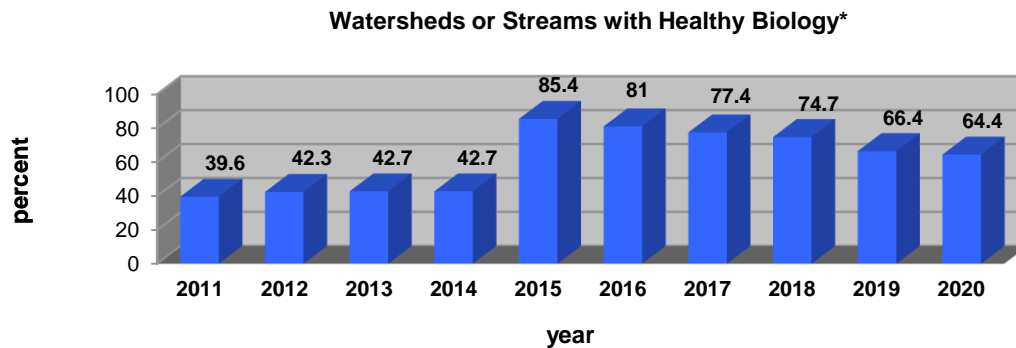
Of the total water bodies with sufficient data to satisfy assessment criteria (610 WBIDS out of 1,438 WBIDS Districtwide), 61 percent were determined to be healthy for nutrients in 2020.

In 2015, DEP implemented new reporting criteria. Under the new reporting criteria, nine nutrient-related parameters are utilized to determine waters with healthy levels of nutrients. For previous assessments, only two nutrient-related parameters (elevated Chlorophyll concentrations or trophic State Indices) were used. The expansion in the number of parameters evaluated has resulted in an increase in the number of water bodies determined to have unhealthy nutrient levels. Consequently, comparisons to years prior to 2015 can no longer be made.

**The data provided by DEP in 2014 is the same as that provided in 2013, as DEP was developing new reporting criteria that went into effect in 2015.*

Water Quality Measure 1b: Percentage of surface waters with healthy biological conditions

Biological conditions are included in the broader definition of water quality. These conditions are indicators of water body health, and include investigations of dissolved oxygen, habitat conditions and the health of aquatic insect communities. Most importantly, the conditions provide cumulative information on all activities occurring within the watershed and can be used to establish baseline characteristics, characterize the overall condition of a watershed, identify potential problem pollutants, target more intensive diagnostic sampling and to support land use planning and management. This measure addresses the percentage of assessed watersheds or stream reaches with healthy biological conditions.



Source: Florida Department of Environmental Protection, 2011-2020.

The DEP primarily uses the Stream Condition Index (SCI) and Biological Reconnaissance (BioRecon) to evaluate the biological conditions in flowing surface waters. Of the 250 watersheds or stream reaches assessed in 2020 within the District, 89 watersheds or stream reaches were determined to be impaired based on biological assessments. The numbers for the previous nine years are as follows: 2019 (232 assessed/78 impaired), 2018 (174 assessed/44 impaired), 2017 (159 assessed/36 impaired), 2016 (84 assessed/16 impaired), 2015 (48 assessed/7 impaired), 2014 (157 assessed/90 impaired), 2013 (157 assessed/90 impaired), 2012 (163 assessed/94 impaired), 2011 (164 assessed/99 impaired).

In 2015, DEP implemented new reporting criteria for this metric. The primary differences between the old and the new reporting criteria include the number and frequency of the water bodies assessed, the basin(s) targeted for the assessment, and the quality of the data being used in the assessment. These changes have resulted in a decrease in the number of water bodies determined to have unhealthy biological conditions. Consequently, comparisons to years prior to 2015 can no longer be made. The difference in the percentage of healthy water bodies during years 2011-2014 is believed to be largely due to the number and frequency of the water bodies assessed, as well as the basin(s) targeted for the assessment.

**The data provided by DEP in 2014 are the same as that provided in 2013, as DEP was developing new reporting criteria that went into effect in 2015. DEP uses LVI (Lake Vegetation Index) to assess biological health in lakes.*

Water Quality Measure 2a: Improving, degrading and stable trends for nitrate concentrations in springs

Increasing levels of nitrate-nitrogen in Upper Floridan aquifer groundwater discharging from springs is a continuing concern in the District and statewide. While not posing significant human health impacts, increasing nitrate concentrations stimulate the growth of aquatic vegetation which can alter the ecological function of springs and receiving water bodies. This measure is intended to identify District springs where nitrate concentrations are increasing (degrading), decreasing (improving), or remaining stable.

The table below summarizes nitrate trends for 48 selected springs within the District. As in previous years, the 2020 trends are determined using the Wilcoxon Rank-Sum test to compare data from the temporal groups of January 2013-December 2016 (Group 1) and January 2017-August 2020 (Group 2).

Trends in Nitrate* Concentrations in Selected Springs (Source: District Data Collection Bureau, 2020)

Spring	Wilcoxon P-Statistic	No. of Samples Group 1	Median Nitrate Group 1 (mg/l)	No. of Samples Group 2	Median Nitrate Group 2 (mg/l)	Wilcoxon Trend
ALLIGATOR SPRING (GUM SPRING 01A)	0.002956	16	1.612	14	1.703	DEGRADING
BAIRD SPRING	0.000018	16	0.284	15	0.323	DEGRADING
BELTONS MILLPOND MAINTENANCE SPRING	0.190374	16	0.163	14	0.124	IMPROVING
BETEEJAY SPRING	0.762839	16	0.448	12	0.456	DEGRADING
BIG KING SPRING	0.000112	14	1.001	15	2.359	DEGRADING
BLUEBIRD SPRING VENT	0.126370	4	0.735	13	0.682	IMPROVING
BOBHILL SPRING WQ	0.100915	16	0.671	15	0.633	IMPROVING
BUCKHORN MAIN SPRING	0.005324	16	2.042	15	2.129	DEGRADING
CANAL 485A SPRING 1B	0.000018	16	1.293	15	2.219	DEGRADING
CATFISH SPRING	0.000256	16	0.368	15	0.417	DEGRADING
CHASSAHOWITZKA 1 SPRING	0.006005	16	0.632	15	0.654	DEGRADING
CHASSAHOWITZKA MAIN SPRING	0.259928	16	0.578	15	0.584	DEGRADING
CITRUS-BLUE SPRING	0.921280	16	0.785	15	0.838	DEGRADING
CRAB CREEK SPRING	0.055221	16	0.627	15	0.656	DEGRADING
FENNEY SPRING	0.827891	16	0.174	15	0.262	DEGRADING
GOLFVIEW BOATHOUSE SPRING	0.713303	4	0.264	5	0.275	DEGRADING
GUM SPRINGS 1	0.000984	15	1.538	14	1.765	DEGRADING
GUM SPRINGS 2	0.013224	16	1.436	13	1.538	DEGRADING
GUM SPRINGS MAIN	0.000965	16	1.541	15	1.653	DEGRADING
HALLS RIVER HEAD MAIN SPRING	0.192288	3	0.436	15	0.486	DEGRADING
HEALTH SPRING	0.000543	16	3.800	15	4.831	DEGRADING
HIDDEN RIVER 2 SPRING	0.496629	16	0.935	13	0.940	DEGRADING
HIDDEN RIVER HEAD SPRING	0.947553	16	0.967	13	0.960	IMPROVING
HILLSBOROUGH RIVER CRYSTAL SWAMP 1	0.054031	16	2.199	12	2.077	IMPROVING
HOMOSASSA 1 SPRING	0.000006	16	0.667	15	0.732	DEGRADING
HOMOSASSA 2 SPRING	0.000006	16	0.628	15	0.691	DEGRADING
HOMOSASSA 3 SPRING	0.000003	16	0.678	15	0.756	DEGRADING
HOUSE SPRING	0.060602	4	0.499	4	0.549	DEGRADING
HUNTER SPRING	0.001264	16	0.604	13	0.672	DEGRADING
JENKINS CREEK SPRING	0.649413	16	0.803	15	0.801	IMPROVING
LITHIA MAIN SPRING	0.678106	16	2.493	15	2.500	DEGRADING
LITTLE KING SPRING	0.000403	16	0.727	15	1.372	DEGRADING
LITTLE WEEKI WACHEE SPRING	0.149750	15	0.798	14	0.830	DEGRADING
MAGNOLIA CIRCLE SPRING	0.000403	16	0.568	15	0.655	DEGRADING
MAGNOLIA SPRING	0.003669	16	0.591	15	0.550	IMPROVING

Spring	Wilcoxon P-Statistic	No. of Samples Group 1	Median Nitrate Group 1 (mg/l)	No. of Samples Group 2	Median Nitrate Group 2 (mg/l)	Wilcoxon Trend
PARKER ISLAND SPRING	0.492767	16	0.194	14	0.197	DEGRADING
RAINBOW 1 SPRING	0.000965	16	2.334	15	2.608	DEGRADING
RAINBOW 4 SPRING	0.000051	16	2.231	15	2.504	DEGRADING
RAINBOW 6 SPRING	0.003027	16	1.423	15	1.473	DEGRADING
RAINBOW BRIDGE SEEP NORTH	0.000003	16	1.705	15	1.957	DEGRADING
RAINBOW BUBBLING SPRING	0.000015	16	1.773	15	2.067	DEGRADING
RAINBOW SWAMP 3 SPRING	0.476722	16	1.689	15	1.665	IMPROVING
RUTH SPRING	0.441861	16	0.672	14	0.662	IMPROVING
TARPON HOLE COMPOSITE	0.775611	16	0.220	13	0.219	IMPROVING
TROTTER MAIN	0.000256	16	0.714	15	0.748	DEGRADING
WEEKI PRESERVE SPRING	0.373793	16	0.262	15	0.250	IMPROVING
WEEKI WACHEE SPRING	0.109398	16	0.885	15	0.902	DEGRADING
WILSON HEAD SPRING	0.593595	16	0.480	15	0.494	DEGRADING

* the sum of nitrite and nitrate are used to represent nitrate

The Wilcoxon Rank-Sum test was used to determine whether there is a significant difference between spring water quality data populations grouped by time periods. It is a non-parametric statistical test that is used to determine whether one independent group of observations tends to contain larger values than another independent group. The Wilcoxon Rank-Sum test calculates a p-value, which is a statistical significance level generated by the data comparison. If the p-value is less than 0.05, or the 95 percent confidence level, the groups are considered significantly different.

Water quality, with respect to nitrate for these 48 selected springs in the District, remained the same overall when compared to last year's report. The trends for 41 springs did not change, while five springs changed from improving or stable to degrading and two formerly degrading springs changed to improving. It should be noted that differences in nitrate levels are typically minimal from year to year, and the difference in median concentrations between temporal groups ranged from 0.001 (improving) at Tarpon Hole Composite, to 1.36 mg/l for Big King Spring, which is a significant change for this small spring. However, there were just 24 of the 48 springs analyzed that exhibited a statistically significant nitrate trend, based on the 95% confidence threshold specified for the test.

Nitrate concentrations in springs may fluctuate based on a variety of factors including land use changes, climate, irrigation practices, etc. Various DEP initiatives support funding for investigations and implementation of strategies to improve water quality in Florida's springs, including recognition of the significance of public education. The District continues to support springs conservation and water quality improvements through cooperative funding initiatives and restoration efforts, such as storm water improvement projects, assisting with agricultural efficiencies, and conversion of onsite septic systems to municipal wastewater collection and treatment systems in spring basins.

Natural Systems Measure 1a: Number of MFLs, by water body type, established annually and cumulatively

The District maintains and annually updates a “Minimum Flows and Levels Priority List and Schedule” that identifies water bodies for which the District plans to establish minimum flows and minimum water levels (MFLs). The priority list and schedule are based on the importance of the waters to the State or region and includes those waters which are experiencing or may reasonably be expected to experience adverse impacts. The District continues to make progress in MFLs establishment.

By the end of FY2020, the District had established (i.e., adopted by rule) MFLs for 127 lakes, 36 wetlands, 23 river segments, 10 springs or spring complexes, 7 Upper Floridan aquifer (UFA) wells in the Northern Tampa Bay Water Use Caution Area, a single aquifer site in the Dover/Plant City Water Use Caution Area, and the UFA in the most impacted area of the Southern Water Use Caution Area (SWUCA) for a total of 205 established MFLs. The District had also established 2 reservations, including a reservation for water from Morris Bridge Sink for recovery of MFLs adopted for the lower Hillsborough River and a reservation for water stored in Lake Hancock and released to lower Saddle Creek for recovery of MFLs adopted for the upper Peace River. In addition, the District had also adopted revised MFLs for 19 wetlands, 42 lakes, 3 river segments and 3 springs or spring groups, completed reevaluations indicating that adopted MFLs for 1 river segment, 14 wetlands and 2 lakes did not require revision, determined MFLs revision was not appropriate for 7 wetlands, and determined that MFLs development for the intermediate aquifer system in the SWUCA was not technically feasible. The following table lists the number of MFLs that have been developed by the District as new MFLs annually and the resulting cumulative total during the past 15 years.

Lakes/Wetlands, Rivers/Streams, Springs and Aquifers with MFLs

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Lakes and Wetlands*															
Cumulatively	128	144	145	145	147	147	149	157	160	161	161	163	168	168	163
Annually	24	16	1	0	2	0	2	8	3	1	1	2	5	0	2
River/Stream Segments															
Cumulatively	7	10	11	13	16	16	17	19	19	19	19	21	23	23	23
Annually	3	3	1	2	3	0	1	2	0	0	0	2	2	0	0
Springs**															
Cumulatively	0	2	7	9	9	9	9	15	15	15	16	10	10	10	10
Annually	0	2	5	2	0	0	0	6	0	0	1	2	0	0	0
Aquifers (Wells or Systems)															
Cumulatively	8	8	8	8	9	9	9	9	9	9	9	9	9	9	9
Annually	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0

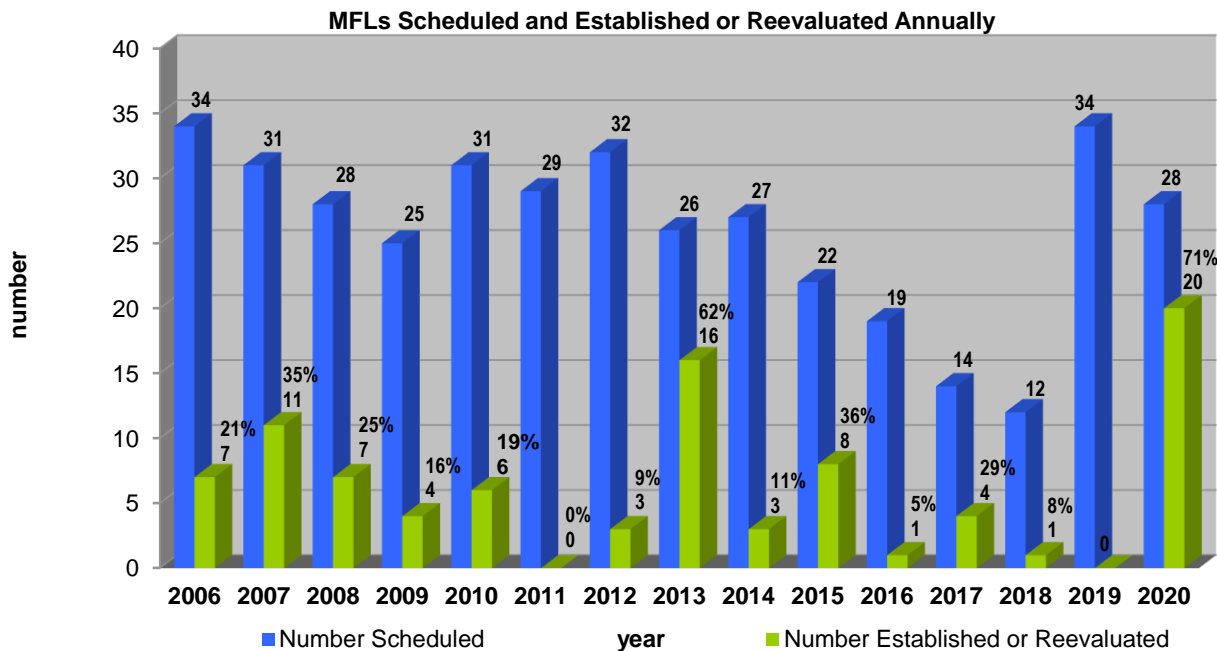
Source: SWFWMD Environmental Flows and Assessments Staff, 2020.

* The decrease in cumulatively adopted lakes and wetlands MFLs for FY2020 relative to FY2019 is associated with the repeal of 7 wetland MFLs with two of those being replaced with alternate sites, resulting in a net reduction of 5 wetlands in the cumulative total.

** The decrease in cumulatively adopted springs MFLs for FY2017 relative to FY2016 is associated with a revised approach for counting springs and spring groups.

Natural Systems Measure 1b: Percentage of MFLs established or reevaluated in accordance with previous year's schedule

The District's Minimum Flows and Levels Priority List and Schedule identifies lakes, wetlands, river/streams, springs and aquifers for which MFLs are to be established and reevaluated. The priority list and schedule is updated annually and submitted to the DEP for approval. The following graphic shows the number of water bodies scheduled for MFLs establishment and/or reevaluation on an annual basis along with the number adopted and/or reevaluated for the past 15 years to provide a means for tracking progress in MFLs establishment.



Source: SWFWMD Environmental Flows and Assessments Staff, 2020.

The 2019 (2019-2020) MFLs Priority List identified a total of 28 MFLs scheduled for establishment or reevaluation during calendar year 2020, including those for 5 lakes, 21 wetlands, and 2 river segments. MFLs were adopted or repealed for 20 of these priority water bodies in FY2020 following their reevaluation. Board approval for initiation of rulemaking associated with the reevaluation of 1 wetland also occurred in FY2020, and approval for initiation of rulemaking is anticipated by the end of calendar year 2020 for reevaluations associated with 1 water body (Lake Linda) scheduled for 2019, 5 water bodies (lower Peace River and lakes Cypress, Garden, Halfmoon and Strawberry [North Crystal]) scheduled for 2020, and 1 water body (Pasco Lake) scheduled for 2027.

Rulemaking for 32 priority water bodies (lakes Calm, Charles, Church, Echo, and Sapphire, 20 wetlands, Chassahowitzka River, Chassahowitzka Spring Group, Blind Spring, Homosassa River, Homosassa Spring Group, Rainbow River, and Rainbow Spring Group) scheduled for MFLs reevaluation in 2019, and for 3 water bodies (Lake Marion and 2 wetlands) not previously scheduled for MFLs reevaluation or establishment was also completed in FY2020.

MFLs establishment was delayed for 2 (lower Shell Creek and Lake Jackson) of the 28 priority water bodies scheduled for reevaluation or establishment in calendar year 2020. The delay for the lower Shell Creek MFLs was due to the need for additional data collection and analysis for determination of the need for a recovery or prevention strategy. The delay for the Lake Jackson MFLs was due to modeling complications. Despite the delays, the progress of this program is considered good.

Natural Systems Measure 1c: For the previous fiscal year, the total acres of wetlands or other surface waters authorized by Environmental Resource Permit (ERP) to be impacted and the number of acres required to be created, enhanced, restored and preserved

The ERP Program evaluates surface water management systems for impacts to natural systems (surface water and wetlands), water quality, and water quantity (flood protection) from various development projects. Impacts to surface waters and wetlands, unless specifically exempted, must be eliminated or reduced and, if unavoidable, mitigated. The intent of mitigation is to replace the functions of the impacted natural systems, whether involving water quality treatment, flood protection, wildlife habitat or other factors. This measure addresses the extent to which natural systems are impacted, and the extent to which impacted systems are replaced.

Environmental Resource Permit Results (Acres)*													
Wetlands	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Impacted (temporary & permanent)	743	840	492	535	492	478	594	856	746	760	925	928	1292
Created/ Restored	656	923	1016	1088	285	127	156	432	206	207	549	77	129
Enhanced	823	380	1995	1743	269	293	189	100	251	482	367	345	797
Preserved	4418	3811	3641	3948	4248	1809	2079	1363	2054	4046	4020	4839	1950

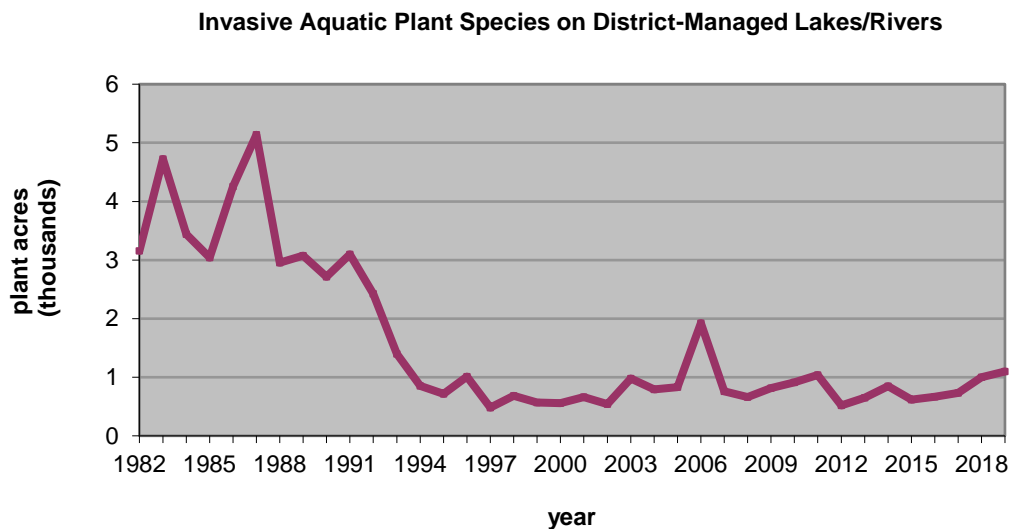
Source: SWFWMD Environmental Resource Permitting Database, October 2020.

The District's ERP Program shows a strong preference for avoiding wetland impacts as the best means to retain the functions of these important systems. Although the replacement requirement for unavoidable wetland impacts is based on functional value, the combination of creating, restoring and enhancing wetlands more than offset acres impacted in years 2008-2012.

** Acreages are rounded to whole numbers and have been adjusted from 2014 forward to match the data reported in the DEP Wetland Gain/Loss Report. In FY2012, the methodology for reporting the ERP wetland acres was adjusted to reflect only the UMAM mitigation acres needed to offset the wetland impact functional loss. Prior to FY2012, the data included acres not impacted in the "Preserved" total. The "Preserved" total now only includes acres preserved by a conservation easement that was included as part of the required mitigation. Short form modifications to mitigation banks, which are reported in earlier years, are also now excluded.*

Natural Systems Measure 2a: Acres of invasive nonnative aquatic plants in inventoried public waters

The protection and management of natural surface waters cannot be accomplished without effectively managing troublesome exotic aquatic plant species that can reduce the abundance and diversity of beneficial native plant populations, negatively impact fish and wildlife habitat, hinder navigation and recreational use, degrade water quality, impede water flow and increase sedimentation rates. Aquatic plant management operations conducted by the District on publicly accessible natural waters are funded by and coordinated with the Florida Fish and Wildlife Conservation Commission (FWC) under the Cooperative Aquatic Plant Control Program. This measure is intended to monitor how well the District is managing invasive plant species on public waterways under its jurisdiction.



Source: Florida Fish and Wildlife Conservation Commission Invasive Plant Management Section's Annual Survey Database, 2019.

Populations of the invasive aquatic plant species (e.g., hydrilla, water hyacinth and water lettuce) have been managed at maintenance levels on the public waters managed by the District since 1994. These are the most troublesome plants requiring management on an annual basis. In 2019, a total of 1,097 acres were detected on the 24,500 acres of District-managed lakes and rivers. This represents approximately a four percent coverage of the aforementioned invasive species and reflects a continuation of effective maintenance control. Some variation in plant acreages is expected on a year-to-year basis as ecological conditions, such as water levels or water quality conditions, may result in increased or decreased growth potential or affect planned control operations. It is not realistic to expect complete eradication. The goal is "maintenance control" where targeted plants are regularly monitored and maintained at the lowest feasible level. Additionally, the management philosophy for hydrilla has been evolving since control of the aquatic plant management program was transferred to the FWC. On some waters, the FWC supports allowing the coverage of hydrilla to increase when benefiting the primary use of a water body such as waterfowl hunting.

Flood Protection Measure 1a: Percentage of District works maintained on schedule

The District maintains a total of 86 structures, including water conservation structures, salinity barriers, pump stations and flood control structures. It is essential these facilities be maintained to optimally perform the respective functions. Information contained in the Structure Operations Five-Year Maintenance Plan serves as the guideline for scheduling maintenance on District works.

Year	Number of Structures	Percent of Structures Maintained on Schedule
2016*	81	80
2017*	81	81
2018*	86	75
2019*	86	75
2020*	85	70

Source: SWFWMD Operations Staff, 2020.

In FY2020, inspections and evaluations were completed for the District's 18 flood control structures and other structures, including S-159 on the Tampa Bypass Canal in Hillsborough County, S-353 and Inglis Main Dam Spillway in Citrus County, Inglis Bypass Structure in Levy County, G-90 in Highlands County, and WC2 in Sumter County. Repairs were completed for the following structures: Bay Lake (Hillsborough), Stemper (Hillsborough), Lake Parker (Polk) and Lake Consuella (Citrus).

The next phase of the District's capital improvement programming effort involves inspections and evaluations of the District's 68 water conservation structures. This effort is under way and completion is scheduled in 2023.

The District uses a five-year plan to address all needed routine and preventative maintenance on District structures, including the necessary budgets to accomplish the work. Funding for necessary repairs/improvements is incorporated into the five-year plan and prioritized based on those most critically needed.

** In FY2016-2020, some structures were not maintained on schedule due to implementation of new inspection and maintenance requirements and staff work associated with hurricane and other major storm events.*

Consolidated **Annual**
Report
March 1, 2021

2020 Priority List and Schedule

*for the Establishment of Minimum Flows,
Minimum Water Levels and Reservations*

Southwest Florida
Water Management District

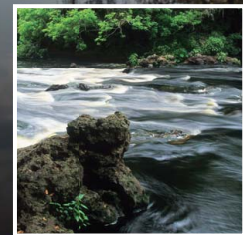
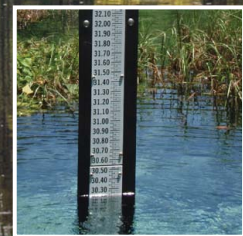


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SOUTHWEST FLORIDA WATER MANAGEMENT

2020 PRIORITY LIST AND SCHEDULE

Overview

Pursuant to Sections 373.036(7) and 373.042(3), Florida Statutes (F.S.), the Southwest Florida Water Management District is required to annually update its priority list and schedule for the establishment of minimum flows and minimum water levels, submit the updated list and schedule to the Florida Department of Environmental Protection (DEP) by November 15th for approval, and include the approved list and schedule in the District's Consolidated Annual Report by March 1st. Minimum flows and minimum water levels are rules established by the state water management districts or DEP that define the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area. In addition to prioritized minimum flows and water levels, the priority list and schedule must include reservations proposed for establishment. 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.

The District prepared this 2020 priority list and schedule to address all relevant statutory directives, and guidance concerning minimum flow, minimum water level and water reservation prioritization included in Rules 62-40.473, and 62-40.474 within the State Water Resource Implementation Rule (Chapter 62-40, Florida Administrative Code (F.A.C.)).

As of FY2020, District rules include minimum flows or minimum water levels for 205 water bodies (Chapter 40D-8, F.A.C.) and reservations for 2 water bodies (Chapter 40D-2, F.A.C.). As listed in this draft 2020 priority list and schedule, minimum flows or water levels have been established for 127 lakes, 36 wetlands, 23 freshwater and estuarine river segments, 10 springs or spring groups (including all first magnitude springs and all second magnitude springs within the District that occur within state or federal lands purchased for conservation purposes), 7 Upper Floridan aquifer (UFA) sites in the northern Tampa Bay area, an UFA site in the Dover/Plant City area, and the UFA in the Most Impacted Area of the Southern Water Use Caution Area. Eighty-four of these established minimum flows and levels have been reevaluated and revised, as necessary and 7 additional minimum flows and levels repealed following their reevaluation. As also noted in this draft 2020 priority list and schedule, reservations have been established for Lake Hancock/Lower Saddle Creek and Morris Bridge Sink to support minimum flow recovery in 2 rivers.

Minimum flows, minimum water levels and reservations proposed for establishment and reevaluation through 2023 are provided in tabular form in this 2020 priority list and schedule. Designation of water body type (aquifer, estuary, lake, river, river-estuary, spring and as appropriate, spring magnitude, which is associated with the rate of spring discharge) are provided along with location information. Water bodies that are part of a larger system, e.g., a spring group associated with a river, are listed by water body name and system.

The District's intent regarding completion of voluntary, independent, scientific peer review is also identified for each prioritized water body. Voluntary scientific peer review is proposed for all prioritized spring and river segments identified for minimum flow establishment based on the expected level of complexity of the minimum flows, and the anticipated degree of public concern regarding their development. None of the prioritized lake minimum levels are expected to be subjected to voluntary scientific peer review, based on anticipated use of previously peer-reviewed methodologies for development of the minimum water levels.

Prioritized water bodies that may be affected by withdrawals occurring in other water management districts, i.e., are potentially subject to cross-boundary impacts, are identified to support coordination of regulatory activities among the districts and DEP. Development of minimum flow or water levels by the DEP for these water bodies is not, however, currently considered necessary or appropriate.

Finally, the status of rulemaking for each prioritized water body is also provided.

Southwest Florida Water Management District Water Bodies with Adopted and Effective Minimum Flow and Minimum Water Level Rules, Including Those That Have Been Reevaluated

- Alafia River (upper segment) ^a
- Alafia River (lower segment)/Lithia-Buckhorn Spring Group
- Anclote River (lower segment)
- Anclote River (upper segment)
- Braden River (upper segment)
- Chassahowitzka River/Chassahowitzka Spring Group (OFS) ^b and Blind Spring (reevaluated)
- Citrus County Lakes – Ft. Cooper, Tsala Apopka – Floral City, Inverness and Hernando Pools
- Crystal River/Kings Bay Spring Group (OFS) ^b
- Crystal Springs
- Dona Bay/Shakett Creek System
- Dover/Plant City Water Use Caution Area Minimum Aquifer Level
- Gum Slough Spring Run ^a
- Hernando County Lakes – Hunters, Lindsey, Mountain, Neff, Spring, Tooke, Weekiwachee Prairie, Whitehurst
- Highland County Lakes – Angelo ^a, Anoka ^a, Damon ^a, Denton ^a, Jackson (reevaluated) ^a, Little Lake Jackson (reevaluated) ^a, June-in-Winter ^a, Letta (reevaluated) ^a, Lotela (reevaluated) ^a, Placid ^a, Tulane ^a, Verona ^a
- Hillsborough County Lakes – Alice (reevaluated), Allen (reevaluated), Barbara, Bird (reevaluated), Brant (reevaluated), Calm (reevaluated), Carroll, Charles (reevaluated), Church (reevaluated), Crenshaw, Crescent, Crystal (reevaluated), Cypress, Dan (reevaluated), Deer (reevaluated), Dosson (reevaluated), Echo (reevaluated), Ellen, Fairy [Maurine], Garden, Halfmoon, Hanna, Harvey (reevaluated), Helen, Hobbs (reevaluated), Hooker, Horse (reevaluated), Jackson, Juanita (reevaluated), Keene, Kell, Little Moon (reevaluated), Merrywater (reevaluated), Mound, Platt, Pretty, Rainbow (reevaluated), Raleigh, Reinheimer, Rogers, Round (reevaluated), Saddleback (reevaluated), Sapphire (reevaluated), Starvation, Stemper (reevaluated), Strawberry, Sunset (reevaluated), Sunshine (reevaluated), Taylor, Virginia (reevaluated), Wimauma
- Hillsborough County Wetlands Sites – Cypress Bridge 32 (reevaluated), Cone Ranch 1 (reevaluated), Cone Ranch 2 (reevaluated), Cone Ranch 3 (reevaluated), Cone Ranch 4 (reevaluated), Cone Ranch 5 (reevaluated), Cone Ranch 6 (reevaluated), Eldridge Wilde 11 (NW-44) (reevaluated), Morris Bridge Clay Gully Cypress (MBR-88) (reevaluated), Morris Bridge Entry Dome (MBR-35) (reevaluated), Morris Bridge Unnamed (MBR-16) (reevaluated), Morris Bridge X-4 (MBR-89) (reevaluated)
- Hillsborough River (lower segment) (reevaluated)
- Hillsborough River (upper segment)
- Homosassa River/Homosassa Spring Group (OFS) (reevaluated) ^b
- Levy County Lake – Marion (reevaluated)
- Marion County Lakes – Bonable, Little Bonable, Tiger
- Myakka River (lower segment)
- Myakka River (upper segment)
- Northern Tampa Bay – 7 Wells – Upper Floridan aquifer/Saltwater Intrusion
- Pasco County Lakes – Bell, Big Fish (reevaluated), Bird, Buddy (reevaluated), Camp (reevaluated), Clear, Crews, Green, Hancock, Iola, Jessamine, King, King [East], Linda, Middle, Moon (reevaluated), Padgett (reevaluated), Parker aka Ann, Pasadena (reevaluated), Pasco, Pierce (reevaluated), Unnamed #22 aka Loyce
- Pasco County Wetland Sites – Cross Bar Q-1 (reevaluated), Cross Bar Q-25 (Stop #7), Cross Bar T-3 (reevaluated), Cypress Bridge A (reevaluated), Cypress Bridge 4 (reevaluated), Cypress Bridge 16 (reevaluated), Cypress Bridge 25 (reevaluated), Cypress Creek W-56 (G) (reevaluated), Cypress Creek W-11 (reevaluated), Cypress Creek W-12 (reevaluated), Cypress Creek W-17 (reevaluated), North Pasco 3 (reevaluated), North Pasco 21 (reevaluated), South Pasco 2 (NW-49) (reevaluated), South

Pasco 6 (NW-50) (reevaluated), South Pasco South Cypress (reevaluated), Starkey Central (reevaluated), Starkey Eastern (S-73) (reevaluated), Starkey M (S-69) (reevaluated), Starkey N (reevaluated), Starkey S-75 (reevaluated), Starkey S-99, Starkey Z (reevaluated)

- Peace River (lower segment) (reevaluated)
- Peace River (middle segment)
- Peace River (three upper segments – "low" minimum flows)
- Pinellas County Wetland Site – Eldridge Wilde 5
- Pithlachascotee River (lower segment)
- Pithlachascotee River (upper segment)
- Polk County Lakes – Annie ^a, Aurora ^a, Bonnie ^a, Clinch (reevaluated) ^a, Crooked (reevaluated) ^a, Crystal ^a, Dinner ^a, Eagle (reevaluated) ^a, Easy ^a, Eva ^a, Hancock, Lee ^a, Lowery ^a, Mabel ^a, McLeod (reevaluated) ^a, North Lake Wales ^a, Parker, Starr (reevaluated) ^a, Venus ^a, Wailes (reevaluated) ^a
- Rainbow River/Rainbow Spring Group (OFS) ^{a, b}
- Sulphur Springs
- Sumter County Lakes – Big Gant ^a, Black ^a, Deaton ^a, Miona ^a, Okahumpka ^a, Panasoffkee ^a
- Southern Water Use Caution Area – Upper Floridan aquifer
- Tampa Bypass Canal
- Weeki Wachee River/Weeki Wachee Spring Group (OFS) ^b

Southwest Florida Water Management District Water Bodies with Adopted and Effective Reservation Rules

- Lake Hancock/Lower Saddle Creek (water reserved to contribute to achieving minimum flows adopted for the three upper segments of the Peace River for the protection of fish and wildlife)
- Morris Bridge Sink (water reserved to contribute to achieving or maintaining minimum flows adopted for the lower segment of the Hillsborough River for the protection of fish and wildlife)

Southwest Florida Water Management District Minimum Flows and Levels to be Adopted in 2020

New or Re-Evaluation	Waterbody Name or Compliance Point	System Name ^c	Waterbody Type	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude	Longitude	Rulemaking Status ^d
Reevaluation	Cypress, Lake	Cypress, Lake	Lake	Hillsborough	No	No	28.125561	-82.564727	N/A
Reevaluation	Garden, Lake	Garden, Lake	Lake	Hillsborough	No	No	28.131751	-82.63094	N/A
Reevaluation	Halfmoon Lake	Halfmoon Lake	Lake	Hillsborough	No	No	28.097114	-82.548128	N/A
Reevaluation	Jackson, Lake	Jackson, Lake	Lake	Hillsborough	No	No	28.137542	-82.629974	N/A
Reevaluation	Linda, Lake	Linda, Lake	Lake	Pasco	No	No	28.1890	-82.4787	N/A
Reevaluation	Strawberry (North Crystal) Lake	Strawberry (North Crystal) Lake	Lake	Hillsborough	No	No	28.139517	-82.474755	N/A
Reevaluation	Cross Bar Q-25 (Stop #7)	Cross Bar Q-25 (Stop #7)	Wetland	Pasco	No	No	28.3436	-82.4744	Rule Adopted, Ratification not required
Reevaluation	Peace River (lower segment)	Peace River (lower segment)	River-Estuary	Hardee, DeSoto, Charlotte	Yes	Yes	27.2206	-81.8764	N/A

Southwest Florida Water Management District Minimum Flows and Levels to be Adopted in 2021

New or Re-Evaluation	Waterbody Name or Compliance Point	System Name ^c	Waterbody Type	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude	Longitude	Rulemaking Status ^d
New	Shell Creek (lower segment)	Shell Creek (lower segment)	River-Estuary	Charlotte	Yes	Yes	26.9844	-81.9358	N/A

Southwest Florida Water Management District Minimum Flows and Levels to be Adopted in 2022

New or Re-Evaluation	Waterbody Name or Compliance Point	System Name ^c	Waterbody Type	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude	Longitude	Rulemaking Status ^d
Reevaluation	North Lake Wales	North Lake Wales	Lake	Polk	No	No	27.9096	-81.5805	N/A
Reevaluation	Tulane, Lake	Tulane, Lake	Lake	Highlands	No	No	27.5860	-81.5036	N/A
Reevaluation	Verona, Lake	Verona, Lake	Lake	Highlands	No	No	27.5978	-81.4969	N/A
New	Little Manatee River (lower segment)	Little Manatee River (lower segment)	River-Estuary	Hillsborough	Yes	No	27.6708	-82.3528	N/A
New	Little Manatee River (upper segment)	Little Manatee River (upper segment)	River	Hillsborough, Manatee	Yes	No	27.6708	-82.3528	N/A

Southwest Florida Water Management District Minimum Flows and Levels to be Adopted in 2023

New or Re-Evaluation	Waterbody Name or Compliance Point	System Name ^c	Waterbody Type	County(s)	Voluntary Peer Review to be Completed?	Cross-Boundary Impacts from Adjacent WMD?	Latitude	Longitude	Rulemaking Status ^d
New	Braden River (lower segment)	Braden River (lower segment)	River-Estuary	Manatee	Yes	No	27.4411	-82.4878	N/A
New	Charlie Creek	Charlie Creek	River	Hardee, Polk	Yes	No	27.3747	-81.7967	N/A
New	Manatee River (lower segment)	Manatee River (lower segment)	River-Estuary	Manatee	Yes	No	27.5133	-82.3672	N/A
New	Horse Creek	Horse Creek	River	Hardee, DeSoto	Yes	No	27.1992	-81.9886	N/A
Reevaluation	Southern Water Use Caution Area Saltwater Intrusion Minimum Aquifer Level (SWIMAL)	Southern Water Use Caution Area Saltwater Intrusion Minimum Aquifer Level (SWIMAL)	Aquifer	Hillsborough, Manatee, Sarasota	Yes	No	27.5603	-82.4013	N/A

^a Water body may be affected by groundwater withdrawals in an adjacent water management district.

^b OFS = Outstanding Florida Spring.

^c System name identifies larger system that the water body is associated with for minimum flows rule development; otherwise system name is same as waterbody name or compliance point

^d Last rulemaking action taken: Notice of Rule Development published; Notice of Proposed Rule published; Rule challenge pending; Rule adopted, Ratification not required; Rule adopted, Awaiting ratification; Rule adopted, Ratified. N/A indicates formal rulemaking has not been initiated.

Consolidated **Annual**
Report
March 1, 2021

2020 Minimum
Flows and Levels /
Water Quality Grade
for Projects

Southwest Florida
Water Management District

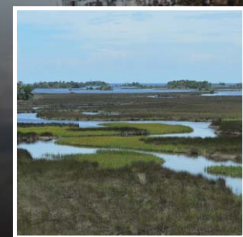


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MFL/Water Quality Grade for Projects

Overview

Section 373.036(7)(b)9., F.S., provides that the Consolidated Annual Report shall contain a “grade for each watershed, water body, or water segment in which a project listed under subparagraph 8 is located representing the level of impairment and violations of adopted minimum flow or minimum water level. The grading system must reflect the severity of the impairment of the watershed, water body, or water segment.

Table 1 lists the projects contained within the 2021 Five-Year Water Resource Development Work Program, the watershed, water body, or water segment, the project impacts, and a grade of two items: 1) the water quality level of impairment and 2) the level of violation of a minimum flow or minimum water level.

Level of Impairment Grade

The Level of Impairment grade is represented as follows:

Impaired – High: This grade is assigned if the water body is impaired for one or more parameters other than mercury and based on a consideration of other factors, including the number of impairments, presence of Outstanding Florida Waters, proximity to ongoing or planned restoration activities, ecological priority of the water for threatened and endangered species, environmental justice concerns, the amount of anthropogenic land use, and local aquifer vulnerability.

Impaired: The grade is assigned if the water body is impaired for one or more parameters other than mercury.

Not Impaired: This grade is assigned if the water body is not impaired for any parameters other than mercury.

The DEP provided the impairment grades based upon Total Maximum Daily Loads (TMDL) for each Water Body ID (WBID). Projects that impact specific WBIDs were identified in Table 1 for that WBID. As an example, a project that replaced disposal of treated waste water in a spray field or Rapid Infiltration Basin (RIB) with beneficial use of reclaimed water utilized the impairment grade associated with the WBID where the spray field or RIB were originally located. It is important to note that projects contained within a Water Resource Development Work Program are focused on water use/conservation with the exception of the projects contained in Appendix A – District Projects for Implementing Basin Management Action Plans.

Level of Violation of Adopted MFL

Each water body with an established MFL not currently being met or projected to not be met within 20 years was evaluated based on the relative magnitude of the MFL violation and rated as close, moderately close, or not close to meeting the MFL. In evaluating this element, the Districts considered the magnitude of the variance from the MFL, the magnitude of the ecological impact, the time frame for recovery, and the time frame for completion of the projects.

The water body was also evaluated based on the regional significance of the water body and rated as Tier 1, Tier 2 or Tier 3 with Tier 1 being the highest rating for regional significance and Tier 3 being the lowest rating. When evaluating this element, the District considered the water body’s size and geographical extent, anticipated timeframe for recovery, ecological importance, recreational uses, navigation, threatened/endangered species, wildlife utilization, aesthetics, and historical and archeological significance.

Level 0: This grade is assigned if the water body is meeting the MFL but is projected to not meet the MFL within 20 years (that is, the water body is in prevention).

Level I: This grade is assigned if the water body is close to meeting the MFL and the water body is rated as a Tier 3 or Tier 2 for regional significance; or the water body is moderately close to meeting the MFL and the water body is rated a Tier 3 for regional significance.

Level II: This grade is assigned if the water body is close to meeting the MFL and the water body is rated a Tier 1 for regional significance; or the water body is moderately close to meeting the MFL and the water body is rated a Tier 2 for regional significance; or the water body is not close to meeting the MFL and the water body is rated a Tier 3 for regional significance.

Level III: This grade is assigned if the water body is moderately close to meeting the MFL and the water body is rated a Tier 1 for regional significance; or the water body is not close to meeting the MFL and the water body is rated a Tier 2 or Tier 1 for regional significance.

The majority of the projects in the Water Resource Development Work Program will directly assist in a recovery strategy for a Water Use Caution Area (WUCA). The projects are anticipated to impact all water bodies that are included within the WUCA. As an example, the Southern Water Use Caution Area covers a 5,100 square mile area over all or parts of eight counties. There are 21 water bodies (one aquifer level, two river segments, and 18 lakes) that are not achieving their established minimum flow or level in this region. Because the basis for not meeting these MFLs is due to groundwater withdrawals within the confined Upper Floridan aquifer in the SWUCA, a project within this area is anticipated to impact the entire area. Therefore, all the impacted waterbodies within a WUCA have been included for each project.

Project Number	Water Resource Development Projects	Watershed, Water Body, Water Segment*	Level of Water Quality Impairment	Level of Violation of Adopted MFL
1) Alternative Water Supply Feasibility Research and Pilot Projects (Programmatic Code 2.2.1.1)				
N287	South Hillsborough Aquifer Recharge Program (SHARP)	SWUCA Water Bodies Hillsborough Bay Upper 1558E Palm River 1536E McKay Bay 1584B	WBID 1558E - Impaired WBID 1536E - Impaired WBID 1584B - Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N842	Bradenton Aquifer Protection Recharge Well	SWUCA Water bodies Manatee River - 1848A	WBID 1848A - Not Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N854	PRMRWSA Partially Treated Water ASR	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N855	Southern Hillsborough Aquifer Recharge Expansion (SHARE) Phase 1	SWUCA Water Bodies Hillsborough Bay Upper 1558E and 1558D Palm River 1536E McKay Bay 1584B	WBID 1558E - Impaired WBID 1536E - Impaired WBID 1584B - Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N912	Braden River Utilities ASR Feasibility	SWUCA Water Bodies Whitaker Bayou 1936 Tampa Bay 1558A	WBID 1936 - Impaired WBID 1558A - Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
P280	Hydrogeologic Investigation of LFA in Polk County	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
P925	Optical Borehole Imaging Data Collection from LFA Wells	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
P926	Sources/Ages of Groundwater in LFA Wells	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q050	City of Venice Reclaimed Water Aquifer Storage Recovery	SWUCA Water Bodies Curry Creek 2009 Curry Creek 2009A Sarasota Bay 8053	WBID 2009 - Impaired WBID 2009A - Impaired WBID 8053 - Not Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q064	North Hillsborough Aquifer Recharge Program Phase 2 (Direct Aquifer Recharge)	NTBWUCA Water Bodies Old Tampa Bay 1558I Old Tampa Bay 1558H	WBID 1558I - Not Impaired WBID 1558H - Impaired	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q088	South Hillsborough Aquifer Recharge Program Phase 3 (Direct Aquifer Recharge)	SWUCA Water Bodies Hillsborough Bay Upper 1558E Palm River 1536E McKay Bay 1584B	WBID 1558E - Impaired WBID 1536E - Impaired WBID 1584B - Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q159	Sarasota County - Bee Ridge Water Reclamation Facility Aquifer Recharge	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies

2) Facilitating Agricultural Resource Management Systems (FARMS) (Programmatic Code 2.2.1.2)				
H015	FARMS Well Back-Plugging Program	SWUCA Water Bodies Shell Creek 2041 Prairie Creek 1962	WBID 2041 - Impaired WBID 1962 - Not Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
H017	FARMS Projects	SWUCA Water Bodies NTBWUCA Water Bodies Shell Creek 2041 Prairie Creek 1962	WBID 2041 - Impaired WBID 1962 - Not Impaired	SWUCANTBWUCA water bodies Level 1 - 6 water bodies Level 2 - 6 water bodies Level 3 - 13 water bodies
H762	FARMS - Schwartz Farms Inc.	SWUCA Water Bodies Upper Myakka 1940 Upper Myakka 1943	WBID 1940 - Impaired WBID 1943 - Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
H773	FARMS - Pebbledale Farms Inc.	SWUCA Water Bodies Horse Creek Above Peace River 1787A	WBID 1787A - Not Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
H778	FARMS - Jack Paul Prop. Inc. - Redwing Grove Phase 2	SWUCA Water Bodies Joshua Creek 1950A Shell Creek 2041 Prairie Creek 1962	WBID 1950A - Not Impaired WBID 2041 - Impaired WBID 1962 - Not Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
H782	FARMS - Dover Land LLC	NTBWUCA Water Bodies Seffner Canal 1547	WBID 1547 - Impaired	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
H784	FARMS - Bermont Properties, LLC-Section 34	SWUCA Water Bodies Joshua Creek 1950A Shell Creek 2041 Prairie Creek 1962	WBID 1950A - Not Impaired WBID 2041 - Impaired WBID 1962 - Not Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
H785	FARMS - Bickett Holdings, LLC	SWUCA Water Bodies Joshua Creek 1950A Shell Creek 2041 Prairie Creek 1962	WBID 1950A - Not Impaired WBID 2041 - Impaired WBID 1962 - Not Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
H780	FARMS - Creekside Nursery, Inc	NTBWUCA Water Bodies Jumping Gully 1401 Weeki Wachee Spring Run 1382F	WBID 1401 - Not Impaired WBID 1382F - Impaired- High	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
H671	FARMS - Luna Berry Farms	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
H788	FARMS - North Joshua Grove, LLC	SWUCA Water Bodies Joshua Creek 1950A Shell Creek 2041 Prairie Creek 1962	WBID 1950A - Not Impaired WBID 2041 - Impaired WBID 1962 - Not Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
H787	FARMS - Symon Grove, LLC	SWUCA Water Bodies Joshua Creek 1950A Shell Creek 2041 Prairie Creek 1962	WBID 1950A - Not Impaired WBID 2041 - Impaired WBID 1962 - Not Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies

H783	FARMS - Trapnell Road Farm	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
H529	Mini-FARMS Program	SWUCA Water Bodies NTBWUCA Water Bodies Shell Creek 2041 Prairie Creek 1962	WBID 2041 - Impaired WBID 1962 - Not Impaired	SWUCANTBWUCA water bodies Level 1 - 6 water bodies Level 2 - 6 water bodies Level 3 - 13 water bodies
P429	FARMS Meter Accuracy Support	SWUCA Water Bodies NTBWUCA Water Bodies Shell Creek 2041 Prairie Creek 1962	WBID 2041 - Impaired WBID 1962 - Not Impaired	SWUCANTBWUCA water bodies Level 1 - 6 water bodies Level 2 - 6 water bodies Level 3 - 13 water bodies
3) Environmental Restoration/Minimum Flows and Levels Recovery (Programmatic Code 2.2.1.3)				
H008	MFL Recovery - Lake Hancock Design/Permit/Mitigation to Raise Lake	SWUCA water bodies Upper Peace above Bowlegs 1623J	WBID 1623J - Impaired - High	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
H089	Upper Myakka /Flatford Swamp Hydrologic Restoration and Implementation	SWUCA water bodies Upper Myakka 1877B	WBID 1877B - Not Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
H400	Lower Hillsborough River Recovery Strategy	Lower Hillsborough River 1443E	WBID 1443E - Impaired - High	Level 2
H404	Pump Stations on Tampa Bypass Canal, Morris Bridge Sink	Lower Hillsborough River 1443E	WBID 1443E - Impaired - High	Level 2
N888	Haines City Reclaimed Water MFL Recharge & Advanced Treatment Feasibility Study	SWUCA Water Bodies Lake Eva 15101	WBID 15101 - Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Surface Water Projects				
Water Supply Development Assistance - Surface Water Projects (Programmatic Budget 2.2.2.1)				
Q061	Study-Tampa Bay Water Regional Surface Treatment Plant Expansion Feasibility Study	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q063	Study-Tampa Bay Water Desalination Facility Expansion Feasibility Study	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q133	PRWC Peace River Study	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q212	PRMRWA - Reservoir No. 3 Feasibility and Siting	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies

Regional Potable Interconnects				
Water Supply Development Assistance - Regional Potable Water Interconnects (Programmatic Budget 2.2.2.2)				
H094	Polk County Partnership (S)***			
N416	PRMRWSA - Regional Loop System, Phase 1 DeSoto to Punta Gorda (S)	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N823	PRMRWSA - Regional Integrated Loop System Phase 3B (S)	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N965	Interconnects - Tampa Bay Water - Tampa Bypass Canal Gates Automation	NTB Water Bodies	None*	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
N998	Interconnects - Tampa Bay Water - Regional Facility Site Pump Station Expansion	NTB Water Bodies	None*	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q146	Tampa Bay Water Southern Hillsborough County Booster Pump Station	NTB Water Bodies	None*	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q202	PRMRWSA - Southern Regional Loop Phase 2B and 2C Feasibility and Routing	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q205	PRMRWSA Phase 3C Integrated Loop and Routing and Feasibility	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies

***H094 Polk County Partnership dollars have been redistributed to the PRWC Projects (N882, N905, and N928)

Reclaimed Water Projects				
Water Supply Development Assistance - Reclaimed Water Projects (Programmatic Budget 2.2.2.3)				
N339	Winter Haven #3 Reclaimed Interconnect, Storage, Pumping	SWUCA Water Bodies Peace Creek Drainage Canal 1539	WBID 1539 - Impaired - High	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N536	Auburndale Polytechnic Reclaimed Water Storage and Transmission	SWUCA Water Bodies Lake Agnes Outlet 1466B	WBID 1466B - Not Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N556	Charlotte County - Regional Reclaimed Water Expansion Phase 3	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N696	Hernando County US-19 Reclaimed Water Transmission Phase I	Mud River - Salt Creek 1382A Weeki Wachee Spring Run 1382F	WBID 1382A - Not Impaired WBID 1382F - Impaired - High	None**
N711	Braden River Utilities Reclaimed Water Transmission Line	SWUCA Water Bodies Whitaker Bayou 1936	WBID 1936 - Impaired	None**
N743	Pasco County Starkey Ranch Reclaimed Water Transmission Phase B	NTBWUCA Water Bodies Magnolia - Aripeka Springs 1391B Direct Runoff to Gulf 1400	WBID 1391B - Impaired - High WBID 1400 - Not Impaired	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
N772	Polk County NERUSA Loughman/Ridgewood Reclaimed Water Transmission	SWUCA Water Bodies Big Creek East Watershed 1406	WBID 1406 - Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N791	Pasco County Starkey Ranch Reclaimed Water Transmission Phase C	NTBWUCA Water Bodies Magnolia - Aripeka Springs 1391B Direct Runoff to Gulf 1400	WBID 1391B - Impaired - High WBID 1400 - Not Impaired	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
N796	City of Winter Haven Reuse Interconnect and Aquifer Recharge	SWUCA Water Bodies Peace Creek Drainage Canal 1539	WBID 1539 - Impaired - High	SWUCA water bodies Level 1 - 6 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N805	Tarpon Springs - Westwinds/Grassy Pointe Resid	Anclote River Tidal 1440	WBID 1440 - Impaired	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
N862	Polk County Utilities NERUSA CR 547 Reclaimed Water Transmission Phase 1	SWUCA Water Bodies Big Creek East Watershed 1406	WBID 1406 - Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N863	Hillsborough County Summerfield Sports Complex	NTBWUCA Water Bodies Palm River 1536E Tampa Bay Upper 1558C	WBID 1536E - Impaired WBID 1558C - Not Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies

N868	Polk County Utilities NERUSA Ernie Caldwell Blvd Reclaimed Water Transmission	SWUCA Water Bodies Big Creek East Watershed 1406	WBID 1406 - Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N881	Arcadia Golf Course Reclaimed Water Storage Reservoir	SWUCA Water bodies Lower Peace River 1623C	WBID 1623C - Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N898	Haines City Reclaimed Water Tank and Pump Stations Project	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N918	Polk County Utilities NERUSA FDC Grove Road Reclaimed Water Transmission	SWUCA Water Bodies Big Creek East Watershed 1406	WBID 1406 - Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q021	RW - Pasco Co - Cypress Preserve RW Transmission Main - Grand Live Oak Blvd	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q022	RW - Bowling Green - RW Transmission Line	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q028	RW - Tampa - Tampa Augmentation Project Feasibility/Testing Phase II	Hillsborough Bay Upper 1558E	WBID 1558E - Impaired	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q047	Hernando County Anderson Snow Park Reuse Project	Mud River - Salt Creek 1382A Weeki Wachee Spring Run 1382F	WBID 1382A - Not Impaired WBID 1382F - Impaired - High	None**
Q057	Zephyrhills Zephyr Lakes and Hospital Reuse Project	NTBWUCA Water Bodies Zephyrhills Airport Run 1448 Hillsborough River 1443A	WBID 1448 - Not Impaired WBID 1443A - Impaired	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q066	Polk County NERUSA Lake Wilson Road Reuse Project	SWUCA Water Bodies Big Creek East Watershed 1406	WBID 1406 - Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q067	Polk County NERUSA Southeast Reuse Loop Project	SWUCA Water Bodies Big Creek East Watershed 1406	WBID 1406 - Impaired	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q098	Pasco County Cypress Preserve Reuse Phase 3	NTBWUCA Water Bodies Magnolia - Aripeka Springs 1391B Direct Runoff to Gulf 1400	WBID 1391B - Impaired - High WBID 1400 - Not Impaired	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q105	Citrus County Sugarmill Woods Golf Course Reuse Project	Chassahowitzka River 1361 Baird Creek 1348D	WBID 1361 - Not Impaired WBID 1348D - Impaired - High	None**

Q113	Plant City McIntosh Park Indirect Potable Reuse Feasibility Study	NTBWUCA Water Bodies Mill Creek 1542A East Canal 1518 Itchepackasassa Creek 1495A Blackwater Creek 1482 Hillsborough River 1443D	WBID 1542A - Not impaired WBID 1518 - Impaired WBID 1495A - Impaired WBID 1482 - Not Impaired WBID 1443D - Not Impaired	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q139	North Port Direct Potable Reuse Feasibility	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q158	Pasco County River Landing Reclaimed Water Transmission	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q160	Sarasota County Honore Avenue Reclaimed Water Transmission	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q200	Winter Haven Direct Potable Reuse Feasibility Study	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q209	Polk County Direct Potable Reuse Feasibility and Pilot Demo	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies

Brackish Groundwater Projects				
Water Supply Development Assistance - Brackish Groundwater Development Projects (Programmatic Budget 2.2.2.4)				
N600	Punta Gorda Reverse Osmosis Project - Brackish Wellfield Investigation	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N780	Punta Gorda Reverse Osmosis Project - Facility Construction	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N882	PRWC West Polk County Lower Floridan Deep Wells	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N905	PRWC Southeast Wellfield Lower Floridan	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q090	Belleair Brackish Feasibility and Testing	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q184	PRWC Southeast Wellfield Implementation	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q216	PRWC Regional Transmission Southeast Phase 1	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies

Aquifer Recharge and Aquifer Storage and Recovery Projects				
Water Supply Development Assistance - Aquifer Recharge & Aquifer Storage and Recovery Projects (Programmatic Budget 2.2.2.5)				
N435	City of Bradenton Surface Water Aquifer Storage Recovery 2	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N665	City of Clearwater Groundwater Replenishment Project Phase 3	NTBWUCA Water Bodies Old Tampa Bay 1558H Stevenson Creek Fresh Segment 1567C	WBID 1558H - Impaired WBID 1567C - Impaired	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q142	Pinellas County Chestnut Park Aquifer Storage, Recovery & Recharge	NTBWUCA Water Bodies Lake Tarpon Canal 1541A and 1541B Safety Harbor 1558IA Old Tampa Bay 1558F and G Old Tampa Bay 1558H Old Tampa Bay 1558I	WBID 1541A - Impaired WBID 1541B - Not Impaired WBID 1558IA - Impaired WBID 1558F and G - Not Impaired WBID 1558H - Impaired WBID 1558I - Not Impaired	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q177	Winter Haven - Southern Basin Aquifer Recharge	SWUCA Water Bodies Peace Creek Drainage Canal 1539	WBID 1539 - Impaired - High	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies

Water Conservation Projects				
Water Supply Development Assistance - Conservation Rebates, Retrofits, Etc. Projects (Programmatic Budget 2.2.2.7)				
B015	Conservation - Water Incentives Supporting Efficient (WISE) Program	SWUCA Water Bodies NTBWUCA Water Bodies	None*	SWUCANTBWUCA water bodies Level 1 - 6 water bodies Level 2 - 6 water bodies Level 3 - 13 water bodies
N948	Conservation - PRWC - Indoor Water Conservation Incentives	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N958	Conservation - Citrus Co - Water Sense Labeled Irrigation Controller Installation Phase 2	Northern District/Springs Coast	None*	None**
N961	Conservation - St. Petersburg - Satellite Based Potable Water Leak Detection	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
N971	Conservation - PRWC - Outdoor Best Management Practices	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N973	Conservation - Winter Haven - Consumption/Conservation Programs Data Management Software	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies

N988	Conservation - Hillsborough Co - Soil Moisture Sensor - Rain Shutoff Device Study and Education	NTBWUCA Water Bodies SWUCA Water Bodies	None*	SWUCANTBWUCA water bodies Level 1 - 6 water bodies Level 2 - 6 water bodies Level 3 - 13 water bodies
N996	Conservation - Lake Hamilton - Distribution System Looping	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
N999	Conservation - Marion Co - Toilet Rebate Program - Phase 5	Northern District/Springs Coast	None*	None**
P920	PRWC Outdoor BMPs	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
P921	PRWC Indoor Conservation Incentives	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
P922	PRWC Florida Water Star Builder Rebate Program	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q018	Conservation - NSCUDD - Rain Sensor Inspect/Replacement Program	Northern District/Springs Coast	None*	None**
Q020	Conservation - Braden River Util. - Soil Moisture Sensor Rebate Program Phase 2	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q040	Conservation - WRWSA - Regional Irrigation System Audit Program Phase 5	Northern District/Springs Coast	None*	None**
Q068	Conservation-Tarpon Springs Toilet Rebate Phase I	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q070	Conservation-Citrus County Water Sense Irrigation Controller Phase 3	Northern District/Springs Coast	None*	None**
Q073	Palmetto Toilet Rebate Project	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q074	Temple Terrace Golf Course and Country Club Advanced Irrigation System	NTBWUCA Water Bodies Hillsborough Bay Upper 1558E	WBID 1558E - Impaired	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies

Q078	Conservation-Pasco County Toilet Retrofit Phase 13	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q087	Tampa Bay Water Demand Management Project	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q089	St. Petersburg Sensible Sprinkling Phase 9	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q109	Pasco County Satellite Potable Leak Detection Study	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q111	Conservation-Manatee County Toilet Retrofit Phase 13	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q126	Conservation-Venice Toilet Rebate and Retrofit Phase 7	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q137	Citrus County - Water Sense Irrigation Controller Phase 4	Northern District/Springs Coast	None*	None**
Q138	WRWSA-Regional Irrigation System Audit Program Phase 6	Northern District/Springs Coast	None*	None**
Q140	Tarpon Springs - Toilet Rebate Phase 2	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies
Q145	Longboat Key Club - Advanced Irrigation System	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q166	Bartow - Golf Course Advanced Irrigation System	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q168	Manatee County - Toilet Retrofit Phase 14	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q179	Venice - Toilet Rebate and Retrofit Phase 8	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies

Q185	North Port - Water Distribution Hartsdale/Aldonin/Totem Area Looping	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q187	PRWC - Demand Management Implementation	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q193	Crystal River - Conservation Phase 1	Northern District/Springs Coast	None*	None**
Q211	Bay Laurel CCDD -2021 Irrigation Controller & ET Sensor	Northern District/Springs Coast	None*	None**
Q214	Palmetto Toilet Rebate Phase 2	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q215	TBW - Demand Management Program Phase 2	NTBWUCA Water Bodies	None*	NTBWUCA water bodies Level 1 - 1 water bodies Level 2 - 1 water bodies Level 3 - 2 water bodies

Water Supply Planning Projects				
Water Supply Planning (Programmatic Budget 1.1.1)				
N928	PRWC Peace Creek Integrated Water Supply Plan	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies
Q023	WS Planning - PRWC - Water Demand Management Plan	SWUCA Water Bodies	None*	SWUCA water bodies Level 1 - 5 water bodies Level 2 - 5 water bodies Level 3 - 11 water bodies

Appendix A. District Projects for Implementing Basin Management Action Plans					
Projects for Implementing BMAPs					
W430	Crystal River - Indian Water Septic to Sewer Phase II	Crystal River 1341 Crystal River 1341C Crystal River 1341D Crystal River 1341E Crystal River 1341F Crystal River 1341G Crystal River 1341H	Crystal River 1341 - Impaired - High Crystal River 1341C - Impaired - High Crystal River 1341D - Impaired - High Crystal River 1341E - Not Impaired Crystal River 1341F - Impaired - High Crystal River 1341G - Impaired - High Crystal River 1341H - Impaired - High	None**	
W432	Citrus County Cambridge Greens Septic to Sewer	Crystal River 1341 Crystal River 1341C Crystal River 1341D Crystal River 1341E Crystal River 1341F Crystal River 1341G Crystal River 1341H	Crystal River 1341 - Impaired - High Crystal River 1341C - Impaired - High Crystal River 1341D - Impaired - High Crystal River 1341E - Not Impaired Crystal River 1341F - Impaired - High Crystal River 1341G - Impaired - High Crystal River 1341H - Impaired - High	None**	
W433	Crystal River Hunter Springs Stormwater Modification (W433)	Crystal River 1341 Crystal River 1341C Crystal River 1341D Crystal River 1341E Crystal River 1341F Crystal River 1341G Crystal River 1341H	Crystal River 1341 - Impaired - High Crystal River 1341C - Impaired - High Crystal River 1341D - Impaired - High Crystal River 1341E - Not Impaired Crystal River 1341F - Impaired - High Crystal River 1341G - Impaired - High Crystal River 1341H - Impaired - High	None**	
W434	Crystal River Southern Septic to Sewer Project	Crystal River 1341 Crystal River 1341C Crystal River 1341D Crystal River 1341E Crystal River 1341F Crystal River 1341G Crystal River 1341H	Crystal River 1341 - Impaired - High Crystal River 1341C - Impaired - High Crystal River 1341D - Impaired - High Crystal River 1341E - Not Impaired Crystal River 1341F - Impaired - High Crystal River 1341G - Impaired - High Crystal River 1341H - Impaired - High	None**	
WH04	Citrus County Old Homosassa West Septic to Sewer Project	Homosassa River 1345 Homosassa Springs Group 1345G	WBID 1345 - Not Impaired WBID 1345G - Impaired - High	None**	
Q134	Citrus County Old Homosassa East Septic to Sewer Project	Homosassa River 1345 Homosassa Springs Group 1345G	WBID 1345 - Not Impaired WBID 1345G - Impaired - High	None**	

None* - Project has no water quality impact on a surface water body

None** - Project is in an area with no MFL recovery strategy and is not expected to fall below a minimum flow or level in 20 years

Note that "SWUCA Waterbodies" includes the SWUCA SWIMAL

Consolidated **Annual**
Report
March 1, 2021

Five-Year **Capital**
Improvements
Plan *2020-2021*
through 2024-2025

Southwest Florida
Water Management District



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Introduction

The Five-Year Capital Improvements Plan (CIP) includes projected revenues and expenditures for capital improvements for FY2020-21 through FY2024-25. As directed by Section 373.536(6)(a)3, Florida Statutes, the CIP is presented in a manner comparable to the fixed capital outlay format set forth in Section 216.043, Florida Statutes. The format for this report was jointly developed by the Executive Office of the Governor, the Department of Environmental Protection, and the water management districts. Capital improvement projects may be budgeted in three standard program categories. Those programs and their activities and sub-activities are represented below:

1.0 Water Resource Planning and Monitoring

- 1.1 District Water Management Planning
 - 1.1.1 Water Supply Planning
 - 1.1.2 Minimum Flows and Minimum Water Levels
 - 1.1.3 Other Water Resources Planning
- 1.2 Research, Data Collection, Analysis and Monitoring
- 1.3 Technical Assistance
- 1.4 Other Water Resources Planning and Monitoring Activities
- 1.5 Technology and Information Services

2.0 Land Acquisition, Restoration and Public Works

- 2.1 Land Acquisition
- 2.2 Water Source Development
 - 2.2.1 Water Resource Development Projects
 - 2.2.2 Water Supply Development Assistance
 - 2.2.3 Other Water Source Development Activities
- 2.3 Surface Water Projects
- 2.4 Other Cooperative Projects
- 2.5 Facilities Construction and Major Renovations
- 2.6 Other Acquisition and Restoration Activities
- 2.7 Technology and Information Services

3.0 Operation and Maintenance of Works and Lands

- 3.1 Land Management
- 3.2 Works
- 3.3 Facilities
- 3.4 Invasive Plant Control
- 3.5 Other Operation and Maintenance Activities
- 3.6 Fleet Services
- 3.7 Technology and Information Services

The activity under program 1.0 Water Resource Planning and Monitoring that may include capital improvement projects is 1.2 Research, Data Collection, Analysis and Monitoring. The activities and sub-activities under program 2.0 Land Acquisition, Restoration and Public Works that may include capital improvement projects are 2.1 Land Acquisition, 2.2.1 Water Resource Development Projects, 2.2.3 Other Water Source Development Activities, 2.3 Surface Water Projects, 2.5 Facilities Construction and Major Renovations, and 2.6 Other Acquisition and Restoration Activities. The activities under program 3.0 Operation and Maintenance of Works and Lands that may include capital improvement projects are 3.1 Land Management and 3.2 Works.

The purpose of the CIP is to project future needs and anticipated future funding requirements to meet those needs. *(The District uses a pay-as-you-go approach and does not incur bonded debt.)* The CIP contains only those projects that will be owned and capitalized as fixed assets by the District.

The CIP includes expenditures for basic construction costs (permits, inspections, communications requirements, utilities, outside building, site development, etc.) and other related capital project costs (land, survey, existing facility acquisition, professional services, etc.).

The District's current capital improvement projects are budgeted under the following program activities: 1.2 Research, Data Collection, Analysis and Monitoring; 2.1 Land Acquisition; 2.5 Facilities Construction and Major Renovations; 3.1 Land Management; and 3.2 Works.

Standard definitions for these programs and activities used by all five water management districts for CIP preparation follow:

1.0 Water Resource Planning and Monitoring

This program includes all water management planning, including water supply planning, development of minimum flows and minimum water levels, and other water resources planning; research, data collection, analysis, and monitoring; and technical assistance (including local and regional plan and program review).

1.2 Research, Data Collection, Analysis and Monitoring – Activities that support district water management planning, restoration, and preservation efforts, including water quality monitoring, data collection and evaluation, and research.

2.0 Land Acquisition, Restoration and Public Works

This program includes the development and construction of all water resource development projects, water supply development assistance, water control projects, support and administrative facilities construction, cooperative projects, land acquisition (i.e., Florida Forever Program), and the restoration of lands and water bodies.

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

2.5 Facilities Construction and Major Renovations – The proposed work for the facilities improvement program includes project management, permitting, and conceptual, preliminary, and detailed engineering for the development and preparation of contract plans; and specification for the construction of planned replacement, improvement, or repair to the district's administrative and field station facilities.

3.0 Operation and Maintenance of Works and Lands

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

3.1 Land Management- Maintenance, custodial, and restoration efforts for lands acquired through federal, state, and locally sponsored land acquisition programs.

3.2 Works – The maintenance of flood control and water supply system infrastructure, such as canals, levees, and water control structures. This includes electronic communication and control activities.

Southwest Florida Water Management District

Five-Year Capital Improvements Plan

Fiscal Year 2020-21 through Fiscal Year 2024-25

1.0 WATER RESOURCE PLANNING AND MONITORING

1.2 RESEARCH, DATA COLLECTION, ANALYSIS AND MONITORING

REVENUES	FY2020-21	FY2021-22	FY2022-23	FY2023-24	FY2024-25
Ad Valorem Revenue	\$1,706,155	\$605,998	\$1,360,032	\$481,843	\$538,282
TOTAL	\$1,706,155	\$605,998	\$1,360,032	\$481,843	\$538,282
EXPENDITURES	FY2020-21	FY2021-22	FY2022-23	FY2023-24	FY2024-25
Aquifer Exploration and Monitor Well Drilling Program	\$1,512,155	\$411,998	\$1,166,032	\$287,843	\$344,282
Data Collection Site Acquisitions	194,000	194,000	194,000	194,000	194,000
TOTAL	\$1,706,155	\$605,998	\$1,360,032	\$481,843	\$538,282

2.0 LAND ACQUISITION, RESTORATION AND PUBLIC WORKS

2.1 LAND ACQUISITION

REVENUES	FY2020-21	FY2021-22	FY2022-23	FY2023-24	FY2024-25
(1) Prior Year State Appropriations - Florida Forever Trust Fund	\$575,000	\$0	\$0	\$0	\$0
(1) Balance from Prior Years - District Investment Account	16,925,000	0	0	0	0
TOTAL	\$17,500,000	\$0	\$0	\$0	\$0
EXPENDITURES	FY2020-21	FY2021-22	FY2022-23	FY2023-24	FY2024-25
Florida Forever Work Plan Land Purchases	\$17,500,000	\$0	\$0	\$0	\$0
TOTAL	\$17,500,000	\$0	\$0	\$0	\$0

2.5 FACILITIES CONSTRUCTION AND MAJOR RENOVATIONS

REVENUES	FY2020-21	FY2021-22	FY2022-23	FY2023-24	FY2024-25
Balance from Prior Years	\$980,900	\$494,000	\$449,000	\$452,500	\$665,000
TOTAL	\$980,900	\$494,000	\$449,000	\$452,500	\$665,000
EXPENDITURES	FY2020-21	FY2021-22	FY2022-23	FY2023-24	FY2024-25
Districtwide Facility Capital Renovations	\$623,900	\$494,000	\$449,000	\$452,500	\$665,000
Districtwide Building Automation and Access Controls System	357,000	0	0	0	0
TOTAL	\$980,900	\$494,000	\$449,000	\$452,500	\$665,000

3.0 OPERATION AND MAINTENANCE OF WORKS AND LANDS

3.2 WORKS

REVENUES	FY2020-21	FY2021-22	FY2022-23	FY2023-24	FY2024-25
Ad Valorem Revenue	\$890,000	\$500,000	\$500,000	\$500,000	\$500,000
TOTAL	\$890,000	\$500,000	\$500,000	\$500,000	\$500,000
EXPENDITURES	FY2020-21	FY2021-22	FY2022-23	FY2023-24	FY2024-25
Nettles Water Conservation Structure	\$300,000	\$0	\$0	\$0	\$0
Lake Pretty Water Conservation Structure Gate Replacements	400,000	0	0	0	0
Structure Gate System Upgrade Program (Drum & Cable Conversion)	190,000	500,000	500,000	500,000	500,000
TOTAL	\$890,000	\$500,000	\$500,000	\$500,000	\$500,000
TOTAL CAPITAL EXPENDITURES	\$21,077,055	\$1,599,998	\$2,309,032	\$1,434,343	\$1,703,282

Notes:

- (1) The FY2020-21 budget includes \$17.5 million available for land acquisitions through the Florida Forever program. The budgeted funds consist of \$16,925,000 being held in a District investment account with its use restricted to land purchases that would be eligible for Florida Forever funding. These funds were generated from the sale of land or real estate interests. The District also has \$575,000 of prior year allocations from the Florida Forever Trust Fund available, and its release is subject to approval by the Department of Environmental Protection. Funding for FY2021-22 and beyond is subject to future state appropriations from the Florida Forever program and proceeds from the sale of land or real estate interests.

Program: Water Resource Planning and Monitoring

Activity: Research, Data Collection, Analysis and Monitoring

Project Title: Aquifer Exploration and Monitor Well Drilling Program

Type: Monitor Well Construction and Associated Activities

Physical Location: District's 16-County Region

Square Footage/Physical Description: Monitor Wells

Expected Completion Date: Ongoing

Historical Background/Need for Project: This is ongoing project for coring, drilling, testing, and construction of monitor wells at Regional Observation and Monitor well Program (ROMP) sites and special project sites including the Central Florida Water Initiative (CFWI) region. The ROMP was established in 1974 to construct a Districtwide network of groundwater monitoring wells to provide key information concerning existing hydrologic conditions of groundwater sources (s. 373.145, Florida Statute). In recent years, the ROMP has expanded to include the drilling and construction (and associated data collection activities) of numerous wells associated with key special projects such as the Northern Tampa Bay Water Use Caution Area wellfield recovery monitoring, the Northern Water Resources Assessment Project, the Southern Water Use Caution Area and the CFWI. Exploratory drilling and intensive data collection efforts are performed by District staff and well construction is generally performed under contract with outside vendors. Drilling and testing will be performed at key well sites to characterize the hydrogeology from land surface to the saltwater interface or base of the potable aquifer zone within the Upper Floridan aquifer. Certain sites will also include exploratory data collection activities to characterize the middle confining units and Lower Floridan aquifers. Each well site will have permanent monitor wells installed into the surficial, intermediate, Upper Floridan and Lower Floridan aquifers, as needed. In addition, most well sites will have temporary observation wells installed for conducting aquifer performance tests. The data collected during construction of the well sites will be used in numerous District projects including models for water supply development, rulemaking for minimum flows and minimum water levels, and long-term water level and water quality monitoring.

Plan Linkages: Strategic Plan; CFWI Data Management and Investigations Team Hydrogeologic Work Plan; Geohydrologic Data Work Plan

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

Alternative(s): Not collecting data during exploratory core drilling and testing. Stopping all construction of new monitor wells, and aquifer testing within the District. Such actions will result in the District not being able to supply the data to support the projects and initiatives listed above.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): Funding for future years pending Governing Board approval through the annual budget process.

FY2020-21: \$1,512,155

FY2021-22: \$411,998

FY2022-23: \$1,166,032

FY2023-24: \$287,843

FY2024-25: \$344,282

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): For FY2020-21, \$194,000 is budgeted separately for acquisition of perpetual easements in support of the District's network of groundwater monitoring wells under *Data Collection Site Acquisitions*. This includes the purchase of perpetual easements and associated ancillary costs such as appraisals, surveys, title insurance, environmental site assessments, and documentary stamps.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): Additional initial operating costs include equipment and labor for the instrumentation of each well upon construction.

Anticipated Additional Operating Costs/Continuing: Additional operation and maintenance costs associated with continual monitoring is expected for each well construction.

FY2020-21	FY2021-22	FY2022-23	FY2023-24	FY2024-25
\$1,512,155	\$411,998	\$1,166,032	\$287,843	\$344,282

Program: Water Resource Planning and Monitoring

Activity: Research, Data Collection, Analysis and Monitoring

Project Title: Data Collection Site Acquisitions

Type: Land and Interests in Land Acquired for Data Collection Sites

Physical Location: District's 16-County Region

Square Footage/Physical Description: To Be Determined

Expected Completion Date: Ongoing

Historical Background/Need for Project: The District acquires perpetual easements for sites necessary to assess groundwater sustainability and development of water supply solutions and to preserve existing sites necessary to construct a Districtwide network of groundwater monitoring wells. The District relies upon a network of groundwater monitor wells to provide information on water levels and water quality of various aquifer systems. The data obtained from these wells is utilized for a large variety of tasks including potentiometric surface map construction, saltwater intrusion and other contaminant status reporting site-specific project work to establish and modify minimum levels, and assessment of current water supplies. Regulation of the Floridan and the intermediate aquifers depend on the data collected from these sites. District computer models also rely heavily on water level information.

Plan Linkages: Strategic Plan; Watershed Management Plans; Southern Water Use Caution Area; Regional Water Supply Plan; Five-Year Water Resource Development Work Program

Area(s) of Responsibility: Water Supply and Water Quality

Alternative(s): An alternative to obtaining permanent easement for key well sites that are used for minimum flows and minimum water levels (MFLs) and having an extensive history of data collection critical for performance monitoring of the MFLs program, as well as other District initiatives would be to obtain new sites. The cost to obtain a permanent easement on an existing well site is generally lower than the cost to replace that well site because the new site will still need to have some form of title interest, including well construction costs to replace the wells. In addition, the heterogeneity of the aquifer systems might impact the new well location and not allow for a good comparison of data from a destroyed well site to the new well site.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): The cost of well construction and related activities associated with upper and lower Floridan aquifers, wetland and lake monitoring is budgeted separately under *Aquifer Exploration and Monitor Well Drilling Program*. It includes contracted well construction of permanent and temporary wells and associated materials such as casings and cement.

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): For FY2020-21, \$194,000 is budgeted for acquisition of perpetual easements in support of the District's network of groundwater monitoring wells. This includes the purchase of perpetual easements and associated ancillary costs such as surveys, appraisals, title insurance, environmental site assessments, and documentary stamps.

It is projected that the same level of funding of \$194,000 will be required annually from FY2021-22 through FY2024-25. Funding for future years pending Governing Board approval through the annual budget process.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): District staff time and travel costs associated with this initiative are to be determined and are excluded from the funding table below.

Anticipated Additional Operating Costs/Continuing: There are no additional continuing operating costs anticipated.

FY2020-21	FY2021-22	FY2022-23	FY2023-24	FY2024-25
\$194,000	\$194,000	\$194,000	\$194,000	\$194,000

Program: Land Acquisition, Restoration and Public Works

Activity: Land Acquisition

Project Title: Florida Forever Work Plan Land Purchases

Type: Lands Acquired through the Florida Forever Program

Physical Location: District's 16-County Region

Square Footage/Physical Description: To Be Determined

Expected Completion Date: Ongoing

Historical Background/Need for Project: The District has recognized land acquisition as one of its primary tools for achieving its statutory responsibilities. Section 373.139, Florida Statutes, authorizes the District to acquire fee simple or less-than-fee interests to the lands necessary for flood control, water storage, water management, conservation and protection of water resources, aquifer recharge, water resource and water supply development, and preservation of wetlands, streams and lakes. The District purchases land and interests in land through fee simple land acquisition and acquisition of less-than-fee simply interests (e.g., conservation easements) under the state's Florida Forever program. This program provides funding for land acquisition and capital improvements to state agencies; the water management districts (WMDs) and local governments. The authorized uses for the Florida Forever Trust Fund (FFTF) for the WMDs include land acquisition, the Surface Water Improvement and Management (SWIM) program, water resource development, and regional water supply development and restoration. An important aspect to the WMDs expenditures of Florida Forever funds is that at least 50 percent of the allocation from the FFTF must be spent on land acquisition.

Plan Linkages: Strategic Plan; Watershed Management Plans; SWIM Plans; Southern Water Use Caution Area

Area(s) of Responsibility: Natural Systems

Alternative(s): The alternatives to purchasing necessary land or interests to achieve statutory responsibilities would be to place additional regulations and restrictions on lands requiring protection. Many of these alternatives are not within the District's authority.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): No construction costs are associated with this request.

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): It is projected that the District will have an estimated \$575,000 remaining in FFTF prior year appropriations and \$16,925,000 available in prior year funds which were generated from the sale of land or real estate interests.

For FY2020-21, \$17,500,000 is budgeted for land acquired through the Florida Forever Work Plan. This includes funds for land acquisition and associated ancillary costs such as surveys, appraisals, title insurance, environmental site assessments, and documentary stamps. No funding is currently projected for land acquisition and associated ancillary costs from FY2021-22 through FY2024-25.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): District staff time and travel costs associated with this program are to be determined and are excluded from the funding table below.

Anticipated Additional Operating Costs/Continuing: The District acquires real estate interests for projects that would enhance its existing ownership responsibilities or provide management benefits. Depending on the size of the property, location and interest acquired, the operating costs may increase and are evaluated at the time of acquisition.

FY2020-21	FY2021-22	FY2022-23	FY2023-24	FY2024-25
\$17,500,000	\$0	\$0	\$0	\$0

Program: Land Acquisition, Restoration and Public Works

Activity: Facilities Construction and Major Renovations

Project Title: Districtwide Facility Capital Renovations

Type: Facility Improvements and Renovations

Physical Location: Brooksville, Tampa, Sarasota and Lake Hancock Offices

Square Footage/Physical Description: Facility Improvements and Renovations as Required

Expected Completion Date: Ongoing

Historical Background/Need for Project: The District currently owns and maintains three public offices in Brooksville, Tampa, and Sarasota and one field office in Bartow at Lake Hancock. These facilities consist of approximately 70 acres with a total of 265,879 square feet of buildings under roof and over 725,000 square feet of paved parking and driveways. Some of the construction dates back more than 50 years. This ongoing program was created to proactively maintain District assets and provide a safe and healthy environment for staff and the public. Facility renovations are planned and budgeted according to a multi-year schedule that minimizes the opportunity for building damage and loss of staff productivity, but unforeseen circumstances or changes to building code requirements can prompt the need for funding a renovation not according to plan. Renovations do not change the function of existing facilities, they simply maintain them in the state of their intended use. Examples of capital renovations include replacement of roof; heating, ventilation and air conditioning (HVAC) systems; generators; windows; pavement and associated stormwater management; fuel islands; car washes; and awnings. The District will follow U.S. Green Building Council's Leadership in Energy and Environmental Design (LEED) guidelines for reducing energy consumption which will reduce the District's carbon footprint.

Plan Linkages: Strategic Plan

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

Alternative(s): If the Districtwide facility capital renovations are not funded, the facilities maintenance costs are expected to increase significantly as additional maintenance activities are required to keep facilities in a safe and operational order. Not funding the projects would allow for degraded and deteriorated conditions requiring extensive restoration, such as moisture damage to buildings and expanded pavement cracks, resulting in higher costs than currently proposed. These projects are prioritized in a proactive effort to avoid damage and unnecessary costs while maximizing the life of the equipment, structures and grounds.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): Funding for future years pending Governing Board approval through the annual budget process.

FY2020-21

- Brooksville HVAC, AHU, VAV (Replacement): \$148,900
- Brooksville Building 4 Breakroom (Repurpose): \$150,000
- Sarasota Parking Lot Resurfacing: \$175,000

*The balance of \$150,000 to be allocated to future projects as identified.

FY2021-22

- Brooksville Chiller and CHW Pumps (Replacement): \$344,000

*The balance of \$150,000 to be allocated to future projects as identified.

FY2022-23

- Brooksville HVAC (Replacement): \$299,000

*The balance of \$150,000 to be allocated to future projects as identified.

FY2023-24

- Brooksville HVAC and Chiller (Replacement): \$302,500

*The balance of \$150,000 to be allocated to future projects as identified.

FY2024-25

- Tampa Chiller (Replacement): \$240,000

- Brooksville Covered Walkway to connect Building 4 to Building 5 (New): \$275,000

*The balance of \$150,000 to be allocated to future projects as identified.

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): There are no other project costs anticipated at this time.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): These costs are excluded from the funding table below.

Anticipated Additional Operating Costs/Continuing: There are unforeseen operating costs/savings that cannot be identified at this time.

FY2020-21	FY2021-22	FY2022-23	FY2023-24	FY2024-25
\$623,900	\$494,000	\$449,000	\$452,500	\$665,000

Program: Land Acquisition, Restoration and Public Works

Activity: Facilities Construction and Major Renovations

Project Title: Districtwide Building Automation and Access Controls System

Type: Facility Improvements and Renovations

Physical Location: Brooksville, Tampa, Sarasota and Lake Hancock Offices

Square Footage/Physical Description: Facilities totaling 265,879 square feet on a total of approximately 70 acres

Expected Completion Date: 09/2022

Historical Background/Need for Project: The District currently owns and maintains three public offices in Brooksville, Tampa, and Sarasota and one field office in Bartow at Lake Hancock. These facilities consist of approximately 70 acres with a total of 265,879 square feet of buildings under roof. Access to these facilities and control of their major building functions, including lighting and heating, ventilation and air conditioning (HVAC) systems, are performed through the use of access control and building automation systems, respectively. The two systems have met or exceeded their life expectancy. In addition, technological advancements and security changes at District facilities since these systems were originally installed allow for integration of the monitoring of other existing facility functions, such as the District's camera systems, and enhanced remote features.

The building automation system is used to monitor and operate the major building functions, such as lighting and HVAC. Utilization of this system allows Facilities staff to program and operate the buildings during occupied and unoccupied times, specify weekend and holiday settings, and for special provisions such as meetings outside of normal business hours. The main building modules for this system have reached their life expectancy and should be replaced to maintain a properly operated and supported system.

The access control system's main function is to define who has District access, what they have access to, and the hours they are permitted that access. The current system has exceeded its life expectancy and vital hardware components (e.g., access panels) have become obsolete, resulting in system maintenance issues. The current system is proprietary which limits the District to one vendor for support and service, and attempts to obtain replacement parts have been unsuccessful.

Plan Linkages: Strategic Plan

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

Alternative(s): If the replacement of the Districtwide building automation and access control systems are not funded and either system experiences a failure, District facilities could become unsafe and/or inoperable. This could result in a delay or hardship in re-establishing system operations due to funding and restrictions such as parts availability or unscheduled system conversion.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): The FY2020-21 funding request of \$357,000 is for the equipment and installation of the replacement building automation and access controls system.

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): There are no other project costs anticipated at this time.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): There are no additional initial operating costs anticipated at this time.

Anticipated Additional Operating Costs/Continuing: There are no additional continuing operating costs identified at this time.

FY2020-21	FY2021-22	FY2022-23	FY2023-24	FY2024-25
\$357,000	\$0	\$0	\$0	\$0

Program: Operation and Maintenance of Works and Lands

Activity: Works

Project Title: Nettles Water Conservation Structure

Type: New Construction

Physical Location: Northwestern portion of Lake Hanna inside the Lake Hanna Preserve development, located in Hillsborough County

Square Footage/Physical Description: Aluminum water conservation structure containing two lift gates, attached to a concrete box culvert which will be remotely controlled.

Expected Completion Date: 09/2021

Historical Background/Need for Project: This project is for design, cost estimate and construction of a water conservation structure referred to as the Nettles Water Conservation Structure. The structure will connect Lake Hanna and Lake Stemper through a canal and wetland conservation area. This structure is necessary to allow the controlled flow between Lake Hanna and Lake Stemper to meet established low and high guidance levels. The structure will also allow for enhanced control of lake levels to assist in flood control during high rainfall events.

Plan Linkages: Strategic Plan

Area(s) of Responsibility: Flood Protection and Natural Systems

Alternative(s): The alternative is to not construct the new structure, which will eventually cause the erosion and loss of the temporary coffer dam currently in the conveyance. Loss of the temporary coffer dam may cause uncontrolled flow from Lake Hanna into Lake Stemper, disabling our ability to meet guidance levels and aid in the prevention of flood control.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): The FY2020-21 funding request of \$300,000 is for the construction of the structure. This is a two-year project.

FY2019-20: \$70,000 for Evaluation and Design

FY2020-21: \$300,000 for Construction

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): There are no other project costs associated with this request identified at this time.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): District staff time and travel costs associated with this project are to be determined and are excluded from the amounts referenced.

Anticipated Additional Operating Costs/Continuing: District anticipates continuing cost for staff time and materials for the operation and maintenance of the structure, to include tangible expenses such as utilities and communication needs.

FY2020-21	FY2021-22	FY2022-23	FY2023-24	FY2024-25
\$300,000	\$0	\$0	\$0	\$0

Program: Operation and Maintenance of Works and Lands

Activity: Works

Project Title: Lake Pretty Water Conservation Structure Gate Replacements

Type: Gate Replacement

Physical Location: Southeastern portion of Lake Pretty, located in Hillsborough County

Square Footage/Physical Description: Aluminum and steel structure containing two lift gates attached to a fixed concrete structure

Expected Completion Date: 09/2022

Historical Background/Need for Project: This project is for the replacement of the two existing gates attached to the Lake Pretty Water Conservation Structure. The structure connects Lake Pretty, through a canal, to Lake Armistead and into the Rocky Creek system. This structure is necessary to allow the controlled flow between Lake Pretty and Lake Armistead to meet the established guidance levels. The structure also allows for enhanced control of lake levels to assist in flood control during high water events. The two steel gates are remotely operated and were built by the District over 40 years ago. They continue to fail due to corrosion below the water line.

Plan Linkages: Strategic Plan

Area(s) of Responsibility: Flood Protection and Natural Systems

Alternative(s): The alternative is to not replace the failing gates, which will eventually completely fail, resulting in the District's inability to meet established guidance levels and possibly contribute to flooding during a high water event.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): The FY2020-21 funding request of \$400,000 will be for the replacement of the existing gates.

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): There are no other project costs associated with this request identified at this time.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): District staff time and travel costs associated with this project are to be determined and are excluded from the amounts referenced.

Anticipated Additional Operating Costs/Continuing: District anticipates continuing cost for staff time and materials for the operation and maintenance of the structure, to include tangible expenses such as utilities and communication needs.

FY2020-21	FY2021-22	FY2022-23	FY2023-24	FY2024-25
\$400,000	\$0	\$0	\$0	\$0

Program: Operation and Maintenance of Works and Lands

Activity: Works

Project Title: Structure Gate System Upgrade Program (Drum and Cable Conversion)

Type: Modification

Physical Location: Five Major Flood Control Structures associated with the Tampa Bypass Canal

Square Footage/Physical Description: Structure Gate Lifting Mechanism

Expected Completion Date: 09/2026

Historical Background/Need for Project: In order to address massive flooding caused by Hurricane Donna, the federal government created the Four River Basins, Florida flood-control project designed by the U.S. Army Corps of Engineers (USACE). The District was created the same year by an act of the state legislature to serve as the USACE local sponsor. The Tampa Bypass Canal (TBC) system and the 16,000-acre Lower Hillsborough Flood Detention Area (LHFDA) were part of that project. The TBC is in the southeast portion and consists of the LHFDA, Levee 112, C135, C136 (Harney Canal, and nine flood control structures.

The flood control structures were constructed by the USACE in the late 1970's. The gates were operated by hydraulic cylinders which use oil to pressurize one side of the cylinder to lift or lower the gate. This was the best technology available at the time. This project request is to design and install a drum and cable lift mechanism to replace each of the current hydraulic cylinder lift systems on the TBC structures: S-155, S-159, S-161, S-162, S-160. This newer technology is more reliable and repeatable.

Plan Linkages: Strategic Plan

Area(s) of Responsibility: Flood Protection and Natural Systems

Alternative(s): The alternative is to not upgrade the lift system, increasing the risk of failure and a continued acceleration in costs of maintenance and repair.

Basic Construction Costs (include permits, inspections, communications requirements, utilities, outside building, site development, other): The FY2020-21 funding request of \$190,000 will complete the design and bid specifications of the drum and cable lift mechanisms. It is projected that the same level of funding of \$500,000 will be required annually from FY2021-22 through FY2024-25 for the cost to build and install the replacement lift mechanisms on each gate of the TBC flood control structures. Each structure has more than one gate. Funding for future years pending Governing Board approval through the annual budget process.

Design and Bid Specifications:

FY2017-18: \$70,000

FY2020-21: \$190,000

Construction:

FY2021-22 through FY2024-25: \$500,000 annually

Other Project Costs (include land, survey, existing facility acquisition, professional services, other): District staff time and travel costs associated with this project are to be determined and are excluded from the amounts referenced.

Anticipated Additional Operating Costs/Initial (include salaries, benefits, equipment, furniture, expenses): There are no additional initial operating costs anticipated at this time.

Anticipated Additional Operating Costs/Continuing: There are no additional recurring operating costs anticipated at this time.

FY2020-21	FY2021-22	FY2022-23	FY2023-24	FY2024-25
\$190,000	\$500,000	\$500,000	\$500,000	\$500,000

Consolidated **Annual**
Report
March 1, 2021

2021 Alternative Water Supplies Annual Report

Southwest Florida
Water Management District



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Introduction

Where Water Resource Caution Areas have been designated, Section 373.707(2), Florida Statutes (F.S.), requires the governing boards of the water management districts to include in their annual budgets an amount for the development of alternative water supply systems, including reclaimed water systems. The section, as well as 2005 legislation related to the Water Protection and Sustainability Program Trust Fund (Subsection 373.707(8)(n), F.S.), further requires that each district submit an annual alternative water supply report to the Governor, the President of the Senate, and the Speaker of the House of Representatives by March 1 of each year. This report describes all funded projects and accounts for funds provided through grants, matching grants, revolving loans and the use of Southwest Florida Water Management District (District) lands or facilities. The District has designated Water Resource Caution Areas and has implemented alternate water supply funding pursuant to the Florida Statutes. This report is submitted pursuant to the related statutes (Sections 373.707, 373.036, and 403.890, F.S.). Because of the unique organization of the District and its past accomplishments in the areas of water conservation and alternative water source development, the following is provided as background information.

Background

The District has been providing local funds for regional water resource-related projects since its creation in 1961. Originally, the focus of the District had been on funding flood control projects. In the late 1980s, the priorities began to shift to the identification and funding of projects that focus on water conservation and the development of alternative water sources. Currently, staff and financial resources are focused on issues of water quality, natural systems improvement, flood protection and water supply including water conservation and alternative water source development.

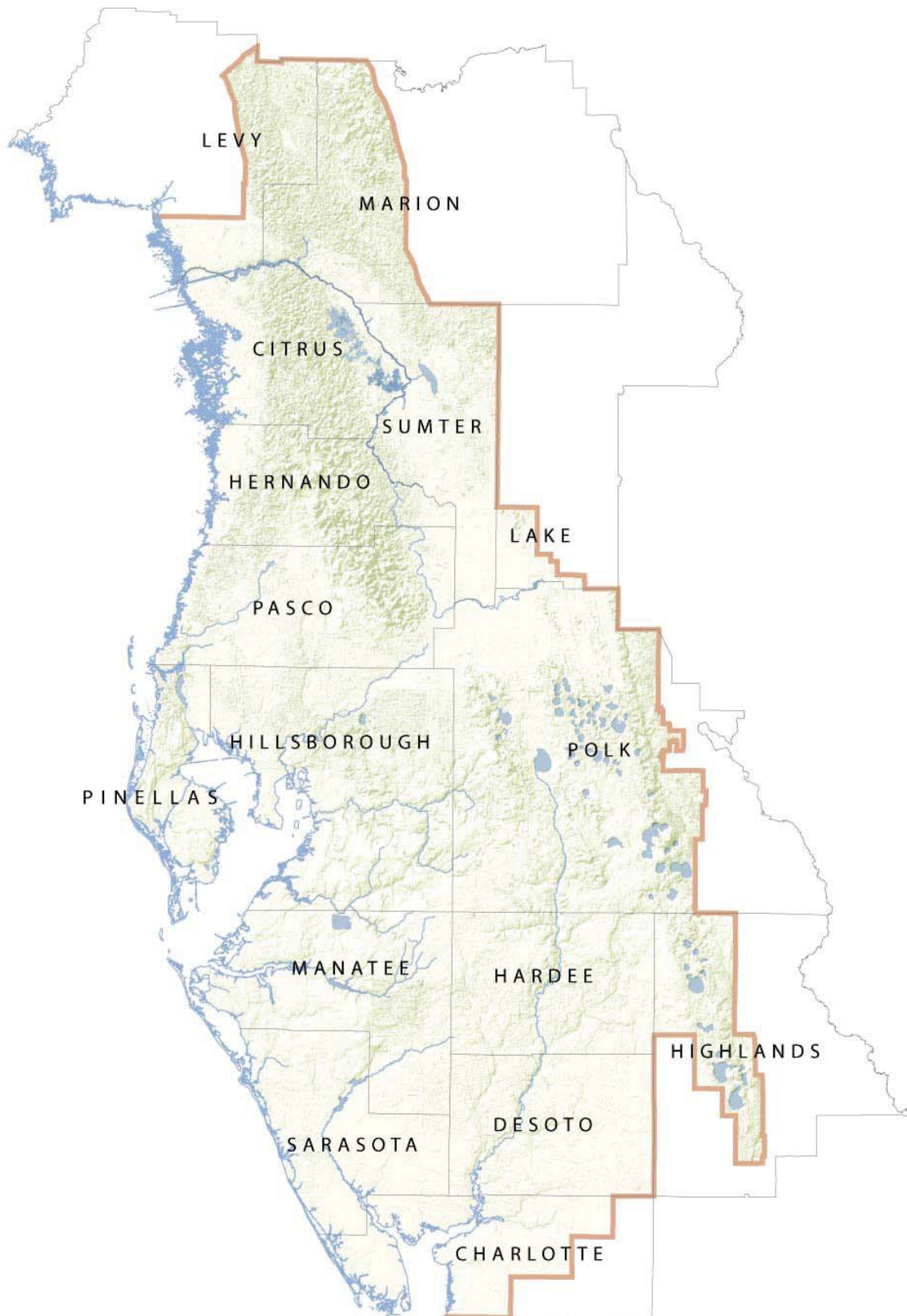
Before the late 1980s, participation in local water resource projects, both financial and staff support, was primarily driven by requests from local governments. Recognizing the ability to support local governments by providing solutions to the growing issues surrounding water supply, the District adopted a more proactive role in addressing local non-regulatory water issues. In response to the need for a set system for receiving project assistance requests and criteria regarding timing, project eligibility, funding and other conditions for participation, the *Cooperative Funding Initiative* was established in recognition of the growing need for a structured approach to maximize the District's effectiveness in choosing and funding water resource projects and budgeting for their completion.

Prior to mid-2011, the District was unique among Florida's water management districts in that, beyond the similar structure of the governing boards, it had eight basins with jurisdictional boundaries encompassing the major watersheds making up the District. Each basin included a Basin Board which allocated funding to projects within that basin. In 2011, the structure of the District was changed to be consistent with the other water management districts, with the Governing Board taking over the responsibilities of the Basin Boards, including the funding of alternative water supply projects. Presently, the Governing Board continues to provide the majority of funding for alternative water supply development through the *Cooperative Funding Initiative*.

The District is involved in many other programs besides those specifically defined in the statute, which are also saving significant amounts of water. Some program examples are leak detection, drought tolerant landscaping, ultra low-flow toilet rebates, water saving ordinance development, industrial and residential water audits, landscape irrigation system efficiency, the Facilitating Agricultural Resource Management Systems (FARMS) Program, and many others, including major public education efforts.

This Alternative Water Supply Report provides a background summary of the District's current and historical accomplishments in alternative water supply development, as well as a few areas of water conservation that will provide the recipients of this report with an understanding of the effectiveness of the District's programs.

Figure 1. SWFWMD Map



Cooperative Funding Initiative

A structured program for funding requests for local water resource projects was established in the District in 1987. Since then, the District has continued to offer cooperative funding assistance for water supply projects, and to refine its water supply funding policies in response to changing goals and priorities.

The District's Cooperative Funding Initiative (CFI) program is a key program for building water supply partnerships. This program allows local governments to share costs for projects that assist in creating sustainable water resources, enhance conservation efforts, or meet other defined water management goals. The CFI generally covers up to 50 percent of the cost of eligible water supply projects. All CFI funding decisions are made by the Governing Board. As a result of the District's significant water supply funding investment in local and regional cooperators, the District has made noteworthy strides in the areas of water conservation and alternative water sources development.

Summary of Reclaimed Water Projects

The District is a national leader in developing reclaimed water as an alternative water supply. The CFI program and other District cost sharing programs have been a key mechanism for promoting the development of reclaimed water infrastructure. Table 1 shows the significant historical financial contributions and alternative water quantities made available as a result of District participation in approximately 387 reclaimed water projects since fiscal year (FY) 1987.

Table 1. Summary of Reclaimed Water Projects

District Funded Reclaimed Water Projects	Reclaimed Water to be Provided (mgd)	Water Resource Benefit (mgd)	Storage Capacity (mg)	Miles of Pipe	Budgeted District Funding (up to FY2021)	Total Project Cost
387	182	133	1,372	1,017	\$412,716,612	\$987,634,343

Sources: Reuse and Conservation Projects Summary Report FY2012 (SWFWMD, 2011), FY2013 through FY2021 District budgets. Note: Budgeted funding total is per Governing Board and Basin Board annual budgets from FY1987-FY2021 and does not include future funding commitments, State Funds, nor funds budgeted for cancelled projects.

New Water Sources Initiative

In 1993, the District Governing Board recognized the need to accelerate the development of alternative water sources to address the water resource impacts identified in the Southern Water Use Caution Area (SWUCA) and the Northern Tampa Bay Water Use Caution Area. The Governing Board initiated the New Water Sources Initiative (NWSI) program with a \$10 million commitment beginning in FY1994. The program solicited requests for large, regionally significant projects that would develop non-traditional (other than groundwater) sources to replace existing use or provide for future growth. This program was in addition to the Cooperative Funding Initiative and continued through FY2007 following the completion of the Tampa Bay Water Partnership Agreement funding obligations.

Eligible NWSI projects generally received 25 percent of their funding from the District's Governing Board, 25 percent from appropriate Basin(s) and the remaining 50 percent from the local cooperator(s). The 22 completed projects funded through the NWSI program were administered pursuant to legislative directives to promote and fund alternative source development. The NWSI projects received more than \$60 million in District funding to provide as much as 206 million gallons per day (mgd) of water resource benefits, reduce groundwater withdrawals, rehydrate stressed lakes and wetlands, increase groundwater recharge, enhance wildlife habitat and improve flood control.

Water Supply and Resource Development Projects

As a means to facilitate the implementation options identified in the *District Regional Water Supply Plan* (SWFWMD, 2001) or similar projects, the Governing Board and the previous Basin Boards initiated another funding opportunity in FY2001 to address large-scale water supply and resource development projects with multiple cooperators and regional benefits. The Water Supply and Resource Development (WSRD) projects received funding from the Governing Board, multiple Basins, and local cooperators. Depending upon the size and scope of the project, some WSRD projects also involved additional state and federal funding. The funding shares were reflective of the proportional benefits anticipated to be realized by each of the basins, and the collective Basin Board funding was then matched by the Governing Board. As such, eligible WSRD projects generally received 25 percent of funding from the District's Governing Board, 25 percent from the collective Basin Boards and the remaining 50 percent from local cooperators. Since the dissolution of the Basin Boards in 2011, funding for large-scale WSRD projects continues through the District's CFI program.

District Initiatives

Projects implemented through the District Initiatives program are of great importance or a regional priority and, in some cases, are fully funded by the District. Examples of these initiatives include Water Resource Development projects such as: (1) the Quality of Water Improvement Program (QWIP) to plug deteriorated, free-flowing wells that waste water and cause inter-aquifer contamination; (2) the Utilities Services Group to conserve water by assisting utilities in controlling their water loss; (3) data collection and analysis to support major District initiatives such as the MFL program; (4) the FARMS program and other various agricultural research projects designed to increase the water-use efficiency of agricultural operations; (5) WRD investigations and MFL Recovery projects which may not have local cooperators; and (6) the WISE (Water Incentives Supporting Efficiency) program launched in 2019 offers cost-share funding for a wide variety of water conservation projects (maximum of \$20,000 per project) to non-agricultural entities.

Springs Initiative

The DEP Springs Initiative is a special legislative appropriation that has provided revenue for protection and restoration of major springs systems. The District has allocated Springs Initiative funding to implement projects to restore aquatic habitats and reduce groundwater withdrawals and nutrient loading within first magnitude springsheds and improve the water quality and quantity of spring discharges. Projects include the reestablishment of aquatic and shoreline vegetation near spring vents, construction of infrastructure necessary to convey wastewater currently treated in septic systems or package plants in a priority focus area to a centralized wastewater treatment facility which may increase reclaimed water production and implementation of other best management practices (BMPs) within springshed basins. Since FY2014, the District has appropriated over \$55.2 million from the DEP for springs restoration, which includes \$7 million for FY2021.

FARMS Program

The **Facilitating Agricultural Resource Management Systems (FARMS)** Program is an agricultural BMP cost-share reimbursement program that involves both water quantity and water quality. This public/private partnership program was developed by the District and the Florida Department of Agriculture and Consumer Services (FDACS) in 2003. The purpose of the FARMS Program is to implement production-scale agricultural BMP projects that will provide water resource benefits including water quality improvement; reduction of Upper Floridan aquifer withdrawals; conservation; and restoration or augmentation of the area's water resources and ecology. Since 2003, the District has co-funded \$43.3 million dollars towards \$76.6 million dollars in total project costs for 216 FARMS projects resulting in 29.6 mgd of water resource benefits. Operating under District Governing Board Policy, the FARMS Program utilizes additional state funding when available. Since inception of the program, 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.

Water Protection and Sustainability Program

Large areas of Florida do not have sufficient traditional water resources to meet the future needs of the state's growing population and the needs of the environment, agriculture and industry. The state's Water Protection and Sustainability Program Trust Fund (WPSPTF) was created in the 2005 legislative session through Senate Bill 444 to accelerate the development of alternative water sources and later recreated in Chapter 373, F.S., as part of the 2009 legislative session. Legislation focused on encouraging cooperation in the development of alternative water supplies and improving the linkage between local governments' land use plans and water management districts' regional water supply plans. The Program provides matching funds to the District for alternative water supply development assistance. From FY2006 through FY2009, the District was appropriated a total of \$53.75 million by the Legislature through the Program for water supply development projects. Annual WPSPTF appropriations resumed in FY2020 with \$250,000, and another \$450,000 in FY2021 allocated to the District.

Program funds are applied toward a maximum of 20 percent of eligible project construction costs. In addition, the Legislature 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. The legislation also requires that a minimum of 80 percent of the WPSPTF funding must be related to projects identified in a district water supply plan. The District's Regional Water Supply Plan (RWSP) is utilized in the identification of the majority of WPSPTF-eligible projects. Projects are evaluated for funding based on consideration of the 14 factors described in Subsections 373.707(8)(f) and (g), F.S., and additional District evaluation factors as appropriate. If the Legislature continues to fund the state's Water Protection and Sustainability Program, it could serve as a significant source of matching funds to assist in the development of AWS and regional supply infrastructure in the region.

Partnership Agreements

The Northern Tampa Bay New Water Supply and Groundwater Withdrawal Reduction Agreement (NTB Partnership Agreement) provided for the development of new and alternative water supplies and reduction of pumpage from Tampa Bay Water's Northern Tampa Bay wellfields.

NTB Background

Floridians rely on groundwater, pumped from underground aquifers, as their principal water supply source. In the Tampa Bay region, an over-reliance on groundwater resulted in adverse environmental impacts to lakes, wetlands, and its ecology. This led to years of conflict between water regulators, water suppliers and property owners. Many of these conflicts were aired in administrative hearings and the court systems for years without resolution.

Seeking a cooperative solution to the region's water problems, the District collaborated with Tampa Bay Water (formerly known as the West Coast Regional Water Supply Authority), and its six member governments (Hillsborough County, Pinellas County, Pasco County, and the cities of Tampa, St. Petersburg, and New Port Richey) for the development of new water supplies and phased reduction of pumping from the 11 central system wellfields. Discussions of the plan began in 1997. After many months of negotiations, the "Partnership Agreement" was executed by all parties on May 27, 1998.

NTB Partnership Agreement

The Partnership Agreement had four objectives: (1) Develop at least 85 mgd of new water supply by December 31, 2007, of which 38 mgd must be produced by December 31, 2002; (2) Reduce groundwater pumpage at 11 wellfields from 158 mgd to 121 mgd by 2002 and to 90 mgd by 2008; (3) End existing and minimize future litigation; and (4) Provide funding to assist in the development of the new alternative supply.

The Partnership Agreement was completed in 2010 and met the objectives set forth. The Recovery Strategy required that groundwater withdrawals from TBW's Consolidated Wellfield system would be reduced to rates that could not exceed 90 mgd on a 12-month moving average basis by 2008. To

compensate for this reduction in groundwater withdrawals, greater reliance would be placed on using alternative public water supplies, such as surface water and the seawater desalination facility.

In keeping with the intent of the Recovery Plan, TBW now obtains surface water supplies from the TBC, the Hillsborough and Alafia Rivers, maintains a 15.5 billion gallon offline reservoir, and maintains a 25 mgd capacity seawater desalination plant on Tampa Bay.

In 2010, the District adopted a second phase of recovery for the NTBWUCA, entitled the Comprehensive Environmental Resources Recovery Plan for the NTBWUCA (Rule 40D-80.073, F.A.C.), or the “Comprehensive Plan.” Among other actions, the Comprehensive Plan requires TBW to assess the water resources of the area and identify any remaining unacceptable adverse impacts caused by the 90 mgd of groundwater permitted to be withdrawn from their wellfields. The plan also required TBW to develop a plan to address any identified unacceptable adverse impacts by 2020. Several new projects have resulted from this analysis.

Additional Tampa Bay Water Project Agreements

In FY2006-FY2011, the District provided an additional \$126 million in grant funding for the \$247 million Tampa Bay Water System Configuration II Project, which developed 25 mgd of new surface water supplies.

A Partnership Agreement in Polk County

In 2012, the District began coordinating with Polk County on a Partnership Agreement (H094) that is modeled after the NTB Partnership Agreement. The Polk partnership agreement will provide financial assistance, permit coordination, development of new and alternative water supplies and the regionalization of water supplies in Polk County. The goal is to provide an annual average of at least 30 mgd in new alternative water supplies from eligible projects to be used by Polk and its municipalities by December 31, 2041.

FY2021 Annual Report Information

As defined in the Florida Statutes, alternative water supplies are “salt water; brackish surface and groundwater; surface water captured predominately during wet-weather flows; sources made available through the addition of new storage capacity for surface or groundwater; water that has been reclaimed after one or more public supply, municipal, industrial, commercial, or agricultural uses; the downstream augmentation of water bodies with reclaimed water; stormwater; and any other water source that is designated as nontraditional for a water supply planning region in the applicable regional water supply plan.” Pursuant to the requirements of the statutes, the following tables and associated narrative identify alternative water supply projects, associated funding, and provide a short description of their benefits.

SWFWMD Budgeted Project Funding

Table 2 summarizes the total annual budgeted District funding for alternative water supply category projects for the past ten fiscal years (FY2012-FY2021). The funding of projects requiring large capital investments with construction spanning several years is usually spread out over multiple fiscal years to maximize annual funding availability for multiple regional projects and cooperators. Please note that the funding totals presented in the following sections are based on the FY2021 Adopted Budget and may reflect updates to project costs from previous years. Funding totals are provided per Board approved budgets and do not include District project management expenses.

Notes: The funding amounts shown, as in subsequent tables, represent only District related contributions; equal or exceeding matching funds are provided by the cooperator. Projects included in these tables include only projects related to “water supply” benefits and do not include Natural System Enhancement (i.e. wetland and lake restoration projects).

Funding Classification

Table 3 classifies the FY2012-FY2021 budgeted amounts into funding types. As indicated, the District’s funding focus has been on matching programs.

Table 2. District Budgeted Amounts

Alternative Water Supply	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Reclaimed Wastewater	\$15,380,739	\$19,294,703	\$21,691,124	\$21,824,760	\$19,118,417	\$12,075,819	\$10,766,312	\$7,459,498	\$5,375,557	\$6,111,675
Surface Water/Stormwater*	\$210,000	\$250,000	\$1,809,909	\$2,100,000	\$1,305,000	\$1,920,000	\$1,462,947	\$7,393,700	\$4,160,767	\$1,691,000
Desalination of Brackish Water	\$300,000	\$5,417,120	\$8,100,000	\$16,005,355	\$10,060,000	\$12,713,050	\$17,575,000	\$14,300,682	\$8,530,340	\$8,358,204
Potable Reuse (Indirect & Direct)	\$486,374	\$893,125	\$1,475,000	\$1,554,000	\$8,306,000	\$2,617,910	\$10,827,500	\$2,985,000	\$5,644,500	\$1,020,000
Desalination of Sea Water	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$550,000	\$950,000
District Funding Totals	\$16,377,113	\$25,854,948	\$33,076,033	\$41,484,115	\$38,789,417	\$29,326,779	\$40,633,759	\$32,138,880	\$24,011,164	\$18,130,879
Allocated WPSTF	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$250,000	\$450,000
District Grand Totals**	\$16,377,113	\$25,854,948	\$33,076,033	\$41,484,115	\$38,789,417	\$29,326,779	\$40,633,759	\$32,138,880	\$24,261,164	\$18,580,879

* Surface Water Projects included in funding totals beginning in FY2017

**District Grand Totals may include WPSPTF, WRAP, SPRINGS or other funding.

Table 3. Funding Classification

Funding Type	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Direct Grants	\$0	\$2,000,000	\$132,000	\$0	\$994,000	\$1,244,550	\$1,000,000	\$2,385,690	\$2,159,467	\$3,181,869
Matching Grants	\$16,377,113	\$23,854,948	\$32,944,033	\$41,484,115	\$37,795,417	\$28,082,229	\$39,633,759	\$29,753,190	\$22,101,697	\$15,399,010
Revolving Loans	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Use of District Land/ Facilities	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
District Grand Totals*	\$16,377,113	\$25,854,948	\$33,076,033	\$41,484,115	\$38,789,417	\$29,326,779	\$40,633,759	\$32,138,880	\$24,261,164	\$18,580,879

*District Grand Totals may include WPSPTF, WRAP, SPRINGS or other funding.

Alternative Source Type: Reclaimed Wastewater

Table 4 lists Cooperative Funding Initiative, WSRD and WPSPTF reclaimed water projects that will receive funding in FY2021. The table also identifies District funds allocated in FY2021 by the Governing Board, based on the District's FY2021 Budget. The total funding commitment represents previous and projected year funding by the District. Funding of projects requiring large capital investments with construction spanning several years is usually spread out over multiple fiscal years. Table 4 also includes the projected alternative supply (gallons per day) provided by the project. The Appendix of this report contains a brief description of the projects identified in Table 4.

Table 4. Alternative Source Type: Reclaimed Wastewater

Project Name	Project Number	FY2021 District Funding	FY2021 WPSPTF	Total FY2021 Funding	Total District Commitment (Multi-Year)**	Total Project Cost	Water Provided* (gpd)
Haines City Reclaimed Water Tank and Pump Stations	N898	\$1,635,000	0	\$1,635,000	\$4,620,000	\$6,800,000	Storage
Venice Reclaimed Water Aquifer Storage and Recovery (ASR)	Q050	\$150,000	0	\$150,000	\$2,532,500	\$5,065,000	Storage
Polk Co. NERUSA Southeast Reuse Loop	Q067	\$983,375	0	\$983,375	\$2,186,750	\$4,373,500	522,000
Citrus Co. Sugarmill Woods Golf Course Reuse	Q105	\$1,375,000	0	\$1,375,000	\$2,084,000	\$3,918,000	500,000
Pasco Co. River Landing Reclaimed Water Transmission	Q158	\$1,468,300	\$450,000	\$1,918,300	\$1,918,300	\$3,386,600	465,000
Sarasota Co. Honore Ave Reclaimed Water Transmission	Q160	\$500,000	0	\$500,000	\$1,500,000	\$3,000,000	533,000
Totals (6)		\$6,111,675	\$450,000	\$6,561,675	\$14,841,550	\$26,543,100	2,020,000

*Represents the total water supply delivered upon project completion.

**Total District Commitment represents projects that have been or will be funded over multiple years and may include prior WPSPTF, WRAP, SPRINGS or other funding.

Notes: 1. Table 4 does not include Natural System Enhancement or Recharge projects that do not have water supply benefits associated.

2. Table 4 does not include Potable Reuse projects which are included in Table 7.

Alternative Source Type: Surface Water and Stormwater

Table 5 identifies the surface water and stormwater supply projects that will receive funding in FY2021. The table also identifies the total funding commitment of the District, including previous funding and projected future funding by the District. As previously stated, funding of projects requiring large capital investments with construction spanning several years is spread out over multiple years. Table 5 also includes the projected alternative water supply provided by the projects. The Appendix of this report contains a brief description of the projects identified in Table 5.

Table 5. Alternative Source Type: Surface Water and Stormwater

Project Name	Project Number	FY2021 District Funding	FY2021 WPSPTF	Total FY2021 Funding	Total District Commitment (Multi-Year)**	Total Project Cost	Water Provided* (gpd)
Tampa Bay Water Regional Pump Station Expansion	N998	\$77,500	\$0	\$77,500	\$1,200,000	\$2,400,000	Pumping
Tampa Bay Water Tampa Bypass Canal Gate Automation	N965	\$88,500	\$0	\$88,500	\$516,000	\$1,032,000	Controls
Tampa Bay Water Regional Surface Treatment Plant Expansion Feasibility	Q061	\$50,000	\$0	\$50,000	\$275,000	\$550,000	Study
Tampa Bay Water Southern Hillsborough Co. Booster Pump Station	Q146	\$500,000	\$0	\$500,000	\$3,550,000	\$7,100,000	Pumping
PRMRWSA Southern Regional Loop Phase 2B & 2C Feasibility and Routing	Q202	\$150,000	\$0	\$150,000	\$200,000	\$400,000	Study
PRMRWSA Phase 3C Integrated Loop Routing and Feasibility	Q205	\$200,000	\$0	\$200,000	\$300,000	\$600,000	Study
PRMRWSA Reservoir #3 Feasibility and Siting	Q212	\$625,000	\$0	\$625,000	\$625,000	\$1,250,000	Study
Totals (7)		\$1,691,000	\$0	\$1,691,000	\$6,666,000	\$13,332,000	0

* Represents the total water supply delivered upon project completion.

**Total District commitment represents projects that have been or will be funded over multiple years, may include prior WPSPTF, WRAP, SPRINGS or other funding.

Notes: 1. Table 5 does not include Natural System Enhancement or Recharge projects that do not have water supply benefits associated.

Alternative Source Type: Desalination of Brackish Water

Table 6 identifies the desalination of brackish water projects that will receive funding in FY2021. The table also identifies the total funding commitment of the District, including previous funding and projected future funding by the District. The funding of most projects requiring large capital investments with construction spanning several years is spread out over multiple fiscal years. Table 6 also includes the projected alternative water supply provided by the projects. The Appendix of this report contains a brief description of the projects identified in Table 6.

Table 6. Alternative Source Type: Desalination of Brackish Water

Project Name	Project Number	FY2021 District Funding	FY2021 WPSPTF	Total FY2021 Funding	Total District Commitment (Multi-Year)**	Total Project Cost	Water Provided* (gpd)
Polk Regional Water Cooperative-Polk Partnership ***	H094	\$5,000,000	\$0	\$5,000,000	\$65,000,000	\$65,000,000	Up to 30,000,000
Hydrogeological Investigation of the Lower Floridan Aquifer in Polk County	P280	\$3,181,869	\$0	\$3,181,869	\$12,000,000	\$12,000,000	TBD
Belleair Brackish Feasibility and Testing	Q090	\$176,335	\$0	\$176,335	\$881,675	\$1,763,350	TBD
Totals (3)		\$8,358,204	\$0	\$8,358,204	\$77,881,675	\$78,763,350	Up to 30,000,000

* Represents the total water supply delivered upon project completion.

**Total District commitment represents projects that have been or will be funded over multiple years, may include prior WPSPTF, WRAP, SPRINGS or other funding.

***H094 is a funding source for Polk Regional Water Cooperative water supply projects. As of FY2021, \$21,988,000 has been transferred to several projects with \$43,012,000 remaining for future funding.

Alternative Source Type: Potable Reuse (Indirect & Direct)

Table 7 identifies the indirect & direct potable reuse projects that will receive funding in FY2021. The table also identifies the total funding commitment of the District, including previous funding and projected future funding by the District. Similar to the funding of other alternative water projects, the funding of projects requiring large capital investments with construction spanning several years is usually spread out over multiple fiscal years. Table 7 also includes the projected alternative water supply provided by the projects. The Appendix of this report contains a brief description of the projects identified in Table 7.

Table 7. Alternative Source Type: Potable Reuse (Indirect & Direct)

Project Name	Project Number	FY2021 District Funding	FY2021 WPSPTF	Total FY2021 Funding	Total District Commitment (Multi-Year)**	Total Project Cost	Water Provided* (gpd)
North Port Direct Potable Reuse Feasibility	Q139	\$125,000	\$0	\$125,000	\$125,000	\$250,000	Study
Winter Haven Direct Potable Reuse Feasibility	Q200	\$100,000	\$0	\$100,000	\$100,000	\$200,000	Study
Polk Co Direct Potable Reuse Feasibility & Pilot	Q209	\$795,000	\$0	\$795,000	\$795,000	\$1,590,000	Study
Totals (3)		\$1,020,000	\$0	\$1,020,000	\$1,020,000	\$2,040,000	Studies

* Represents the total water supply delivered upon project completion.

**Total District commitment represents projects that have been or will be funded over multiple years, may include prior WPSPTF, WRAP, SPRINGS or other funding.

Notes: 1. Senate Bill 712 was signed into Statute in 2020 directing FDEP to implement rulemaking to enable direct potable reclaimed water development.

2. Table 7 does not include Natural System Enhancement or Recharge projects that do not have water supply benefits associated.

Alternative Source Type: Desalination of Sea Water

Table 8 identifies the desalination of sea water projects that will receive funding in FY2021. The table also identifies the total funding commitment of the District, including previous funding and projected future funding by the District. The funding of most projects requiring large capital investments with construction spanning several years is spread out over multiple fiscal years. Table 8 also includes the projected alternative water supply provided by the projects. The Appendix of this report contains a brief description of the project identified in Table 8.

Table 8. Alternative Source Type: Desalination of Sea Water

Project Name	Project Number	FY2021 District Funding	FY2021 WPSPTF	Total FY2021 Funding	Total District Commitment (Multi-Year)**	Total Project Cost	Water Provided* (gpd)
Tampa Bay Water Desal Facility Expansion Feasibility	Q063	\$950,000	\$0	\$950,000	\$1,500,000	\$3,000,000	Study
Totals (1)		\$950,000	\$0	\$950,000	\$1,500,000	\$3,000,000	Study

* Represents the total water supply delivered upon project completion.

**Total District commitment represents projects that have been or will be funded over multiple years, may include prior WPSPTF, WRAP, SPRINGS or other funding.

Conclusion

The District has developed an aggressive alternative water supply development program through the efficient utilization of the resources available to its Governing Board and provided by the Florida Legislature. The District is committed to identifying and assisting with effective solutions to the water resource problems by providing technical and financial support in developing alternative water supplies. The District has a long history of commitment to cooperative efforts with state and local governments, private industry, and the public at large through the sponsoring of research, conservation, natural system and water quality improvements and a special emphasis on the development of alternative water supplies. The District is confident in its mission to find and maintain adequate and ecologically sustainable water supplies within its boundaries.

Appendix (Projects with FY2021 Funding)

Project Name: FARMS - Facilitating Agricultural Resource Management Systems(H017)

Type of Alternative Supply: Variety of Types

Cooperator: Variety of Cooperators

Locale: District-wide

Project Description: The FARMS program is an agricultural Best Management Practice (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 purpose of the FARMS initiative is to provide an incentive to the agricultural community, within the District, to implement agricultural BMPs that will provide resource benefits that include water quality improvement; reduced Upper Floridan aquifer withdrawals; and/or conserve, restore, or augment the area's water resources and ecology.

Project Name: Polk County Partnership (H094)

Type of Alternative Supply: Brackish

Cooperator: Polk Regional Water Cooperative

Locale: Polk County

Project Description: This project includes support of regional cooperation within Polk County and the development of regional AWS projects that can achieve 30 mgd of base supply. The District Governing Board adopted Resolution No. 15-07 and 18-06 providing timing and guidance for this project. The resolutions tie incentive funding for AWS development to achievement of certain milestones.

Project Name: Haines City Reclaimed Water Tank and Pump Stations Project (N898)

Type of Alternative Supply: Reclaimed Wastewater

Cooperator: Haines City

Locale: Polk County

Project Description: 30% design, third party review, full design, permitting and construction of an expansion to the City's reclaimed water storage and pumping infrastructure. The reclaimed water infrastructure includes a storage tank, a low-pressure transfer pump station, a high-pressure pump station, telemetry controls and other necessary appurtenances to supply existing reclaimed water customers and to enable future expansions of the City's reclaimed water system.

Project Name: Tampa Bay Water Tampa Bypass Canal Gate Automation (N965)

Type of Alternative Supply: Surface Water

Cooperator: Tampa Bay Water

Locale: Hillsborough County

Project Description: The project is for the design, permitting and construction of a project that will equip existing manual weir gates located on top of the larger flood control gates with remote-controlled motorized actuators at the Tampa Bypass Canal Structures 160, 161, and 162.

Project Name: Tampa Bay Water Regional Pump Station Expansion (N998)

Type of Alternative Supply: Surface Water

Cooperator: Tampa Bay Water

Locale: Hillsborough County

Project Description: The project is for the design, permitting and construction project that will increase Tampa Bay Water's pumping capacity of alternative water supply by 10-12 mgd average and 20-22 mgd maximum at the Regional Facility Site High Service Pump Station.

Project Name: Hydrogeological Investigation of the Lower Floridan Aquifer in Polk County (P280)

Type of Alternative Supply: Brackish

Cooperator: Polk Regional Water Cooperative

Locale: Polk County

Project Description: This project explores the Lower Floridan aquifer (LFA) in Polk County to assess its viability as an alternative water supply source as well as to gain a better understanding of the LFA characteristics and groundwater quality in Polk County. Funding is available for three sites. Multiple sites have been identified as alternate or future sites. The sites are on properties owned by Polk County and its cities. At each site, if the tests on the initial exploration monitor well drilled are positive, a test production well will be constructed at the site. In addition, an aquifer performance test (APT) will be performed on the test production well to obtain transmissivity and leakance information as well as to determine the

quality of the formation water. At each site, if the exploratory monitor well does not have sufficient porosity and permeability or suitable water quality, it will become a permanent monitor well, of the LFA for the District. In addition, if the test production well is sufficient for use as a production well, it may be a candidate for addition to a regional water supply authority in Polk County. The Crooked Lake site is the exception, as the future potential use of a test/production well is for monitoring purposes.

Project Name: Venice Reclaimed Water ASR (Q050)

Type of Alternative Supply: Reclaimed Wastewater

Cooperator: City of Venice

Locale: Sarasota County

Project Description: Design, permitting, construction, testing, and independent performance evaluation (IPE) of an Aquifer Storage and Recovery (ASR) system to store and recover at least 25 MG/yr of reclaimed water on-site at the City's Eastside Water Reclamation Facility, an advanced wastewater treatment plant. If constructed, ASR would let the City store excess reclaimed water in the wet season, to be used in the dry season when demand exceeds plant flow.

Project Name: Tampa Bay Water Regional Surface Treatment Plant Expansion Feasibility (Q061)

Type of Alternative Supply: Surface Water

Cooperator: Tampa Bay Water

Locale: Hillsborough County

Project Description: Feasibility of expanding the existing Regional Surface Water Treatment Plant and increasing the use of associated surface water supplies to maximize the available yield for Tampa Bay Water's (TBW) regional water supplies. The analysis will explore tasks such as capacity evaluation, field testing of treatment processes, modeling, conceptual design of new 20 mgd surface water treatment plant, conceptual cost and site plan development.

Project Name: Tampa Bay Water Desal Facility Expansion Feasibility (Q063)

Type of Alternative Supply: Seawater Desal

Cooperator: Tampa Bay Water

Locale: Hillsborough County

Project Description: Feasibility of expanding the existing Desalination Water Treatment Plant by 10-15 mgd to maximize the available yield for Tampa Bay Water's (TBW) regional water supplies

Project Name: Polk Co. NERUSA Southeast Reuse Loop Project (Q067)

Type of Alternative Supply: Reclaimed Wastewater

Cooperator: Polk County

Locale: Polk County

Project Description: Design, permitting and construction of approximately 24,800 feet of reclaimed water transmission mains and other necessary appurtenances to construct a loop to supply approximately 1,365 homes in the Southeast reclaimed water portion of the North East Utility Service Area and to enable supply to future planned subdivisions.

Project Name: Belleair Brackish Feasibility and Testing (Q090)

Type of Alternative Supply: Brackish

Cooperator: Belleair

Locale: Pinellas County

Project Description: A hydrogeologic investigation to determine the feasibility of developing a brackish groundwater wellfield and deep injection well in the Upper Floridan aquifer. The project includes the construction of three wells (exploratory deep injection well, and two monitor wells) and associated testing to characterize the proposed production zone.

Project Name: Citrus Co. Sugarmill Woods Golf Course Reuse (Q105)

Type of Alternative Supply: Reclaimed Wastewater

Cooperator: Citrus County

Locale: Citrus County

Project Description: Design, permitting and construction of approximately 22,000 feet of transmission mains, a 1.0 million gallon storage tank, a 1.0 mgd pump station, a 0.5 mgd booster station and other necessary appurtenances to supply 0.50 mgd of reclaimed water to replace 0.375 mgd of groundwater used for irrigation at the Sugarmill Woods golf courses (one 18 hole and one 9 hole) within the Chassahowitzka Springs Springshed.

Project Name: North Port Direct Potable Reuse Feasibility (Q139)

Type of Alternative Supply: Potable Reuse

Cooperator: City of North Port

Locale: Sarasota County

Project Description: A direct potable reuse (DPR) feasibility study to provide information on the potential future development of a DPR project for new potable water supply. The project will include data collection and laboratory services necessary to determine the quantity and quality of water sources. Source water characterization will include regulated, unregulated and emerging constituents. The study will also include a desktop evaluation and costing of available advanced treatment technologies for reclaimed water.

Project Name: Tampa Bay Water Southern Hillsborough Co. Booster Pump Station (Q146)

Type of Alternative Supply: Surface Water

Cooperator: Tampa Bay Water

Locale: Hillsborough County

Project Description: Third party review, design, permitting and construction of a potable water booster pump station to increase delivery capacity to the Regional Delivery Point of Connection at the Lithia Water Treatment Plant by connecting into an existing 30" Brandon-South Central Transmission Main. The new booster pump station will increase the net gain in transmission line flow by approximately 5 – 7 mgd. District funding is for third party review as this project has a conceptual construction estimate greater than \$5 million dollars. The FY2021 funding request is to complete third party review and continue design if the Board approves the third party review.

Project Name: Pasco Co. River Landing Reclaimed Water Transmission (Q158)

Type of Alternative Supply: Reclaimed Wastewater

Cooperator: Pasco County

Locale: Pasco County

Project Description: The construction of approximately 14,950 feet of reclaimed water transmission mains and other necessary appurtenances to supply approximately 410 single-family homes, 416 multi-family homes and 15 acres in the Pasco County reclaimed water service area and to enable supply to future planned subdivisions.

Project Name: Sarasota Co. Honore Ave Reclaimed Water Transmission Project (Q160)

Type of Alternative Supply: Reclaimed Wastewater

Cooperator: Sarasota County

Locale: Sarasota County

Project Description: This project is for the design, permitting and construction of approximately 17,500 feet of reclaimed water transmission mains and other necessary appurtenances to supply approximately 1,066 homes within the Palmer Ranch portion of the Sarasota County reclaimed water service area and to enable supply to future planned subdivisions.

Project Name: Winter Haven Direct Potable Reuse Feasibility (Q200)

Type of Alternative Supply: Potable Reuse

Cooperator: City of Winter Haven

Locale: Polk County

Project Description: A direct potable reuse (DPR) feasibility study to provide information on the potential future development of a DPR project for new potable water supply. The project will include data collection and laboratory services necessary to determine the quantity and quality of water sources. Source water characterization will include regulated, unregulated and emerging constituents. The study will also include a desktop evaluation and costing of available advanced treatment technologies for reclaimed water.

Project Name: PRMRWSA Southern Regional Loop Phase 2B & 2C Feasibility and Routing (Q202)

Type of Alternative Supply: Surface Water

Cooperator: Peace River Manasota Regional Water Supply Authority

Locale: Charlotte & Sarasota County

Project Description: A feasibility study to evaluate the route options and infrastructure requirements that will enable installation of the southern loop between the Authority's regional transmission system at Serris Boulevard in Charlotte County and the Carlton Water Treatment Facility in Sarasota County. Work will include evaluation of pipeline routing, sizing, new pumping and chemical addition facility and any

required modifications to support this system interconnection project, and cost estimation.

Project Name: PRMRWSA Phase 3C Integrated Loop Routing and Feasibility (Q205)

Type of Alternative Supply: Surface Water

Cooperator: Peace River Manasota Regional Water Supply Authority

Locale: Manatee & Sarasota County

Project Description: A feasibility study to evaluate pipeline routing options, infrastructure requirements and the feasibility of extending regional potable water transmission system from Sarasota County to Manatee County. The study is a critical step to determine pipeline routes, sizing, pumping needs as well as the support needed for modifications to existing county and regional facilities. In addition, the study will evaluate and refine the estimated cost of all proposed new facilities as well as existing facility improvements.

Project Name: Polk Co. Direct Potable Reuse Feasibility and Pilot Demonstration Project (Q209)

Type of Alternative Supply: Potable Reuse

Cooperator: Polk County

Locale: Polk County

Project Description: A direct potable reuse (DPR) feasibility study and 29,000 gpd educational/testing pilot project by Polk County to test the development of a future DPR project for new potable water supply. The project will include data collection, laboratory services, design, permitting, construction and demonstration testing involving a field scale investigation of the advanced treatment of reclaimed water as well as at least one year of education and testing.

Project Name: PRMRWSA Reservoir #3 Feasibility and Siting (Q212)

Type of Alternative Supply: Surface Water

Cooperator: Peace River Manasota Regional Water Supply Authority

Locale: DeSoto County

Project Description: This project is for a siting and feasibility study for a third surface water reservoir at the Peace River Water Treatment Facility in DeSoto County. A new reservoir would support use of water supplies skimmed from the Peace River as an alternative supply, reliably meeting much of the drinking water needs in the District's southern water use planning area. The study will evaluate conceptual sizing, siting, mitigation, operational drivers and associated facility requirements, such as raw water pipelines, for a third off-stream reservoir and increased river intake capacity for the Peace River Facility.

Consolidated **Annual**
Report
March 1, 2021

2021 Five-Year **Water**
Resource
Development
Work Program

Southwest Florida
Water Management District

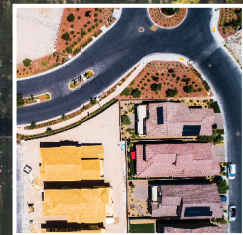


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Introduction/Purpose

The Water Management Districts are required to prepare a Five-Year Water Resource Development Work Program (Work Program) as a part of their 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 WRD 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 20th Work Program and covers the period from fiscal year (FY) 2021 through FY2025. 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; therefore, several changes from prior year Work Programs will be apparent. This Work Program is consistent with the planning strategies of the District's 2020 Regional Water Supply Plan (RWSP) and the Central Florida Water Initiative 2020 Regional Water Supply Plan (CFWI RWSP).

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 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 MFL 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 projects identified in the 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 \$43.2 million in FY2021 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 FY2021 have not yet been developed, future funding estimates for activities continuing through FY2025 are set equal to FY2021 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 such 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), the Northern Tampa Bay Water Use Caution Area (NTBWUCA), the Dover/Plant City Water Use Caution Area (DPCWUCA) recovery strategies, 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 796 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. FY2021 - FY2025 Water Resource Development Data Collection and Analysis Activities

WRD Data Collection and Analysis Activities	Budget Reference ¹	FY2021 Costs (\$)	FY2022 Costs (\$)	FY2023 Costs (\$)	FY2024 Costs (\$)	FY2025 Costs (\$)	Total Costs (\$)	Funding Source ²
1) Hydrologic Data Collection	1.2.1, p.66							
a) Surface Water Flows & Levels		\$3,791,646	\$3,791,646	\$3,791,646	\$3,791,646	\$3,791,646	\$18,958,230	District, other
b) Geologic (includes ROMP)		\$2,928,384	\$2,928,384	\$2,928,384	\$2,928,384	\$2,928,384	\$14,641,920	WMDs, USGS, DEP, FWC
c) Meteorologic Data		\$259,850	\$259,850	\$259,850	\$259,850	\$259,850	\$1,299,250	
d) Water Quality		\$862,854	\$862,854	\$862,854	\$862,854	\$862,854	\$4,314,270	
e) Groundwater Levels		\$1,082,121	\$1,082,121	\$1,082,121	\$1,082,121	\$1,082,121	\$5,410,605	
f) Biologic Data		\$762,991	\$762,991	\$762,991	\$762,991	\$762,991	\$3,814,955	
g) Data Support		\$4,056,069	\$4,056,069	\$4,056,069	\$4,056,069	\$4,056,069	\$20,280,345	
2) Minimum Flows and Levels Program	1.1.2, p.62							District
a) Technical Support		\$1,635,712	\$1,635,712	\$1,635,712	\$1,635,712	\$1,635,712	\$8,178,560	
b) MFL Establishment/Evaluation		\$841,077	\$841,077	\$841,077	\$841,077	\$841,077	\$4,205,385	
3) Watershed Management Planning	1.1.3, p.64							District, Local Cooperators
4) Quality of Water Improvement Program	2.2.3, p.90							District
5) Stormwater Improvements- Implementation of Storage and Conveyance BMPs	2.3.1, p.91							District, Local Cooperators
Totals		\$43,215,605	\$43,215,605	\$43,215,605	\$43,215,605	\$43,215,605	\$216,078,025	

Source: SWFWMD FY2021 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. The Geohydrologic Data Section (GEO) collects hydrogeologic data and oversees monitor well construction activities for the District. The GEO manages several groundwater monitor well networks that supports various projects throughout the District. The projects include the CFWI, Water Resource Assessment Projects, MFLs, sea level rise, and development of alternative water supplies. The monitoring well networks include the Regional Observation and Monitor-well Program (ROMP), Coastal Groundwater Quality Monitoring Network (CGWQMN), Inland Groundwater Quality Monitoring Network (IGWQMN), and the Upper Floridan Aquifer Nutrient Monitoring Network (UFANMN). The ROMP has been the District's primary source of hydrogeologic data since the program was established in 1974. Lithologic, hydraulic, and water quality data are collected during exploratory coring and testing and during the construction of monitor wells. 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.
- c) Meteorologic Data. The meteorologic data monitoring program consists of measuring rainfall totals at 170 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 and Inland Groundwater Monitoring networks, which involve sample collection and analysis from approximately 400 wells across the District, are 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 1,622 monitor wells in the data collection network, including 854 wells that are instrumented with data loggers that record water levels once per hour, and 768 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 every two years along the Suncoast (Tampa Bay south to Charlotte Harbor), and every four years along the Springs Coast (Anclote Key to Waccasassa Bay).
- 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 flows 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. Section 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 Section 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. A publicly-noticed independent scientific peer review process is used for establishing MFLs for flowing systems, for establishing MFLs for other system 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 2020, the District has preliminarily planned to monitor and assess the status of 205 adopted MFLs, including MFLs for 23 river segments, 10 springs or spring groups, 127 lakes, 36 wetlands, 7 Upper Floridan Aquifer (UFA) wells in the NTBWUCA, and the UFA in the Most Impacted Area (MIA) of the SWUCA and in the DPCWUCA. The District also plans to monitor and assess the status of 2 adopted reservations, including a reservation for water stored in Lake Hancock and released to Lower Saddle Creek for recovery of MFLs adopted for the Upper Peace River, and a reservation for water from Morris Bridge Sink for recovery of MFLs adopted for the Lower Hillsborough River. In addition, the District is scheduling the establishment or reevaluation of 19 MFLs and one reservation through FY2023.

The District's annual MFLs 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. FY2021 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 32 WRD projects that have particular goals and schedules. At the start of FY2021 (October 1, 2020), the District has allocated approximately \$11.2 million in the budget for 10 of 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 \$157 million. It's estimated that approximately 99.2 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 FY2021 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 of 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 Floridan 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 District Governing Board Policy 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 which has been impacted by groundwater withdrawals with a priority given to projects in the Shell, Prairie, and Joshua Creek, or Horse Creek watersheds;
2. Conserve, restore or augment the water resources and natural systems in the Upper Myakka River Watershed;

3. Reduce groundwater use in the SWUCA;
4. Reduce groundwater use for Frost/Freeze Protection within the DPCWUCA;
5. Reduce Upper Floridan aquifer groundwater use and nutrient loading impacts in the Northern District.

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, and the Salt Water Intrusion Minimum Aquifer Level (SWIMAL) 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. FY2021 - FY2025 District Funding and Total Project Cost for Water Resource Development Projects

WRD Projects (WUCA, Project Number) ¹	Total Prior District Funding	FY2021 District Cost	FY2022 District Cost	FY2023 District Cost	FY2024 District Cost	FY2025 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)	\$2,400,000	\$0	\$0	\$125,000	\$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) SHARP Phase 2 (N855)	\$4,850,000	\$0	\$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)	\$8,818,131	\$3,181,869	\$0	\$0	\$0	\$0	\$12,000,000	District	TBD
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 Groundwater in LFA Wells in Polk County (P926)	\$368,300	\$0	\$0	\$0	\$0	\$0	\$736,600	District, USGS	NA
i) City of Venice Reclaimed Water Aquifer Storage Recovery (Q050)	\$82,500	\$150,000	\$2,200,000	\$50,000	\$50,000	\$0	\$5,065,000	District, City of Venice	Storage
j) Direct Aquifer Recharge - North Hillsborough Aquifer Recharge Program Phase 2 (Q064)	\$750,000	\$0	\$0	\$0	\$0	\$0	\$1,500,000	District, Hillsborough County	Study
k) Direct Aquifer Recharge- SHARP Phase 3 (Q088)	\$3,250,000	\$0	\$812,500	\$812,500	\$812,500	\$812,500	\$13,000,000	District, Hillsborough County	6 mgd
l) Sarasota County – Bee Ridge Water Reclamation	\$0	\$1,090,662	\$0	\$0	\$0	\$0	\$2,181,324	District, Sarasota County	5 mgd

d)	FARMS Meter Accuracy Support (P429) ³	Annual Request	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	\$25,000	District	NA
3) Minimum Flows and Levels Recovery (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	\$0	\$0	District	2.7 mgd
b)	MIA Recharge SWIMAL Recovery at Flatford Swamp (H089)	\$6,578,452	\$57,250	\$0	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000	District	6.0 mgd
c)	Lower Hillsborough River Recovery Strategy (H400)	\$7,570,183	\$325,000	\$100,000	\$270,000	\$0	\$0	\$0	\$0	District, City of Tampa	18.9 mgd
d)	Pump Stations on Tampa Bypass Canal, Morris Bridge Sink (H404) ³	\$486,428	\$160,000	\$135,000	\$135,000	\$135,000	\$165,000	\$155,000	\$1,236,428	District	3.9 mgd
e)	Haines City Reclaimed Water MFL Recharge & Advanced Treatment Feasibility Study (N888)	\$268,282	\$0	\$0	\$0	\$0	\$0	\$0	\$357,710	District, Haines City	0.7 mgd
WRD Project Totals		\$50,433,470	\$11,169,781	\$12,222,000	\$10,597,500	\$10,232,500	\$10,172,500	\$157,241,152	\$99.2 mgd		

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, PRMRWSA - Peace River Manasota River Water Supply Authority, ASR - Aquifer Storage Recovery, LFA - Lower Floridan Aquifer.

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 94 budgeted or ongoing water supply development projects in FY2021, including 2 water supply planning projects that support water supply development. As shown in **Table 3-h**, the District is funding approximately \$41.3 million in FY2021 for 38 projects that achieve 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 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 FY2021. 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 may be proposed in the FY2022-26 timeframe for expansions of the PRMRWSA Regional Loop System, next phases of the PRWC Southeast Wellfield, Tampa Bay Water's System Configuration 3 Projects, West Polk Lower Floridan Aquifer Wellfield, projects for septic to sewer conversion, and multiple new aquifer recharge projects.

The listed projects that have no FY2021 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	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	FY2025 Funding	Total Project Cost	Supply (mgd)
Q061	Tampa Bay Water Regional Surface Treatment Plant Expansion Feasibility Study	\$225,000	\$50,000	\$0	\$0	\$0	\$0	\$550,000	Study
Q063	Tampa Bay Water Desalination Facility Expansion Feasibility Study	\$550,000	\$950,000	\$0	\$0	\$0	\$0	\$3,000,000	Study
Q133	PRWC - Peace River Study ¹	\$480,550	\$0	\$0	\$0	\$0	\$0	\$961,100	Study
Q212	PRMRWSA - Reservoir No. 3 Feasibility and Siting	\$0	\$625,000	\$0	\$0	\$0	\$0	\$1,250,000	Study
Total Surface Water Projects		\$1,255,550	\$1,625,000	\$0	\$0	\$0	\$0	\$5,761,100	0.000

Table 3-b. Regional Potable Water Interconnect Projects

Project Number	Water Supply Development Assistance - Regional Potable Water Interconnects (Programmatic Budget 2.2.2.2)	Prior District Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	FY2025 Funding	Total Project Cost	Supply (mgd)
H094	PRWC - Polk County Partnership ²	\$38,500,000	\$5,000,000	\$5,000,000	\$5,000,000	\$0	\$0	\$43,012,000	TBD
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	\$8,100,000	\$0	\$0	\$0	\$0	\$0	\$16,700,000	NA
N965	TBW Tampa Bypass Canal Gates Automation	\$427,500	\$88,500	\$0	\$0	\$0	\$0	\$1,032,000	NA
N998	TBW Regional Facility Site Pump Station Expansion	\$1,122,500	\$77,500	\$0	\$0	\$0	\$0	\$2,400,000	NA
Q146	Tampa Bay Water Southern Hillsborough County Booster Pump Station	\$0	\$500,000	\$1,525,000	\$1,525,000	\$0	\$0	\$7,100,000	NA
Q202	PRMRWSA - Southern Regional Loop Phase 2B and 2C Feasibility and Routing	\$0	\$150,000	\$50,000	\$0	\$0	\$0	\$400,000	Study
Q205	PRMRWSA Phase 3C Integrated Loop and Routing and Feasibility	\$0	\$200,000	\$100,000	\$0	\$0	\$0	\$600,000	Study
Total Regional Potable Water Interconnect Projects		\$54,150,000	\$6,016,000	\$6,675,000	\$6,525,000	\$0	\$0	\$83,244,000	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	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	FY2025 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
N556	Charlotte County - Regional Reclaimed Water Expansion Phase 3	\$4,715,000	\$0	\$0	\$0	\$0	\$0	\$9,430,000	2.230
N696	Hernando County US-19 Reclaimed Water Transmission Phase 1	\$3,000,000	\$0	\$0	\$0	\$0	\$0	\$12,000,000	1.700
N711	Braden River Utilities Reclaimed Water Transmission Line	\$2,300,000	\$0	\$0	\$0	\$0	\$0	\$4,600,000	1.000

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	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	FY2025 Funding	Total Project Cost	Benefit (mgd)
N743	Pasco County Starkey Ranch Reclaimed Water Transmission Phase B	\$955,000	\$0	\$0	\$0	\$0	\$0	\$1,910,000	0.410
N772	Polk County NERUSA Loughman/Ridgewood Reclaimed Water Transmission	\$1,252,500	\$0	\$0	\$0	\$0	\$0	\$2,505,000	0.345
N791	Pasco County Starkey Ranch Reclaimed Water Transmission Phase C	\$456,800	\$0	\$0	\$0	\$0	\$0	\$913,600	0.290
N796	City of Winter Haven Reuse Interconnect and Aquifer Recharge	\$150,000	\$0	\$0	\$0	\$0	\$0	\$300,000	Study
N805	Tarpon Springs - Westwinds/Grassy Pointe Residential Reclaimed Water	\$297,708	\$0	\$0	\$0	\$0	\$0	\$595,417	0.070
N862	Polk County Utilities NERUSA CR 547 Reclaimed Water Transmission Phase 1	\$434,750	\$0	\$0	\$0	\$0	\$0	\$869,500	0.377
N863	Hillsborough County Summerfield Sports Complex	\$77,500	\$0	\$0	\$0	\$0	\$0	\$155,000	0.065
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 Reclaimed Water	\$225,000	\$0	\$0	\$0	\$0	\$0	\$300,000	0.100
N898	Haines City Reclaimed Water Tank and Pump Stations Project	\$2,985,000	\$1,635,000	\$0	\$0	\$0	\$0	\$6,800,000	Storage
N918	Polk County Utilities NERUSA FDC Grove Road Reclaimed Water Transmission	\$848,000	\$0	\$0	\$0	\$0	\$0	\$1,696,000	0.142
Q021	Pasco Co Cypress Preserve Reclaimed Water 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	0.14
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	\$200,000	\$0	\$0	\$0	\$0	\$0	\$400,000	0.2
Q057	Zephyrhills - Zephyr Lakes & Hospital Reuse	\$710,650	\$0	\$0	\$0	\$0	\$0	\$1,421,300	0.33
Q066	Polk County Utilities- NERUSA Lake Wilson Road Reuse	\$262,750	\$0	\$0	\$0	\$0	\$0	\$525,500	0.180
Q067	Polk County Utilities-NERUSA Southeast Reuse Loop	\$1,093,375	\$983,375	\$110,000	\$0	\$0	\$0	\$4,373,500	0.522
Q098	Pasco County Cypress Preserve Reuse Phase 3	\$239,000	\$0	\$0	\$0	\$0	\$0	\$478,000	0.230
Q105	Citrus County Sugarmill Woods Golf Course Reuse	\$459,000	\$1,375,000	\$0	\$0	\$0	\$0	\$3,918,000	0.500
Q113	City of Plant City McIntosh Park Indirect Potable Reuse Feasibility Study	\$300,000	\$0	\$0	\$0	\$0	\$0	\$600,000	Study
Q139	North Port Direct Potable Reuse Feasibility	\$0	\$125,000	\$0	\$0	\$0	\$0	\$250,000	Study
Q158	Pasco County River Landing Reclaimed Water Transmission	\$0	\$1,468,300	\$0	\$0	\$0	\$0	\$3,386,600	0.465
Q160	Sarasota County Honore Avenue Reclaimed Water Transmission	\$0	\$500,000	\$1,000,000	\$0	\$0	\$0	\$3,000,000	0.533
Q200	Winter Haven Direct Potable Reuse Feasibility Study	\$0	\$100,000	\$0	\$0	\$0	\$0	\$200,000	Study
Q209	Polk County Direct Potable Reuse Feasibility and Pilot Demo	\$0	\$795,000	\$0	\$0	\$0	\$0	\$1,590,000	Study
Total Reclaimed Water Projects		\$28,453,783	\$6,981,675	\$1,110,000	\$0	\$0	\$0	\$80,611,417	12.043

Table 3-d. Brackish Groundwater Development Projects

Project Number	Water Supply Development Assistance - Brackish Groundwater Development Projects (Programmatic Budget 2.2.2.4)	Prior District Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	FY2025 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	\$16,350,000	\$0	\$0	\$0	\$0	\$0	\$33,600,000	4,000
N882	PRWC West Polk County Lower Floridan Aquifer Deep Wells ³	\$4,470,367	\$0	\$0	\$0	\$0	\$0	\$8,940,734	5,000
N905	PRWC Southeast Wellfield Lower Floridan ⁴	\$4,846,958	\$0	\$0	\$0	\$0	\$0	\$11,117,916	Design
Q090	Belleair Brackish Feasibility Study & Testing	\$705,340	\$176,335	\$0	\$0	\$0	\$0	\$1,763,350	Study
Q184	PRWC Southeast Wellfield Implementation	\$0	\$6,750,000	\$21,386,000	\$11,226,500	\$446,250	\$446,250	\$180,493,000	12,500
Q216	PRWC Regional Transmission Southeast Phase 1	\$0	\$15,771,000	\$8,276,150	\$0	\$0	\$0	\$106,088,300	NA
Total Brackish Groundwater Development Projects		\$27,872,665	\$22,697,335	\$29,662,150	\$11,226,500	\$446,250	\$446,250	\$345,003,300	21,500

Table 3-e. Aquifer Storage and Recovery (ASR) and Aquifer Recharge Projects

Project Number	Water Supply Development Assistance - Aquifer Recharge & ASR Construction Projects (Programmatic Budget 2.2.2.5)	Prior District Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	FY2025 Funding	Total Project Cost	Benefit (mgd)
N435	City of Bradenton Surface Water Aquifer Storage Recovery 2	\$2,350,000	\$0	\$0	\$0	\$0	\$0	\$4,700,000	Storage
N665	City of Clearwater Groundwater Replenishment Project Phase 3	\$1,494,909	\$0	\$0	\$0	\$0	\$0	\$32,716,000	TBD
Q142	Pinellas County Chestnut Park Aquifer Storage, Recovery & Recharge	\$0	\$893,500	\$926,625	\$926,625	\$926,625	\$926,625	\$9,200,000	Storage
Q177	Winter Haven - Southern Basin Aquifer Recharge	\$0	\$250,000	\$437,500	\$437,500	\$437,500	\$437,500	\$4,000,000	0.400
Total ASR and Aquifer Recharge Projects		\$3,844,909	\$1,143,500	\$1,364,125	\$1,364,125	\$1,364,125	\$1,364,125	\$50,616,000	0.400

Table 3-f. Conservation Projects

Project Number	Water Supply Development Assistance - Conservation Rebates and Retrofits Projects (Programmatic Budget 2.2.2.7)	Prior District Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	FY2025 Funding	Total Project Cost	Benefit (mgd)
B015	Water Incentives Supporting Efficiencies (WISE) Program	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	\$150,000	Annual Request	0.007
N948	PRWC Indoor Water Conservation Incentives	\$78,000	\$0	\$0	\$0	\$0	\$0	\$156,000	0.092
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
N973	Winter Haven Consumption/Conservation Programs Data Management Software	\$60,000	\$0	\$0	\$0	\$0	\$0	\$120,000	0.016
N988	Hillsborough County Soil Moisture Sensor Rain Shutoff Device Study and Education	\$25,000	\$0	\$0	\$0	\$0	\$0	\$50,000	0.013

Table 3-f. Conservation Projects (continued)

Project Number	Water Supply Development Assistance - Conservation Rebates and Retrofits Projects (Programmatic Budget 2.2.2.7)	Prior District Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	FY2025 Funding	Total Project Cost	Benefit (mgd)
N996	Lake Hamilton Distribution System Looping	\$124,610	\$0	\$0	\$0	\$0	\$0	\$521,000	0.020
N999	Marion County Toilet Rebate Program Phase 6	\$32,000	\$0	\$0	\$0	\$0	\$0	\$64,000	0.010
P920	PRWC Outdoor BMPs	\$166,075	\$0	\$0	\$0	\$0	\$0	\$332,150	0.053
P921	PRWC Indoor Conservation Incentives	\$121,275	\$0	\$0	\$0	\$0	\$0	\$242,550	0.087
P922	PRWC Florida Water Star Builder Rebate Program	\$350,000	\$0	\$0	\$0	\$0	\$0	\$700,000	0.066
Q018	NSC/UD Rain Sensor Inspection/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
Q068	Tarpon Springs Toilet Rebate Phase 1	\$10,000	\$0	\$0	\$0	\$0	\$0	\$20,000	0.003
Q070	Citrus County Water Sense Irrigation Controller Phase 3	\$45,000	\$0	\$0	\$0	\$0	\$0	\$90,000	0.026
Q073	City of Palmetto Toilet Rebate	\$20,000	\$0	\$0	\$0	\$0	\$0	\$40,000	0.042
Q074	Temple Terrace GCC Advanced Irrigation System	\$255,000	\$0	\$0	\$0	\$0	\$0	\$510,000	0.048
Q078	Pasco County Toilet Rebate Phase 13	\$50,000	\$0	\$0	\$0	\$0	\$0	\$100,000	0.014
Q087	Tampa Bay Water Demand Management	\$549,775	\$0	\$0	\$0	\$0	\$0	\$1,099,550	0.280
Q089	St. Petersburg Sensible Sprinkling Phase 3	\$50,000	\$0	\$0	\$0	\$0	\$0	\$100,000	0.056
Q109	Pasco County Satellite Potable Leak Detection Study	\$30,000	\$0	\$0	\$0	\$0	\$0	\$60,000	0.100
Q111	Manatee County Toilet Rebate Phase 13	\$75,500	\$0	\$0	\$0	\$0	\$0	\$151,000	0.026
Q126	Venice Toilet Rebate and Retrofit Phase 7	\$29,450	\$0	\$0	\$0	\$0	\$0	\$58,900	0.005
Q137	Citrus County - Water Sense Irrigation Controller Phase 4	\$0	\$30,000	\$0	\$0	\$0	\$0	\$60,000	0.017
Q138	WRWSA-Regional Irrigation System Audit Program Phase 6	\$0	\$60,600	\$0	\$0	\$0	\$0	\$121,200	0.032
Q140	Tarpon Springs - Toilet Rebate Phase 2	\$0	\$10,000	\$0	\$0	\$0	\$0	\$20,000	0.003
Q145	Longboat Key Club - Advanced Irrigation System	\$0	\$508,516	\$0	\$0	\$0	\$0	\$1,115,000	0.095
Q166	Bartow - Golf Course Advanced Irrigation System	\$0	\$250,000	\$0	\$0	\$0	\$0	\$500,000	0.051
Q168	Manatee County - Toilet Retrofit Phase 14	\$0	\$82,500	\$0	\$0	\$0	\$0	\$165,000	0.026
Q179	Venice - Toilet Rebate and Retrofit Phase 8	\$0	\$23,900	\$0	\$0	\$0	\$0	\$47,800	0.005
Q185	North Port - Water Distribution Hartsdale/Aldonin/Totem Area Looping	\$0	\$207,500	\$0	\$0	\$0	\$0	\$415,000	0.017
Q187	PRWC - Demand Management Implementation	\$0	\$42,178	\$0	\$0	\$0	\$0	\$168,710	0.023
Q193	Crystal River - Conservation Phase 1	\$0	\$9,090	\$0	\$0	\$0	\$0	\$18,180	0.005

Table 3-f. Conservation Projects (continued)

Project Number	Water Supply Development Assistance - Conservation Rebates and Retrofits Projects (Programmatic Budget 2.2.2.7)	Prior District Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	FY2025 Funding	Total Project Cost	Benefit (mgd)
Q211	Bay Laurel CCDD -2021 Irrigation Controller & ET Sensor	\$0	\$48,750	\$0	\$0	\$0	\$0	\$97,500	0.022
Q214	Palmetto Toilet Rebate Phase 2	\$0	\$13,250	\$0	\$0	\$0	\$0	\$26,500	0.011
Q215	TBW - Demand Management Program Phase 2	\$0	\$1,432,238	\$0	\$0	\$0	\$0	\$2,864,476	0.680
Total Conservation Projects		\$2,641,310	\$2,868,522	\$150,000	\$150,000	\$150,000	\$150,000	\$10,873,766	2.289

Table 3-g. Water Supply Planning Projects

Project Number	Water Supply Development Assistance - Water Supply Planning (Programmatic Budget 1.1.1)	Prior District Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	FY2025 Funding	Total Project Cost	Supply (mgd)
N928	PRWC Peace Creek Integrated Water Supply Plan ⁵	\$990,125	\$0	\$0	\$0	\$0	\$0	\$1,980,250	TBD
Q023	PRWC Water Demand Management Plan	\$170,000	\$0	\$0	\$0	\$0	\$0	\$340,000	NA
Total Water Supply Planning Projects		\$1,160,125	\$0	\$0	\$0	\$0	\$0	\$2,320,250	0.000

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

Water Supply Development Assistance Project Totals (Programmatic Budget 2.2.2 and 1.1.1)	Prior District Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	FY2025 Funding	Total Project Cost	Supply (mgd)
Surface Water Projects	\$1,255,550	\$1,625,000	\$0	\$0	\$0	\$0	\$5,761,100	0.000
Regional Potable Water Interconnect Projects	\$54,150,000	\$6,016,000	\$6,675,000	\$6,525,000	\$0	\$0	\$83,244,000	0.000
Reclaimed Water Projects	\$28,453,783	\$6,981,675	\$1,110,000	\$0	\$0	\$0	\$80,611,417	12.043
Brackish Groundwater Development Projects	\$27,872,665	\$22,697,335	\$29,662,150	\$11,226,500	\$446,250	\$446,250	\$345,003,300	21.500
ASR and Aquifer Recharge Projects	\$3,844,909	\$1,143,500	\$1,364,125	\$1,364,125	\$1,364,125	\$1,364,125	\$50,616,000	0.400
Conservation Projects	\$2,641,310	\$2,868,522	\$150,000	\$150,000	\$150,000	\$150,000	\$10,873,766	2.289
Water Supply Planning Projects	\$1,160,125	\$0	\$0	\$0	\$0	\$0	\$2,320,250	0.000
Total Funding for Water Supply Development Projects	\$119,378,342	\$41,332,032	\$38,961,275	\$19,255,625	\$1,960,375	\$1,960,375	\$578,429,833	36.232

Acronyms: ASR - aquifer storage and recovery, BMPs - best management practices, ET - Evapotranspiration, mgd - million gallons per day, NERUSA/NWRUSA - Northeast/Northwest Regional Utility Service Areas of Polk County Utilities, PRMRWSA - Peace River Manasota Regional Water Supply Authority, PRWC - Polk Regional Water Cooperative, WRWSA - Withlacoochee Regional Water Supply Authority, FDC - Florida Development Corporation, NSCUD - North Sumter County Utility Dependent District.

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

² H094 Polk County Partnership provides \$65M in reserves for PRWC Projects. \$11.5M was transferred to projects N882, N905, N928 in FY2017 with a portion of this funding being transferred to Q133 in FY2019. In FY2020, projects N882 and N905 received \$4.242M (combined) in State funding, which allowed the District to return 50% shares (\$1.212M) to H094. In FY2020 \$11.7M was transferred to Q184 and Q216 projects. The balances above were deducted from the "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. The District is committed to solving the region's water resource issues through cooperative program, primarily the CFI which has been in place since 1988. These efforts have been highly successful resulting in a combined investment (District and its cooperators) of more than \$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 – Projects implemented through the District Initiatives program are of great importance or a regional priority and, in most cases, are fully funded by the District. Examples of these initiatives include Water Resource Development projects such as: (1) the Quality of Water Improvement Program (QWIP) to plug deteriorated, free-flowing wells that waste water and cause inter-aquifer contamination; (2) the Utilities Services Group to conserve water by assisting utilities in controlling their water loss; (3) data collection and analysis to support major District Initiatives such as the MFL program; (4) the FARMS program and other various agricultural research projects designed to increase the water-use efficiency of agricultural operations; (5) water resource development investigations and MFL recovery projects which may not have local cooperators; and (6) the WISE (Water Incentives Supporting Efficiency) program launched in 2019 offers cost-share funding to non-agricultural entities.

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. The District has allocated Springs Initiative funding to implement projects to restore aquatic habitats and reduce groundwater withdrawals and nutrient loading within the first-magnitude springsheds, and improve the water quality and quantity of spring discharges. Projects include the reestablishment of aquatic and shoreline vegetation near spring vents, construction of infrastructure necessary to convey wastewater, currently treated in septic systems or package plants, for homes in a priority focus area to a centralized wastewater treatment facility which will also aid in reclaimed water production, and implementation of other BMPs within springshed basins. Since FY2014, the District has appropriated over \$55.2 million from the DEP for springs restoration which includes \$7 million in FY2021. These projects are listed in the Work Program Appendix A - Projects for Implementing BMAs.

The Florida Forever Program- The Florida Forever Act, as originally passed by the Florida Legislature in 1999, established the 10-year \$3 billion statewide Florida Forever Program. The Program was extended by the Legislature in 2008 allowing the Program to continue for 10 more years at \$300 million

annually. The appropriations were limited during the economic recession, and the District hasn't received any new Florida Forever funding since FY2011. Since 1999, the District has allocated \$95 million (\$81.6 million for land acquisition and \$13.4 million for water body restoration) of Florida Forever funding Districtwide in support of water resource development. A "water resource development project" eligible for funding under the Florida Forever program is defined in Section 259.105, F.S., as a project that increases the amount of water available to meet the needs of natural systems and the citizens of the state by enhancing or restoring aquifer recharge, facilitating the capture and storage of excess flows in surface waters, or promoting reuse. Implementation of eligible projects under the Program includes land acquisition, land and water body restoration, aquifer storage and recovery (ASR) facilities, surface water reservoirs, and other capital improvements. Numerous tracts have been acquired in the northern region including Potts and Flying Eagle preserves, Three Sisters Springs, and coastal preserves at Weeki Wachee and Chassahowitzka Rivers. A primary example of how the funds were used by the District for water resource development was the purchase of lands around Lake Hancock within the Peace River watershed, as the first step in restoring minimum flows to the Upper Peace River. In addition, the District Governing Board has expended \$35.7 million in ad valorem-based funding to complete the acquisition of lands associated with the Lake Hancock project which were acquired on a voluntary basis and through eminent domain proceedings. The state's Florida Forever Trust Fund (FFTF) 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 are available for potential land acquisitions consistent with the guidance provided by the DEP. The District's FY2021 budget includes \$575,000 of prior-year funds held in the FFTF.

Facilitating Agricultural Resource Management Systems (FARMS) Program - The FARMS Program is an agricultural best management practice (BMP) cost-share reimbursement program that involves both water quantity and water quality. This public/private partnership program was developed by the District and the Florida Department of Agriculture and Consumer Services (FDACS) in 2003. The purpose of the FARMS Program is to implement production-scale agricultural BMP projects that will provide water resource benefits including water quality improvement, reduction of Upper Floridan withdrawals, conservation, and restoration or augmentation of the area's water resources and ecology. Since 2003 the District has co-funded \$43.4 million dollars towards \$76.8 million dollars in total project costs for 217 FARMS projects resulting in 29.7 million gallons per day (mgd) of water resource benefits. Operating under District Governing Board Policy, the FARMS Program, through the District, utilizes additional state funding when available. Since inception of the program, 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 - Large areas of Florida do not have sufficient traditional water resources to meet the future needs of the state's growing population and the needs of the environment, agriculture, and industry. The state's Water Protection and Sustainability Program Trust Fund was created in the 2005 legislative session through Senate Bill 444 to accelerate the development of alternative water sources and later recreated in Chapter 373, F.S., as part of the 2009 legislative session. Legislation focused on encouraging cooperation in the development of alternative water supplies and improving the linkage between local governments' land use plans and water management districts' regional water supply plans. The Program provides matching funds to the District for alternative water supply development assistance. From FY2006 through FY2009, the District was appropriated a total of \$53.75 million by the Legislature through the Program for water supply development projects. Annual WPSPTF appropriations resumed in FY2020 with \$250,000 and another \$450,000 in FY2021 allocated to the District.

Program funds are applied toward a maximum of 20 percent of eligible project construction costs. In addition, the Legislature 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. The legislation also requires that a minimum of 80 percent of the WPSPTF funding must be related to projects identified in a district water supply plan. The District's Regional Water Supply Plan (RWSP) is utilized in the identification of the majority of WPSPTF-eligible projects. Projects are evaluated for funding based on consideration of the 14 factors described in Subsections 373.707(8)(f) and (g), F.S., and additional District evaluation factors as appropriate.

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 135.4 mgd of water upon completion, including reuse water and new potable supply. These benefits are associated with approximately \$95.7 million budgeted for FY2021. The proposed funding for the 5-year Work Program is approximately \$374 million through FY 2021-25. **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 (FY2021)	Sum of Five-Year District Funding (F2021-25)	Sum of Water Made Available (mgd)
Water Resource Development - Data Collection and Analysis Activities (Table 1)	\$43,215,605	\$216,078,025	NA
Water Resource Development - Projects (Table 2)	\$11,169,781	\$54,394,281	99.2
Water Supply Development - Projects (Table 3-h)	\$41,332,032	\$103,479,682	36.2
Totals	\$95,717,418	\$373,951,988	135.4

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. 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 FY2021, the District has established and continues to monitor 205 adopted MFLs and has scheduled the establishment or revaluation of 19 MFLs and one reservation through FY20232. 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 six 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)
- Crystal River Hunter Springs Stormwater Modification (W433)

Chassahowitzka, Homosassa Springs Priority Focus Area

- Citrus County Old Homosassa West Septic to Sewer Project (WHO4)
- 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 BMAP 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.

BMAPs Projects	Prior District Funding	FY2021 Funding	FY2022 Funding	FY2023 Funding	FY2024 Funding	FY2025 Funding	Total Project Cost	Funding Sources
Crystal River Indian Water Septic to Sewer Phase II (W430)	\$3,375,000	\$0	\$0	\$0	\$0	\$0	\$4,500,000	District, DEP, City of Crystal River
Crystal River Southern Septic to Sewer Project (W434)	\$3,632,812.50	\$0	\$0	\$0	\$0	\$0	\$4,843,750	District, DEP, City of Crystal River
Crystal River Hunter Springs Stormwater Modification	\$100,000	\$0	\$0	\$0	\$0	\$0	\$200,000	District, City of Crystal River
Citrus County Cambridge Greens Septic to Sewer (W432)	\$4,700,500	\$0	\$0	\$0	\$0	\$0	\$6,500,000	District, DEP, Citrus County, State

Five-Year Water Resource Development Work Program

Citrus County Old Homosassa West Septic to Sewer Project (WH04)	\$4,382,200	\$0	\$0	\$0	\$0	\$0	\$6,000,000	District, DEP, Citrus County, State
Citrus County Old Homosassa East Septic to Sewer Project (Q134)	\$750,000	\$10,500,000	\$0	\$0	\$0	\$0	\$15,000,000	District, DEP, Citrus County, State
Totals	\$16,940,512.50	\$10,500,000	\$0	\$0	\$0	\$0	\$37,043,750	

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March 1, 2021

Polk Regional Water Cooperative Status Report

Southwest Florida
Water Management District



The Polk Regional Water Cooperative Status Report

The Polk Regional Water Cooperative (PRWC) was created in 2016 through Interlocal Agreement and consists of Polk County and 15 municipal member governments. The PRWC was formed to provide for regional cooperation on the development and delivery of water resources to meet future water demands within Polk County. The majority of the PRWC jurisdiction is located within the District's Southern Water Use Caution Area, while the entirety of its jurisdiction is located within the Central Florida Water Initiative (CFWI) planning area.

In 2017, the Florida Legislature passed the Heartland Headwaters Protection and Sustainability Act (HB 573) to recognize the critical importance of Polk County's aquifers to the economic and ecological health of the region as headwaters for six of Florida's major river systems. The Act requires the development of a comprehensive annual report to be completed by the PRWC and submitted to the Governor, President of the Senate, Speaker of the House, Department of Environmental Protection and water management districts by December 1 of each year. In addition, the Act further requires the PRWC to coordinate with the appropriate water management district to provide a status report on projects receiving priority state funding and to include such status report in the consolidated water management district annual report (Section 373.463(3), Florida Statutes). This section of the District's Consolidated Annual Report serves as the PRWC status report for 2020.

For the FY2019-20 funding cycle, a ranked list of 14 PRWC member projects were submitted for state funding consideration, with \$2,424,000 received for priority projects. A total of 42 ranked member projects were submitted for state funding support in FY2020-21; unfortunately, due to other pressing priorities with the Florida Legislature, no funding was provided.

For FY2021-22, a prioritized list of 20 PRWC and local member government projects are being submitted for funding consideration by the Florida Legislature. Table 1 lists the ranked 3 PRWC and 17 local member government projects, including total project cost, requested state funding, local member government funding and other funding sources. A detailed description of each project is included in the Heartland Headwaters Protection and Sustainability Act Annual Comprehensive Water Resources Report recently published and available from the PRWC. For FY2020-21, \$59,876,715 will be required to implement all 20 identified projects, with \$12,162,457 committed in local member government funding and \$6,290,357 committed in District funding for these projects. The remaining amount of \$41,423,902 for the 20 priority projects is being requested from the state and their implementation is subject to approval of state funding for the FY2021-22 budget year.

Table 1. FY2021-22 Project Cost and Rank

Priority Ranking*	Project Name	Member Government	Estimated Completion Date	Total Project Cost (All Years)	Total Project Cost (FY21-22)	State Funding Requested (FY21-22)	Local Govt. Funding (FY21-22)	Other Funds (FY21-22)
Approved	West Polk Lower Floridan Aquifer Project - Phase 1	*PRWC/Lakeland	December 2021	\$8,727,284	\$2,968,026	\$989,342	\$989,342	\$989,342
Approved	Peace Creek Integrated Water Supply Plan - Phase 1	*PRWC/Winter Haven	December 2021	\$1,880,250	\$986,064	\$328,688	\$328,688	\$328,688
Approved	Peace River and Land Use Transitions	*PRWC/Polk BoCC	December 2021	\$888,600	\$478,580	\$159,527	\$159,527	\$159,527
Subtotal for Projects Submitted to the CFWI								
1	Wastewater Pump Station Replacements	City of Eagle Lake	March 2022	\$980,000	\$900,000	\$900,000	\$0	\$0
1	Septic to Sewer Program	City of Winter Haven	September 2025	\$16,000,000	\$4,000,000	\$1,000,000	\$1,000,000	\$2,000,000
3	Wastewater System Upgrades	City of Frostproof	FY 2022	\$2,064,045	\$2,064,045	\$1,831,345	\$169,900	\$62,800
3	ASR Wellfield Construction at WWTP #3	City of Winter Haven	September 2022	\$6,100,000	\$5,500,000	\$1,375,000	\$1,375,000	\$2,750,000
5	Alternative Water Supply Receiving Facilities	Polk County	June 2023	\$7,500,000	\$2,000,000	\$1,000,000	\$1,000,000	\$0
6	Lake Howard Watershed Treatment Enhancement	City of Winter Haven	Summer 2023	\$1,500,000	\$750,000	\$375,000	\$375,000	\$0
6	Lake May and Shipp Restoration	City of Winter Haven	2025	\$30,000,000	\$5,000,000	\$4,000,000	\$1,000,000	\$0
8	Williams Water Treatment Plant Cleanwell Reliability	City of Lakeland	Fall 2021	\$13,000,000	\$6,500,000	\$6,500,000	\$0	\$0
9	English Oaks Force Main Completion	City of Lakeland	Fall 2021	\$17,836,170	\$12,000,000	\$12,000,000	\$0	\$0
9	One Water Master Plan Land Acquisition	City of Winter Haven	September 2025	\$49,500,000	\$5,000,000	\$2,500,000	\$2,500,000	\$0
11	Plymouth Road Watermain Extension	City of Auburndale	March 2022	\$80,000	\$80,000	\$40,000	\$40,000	\$0
12	Holly Hill Lower Floridan Aquifer Well	Polk County	June 2022	\$2,000,000	\$2,000,000	\$1,000,000	\$1,000,000	\$0
13	Berkley Road Water Treatment Plant Pump Capacity Expansion	City of Auburndale	February 2022	\$150,000	\$150,000	\$75,000	\$75,000	\$0
14	SW Lakeland Water Expansion	City of Lakeland	Summer 2022	\$3,000,000	\$1,700,000	\$1,700,000	\$0	\$0
14	Centrifuge Upgrade	City of Auburndale	July 2022	\$300,000	\$300,000	\$150,000	\$150,000	\$0
14	Southwest Lakeland Sewer Upgrades	City of Lakeland	Summer 2021	\$3,500,000	\$3,500,000	\$3,500,000	\$0	\$0
14	Alternative Water Supply Transmission Loop Phase 1	City of Winter Haven	September 2023	\$9,100,000	\$4,000,000	\$2,000,000	\$2,000,000	\$0
Subtotal for Non-CFWI Local Projects				\$162,610,215	\$55,444,045	\$39,946,345	\$10,684,900	\$4,812,800
Total for All PRWC Member Projects				\$174,106,349	\$59,876,715	\$41,423,902	\$12,162,457	\$6,290,357

Notes:

Approved - These are the highest priority projects in the region and funding support for these projects is being sought through the Central Florida Water Initiative request submitted by DEP.

NR - Indicates that these projects are being implemented by the identified local government using their own funds or other non-state matching funds.

* - In many cases, projects received equivalent scores so are ranked equally.

Source: *Heartland Headwaters Protection and Sustainability Act Annual Comprehensive Water Resources Report, PRWC, 2020.*

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Florida Forever Work Plan

Annual Update 2021

Southwest Florida
Water Management District

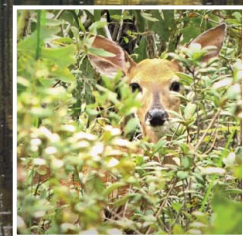


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Introduction

As required by Section 373.199(7), Florida Statutes (F.S.), this report is the District's annual update of its original Florida Forever Work Plan. The District's approach to the Florida Forever Work Plan is to provide a discussion of those eligible projects that the District could fund through the Florida Forever program over a five-year period and may receive future Florida Forever funding under the Florida Forever Act, Section 259.105, F.S.; depict eligible properties on the maps included in this report; and to report on progress and changes since the report's last update.

The Florida Forever Act provides for the issuance of up to \$3 billion in bonds through 2020 to state agencies, water management districts and local governments. Water management district funding is to be used for land acquisition (including less-than-fee purchases), water resource development and water body restoration. Over the life of the program, at least 50 percent of the funds allocated to the water management districts must be spent on land acquisition.

The annual update is organized into eight sections including the introduction, modifications to last year's Florida Forever Work Plan, land acquisitions completed during FY 2020, land acquisition status, lands surplus during FY 2020, summaries of land management activities, five-year resource management budget information, and project maps and lands identified for potential acquisition by planning region.

Florida Forever funds must contribute to achieving the following goals, found in Section 259.105, F.S.:

- Enhance the coordination and completion of land acquisition projects.
- Increase the protection of Florida's biodiversity at the species, natural community, and landscape levels.
- Protect, restore, and maintain the quality and natural functions of land, water, and wetland systems of the state.
- Ensure that sufficient quantities of water are available to meet the current and future needs of natural systems and the citizens of the state.
- Increase natural resource-based public recreational and educational opportunities. Preserve significant archaeological or historic sites.
- Increase the amount of forestland available for sustainable management of natural resources.
- Increase the amount of open space available in urban areas.

The District will use its Florida Forever funding to support multiple land acquisition projects through FY2021. Figure 1 shows the allocation between land acquisition and capital improvement funding.

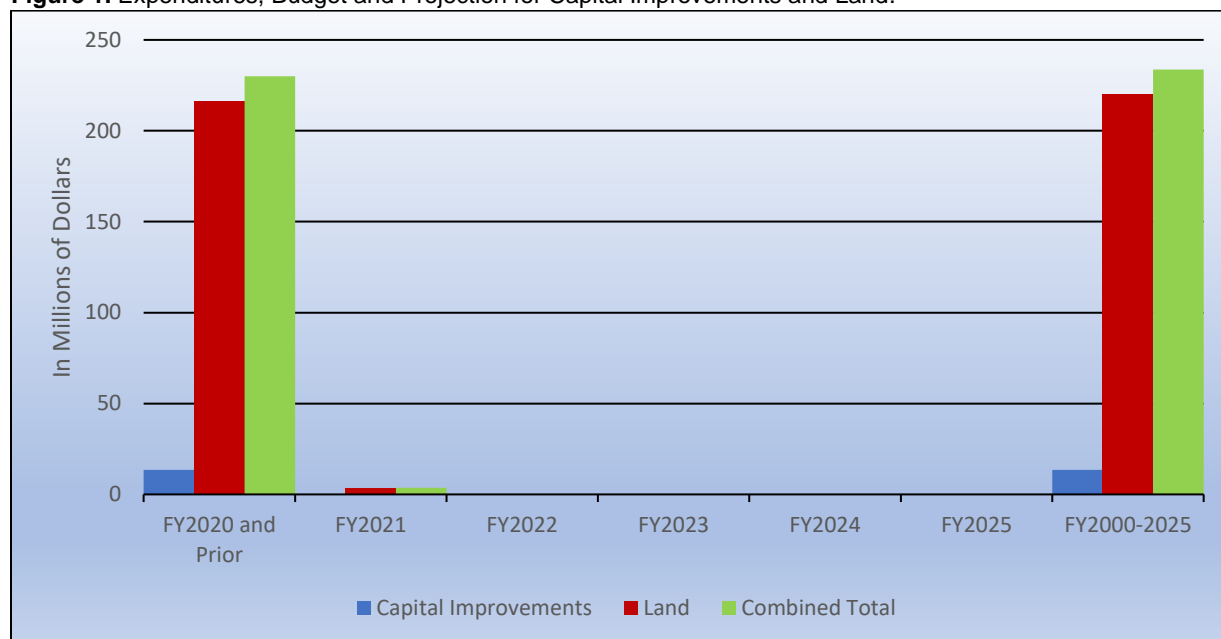
Figure 1. Expenditures, Budget and Projection for Capital Improvements and Land.


Table 1 provides expenditure, budget and projection by program and project over a five-year period. Individual water resource development and restoration projects are listed with projected Florida Forever funding provided for land acquisition and capital improvements. The budget for FY2021 consists of \$3.65 million remaining from prior year Florida Forever Trust Fund allocations.

Table 1. Florida Forever work plan project funding expressed in millions of dollars.

Project	FY2020 & Prior		FY2021		FY2022		FY2023		FY2024		Total	
	Cap Imp	Land	Cap Imp	Land	Cap Imp	Land	Cap Imp	Land	Cap Imp	Land	Cap Imp	Land
Lake Hancock Lake Level Modification & Ecosystem Restoration		76.66									0.00	76.66
Lakes Horse, Raleigh and Rogers Recovery Project		0.06									0.00	0.06
Lake Hancock Outfall Treatment System	13.44	5.00									13.44	5.00
Conservation Land Acquisition		134.82		3.65							0.00	
Totals	13.44	216.54		3.65							13.44	220.19

Project Modifications and Additions to the SWFWMD Florida Forever Work Plan

No modifications have been made to the 2021 Work Plan, other than updating acres owned, managed and surplused; and funds budgeted.

Restoration Projects

The Lake Hancock restoration project is completed and there were no restoration projects for which Florida Forever funding is being utilized.

District Land Acquisition Status

The following table depicts all lands owned in fee simple and less-than-fee (LTF) interests acquired by the District as of September 30, 2020.

Table 5. District Land Acquisition Status, acreages derived using geographic information system software.

Project	Fee Acres	LTF Acres	Total
Alafia River Corridor	4,498	1,498	5,996
Alafia River Reserve	334		334
Annuteliga Hammock	2,296		2,296
Bright Hour Watershed		32,247	32,247
Brooker Creek Headwaters Nature Preserve	1,039	67	1,106
Brooker Creek Preserve	1,635		1,635
Charlotte Harbor State Park	7,421		7,421
Chassahowitzka River & Coastal Swamps	5,748	4	5,752
Chito Branch Reserve	5,389		5,389
Cliff Stephens Park (Alligator Creek)	44		44
Conner Preserve	3,486		3,486
Crooked Lake	3,587		3,587
Cypress Creek Preserve	8,515	815	9,330
Deep Creek Preserve/Lower Peace River Corridor	2,084		2,084
Edward Medard Park and Reservoir	1,291		1,291
Edward W. Chance Reserve - Coker Prairie Tract	2,136		2,136
Edward W. Chance Reserve - Gilley Creek Tract	5,798	37	5,835
Flying Eagle Preserve	16,305	133	16,438
Green Swamp Wilderness Preserve - Colt Creek State Park	5,068		5,068

Project	Fee Acres	LTF Acres	Total
Green Swamp Wilderness Preserve - Green Swamp East t	67,543	4,180	71,723
Green Swamp Wilderness Preserve - Little Withlacoochee	4,622	19,545	24,167
Green Swamp Wilderness Preserve - Green Swamp West	36,654	4,975	41,629
Gum Slough - Half Moon Wildlife Management Area	4,164	5,831	9,995
Hálpata Tastanaki Preserve	8,171	4	8,175
Hidden Lake	589		589
Hillsborough River Corridor	276	79	355
Jack Creek	1,349		1,349
Jerry Lake	80		80
Lake Hancock - Circle B Bar Reserve	1,268	4	1,272
Lake Hancock - Marshall Hampton Reserve	1,167		1,167
Lake Hancock Project	4,796	1,179	5,975
Lake Lowry	390		390
Lake Marion Creek Horseshoe Scrub Tract	290		290
Lake Panasoffkee	9,881	5,841	15,722
Lake Tarpon Outfall Canal	161	101	262
Lake Tarpon Sink Enclosure	10		10
Lake Thonotosassa	144		144
Little Manatee River - Southfork Tract	971		971
Little Manatee River - Upper and Lower Tracts	6,596		6,596
Lower Cypress Creek		290	290
Lower Hillsborough Wilderness Preserve	16,064	3	16,067
Lower Manatee River Floodway	42		42
Masaryktown Canal	168	2	170
Myakka Conservation Area	4,747	18,283	23,030
Myakka Conservation Area - Lewis Longino Preserve		3,419	3,419
Myakka River - Deer Prairie Creek Preserve	6,136		6,136

Project	Fee Acres	LTF Acres	Total
Myakka River - Flatford Swamp Preserve	2,357	1,106	3,463
Myakka River - Schewe Tract	3,993		3,993
Myakka River State Park - Myakka Prairie Tract	8,248		8,248
Myakka State Forest	8,565	15	8,580
Panasoffkee/Outlet	813		813
Peace Creek Canal System	3	18	21
Potts Preserve	9,375	3	9,378
Prairie/Shell Creek	609		609
Rainbow River Corridor	112	12	124
RV Griffin Reserve	5,922		5,922
Sawgrass Lake Park	389	8	389
Starkey Wilderness Preserve	19,469	175	19,644
Structure Sites/Office Sites	99	51	150
Tampa Bay - Clam Bayou	84		84
Tampa Bay - Ekker Preserve	84		84
Tampa Bay - Frog Creek	119		119
Tampa Bay - Schultz Preserve	132		132
Tampa Bay - TECO Tract	2,530		2,530
Tampa Bay - Terra Ceia Preserve State Park	1,463		1,463
Tampa Bay - Terra Ceia/Huber	287		287
Tampa Bypass Canal/Harney Canal	1,376	323	1,698
Three Sisters Springs	57		57
Tsala Apopka Outfall Canal	3	141	144
Two Mile Prairie - Tsala Apopka Connector	462		462
Two-Mile Prairie - Withlacoochee State Forest	2,898		2,898
Upper Hillsborough Preserve	9,460	7,915	17,375
Upper Saddle Creek	37		37

Project	Fee Acres	LTF Acres	Total
Weeki Wachee Springs State Park	539		539
Weekiwachee Preserve	12,230		12,230
Wysong Park	4	1	5
Total	344,671	108,315	452,986

Surplus Lands

The following table depicts lands surplus by the District during fiscal year 2019.

Table 6. Surplus Lands, acreage derived using geographic information system software and Footprints (real estate) database.

Project	County	Acres Surplused	Compensation	Parent Tract Funding Source	Comments
Annutteliga Hammock-Multiple Lots	Hernando	4.4	\$59,011	Preservation 2000, Water Management Lands Trust Fund	Sold deed restriction
Total		4.4	\$59,011		

Land Management Activities

The District has developed numerous management partnerships that match land use to agency mission. For example, Colt Creek State Park was purchased with District, State and Polk County Florida Forever funds, yet it is managed as a state park. Hunting at the Green Swamp is via a wildlife management area with the Florida Fish and Wildlife Conservation Commission. Approximately 95 percent of the District's conservation lands have an approved management plan. The following is a brief description of land management activities for properties owned by the District.

Alafia River (including Alafia River Corridor, Chito Branch Reserve and Alafia River Reserve)

The Alafia River Corridor contains parcels of land along the Alafia River corridor from Bell Shoals Road and extends upstream to the headwaters of the river. The river's natural floodplain is a mixture of hardwood swamps and upland hammocks. Acquisition of the land within Hillsborough County was co-funded by the District and the County with fee simple title conveyed to the District. In 1996, the District entered into a lease agreement with Hillsborough County that designated the County as manager of lands jointly purchased by the County and the District. Recreational improvements provided by Hillsborough County include hiking trails, equestrian trails, fishing, primitive and group camping. Project lands in Hillsborough County acquired by the District for the C.W. "Bill" Young Reservoir are jointly managed by the District and Tampa Bay Water and are known as the Chito Branch Reserve. In Polk County, the District and the County have co-funded and co-own the Alafia River Reserve. Polk County is responsible for a park site on the property and the District is responsible for resource management and trail development.

Annutteliga Hammock – The Annutteliga Hammock project is in Hernando and Citrus counties, generally within a regional area located between Homosassa Springs to the northwest, the Withlacoochee State Forest to the northeast, Brooksville to the southeast and Weeki Wachee Springs to the southwest. The Annutteliga Hammock area supports an important and unique assemblage of high quality temperate upland hardwood forest and exceptional caliber sandhills along the Brooksville Ridge. Preservation of the remaining large contiguous areas of the hammock region will protect some of the best remaining examples of those community subtypes that are the most endangered or rarest along the Brooksville Ridge. Since lands acquired to date are for the most part not contiguous, recreational use is limited to foot traffic and equestrian riding on more than eight miles of marked trails. Land management activities consist of security, prescribed burning, resource monitoring, exotic species control, and public use/recreational development and monitoring.

Bright Hour Watershed – The project area consists of extensive, high quality prairie, hammock, marsh and slough systems that provide water management benefits for a traditionally water-poor region. Hydrologic values include protection of the headwaters of several important creek systems, such as Prairie and Shell creeks. Water storage, conveyance and flood control are also provided by the watershed's poorly drained landscape. Habitat protection for numerous rare plant and animal species and globally imperiled, high quality natural communities is amply afforded by this project. Since the District does not hold fee simple title, land management activities consist of monitoring the terms of the conservation easements.

Brooker Creek – The Brooker Creek Headwaters Nature Preserve located in Hillsborough County remains as islands of undeveloped natural and rural lands in the changing landscape of northwest Hillsborough County. The lands include several extensive and interconnected cypress swamps, which form the headwaters of Brooker Creek. These headwater swamps are an important water resource feature on their own, as well as for their contribution to downstream elements of the creek. Lands within the Brooker Creek Headwaters are managed by Hillsborough County. The County has developed and made available several miles of unimproved interior roads that are open to hikers. The dominant habitats within the Brooker Creek Preserve, located in Pinellas County, include cypress and mixed hardwood swamps along portions of Brooker Creek. As part of the area's natural drainage system, Brooker Creek is an important water resource feature. Local low-lying areas are drained by the creek's system of sloughs and swamps. Floodplain vegetation offers treatment of runoff prior to discharging into Lake Tarpon. Lands within the Brooker Creek project in Pinellas County are managed by Pinellas County. Recreational improvements/amenities available on the tract include equestrian trails, hiking trails and an interpretive foot trail. Land management activities primarily consist of coordination with the lead land managers.

Charlotte Harbor State Park – The Charlotte Harbor Save Our Rivers project was jointly purchased between the District and the State of Florida's Conservation and Recreation Lands (CARL) program. Lands within the project area are characterized by a variety of natural lands including isolated freshwater marshes, tidal marshes and tidal swamps. Under a management agreement with the State, the Florida State Parks is the lead land manager for the project. Currently, the park offers canoeing and boating. Land management activities consist primarily of coordination with State Parks, the land manager.

Chassahowitzka River and Coastal Swamps – The Chassahowitzka River and its expansive coastal swamps are located in western Citrus County. This project includes nearly two miles along the Chassahowitzka River and Chassahowitzka Springs, which forms the river's headwaters. The project is contiguous with the federally-owned Chassahowitzka National Wildlife Refuge to the west, the State's Homosassa Reserve to the north and the Chassahowitzka Wildlife Management Area to the south. The project contains the Chassahowitzka River Campground, which is operated and maintained by Citrus County. Recreational activities/amenities are primarily managed by Citrus County and include canoe/boat launch, campsites (some with full hook-ups), canoe rental; picnic pavilions; restrooms; potable water; and primitive camp sites along the river. Hunting is managed by the Florida Fish and Wildlife Conservation Commission. Land management activities consist of prescribed burning, resource monitoring, land maintenance, fence repair and recreational monitoring.

Conner Preserve – The Conner Preserve is in Pasco County and includes the upper portion of Cypress Creek, a regionally important surface water feature and tributary creek of the Hillsborough River. Cypress Creek originates near I-75, east of CR 581 and north of CR 578 and has a contributing watershed of 74.5 square miles. Land use of the project area is primarily agricultural, dominated by several large cattle ranches. Land cover consists primarily of improved pasture, rangeland, live oak hammocks, pine flatwoods, xeric oak/longleaf pine, cypress domes and freshwater marshes/wet prairies. The project includes several shallow lakes, many of which include extensive marshes or open prairies. The project area itself is located between the District's Cypress Creek Preserve and the Cross Bar/Al-Bar Ranch complex, representing two major public supply wellfields operated by Tampa Bay Water. Recreational activities/amenities available include primitive camping, 1.7 miles of hiking trails, and approximately 15 miles of shared-use trails for hiking, horseback riding and biking. Land management activities consist of prescribed burning, restoration, resource monitoring and recreational development/monitoring.

Crooked Lake/Bowlegs Creek – Located in Polk County, the Crooked Lake/Bowlegs Creek project represents opportunities to protect important water resource ecosystems in the east central region of the District. Acquisition benefits include protecting important areas and habitat for aquifer recharge associated with the Lake Wales Ridge (Ridge) and protecting the water quality of Crooked Lake and the other Ridge lakes receiving flow from Crooked Lake (Lake Clinch and Lake Reedy). Crooked Lake is one of the largest lakes within the Ridge and is the only designated Outstanding Florida Water (OFW) in Polk County. The lake has good water quality because of existing shoreline vegetation coverage and relatively little urbanization. Although the alteration of natural lands throughout the region has resulted in habitat loss and fragmentation, this tract represents one of the few larger tracts remaining relatively intact and more importantly, is the last remaining large tract adjacent to a large Ridge lake. Lands within the project are jointly owned by the District and Polk County, and contain easements acquired by the United States Department of Agriculture/Natural Resources Conservation Services. Polk County manages the property.

Cypress Creek Preserve – The Cypress Creek Preserve includes the heavily forested Cypress Creek swamp, formed by its namesake, Cypress Creek, as it flows to the Hillsborough River. As part of the tributary system to the Hillsborough River, the project serves both a water detention role and a water conveyance role. Additionally, the low-lying swamps provide treatment and assimilation of runoff waters. Recreational activities/amenities available include non-potable water, equestrian/group and primitive camping, 3.5 miles of hiking trails, and approximately 15.5 miles of shared-use trails for hiking, horseback riding and biking. Land management activities include prescribed burning, mowing, exotic species control, timber management, resource management, and public use and recreation development/maintenance.

Edward W. Chance Reserve – In 2007, the former Lake Manatee Reserve, was dedicated and renamed as the Edward W. Chance Reserve, in honor of departed Governing Board member, Ed Chance. The Reserve extends over a large area which includes narrow floodplain forests and native pine lands surrounded by vast areas of rangeland, improved pastures, croplands, and citrus groves. Lands purchased within this project protect an existing regional water resource, protect floodplains, and restore adjoining wetlands in the headwaters. Recreational activities/amenities available include non-potable water, more than 10 miles of hiking trails and approximately 13 miles of shared-use trails for hiking, horseback riding and biking. Management units include the Coker Prairie and Gilley Creek Tracts. Land management activities include prescribed burning, mowing, exotic species control, timber management, resource management, public use and recreation development/maintenance.

Flying Eagle Preserve – The Flying Eagle Preserve is located within the Lake Tsala Apopka region of Citrus County. The property includes over five miles of frontage on the Withlacoochee River and its forested floodplain. A broad expanse of mixed hardwoods and cypress swamps cover the floodplain along the river. Areas of hammocks and xeric oak scrub lands occur throughout the higher elevations of the interior portions. Scattered marshes and wet prairies complete the landscape. The Tsala Apopka system is important because it has been described as a primary recharge area for the Floridan aquifer. Recreational activities/amenities available at Flying Eagle include non-potable water, 4 miles of

hiking trails and approximately 18 miles of shared-use hiking, horseback riding and bicycle trails; and primitive and equestrian camping. Hunting, which is managed by the Florida Fish and Wildlife Conservation Commission, is also available.

Green Swamp Wilderness Preserve (including Colt Creek State Park)

– The Green Swamp Wilderness Preserve (GSWP) includes several efforts directed at protecting headwater swamps, floodplains and watershed areas in the Green Swamp region and along two of its principal river systems (Withlacoochee and Hillsborough). The GSWP is the District's largest landholding which includes Green Swamp East, Green Swamp West, and Colt Creek State Park. The Green Swamp and its river systems are of hydrologic importance to central Florida, both in terms of surface water and ground water resources. Four river systems have their origin in the low-topography headwaters of the Green Swamp. Swamps, floodplains and headwaters serve as natural flood detention areas, while uplands serve as areas for recharge. Recreational amenities on District-managed lands in the GSWP include non-potable water, over 31 miles of hiking trails (including approximately 15 miles of the Florida National Scenic Trail) and 140 miles of shared-use hiking, horseback riding and bicycle trails. Primitive, equestrian and backcountry camping is also available. Hunting is managed by the Florida Fish and Wildlife Conservation Commission. Land management activities in the GSWP include prescribed burning, resource monitoring, natural systems restoration, mowing, exotic species control, security patrol, and public use and recreational development/maintenance.

Gum Slough – Lands within the Gum Slough property are located within Marion and Sumter counties and are dominated by densely forested swamps and hammocks. Nearly 1,100 acres of forested hardwood swamps that line the Gum Slough run from a common boundary with state-owned lands to the east (Half-Moon Wildlife Management Area). The lands within the area offer protection to portions of the Withlacoochee River, Gum Slough, and its various hydrologic characteristics. Recreational improvements/amenities available on the property are non-potable water, shared-use trails available for hiking, bicycling and horseback riding, and woods roads available for hiking and hunting. The property is managed by the Florida Fish and Wildlife Conservation Commission.

Hálpata Tastanaki Preserve – The Hálpata Tastanaki Preserve adjoins the Marjorie Harris Carr Cross Florida Greenway. Primary surface water features include five miles of floodplain along the northern bank of the Withlacoochee River. The isolated wetlands and marshes scattered throughout the site form the site's internal drainage system and provide local surface water storage. The site of Fort Izard, an important battleground during the second Seminole War, is located within the project lands. Recreational activities/amenities include approximately 4 miles of hiking trails and more than 12 miles of shared-use trails for hiking, horseback riding and bicycling. Land management activities include prescribed burning, natural systems restoration, timber management, exotic species control, resource monitoring, recreation development/maintenance and security.

Hidden Lake – The Hidden Lake project is in the west-central Pasco County and is part of an interconnected system of lakes within the Rocky Sink/Boggy Creek basin of the Bear Creek Watershed. District ownership ensures protection of the lake and the surrounding forested wetlands and will help preserve water quality within the lake and sub-basin. Recreational use of the lands within the project is extremely limited due to development in the vicinity and the fact that the lands are essentially a "lake swamp." Limited land management is required, primarily security patrols for illegal activities (dumping and archaeological digging).

Jack Creek – The Jack Creek project, located in Highlands County, includes a significant part of Jack Creek, its 100-year floodplain and outlying forested areas associated with the creek system and local lake outflow wetlands. The project area also includes portions of sand pine scrub and mixed scrub—among Florida's most unique threatened upland habitats. Jack Creek and its associated swamps serve as the natural drainage basin for the immediate area, as well as the water conveyance system for lakes in the area. The District entered into a management agreement with the Florida Fish and Wildlife Commission (FWC). The FWC manages both the recreation and land. Land management activities consist of

prescribed burning, security patrols, public use/recreation maintenance and enhancements, exotic species control, mowing and monitoring for listed plants and animals. Recreational amenities/activities on the Jack Creek property are limited to 6.5 miles of hiking trails due to its remote location, environmental sensitivity and access constraints.

Lake Hancock – Lake Hancock is located southeast of the City of Lakeland and north of the City of Bartow in Polk County. At approximately 4,500 acres, Lake Hancock is the largest lake associated with the Peace River and the third largest lake in Polk County. A requirement of the statutorily mandated minimum flow establishment is the development of a recovery strategy. Part of the proposed strategy for the upper Peace River is to restore storage in Lake Hancock and release some of the water during the dry season to help meet the flow requirements. Historically, Lake Hancock fluctuated more than a foot higher than it has during the past several decades. Lands acquired within this project will assist in reversing those impacts by replacing the District's outfall structure so that water levels can be maintained at historical levels. The District and Polk County jointly acquired the Circle B Bar Reserve along the lake. The Reserve is managed by the County and provides hiking trails and picnic tables for recreationists. The County also manages the Marshall Hampton Reserve within the project area.

Lake Panasoffkee – The Lake Panasoffkee project is in Sumter County and is comprised of a large, contiguous area of relatively undisturbed lands along the eastern portion of the Lake's watershed. The project extends north to include Big Jones and Little Jones creeks, both tributaries to the lake. Wetlands dominate the area with extensive mixed hardwood and maple swamps, lake front marshes and willow areas. Lands within the project protect local and regional drainage features and provide storage and detention of surface waters, while providing important wildlife resources. Recreational activities/amenities include non-potable water, more than 15 miles of shared-use hiking, horseback riding and bicycle trails; group picnic pavilion, horse stalls, primitive and equestrian camping, restrooms, and a campground host. The Florida Fish and Wildlife Conservation Commission manages hunting on the property. Land management activities include exotic species control, land security, cattle lease management, maintenance of facilities located on the property, public use, recreation development/maintenance, prescribed burning, timber management, natural systems restoration, and resource monitoring.

Little Manatee River – The Little Manatee River project, located in Hillsborough and Manatee Counties, contains parcels of land along the Little Manatee riverine corridor from downstream estuarine waters to the river's headwaters. Dense forest dominates the land along the river's floodplain with the adjoining uplands being comprised of a mixture of pine flatwoods, mixed hardwoods and shrub and brushlands. The District has entered into an interlocal agreement with Hillsborough County wherein the County has lead responsibility for lands jointly purchased by Hillsborough County and the District. Lands within Manatee County, known as the Southfork Tract, are managed by the District, and include approximately 6 miles of hiking trails. Recreational improvements/amenities made available by the County include canoe landing sites adjacent to primitive campsites along the river, fishing, and hiking trails. District land management activities on the Southfork Tract consist of road stabilization, prescribed burning, natural systems restoration, mowing and recreational development/maintenance.

Lower Hillsborough Wilderness Preserve – The Lower Hillsborough Wilderness Preserve includes several miles of the Hillsborough River and its broad flood plain. The project contains important areas of natural flood conveyance and storage and contains the Morris Bridge Wellfield. Recreational activities available include five developed park sites managed by Hillsborough County including such amenities as hiking, equestrian and bicycle trails, picnic pavilions, restrooms, boat launches and visitor centers. The District has also made available an additional 25 miles of equestrian trails. Hunting is managed by the Florida Fish and Wildlife Conservation Commission. Land management activities include exotic species control, land security, public use and recreation development/maintenance, prescribed burning, timber management, wildlife management, natural systems restoration and mowing.

Lower Peace River Corridor (including Deep Creek) – Located in DeSoto County, lands within the project include an extensive network of tributaries, floodplain

swamps and connected headwaters. Recreational activities available include non-potable water, approximately 2 miles of hiking trails; more than 6 miles of shared-use trails for hiking and horseback riding; and backcountry and equestrian camping. Land Management activities include prescribed burning, mowing, exotic species control, recreational amenity development/monitoring and security.

Myakka River/Deer Prairie Creek/Myakka State Forest

A majority of the lands within the Myakka River project were jointly purchased with the State of Florida's Conservation and Recreation Lands (CARL) program (Myakka State Forest) and Sarasota County (Deer Prairie Creek). Lands within the project area are characterized by a variety of natural lands and lands altered by development including mesic pine flatwoods, oak hammocks, shell mounds, prairie hammock and improved pasture. The project area includes portions of the Myakka River and its floodplain forests. Lands included within the Myakka State Forest are managed by the Florida Forest Service (FFS). The FFS has made the following recreational improvements/amenities available on the property: shared-use trails for bicycling, horseback riding and hiking, and primitive camping. Lands within Deer Prairie Creek are jointly managed by the District and Sarasota County. Land management activities include fencing, road maintenance, exotic species control, recreation development/maintenance, public use, prescribed burning and mowing.

Myakka Conservation Area (including Myakka Prairie)

The Myakka Conservation Area consists of oak/cabbage palm hammock dominated banks along the southern portions of the creek, isolated marshes and improved pastures within the upland portions and mixed natural lands scattered throughout. The property is characterized by the region's flat topography and includes landscapes of extensive shrub and brushlands, pine flatwoods and pastures. Numerous isolated freshwater marshes dot the site's flatlands. The main surface water feature, Myakkahatchee Creek, is a 21.5-mile long tributary creek of the Myakka River. Approximately 4,700 acres are managed by Sarasota County. The Myakka Prairie is adjacent to lands within the Myakka River State Park and is managed by the Florida State Parks. Recreational development/amenities on the property made available by the State Parks include hiking, bicycling and horseback riding trails. District land management activities primarily consist of exotic species control and conservation easement monitoring.

Panasoffkee/Outlet Tract – Lands within the Panasoffkee/Outlet Tract extend over three miles along the eastern floodplain of the Withlacoochee River. For the most part, the areas are representative of the river's five-year floodplain, which include the regularly flooded cypress and mixed hardwood forests, as well as some areas of temperate hammock. Preservation of these lands along the river will maintain their function and protect forested swamps important to the water resources and water quality of the river system. Recreational activities on the property include approximately 3 miles of hiking trails, fishing and boat access. Land management activities include prescribed burning, mowing, road maintenance, exotic species control, cattle lease management, public use, and recreation development/maintenance.

Potts Preserve – The Potts Preserve is located within the Lake Tsala Apopka region in eastern Citrus County and includes portions of the Hernando Pool. The Preserve's eastern boundary is formed along 5 ½ miles of the Withlacoochee River and its associated floodplain. The lands are a mixture of lakes, ponds and marshes surrounding islands of oak forests and lands partially cleared for agriculture. The Tsala Apopka system is considered important as an area of recharge for the Floridan aquifer. Recreational activities/amenities available include non-potable water; approximately 12 miles of hiking trails; 8 miles of shared-use trails for hiking, horseback riding and bicycling; equestrian and backcountry camping; and boat launch. Hunting is also allowed on the property. Land management activities include public use and recreation development/maintenance, land security, prescribed burning, natural systems restoration and mowing.

Prairie/Shell Creek – The Prairie/Shell Creek project is envisioned as a greenway corridor from the mouth of the Peace River to the District's Bright Hour Watershed project to the north and to the State's Babcock Ranch to the south. Recreational activities/amenities available include approximately 5 miles of hiking trails. Land management activities include prescribed burning, resource monitoring, resource protection and recreational development.

Rainbow River – The District’s Rainbow River project is located along the eastern bank of the Rainbow River below the head spring. The property is in Marion County adjacent to the Rainbow Springs State Park. Rainbow Springs is the seventh largest first magnitude spring in Florida and is the primary source of water for the Rainbow River which flows for approximately 5.7 miles until it discharges into the Withlacoochee River. The District’s Rainbow River Ranch tract comprises about 16 percent of the eastern bank of the Rainbow River and is the last major undeveloped property along the eastern bank of this natural river corridor. Its shoreline includes marshes, wetlands and giant bald cypress trees. The property will be managed by Florida Park Service as part of Rainbow Springs State Park. The District is developing two projects to restore natural communities and improve water quality.

RV Griffin Reserve (including Lewis Longino Preserve)

The RV Griffin Reserve is in DeSoto and Sarasota counties and includes lands supporting and surrounding the existing facilities at the Peace River/Manasota Regional Water Supply Authority treatment plant. Lands in the project area include mixed hardwood forests along the river; however, a majority of the lands consist of pine flatwoods, rangelands, pastures, and pine plantations. The Reserve supports and protects present potable water supplies. The Water Supply Authority manages the approximately 6,000 acres owned in fee. Recreational activities/amenities include shared-use trails available for bicycling, horseback riding and hiking. The District monitors the conservation easement known as the Lewis Longino Preserve.

Sawgrass Lake – Acquisition of the Sawgrass Lake project began in the 1970s to provide flood protection to the City of Pinellas Park. A water control structure was built to facilitate drainage canal improvements and to maintain desirable water level fluctuations in Sawgrass Lake and the surrounding swamp. The lake and swamp system provide natural water treatment to enhance the quality of water draining to Tampa Bay. In 1976, the District, Pinellas County and the Pinellas County School Board cooperatively agreed to establish a county park and an environmental education center on the site. The property is managed by Pinellas County and Pinellas County School Board. Pinellas County has developed a wide array of recreational amenities on the property including restrooms, potable water, elevated boardwalks, hiking trail, nature center, outdoor interpretive displays; and they offer interpretive tours by reservation. The School Board has established an environmental education program that serves area students from kindergarten through fifth grade.

Starkey Wilderness Preserve – Located in Pasco County, lands within the Starkey Wilderness Preserve are a combination of pine flatwoods, sand pine scrub, oak forests, scattered marshes and cypress swamps. The project lands are a part of the contributing watershed of the Anclote River. The Starkey Wellfield and part of the J. B. Starkey Wilderness Park are located within the project limits. Recreation at the Starkey Wilderness Park is managed by Pasco County, while the District manages recreation on the Serenova and Anclote Ranch tracts. Recreational activities/amenities available at Starkey Wilderness Park include paved bicycle trails, equestrian trails, hiking/backpacking trails, cabin rental, primitive camping, horse corral, picnic pavilions, self-guided educational nature trail and restrooms. Recreational amenities on the Serenova tract include approximately 20 miles of shared-use hiking, horseback riding and bicycle trails; and equestrian and primitive camping. Land management activities on the Preserve include prescribed burning, natural systems restoration, exotic species control, land security, recreational development/management and mowing.

Tampa Bay Estuarine Ecosystem – The Tampa Bay Estuarine Ecosystem project furthers the Tampa Bay Surface Water Improvement and Management (SWIM) plan. Approximately half the project consists of mangroves and salt marsh which dominate the northern project area along Bishop Harbor and the western area associated with the tidal bays of Moses Hole, Clambar Bay and Williams Bayou. The natural upland and wetland habitats within the project area provide natural water quality treatment of overland flows before reaching the receiving waters of Tampa Bay. A majority of lands within the Tampa Bay Estuarine Ecosystem project were jointly purchased with the State or local governments. Under an agreement with the State, Florida State Parks is the lead land manager for Terra Ceia Preserve State Park. Hillsborough County manages the Ekker Preserve and Schultz Preserve tracts;

Pinellas County manages the Clam Bayou tract; Manatee County manages Pine Island; and the District manages the TECO, Frog Creek and Terra Ceia/Huber tracts.

Two Mile Prairie State Forest – Two-Mile Prairie State Forest lies along the southern bank of the Withlacoochee River at the northern end of the Tsala Apopka Lake system and includes a variety of upland plant communities characterized by well-drained soils. Wetlands and surface water features include several miles of the Withlacoochee River and isolated depression marshes. The project protects natural floodplain areas along portions of the southern bank of the river, while adjoining uplands provide buffer areas to protect the river from high intensity land uses. The lands within this project were jointly purchased between the District and the State's Conservation and Recreation Lands (CARL) program. Under a management agreement with the State, the Florida Forest Service (FFS) is the lead land manager. Recreational improvements/amenities made available by the FFS include a trail network north of CR-491 for bicycling and horseback riding, canoeing and non-gas-powered boating, fishing, primitive camping, picnicking, and 2.8 miles of registered "trail walkers" trail. Land management activities consist of monitoring and coordinating with the FFS regarding their management of the tract.

Upper Hillsborough Preserve – The Upper Hillsborough project, located in Pasco and Polk counties, includes the channel of the Withlacoochee and Hillsborough rivers, including a unique hydrologic feature - the Withlacoochee River/Hillsborough River overflow. At this point, a portion of the flow of the Withlacoochee River naturally conveys to the Hillsborough River north of U.S. Highway 98. Lands within this project protect the hydraulic features of the river systems along with extensive areas of forested wetland habitats. Recreational activities/amenities available include non-potable water; approximately 9 miles of hiking trails; more than 30 miles of shared-use hiking, horseback riding and bicycling trails; primitive and equestrian camping, and fishing. Hunting is managed by the Florida Fish and Wildlife Conservation Commission. Land management activities include prescribed burning, exotic species control, public use and recreational development/maintenance, land security and natural systems restoration.

Upper Lake Marion Creek Watershed – The relatively undisturbed creek system of the Upper Lake Marion Creek Watershed flows north out of Lake Marion, joins Snell Creek and ultimately flows southeast to Lake Hatchineha. The entire Lake Marion Creek basin extends over 18,300 acres and includes portions of both the Southwest and South Florida water management districts. This district has entered into an agreement with the SFWMD to assist in the management of its lands since, due to the property's proximity to SFWMD-managed lands, the SFWMD can manage the property more cost-effectively. District land management consists primarily of coordination with the SFWMD.

Upper Myakka River Watershed (Flatford Swamp) – The Upper Myakka River Watershed project is in Manatee County and includes forested floodplain swamps and marshes along the upper portions of the Myakka River watershed. The headwater swamps function as retention and detention areas for local drainage. Wetland forests and adjoining uplands provide treatment of surface runoff. Access to the property is limited to hiking since the project lands are often flooded, which is not conducive to recreational trail development. However, the property contains narrow flatwoods roads and jeep trails that can be used for hikers during dry weather.

Upper Saddle Creek – The Upper Saddle Creek corridor is in Polk County between the state-owned Tenoroc Fish Management Area and Lake Hancock. The property lies upstream of Lake Hancock and the upper Peace River and adjoins Saddle Creek Park which is owned by Polk County. The property is part of and provides protection to the floodplain of Saddle Creek, the major tributary to Lake Hancock. The property is in a natural state characterized by dense, existing forestation with limited encroachment of exotic species. The District and Polk County jointly acquired and co-own the project lands. Polk County is responsible for management of the property.

Weekiwachee Preserve – The Weekiwachee Preserve is in Hernando and Pasco counties and includes several miles of the Weeki Wachee River and extensive areas of hardwood swamps and hammocks. The Weeki Wachee Swamp extends several miles along the coastal portions of Hernando

County and represents a regionally important wildlife area. The riverine swamps are environmentally sensitive areas, which play an important role in the river's conveyance system and in flood and storm abatement. As they approach their outfall at the Gulf of Mexico, the Weeki Wachee and Mud rivers form a complex system of productive estuarine marshes and lowlands. Recreational activities/amenities include approximately six miles of hiking trails and six miles of shared-use hiking and bicycling trails, and fishing. The Preserve is open to vehicular access two Saturdays of every month. Hunting is managed by the Florida Fish and Wildlife Conservation Commission. Land management activities include natural systems restoration, exotic species control, land security, public use and recreational development/maintenance, prescribed burning, road maintenance and mowing. The Weeki Wachee Springs State Park is managed by Florida State Parks.

Progress of Funding, Staffing and Resource Management

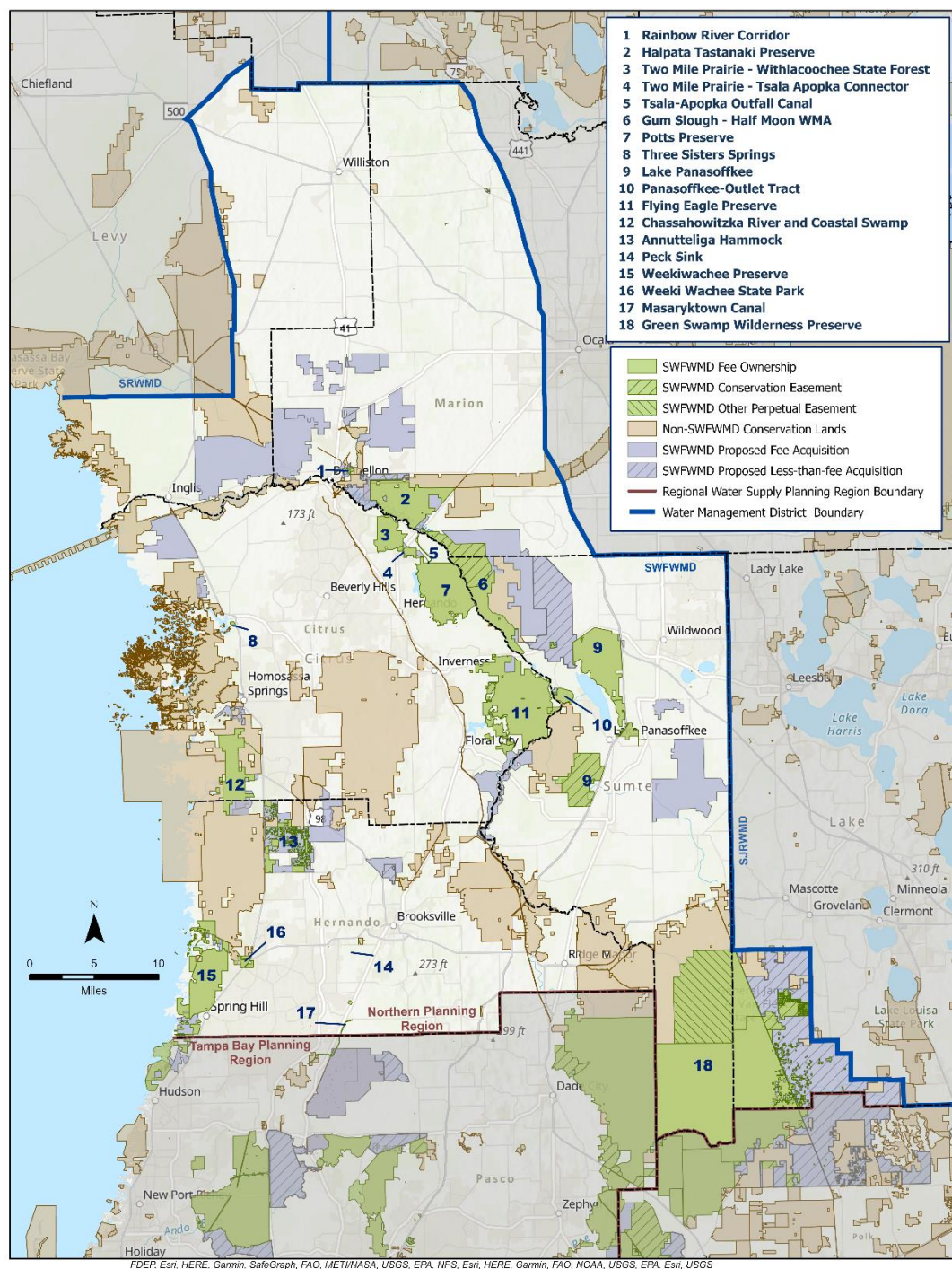
The following table depicts the District's budget for funding and staffing for resource management and public use.

Table 7. Progress of funding, staffing, and resource management.

Budget Area	FY2017 Budget	FY2018 Budget	FY2019 Budget	FY2020 Budget	FY2021 Budget
FTEs	36	35	35	35	35
Resource Management and Public Use	\$6,540,333	\$5,680,146	\$5,200,297	\$4,776,484	\$5,020,227

Florida Forever Land Acquisition Projects

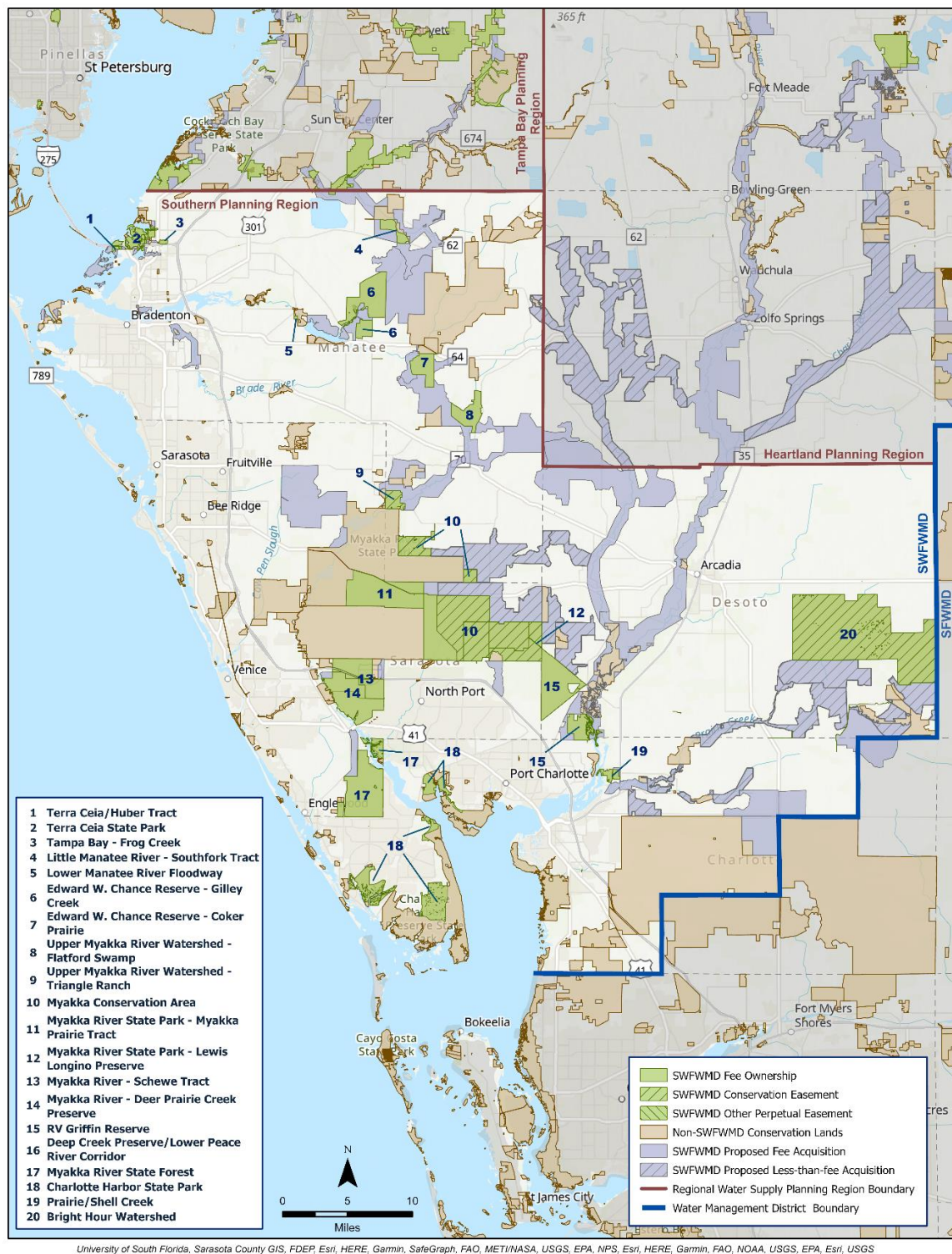
Figure 2. Northern Planning Region Map.



The lands eligible for acquisition within the Northern Planning Region are identified as follows:

- Approximately 92,700 acres identified for potential fee simple acquisition
- Approximately 45,000 acres identified for potential acquisition through less-than-fee techniques

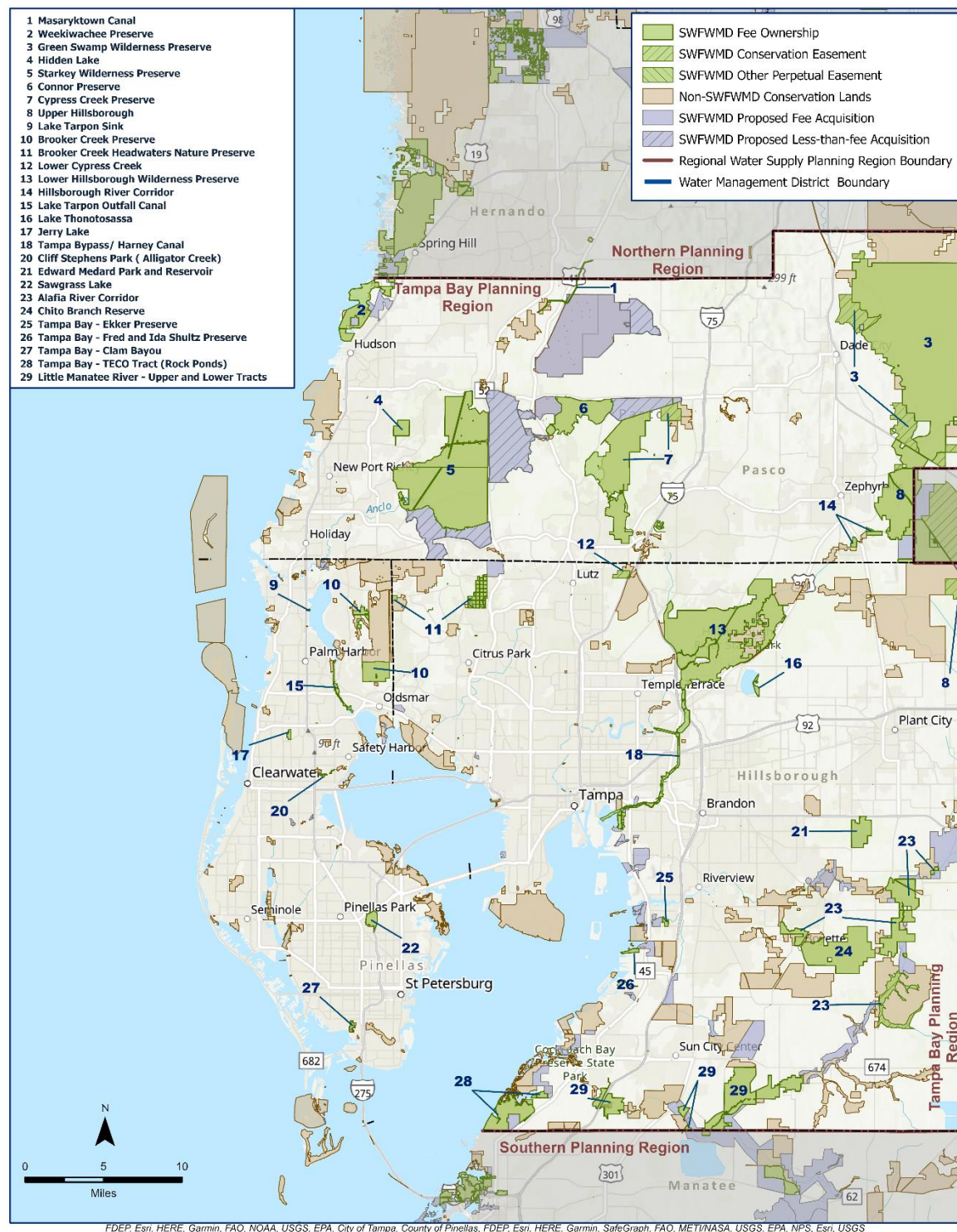
Figure 4. Southern Planning Region Map.



The lands eligible for acquisition within the Southern Planning Region are identified as follows:

- Approximately 117,000 acres identified for potential fee simple acquisition
- Approximately 52,000 acres identified for potential acquisition through less-than-fee techniques

Figure 5. Tampa Bay Planning Region Map.



The lands eligible for acquisition within the Tampa Bay Planning Region are identified as follows:

- Approximately 31,500 acres identified for potential fee simple acquisition
- Approximately 17,700 acres identified for potential acquisition through less-than-fee techniques

Consolidated **Annual**
Report
March 1, 2021

2020 Mitigation Donation Annual Report

Southwest Florida
Water Management District





An Equal
Opportunity
Employer

Southwest Florida Water Management District

2379 Broad Street, Brooksville, Florida 34604-6899

(352) 796-7211 or 1-800-423-1476 (FL only)

WaterMatters.org

Bartow Office

170 Century Boulevard
Bartow, Florida 33830-7700
(863) 534-1448 or
1-800-492-7862 (FL only)

Sarasota Office

78 Sarasota Center Boulevard
Sarasota, Florida 34240-9770
(941) 377-3722 or
1-800-320-3503 (FL only)

Tampa Office

7601 U.S. 301 North (Fort King Highway)
Tampa, Florida 33637-6759
(813) 985-7481 or
1-800-836-0797 (FL only)

Kelly S. Rice

Chair, Citrus, Lake, Levy, Sumter

Joel Schleicher

Vice Chair, Charlotte, Sarasota

Rebecca Smith

Secretary, Hillsborough, Pinellas

James G. Murphy

Treasurer, Polk

Ed Armstrong

Pinellas

Jack Bispham

Manatee

Roger Germann

Hillsborough

John Mitten

Hernando, Marion

Seth Weightman

Pasco

Brian J. Armstrong, P.G.

Executive Director

January 4, 2021

The Honorable Ron DeSantis
Governor of Florida
Plaza Level 05, The Capitol
400 South Monroe Street
Tallahassee, Florida 32399-0001

Subject: Annual Report on Cash Payments as Mitigation

Dear Governor DeSantis:

This letter is written pursuant to Section 373.414(1)(b)(2), Florida Statutes, which requires that each water management district report annually to the Executive Office of the Governor "all cash donations accepted under subparagraph 1 during the preceding calendar year for wetland mitigation purposes."

During the reporting period, the Southwest Florida Water Management District received no cash payments as mitigation, pursuant to 373.414(1)(b), Florida, Statutes.

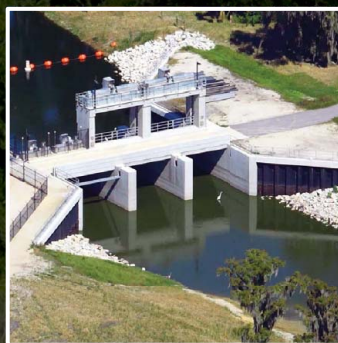
Sincerely,

Brian J. Armstrong, P.G.
Executive Director

cc: Secretary Noah Valenstein, DEP

2021–2025 Strategic Plan

Board Approved
02-23-2021



Message from the Chair

Central Florida has always been my home. My wife and I are truly blessed to have the opportunity to live on our ranch in Sumter County where we raised our children and primarily engage in the production of cattle and hay. Working the land has instilled in me an unwavering belief and commitment to stewardship and a strong desire to do everything I can to ensure the Florida I have loved and cherished will be there for my children, grandchildren, and future generations.

When you think of Florida, you cannot help but focus on its water resources. Whether it is our fine sand beaches, prodigious lakes, meandering rivers, or productive wetlands, water defines our quality of life. The water resources give us life, provide us food and sustenance, bestow upon us natural wonders like our first-magnitude springs, and offer a bounty of recreational activities. Florida is water.

Given my background and interests, it is not surprising I gravitated toward service on the Southwest Florida Water Management District Governing Board. The District manages water resources across 16 counties with a population of more than 5 million people. The District's mission is to protect the water resources, ensure water supply needs are met, and reduce the risks of flooding. My late father strongly believed in the District's mission. He also served as Governing Board Chair to ensure strong stewardship of our resources and I am proud to follow in his footsteps.

One thing all Governing Board members and staff learn quickly, there is nothing simple when it comes to water. We may be surrounded by water resources, but there are limits to how much we can take from these resources before we damage them. Florida's water supply needs are growing. Florida is one of the fastest growing states in the country. Growth provides opportunities and economic prosperity, but it also comes with challenges. How can we continue to quench the thirst of our expanding population while also protecting our precious water resources?



Kelly S. Rice
Chair

We can do both. We can have both economic prosperity and simultaneously protect the environment. However, success requires we deploy our resources to do the greatest good. We must wisely use our time, our taxpayer dollars, and our people. To do that, we need a plan, a Strategic Plan.

The District's Strategic Plan provides clarity and direction regarding our mission and our priorities. The Plan identifies who we are, what we do, and how we do it. It also highlights a five-year plan of action to focus our resources and maximize benefits for both the public and environment.

The Plan also prioritizes water resource issues in each of our four planning regions. For example, in our Northern Planning Region the objective is to enhance our five first-magnitude springs, implementing projects to improve water quality and natural systems. One of the critical initiatives helps fund projects that move residents off traditional septic tanks and onto sewer systems, thereby reducing nutrient pollution into the springs. In another example, in the Tampa Bay region, we have identified a series of flood protection projects in various watersheds to provide residents with flooding relief.

Sometimes, when developing a path forward, it's helpful to take a moment to look back and reflect upon the challenges we have faced, what worked and what didn't, and what was the foundation of our successes. During the past 60 years the District has seen some tremendous successes. When over-reliance on groundwater began affecting the environment, we shifted gears, focusing more on conservation and the development of alternative water resources. We have been able to significantly reduce groundwater withdrawals, promote environmental recovery and still meet the demands of growth.

A critical component of alternative water resources is reclaimed water – wastewater that has been treated and reused beneficially. The District is a national leader in the use of reclaimed water. We beneficially reuse 52 percent of our wastewater, compared to only seven percent nationally. Our goal is to reach 75 percent beneficial reuse. Through our conservation, reuse efforts and the development of alternative water sources, we have been able to reduce not only groundwater pumping but also overall water use, even with our ever-growing population.

Nowhere is this more evident than in the Tampa Bay Region which suffered through decades of water wars resulting in an overreliance of groundwater and negative environmental impacts, such as dried-up lakes and wetlands. Now, through partnerships among the District, Tampa Bay Water, and its member governments, the Tampa Bay region has one of the most diverse, drought-resistant water supplies in the country. The reductions in groundwater pumping have led to environmental recovery for thousands of acres of lakes and wetlands.

Another success is Tampa Bay, one of the few national estuaries in the country that has improved, with seagrasses at levels last seen in the 1950s. While this success results from the diligent efforts of many parties, the District played a critical role through research, stormwater treatment, regulation, and environmental restoration projects.

Message from the Chair

The District has built these successes on the pillars of sound science, adaptive management, and inclusion. Science guides our decision-making processes. We always use the best available information when making decisions, but we also recognize we know more today than we knew five years ago. And we will know more in five years than we know today. We must remain open to new information, to new ideas, to new approaches, and adapt as necessary to achieve the best outcomes. Finally, success comes down to people, including the incredibly talented staff I have had the pleasure to work with at the District, and how well our staff and the Governing Board collaborate with our stakeholders. The greatest successes are those partnerships where we work together toward shared interests while respecting different perspectives.

Developing alternative water sources, restoring the environment, and building flood protection infrastructure does not come cheaply. The District’s ability to fund these projects and many others is due to our fiscal stewardship of taxpayer dollars. The District continually looks for means of reducing costs, improving effectiveness, and maximizing taxpayer investment in our mission. We continue to utilize developing technology to obtain and deliver better value to our residents by increasing efficiencies in all areas. Our ultimate stakeholders are the taxpayers. They deserve to know their taxes are used wisely to maximize the public benefit.

Being selected by the Governor to serve on the District Governing Board was an honor, and I am humbled to be chosen by my peers as Chair. I am confident that working together – Board, staff, stakeholders – we can meet any challenges life throws our way. This Strategic Plan helps point the way.



Kelly S. Rice
Governing Board Chair

Governing Board

The Governing Board establishes policies for the District. Board members are unpaid citizen volunteers appointed by the Governor and confirmed by the Florida Senate.



Kelly S. Rice
Chair
Citrus, Lake, Levy,
Sumter



Joel Schleicher
Vice Chair
Charlotte, Sarasota



Rebecca Smith
Secretary
Hillsborough, Pinellas



James G. Murphy
Treasurer
Polk



Ed Armstrong
Pinellas



Ashley Bell Barnett
Polk



Jack Bispham
Manatee



Roger Germann
Hillsborough



John Mitten
Hernando, Marion



Seth Weightman
Pasco



Michelle Williamson
Hillsborough

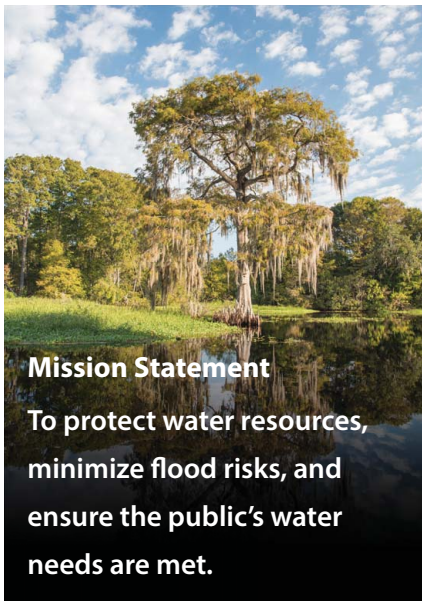
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Overview

The Southwest Florida Water Management District (District) is a science-based organization responsible for managing and protecting water resources in west-central Florida. The District's job is to ensure there are adequate water supplies to meet the needs of current and future users while protecting and restoring water and related natural resources. (See Mission Statement.)

The District encompasses all or part of 16 counties, from Levy County in the north to Charlotte County in the south. It extends from the Gulf of Mexico east to the highlands of central Florida. The District contains 97 local governments spread over approximately 10,000 square miles, with a total population estimated to be 5.4 million in 2020. For planning purposes, the District is divided into four regions: Northern, Tampa Bay, Heartland and Southern. (See District Planning Regions map.)



Mission Statement

To protect water resources, minimize flood risks, and ensure the public's water needs are met.

GOVERNING BOARD

A 13-member Governing Board establishes policies and sets the budget for the District. Appointed by the Governor and confirmed by the Senate, Governing Board members are unpaid volunteers representing varied backgrounds and interests. Board members, who must live in the District, serve four-year terms.

BUDGET

The District's primary funding source is ad valorem taxes, although revenues are also derived from state and federal appropriations, permit fees, interest earnings and other sources. The taxing capabilities of the District are established by the Legislature within the limits set by the Florida Constitution. The limit for the District is one mill, or one dollar per thousand dollars of assessed value. The Governing Board millage rate for fiscal year 2020-2021 is 0.2669 mill. More information about budgeting is included in this document's Core Business Processes section.

CORE MISSION

Florida Statutes, primarily Chapter 373, authorize the District to direct a range of initiatives, programs and actions. These responsibilities can be grouped under four general areas, which form the District's core mission: water supply, water quality, natural systems and flood protection. The District has established a goal for each of these areas of responsibility:

Water Supply Goal: Ensure an adequate supply of water to provide for all existing and future reasonable and beneficial uses while protecting and maintaining water resources and related natural systems.

Water Quality Goal: Protect and improve water quality to sustain the water resources, environment, economy and quality of life.

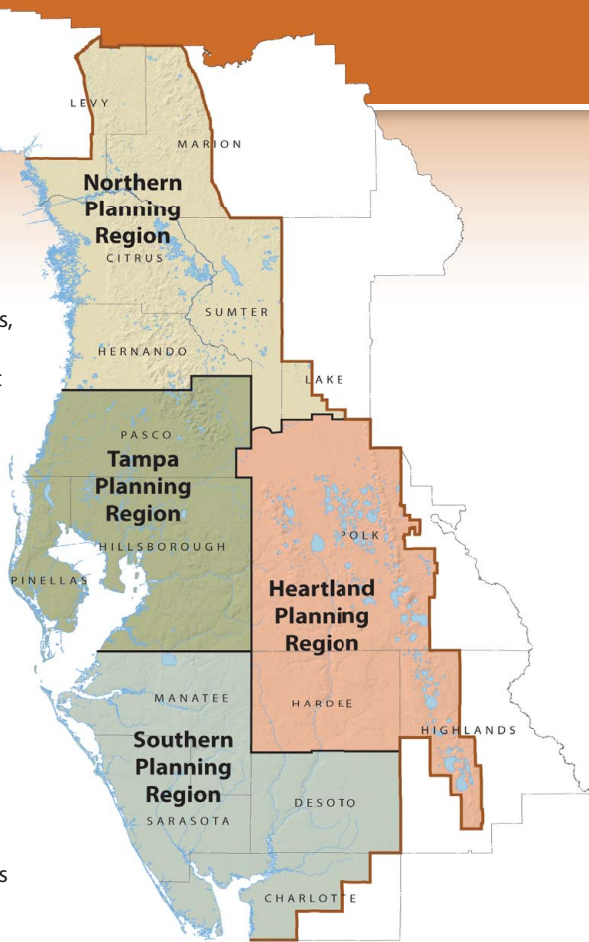
Natural Systems Goal: Preserve, protect and restore natural systems to support their natural hydrologic and ecologic functions.

Flood Protection Goal: Minimize flood damage to protect people, property, infrastructure and investment.

STRATEGIC INITIATIVES

The District is implementing a wide array of programs and projects to meet these four goals. These activities are grouped under 11 Strategic Initiatives:

- Regional Water Supply Planning
- Alternative Water Supplies
- Reclaimed Water
- Conservation
- Water Quality Assessment and Planning
- Water Quality Maintenance and Improvement
- Minimum Flows and Levels (MFLs) Establishment and Monitoring
- Conservation and Restoration



- Floodplain Management
- Flood Protection Maintenance and Improvement
- Emergency Flood Response

REGIONAL PRIORITIES

While the Strategic Initiatives identify activities implemented throughout the District, the water resource needs vary from one planning region to another. The top water resource priorities for each region, along with measurable objectives, are identified in the Regional Priorities section of this document.

CORE BUSINESS PROCESSES

In addition to adhering to its adopted values, the District must excel in seven core business processes to successfully achieve its Strategic Initiatives:

- Water Resources Planning
- Innovative Projects
- Financial Sustainability
- Regulation
- Land Management and Structure Operations
- Knowledge Management
- Engagement

Strategic Initiatives

Water Supply

1. Regional Water Supply Planning

Goal Statement: Identify, communicate and promote consensus on the strategies and resources necessary to meet future reasonable and beneficial water supply needs.

The District's regional water supply planning effort provides the framework for future water supply management decisions within the District and is a statutory requirement where current water sources are not adequate to supply existing and future uses while sustaining natural resources (F.S., 373.709(1)). This is a collaborative, transparent effort involving local governments, utilities, the agricultural community, business representatives, environmental organizations and other stakeholders.

STRATEGIES

- Develop accurate and reliable demand projections
- Identify sufficient regional water supply sources to meet projected demands
- Encourage the development and use of regional water supply authorities to plan and coordinate water supply solutions
- Incorporate adaptive management processes in water supply planning
- Coordinate with other water management districts on water supply and regulation approaches
- Proactively coordinate with water supply utilities
- Demonstrate the District's financial commitment to assist in the development of regional water supply needs

2. Alternative Water Supplies

Goal Statement: Increase development of alternative sources of water to ensure groundwater and surface water sustainability.

Alternative water supply (AWS) refers to any nontraditional source of water that reduces the region's dependency on fresh groundwater. From 1990 through September 2019, the District has helped to develop approximately 371 million gallons daily (mgd) of alternative water supplies, including reuse and conservation benefits and new potable water sources.

STRATEGIES

- Develop alternative water supply sources that include surface water capture, desalination and brackish groundwater systems
- Continue to promote partnerships with agriculture through District programs such as the Facilitating Agricultural Resource Management Systems (FARMS) Program
- Partner with regional entities to provide alternative water supplies
- Continue to leverage District funds to facilitate the development of alternative water supplies
- Continue to support research and development of aquifer storage and recovery technology
- Promote conjunctive use of surface and groundwater resources through regulation and funding incentives



Punta Gorda Water Treatment Facility.

3. Reclaimed Water

Goal Statement: Maximize beneficial use of reclaimed water to offset potable water supplies and restore water levels and natural systems.

Reclaimed water is wastewater that has received at least secondary treatment and disinfection and is used for a beneficial purpose, such as irrigation, manufacturing processes or power generation. By offsetting demand for groundwater and surface water, this alternative water supply reduces stress on environmental systems, provides economic benefits by

delaying costly water system expansions and reduces the need to discharge wastewater effluent to surface waters. More than 189 mgd of reclaimed water is being beneficially reused in the District, accounting for more than 16 percent of overall water use. In addition, the District's Governing Board recently identified potable reuse as a priority for the District to achieve its goal of 75 percent reuse of available wastewater by 2040.

STRATEGIES

- Increase availability by increasing storage capacity
- Increase availability by promoting interconnects between reclaimed water utilities
- Leverage District funds to maximize efficient and beneficial use of reclaimed water
- Improve efficiency through measures such as metering and volume-based pricing
- Continue to support reclaimed water research, monitoring and public education
- Partner with cooperators for the development of potable reuse projects, with priority for regional entities
- Promote the beneficial use of reclaimed water and the offset of traditional water supplies through the existing regulatory framework
- Promote the use of reclaimed water for potable recharge and environmental enhancement projects

4. Conservation

Goal Statement: Enhance efficiencies in all water-use sectors to ensure beneficial use.

Conservation is achieved through education, financial incentives and various regulatory and non-regulatory programs. Per capita water usage in the District has regularly ranked as the lowest in the state.

STRATEGIES

- Promote water conservation through public engagement programs
- Support research and implementation of conservation techniques and practices
- Promote water-conserving rate structures
- Utilize financial incentives to further encourage effective conservation practices through District programs such as the WISE program
- Utilize regulatory programs to establish effective conservation practices
- Continue to promote partnerships with agriculture through District programs such as the FARMS Program

Strategic Initiatives

Water Quality

1. Assessment and Planning

Goal Statement: Collect and analyze data to determine local and regional water quality status and trends to support resource management decisions and restoration initiatives.

Those who manage Florida's water resources must have access to accurate and timely data. Good decisions require reliable information.

STRATEGIES

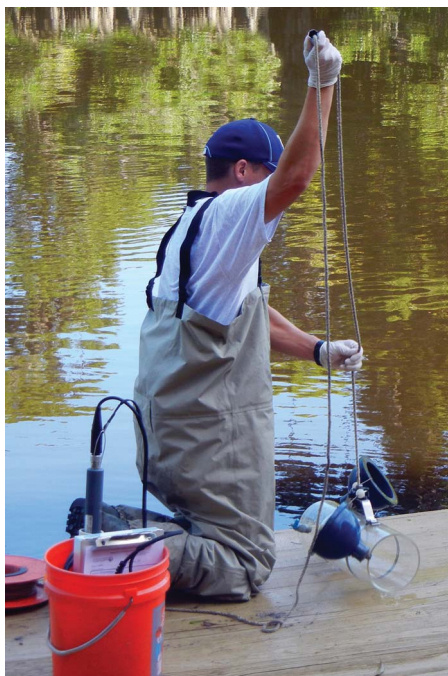
- Continue to develop and maintain long-term water quality monitoring networks to collect, analyze and distribute accurate water quality information
 - Coastal Groundwater Quality and Water Use Permit Monitoring Networks
 - Springs and Aquifer Nutrient Monitoring Networks
 - Surface Water Quality Monitoring Networks
- Continue to support the District's internal data governance process
- Continue to promote partnerships through District water quality programs

2. Maintenance and Improvement

Goal Statement: Develop and implement programs, projects and regulations to maintain and improve water quality.

The District develops and implements projects, programs and regulations to maintain and improve water quality consistent with the Governor's Executive Order 19-12, which instructs the water management districts to review budgets and prioritize

available funding to focus on projects that will help address harmful algal blooms and maximize nutrient reductions. Examples of these efforts include partnerships for best management practices (BMPs) implementation such as the FARMS Program, focused on the agriculture community, and the Watershed Management Program (WMP), addressing watershed improvements; and the Surface Water Improvement and Management (SWIM) and Springs initiatives programs that implement nutrient removal and other water quality improvement projects.

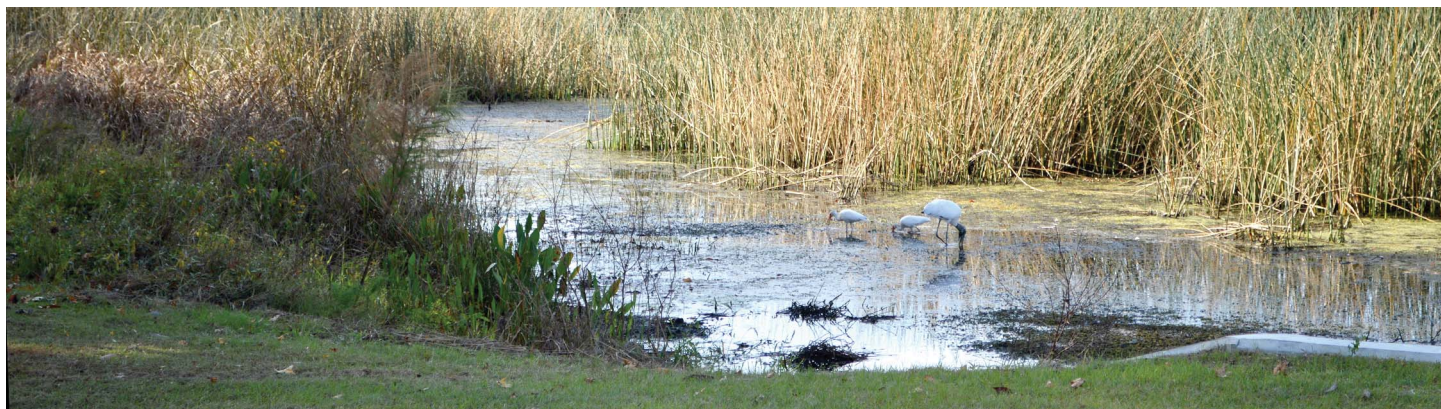


Water quality testing on the Hillsborough River.

The District also acquires and manages land for water resources conservation/protection purposes through its land resources program and regulates stormwater management through the environmental resource permitting process. Additionally, data and information are shared with counties, cities and the state for projects to improve water quality.

STRATEGIES

- Use cooperative funding to support local government efforts to improve District priority water bodies
- Continue to support, review and track Florida Department of Environmental Protection (DEP) Total Maximum Daily Load (TMDL) and Basin Management Action Plans (BMAP) processes for District priority water bodies
- Promote Florida-Friendly Landscaping™ principles and other behaviors that protect water quality
- Participate in the development and implementation of the statewide stormwater management criteria to enhance an active environmental resource permitting (ERP) program
- Use regulatory programs to promote water quality protection and improvement
- Continue to promote partnerships through District water quality programs such as the SWIM and FARMS programs
- Support cooperative funding and implementation of prioritized septic and package plant retrofit projects within the Northern region to reduce nutrient concentrations in springs priority focus areas



Three Sisters Springs Wetland Treatment Project in Crystal River.

Strategic Initiatives

Natural Systems

1. Minimum Flows and Levels (MFLs) Establishment and Monitoring

Goal Statement: Establish and monitor MFLs, and where necessary, develop and implement recovery/prevention strategies to recover water bodies and prevent significant harm.

Minimum flows and levels for aquifers, surface watercourses, and other surface water bodies identify the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area. Rivers, streams and springs require minimum flows, while minimum levels are set for lakes, wetlands and aquifers. Minimum flows and levels are used for permitting or planning decisions concerning how much water may be safely withdrawn from or near a water body.

Through fiscal year 2020, the District has set 205 MFLs on rivers, lakes, wetlands, springs and aquifers. The District's process for establishing MFLs includes an annual update of water bodies prioritized for MFLs development, extensive data collection, analysis and reporting, public review, independent scientific peer review and rule adoption. The District routinely assesses potential water supply/resource concerns and evaluates water use permit applications to ensure violations of established MFLs do not occur. In addition, water bodies with established MFLs are monitored and assessed annually to determine the need for recovery or implementation of strategies to prevent flows or levels from falling below established MFLs.

As of 2019, nearly 90 percent of the established MFLs were being met. To address priority water bodies where MFLs have not been met, the District is implementing three regional recovery strategies associated with Water Use Caution Areas (Northern Tampa Bay, Southern and Dover/Plant City) and two water body-specific plans (for the lower Hillsborough and lower Alafia rivers), and included these strategies in its regional water supply planning process.

STRATEGIES

- Update the MFLs priority list and schedule annually
- Establish MFLs through:
 - Data collection
 - Data analysis and reporting



The District's P-11 Water Conservation Structure on Lake Hancock in Polk County.

- Independent scientific peer review and public review
- Board approval and rule adoption
- Continue to incorporate MFLs in District water use permit application review processes and compliance monitoring
- Monitor and report hydrologic conditions to support status assessments for water bodies with established MFLs
- Continue to review and refine scientific methods used for establishing MFLs
- Develop, adopt and implement MFL recovery and prevention strategies
- Incorporate MFLs recovery and prevention strategies into the Regional Water Supply Plan (RWSP) development process

2. Conservation and Restoration

Goal Statement: Restoration and management of natural ecosystems for the benefit of water and water-related resources.

The Conservation and Restoration Strategic Initiative preserves, protects and restores natural systems to support natural hydrologic and ecologic functions. The major components of this initiative include land acquisition and management, ecosystem monitoring and restoration, education and regulation. To date, 42,318 acres of habitat have been restored through District programs and partnerships with state and local governments.

Acquisition and management of land are critical to the District's conservation and restoration objectives. Once acquired, altered

land is restored, if necessary, and managed to maintain ecological and hydrological functions. The District monitors its lands to ensure continued compliance with its mission and initiatives.

Restoration initiatives, such as the SWIM Program, are overseen by the District to restore natural systems associated with priority water bodies.

The District also regularly tracks land and water resource alterations through its aerial land use/land cover, wetland and seagrass mapping efforts. Through reviews such as local government plan amendments and large-scale development proposals, Florida Coastal Management applications and related activities, staff can offer feedback to better link land and water resources. In addition, the District's ERP program helps protect water resources.

STRATEGIES

- Evaluate acquisition opportunities, placing priority on water resource benefits by contributing to water resource projects, additions linking conservation areas, management efficiencies such as inholdings and leveraging partnership dollars
- Promote innovative restoration projects and partnerships
- Regulate to avoid impacts or minimize and mitigate unavoidable impacts
- Partner to continue wetland, lake and river monitoring and analysis
- Provide technical assistance to state, regional and local governments for linking land and water
- Use management tools to enhance maintenance of conservation lands

Strategic Initiatives

Flood Protection

1. Floodplain Management

Goal Statement: Collect and analyze data to determine local and regional floodplain information, flood protection status and trends to support floodplain management decisions and initiatives.

The District's Watershed Management Program (WMP) identifies, prioritizes and addresses flood-related water resource issues within a watershed. Information developed through the WMP is used by local governments, the District and state and federal governments in regulatory and advisory floodplain management programs.

STRATEGIES

- Implement the WMP, collect and analyze data and develop and distribute accurate floodplain information
- Continue to promote partnerships at the local, state and federal level
- Increase public awareness of floodplains and flood risk
- Provide system-based data to support the operation of District flood control and water conservation structures
- Document levels after flood events to ensure up-to-date modeling and historic records

2. Maintenance and Improvement

Goal Statement: Develop and implement programs, projects and regulations to maintain and improve flood protection, and operate District flood control and conservation structures to minimize flood damage while preserving the water resource.

The District's ERP program uses WMP information and regulations to protect floodplain and historic basin storage and ensure that new development does not increase flood levels or the rate of stormwater runoff onto neighboring properties.

Strategic property acquisition allows land to fulfill natural functions of storing and accommodating excess water and reduces the risk of flood damage by preserving floodplains. The District also maintains and operates four major canal and conveyance systems and 86 flood control and water conservation structures as an important flood protection strategy. Extensive areas of the District depend upon the maintenance and operation of these facilities.

The District's WMP identifies flood risk and efficient alternatives to reduce the risk of flood damages. The District's Cooperative Funding Initiative (CFI) encourages implementation of selected intermediate and regional system improvement projects to reduce flood risk and to maximize opportunities to provide water quality improvements. Implementation of local system improvements is primarily the responsibility of the local government.

STRATEGIES

- Implement the ERP program using WMP floodplain information to maintain current levels of flood protection
- Identify floodplain management and flood protection value associated with land acquisition opportunities
- Use cooperative funding to support local government efforts to reduce the risk of flood damages by improving intermediate and regional flood protection systems
- Operate and maintain District flood control and water conservation structures and associated facilities
- Develop and implement a capital improvement plan for District flood control and water conservation structures and associated facilities

3. Emergency Flood Response

Goal Statement: Provide effective and efficient assistance to state and local governments and the public to minimize flood damage during and after major storm events, including operation of District flood control and water conservation structures.

Through its emergency flood response initiative, the District prepares for, responds to, recovers from and mitigates the impacts of critical flooding incidents. To ensure adequate preparation, the District has developed an emergency operations program and maintains a Comprehensive Emergency Management Plan (CEMP), which provides guidelines for pre-incident preparation, post-incident response and recovery, deployment and annual exercises. The District's Emergency Operations Center (EOC) and Emergency Operations Organization (EOO) are critical to incident response.

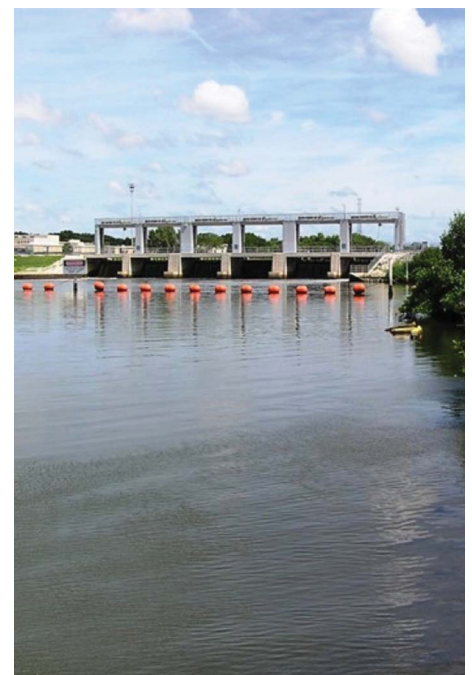
All water management districts are members of the State Emergency Response Team and serve as support agencies to the state. The

District provides emergency assistance to local governments and the public. District regulatory flood investigation teams assist local governments with emergency construction authorizations and help to determine and implement solutions to flooding problems for major conveyance systems.

The enhancement and modernization of District water management facilities includes the automation and upgrading of mission-critical water conservation and flood control structures with remote operation and equipping structures with digital video monitoring.

STRATEGIES

- Continue to promote an effective and efficient incident management system
- Establish redundant control systems for all mission-critical infrastructure
- Use technology to the fullest extent to ensure optimal response capabilities
- Train staff in National Incident Management System (NIMS)/Incident Command System (ICS) structure
- Exercise the District's CEMP, high hazard structure Emergency Action Plans and Flood Event Guidelines
- Provide emergency assistance to local governments and agencies



The District's S-160 Structure on the Tampa Bypass Canal in Hillsborough County.

Regional Priorities and Objectives

Northern Region — Springs

PRIORITY:

Improve Chassahowitzka River, Crystal River/Kings Bay, Homosassa River, Rainbow River and Weeki Wachee River and associated springs

OBJECTIVES:

- Implement water quality and natural systems projects identified in the SWIM plans for the five first-magnitude spring systems
- Assist with septic to sewer conversions and package plant retrofits within the five first-magnitude spring priority focus areas
- Monitor status and trends associated with targets in each SWIM plan to assess the ecological health of the spring systems
- Continue support of the Springs Coast Steering Committee (SCSC)
- Implement MFLs to protect spring flow through monitoring and reporting hydrologic conditions and consideration in water use permit review and water supply planning

NARRATIVE:

The water resources in the District include more than 150 documented springs, and the rivers, bays, and estuaries that are fed by them. The five largest spring groups within the District are concentrated in the Northern region along the Springs Coast. These five first-magnitude (flow rates of 100 cubic feet per second or greater) spring groups form the headwaters of the Chassahowitzka River, Crystal River/Kings Bay, Homosassa River, Rainbow River and Weeki Wachee River. All five systems are listed as a District SWIM priority water body, and by the state as Outstanding Florida Waterways and Outstanding Florida Springs. In addition, the District has established MFLs to help protect each of these systems.

The Crystal River/Kings Bay, Homosassa River, Chassahowitzka River and Weeki Wachee River flow into the Gulf of Mexico, which contains one of the largest seagrass habitats in the world. Along with seagrass, the nearshore coastal waters of the Springs Coast include many species of attached algae, sponges, corals and hard bottom habitat supporting numerous ecologically and economically important species such as bay scallop, grouper, tarpon and manatee.

The rivers, bays and springs have experienced ecological changes caused by both natural and human impacts. Issues facing these coastal resources include sea-level rise, reduced water clarity, changes in the aquatic vegetation and nutrient enrichment. Spring flow is highly dependent upon seasonal rainfall patterns. The District has established, and continues to evaluate minimum flows on first-magnitude springs to prevent significant harm due to flow reductions associated with groundwater withdrawals.

In 2014, the District together with local, regional and state partners formed the SCSC. The committee's mission is to build consensus and partnerships to improve and manage each of the five first-magnitude spring systems through effective development and implementation of SWIM plans. All first-magnitude spring groups now have approved SWIM plans.

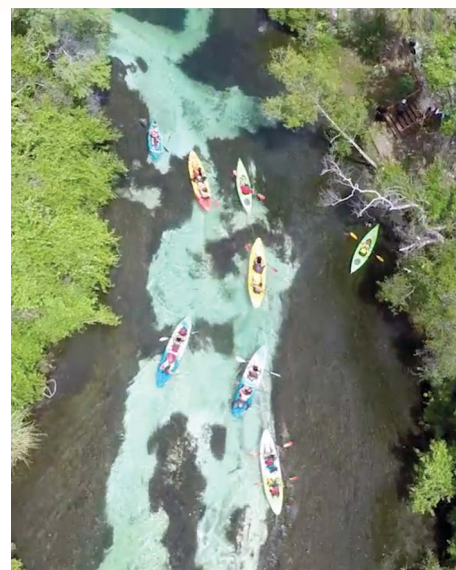
Each SWIM plan is a living document with adaptive management at its core. These plans identify management actions, projects that address the issues facing each system, and specific quantifiable objectives to assess overall progress and help guide the SCSC. In the August 2017 workshop, the District's Governing Board prioritized combining District funds with state and local funds for projects that would connect domestic septic systems to central sewer to benefit springs. The Board also identified the need to protect the District's investment by ensuring controls are in place to prevent additional pollution from new septic systems.

In addition to the management plan development and implementation, the FARMS Program continues to work with agricultural producers to implement BMPs to reduce groundwater use and nutrient loading in springsheds.

Quantifiable objectives are established for each first-magnitude spring system for the following surface water quality and biological indicators.

Chassahowitzka River Spring Group

- Water clarity
- Nitrate concentration
- Minimum flows
- Coverage of desirable submerged aquatic vegetation
- Coverage of invasive aquatic vegetation



Weeki Wachee River in Hernando County.

Crystal River/Kings Bay Spring Group

- Water clarity
- Nitrate concentration
- Phosphorus
- Chlorophyll
- Minimum flows
- Coverage of desirable submerged aquatic vegetation and shoreline
- Coverage of invasive aquatic vegetation
- No net loss of shoreline in natural condition
- Enhancement of disturbed shoreline

Homosassa River Spring Group

- Water clarity
- Nitrate concentration
- Minimum flows
- Coverage of desirable benthic habitat
- Coverage of invasive aquatic vegetation
- No net loss of shoreline in natural condition

Rainbow River Spring Group

- Water clarity
- Nitrate concentration
- Minimum flows
- Coverage of desirable submerged aquatic vegetation
- Coverage of invasive aquatic vegetation

Weeki Wachee River Spring Group

- Water clarity
- Nitrate concentration
- Minimum flows
- Coverage of desirable submerged aquatic vegetation
- Coverage of invasive aquatic vegetation

Regional Priorities and Objectives

Northern Region — Water Supply

PRIORITY:

Ensure long-term sustainable water supply

OBJECTIVES:

- Increase conservation
 - Achieve and maintain 150-gallon daily compliance per capita with all public supply utilities
 - Achieve and maintain a reduction in 2011-2015 regional average unadjusted gross per capita (156 gpcd) water use by 5.4 percent to 148 gpcd by 2025. This represents a savings of 4.35 mgd.
 - Achieve 75 percent utilization of all wastewater flows and a 75 percent resource benefit by 2040. As part of this effort, assist in the implementation of potable reuse (As of 2019, the Northern region had 20.7 mgd of wastewater flow and 13.5 mgd of reuse for a utilization rate of 65 percent.)
 - Improve the quality of water delivered to rapid infiltration basins (RIBs) in springsheds
- Increase the use of reclaimed water for potable, recharge and environmental enhancement projects.
- Continue to partner with the Withlacoochee Regional Water Supply Authority to promote regional water supply planning and development

NARRATIVE:

The District's 2020 Regional Water Supply Plan shows that demand for water in the Northern region through 2040 and beyond could be met with fresh groundwater if the region's considerable potential for reuse and conservation is realized.

Public supply use, which accounts for about 50 percent of the water use in the Northern region, has significant potential for water savings. In 2019, there were four utilities in the Northern region with compliance per capita figures higher than 150 gpcd. The District's goals are to ensure that all utilities fall below the maximum compliance per capita usage and to further reduce the regional average per capita in accordance with the RWSP. The District's plan to assist public supply utilities

is to minimize the need for additional groundwater supplies by maximizing the use of available reclaimed water and implementing comprehensive water conservation measures and best management practices.

The District promotes regional approaches to water supply planning and development. The benefits of regional systems include economies of scale, better ability to manage environmental impacts, improved system reliability, operational flexibility and emergency backup capability. Larger regional systems are also able to take advantage of conjunctive use, wherein both groundwater and alternative sources are available and can be managed to mimic natural hydrologic cycles.

In the Northern region, the District is partnering with the Withlacoochee Regional Water Supply Authority to promote regional water supply planning and development. This

most recently includes cooperatively funding regional water conservation efforts and an update to the Authority's Master Water Supply Plan.



Construction site with reuse pipes.

Regional Priorities and Objectives

Tampa Bay Region — MFLs Recovery

PRIORITY:

Implement MFLs Recovery Strategies

OBJECTIVES:

- Northern Tampa Bay Water Use Caution Area (NTBWUCA) Recovery Strategy
 - Recover MFLs for rivers, lakes and wetlands
 - Complete the final five-year evaluation of results achieved from implementation of the MFLs recovery strategy adopted for the lower Hillsborough River
 - Achieve 75 percent utilization of all wastewater flows and a 75 percent resource benefit by 2040. As part of this effort, assist in the implementation of potable reuse (As of 2019, the Tampa Bay Region had 242.1 mgd of wastewater flow and 109.5 mgd of reuse for a utilization rate of 45 percent)
 - Increase the use of reclaimed water for potable, recharge and environmental enhancement
 - Achieve and maintain a reduction in 2011-2015 regional average unadjusted gross per capita (94 gpcd) water use by 5.3 percent to 89 gpcd by 2025. This represents savings of 16.25 mgd.
 - Assist Tampa Bay Water in the development of 20 mgd of alternative supply sources, and 11 mgd of water conservation savings
- Dover/Plant City Water Use Caution Area (DPCWUCA) Recovery Strategy
 - Support compliance with the DPCWUCA area minimum aquifer for the Upper Floridan aquifer through reductions in groundwater withdrawal quantities for frost/freeze protection and establishment of automatic flow meter reporting equipment on agricultural withdrawal points
 - Reassess the DPCWUCA Recovery Strategy, as necessary
- Southern Water Use Caution Area (SWUCA) Recovery Strategy
 - Achieve 40 mgd offset in groundwater withdrawals in the SWUCA by 2025.

- Achieve the SWUCA saltwater intrusion minimum aquifer level for the Upper Floridan aquifer to slow the rate of saltwater intrusion in the Most Impacted Area (MIA)
- Ensure that there are sufficient water supplies for all existing and projected reasonable-beneficial uses

NARRATIVE:

The District sets MFLs on priority water bodies. An MFL is the limit at which further withdrawals would be significantly harmful to the water resources or ecology of the area. If the existing flow or level of a water body is below, or is projected to fall below, the applicable minimum flow or level within 20 years, a recovery or prevention strategy must be implemented.

Additionally, the District can designate a water use caution area (WUCA) when the Governing Board determines that regional action is necessary to address cumulative water withdrawals which are causing or may cause adverse impacts to the water and related natural resources or the public interest. WUCA rules enhance the protection and recovery of the water resources.

As of 2019, the District has adopted MFLs for 124 priority water bodies in the NTBWUCA and nearly 97 percent of these MFLs are being met. In the Tampa Bay region, the District has identified recovery strategies associated with MFLs in the Northern Tampa Bay, Dover/Plant City and Southern WUCAs.

The **NTBWUCA** was established to address adverse impacts to water resources from groundwater pumping and surface water withdrawals. The NTBWUCA encompasses all of Pinellas and Pasco counties, and those portions of Hillsborough County north of Highway 60. The first phase of

the District's recovery strategy for restoring water resources within the NTBWUCA called for reduced pumping from Tampa Bay Water's regional wellfields and providing financial incentives for construction of alternative water supply projects. To date, these efforts have produced more than 140 mgd of new alternative water sources and allowed for groundwater withdrawals to be reduced by more than 60 mgd.

Significant hydrologic recovery has resulted from these reductions. In 2010, the District determined that more information was needed to fully evaluate the effects of the reductions on MFLs recovery. Since that time, the District initiated a second phase of the NTBWUCA recovery strategy through adoption of a comprehensive plan that includes continued monitoring and evaluation of environmental mitigation for withdrawal impacts and continued water conservation activities by Tampa Bay Water's member governments. Draft results of the recovery assessment required by the plan were submitted to the District in 2018, with the final assessment to be completed in 2020. Tampa Bay Water's Consolidated Permit renewal in 2021 will be based on these results.



Regional Priorities and Objectives

Tampa Bay Region — MFLs Recovery

The Hillsborough River is one of the water resources impacted in the NTBWUCA. The recovery strategy for the lower Hillsborough River calls for the augmentation of the river with water from a variety of sources, including Sulphur Springs, Blue Sink, Morris Bridge Sink and the Tampa Bypass Canal. As summarized in the second required five-year assessment of recovery in the lower Hillsborough River, since 2007, up to 11 cubic feet per second (cfs) of water was diverted from the Tampa Bypass Canal to the Hillsborough River Reservoir and 75 percent of this volume to the lower river, below the City of Tampa dam when necessary. To further support recovery of the lower river, the City of Tampa has been supplying up to 18 cfs of flow from Sulphur Springs and up to 3 cfs from Blue Sink to the base of the dam through implementation of projects cooperatively completed with the District. An annual update on the status of the Hillsborough River Recovery Strategy is provided to the Governing Board. To date, two comprehensive five-year assessments have been completed and a third and final five-year assessment is to be completed in 2023.

The District has adopted one MFL in the **DPCWUCA**. As of 2019, the DPCWUCA area minimum aquifer level of 10 feet above the National Geodetic Vertical Datum of 1929 (NGVD 1929) for the Upper Floridan aquifer at the District's DV-1 Suwannee monitor well is being met. The DPCWUCA was established to address impacts from groundwater pumping for frost/freeze protection. To protect crops from freeze events, common management practice for many farmers with agricultural commodities, including strawberries, blueberries, citrus and nurseries, involves pumping groundwater for freeze protection when air temperatures drop to near freezing. Substantial groundwater use during these times lowers groundwater levels and can impact residential wells and contribute to sinkhole development. During the historic 11-day freeze event, in January 2010, numerous residential wells in the Dover/Plant City area were impacted, and sinkholes were reported. As a result, the District developed and adopted a comprehensive management plan to significantly reduce and, in real-time, monitor groundwater pumping during future freeze events that may cause impacts to existing legal users.

The recovery strategy's objective is, by 2020, to reduce the groundwater withdrawal quantities used for frost/freeze protection in January 2010 by 20 percent. This reduction is intended to lessen the potential that drawdown during a future frost/freeze event would lower the aquifer level at District Well DV-1 Suwannee below the established MFL. Non-regulatory mechanisms include assistance in offsetting groundwater withdrawals for frost/freeze protection through FARMS. Tailwater recovery, chemical protectants, row covers, and wind machines are examples of BMPs eligible for cost-share within the program.

The strategy's regulatory measures address groundwater withdrawal impacts, alternative water supplies, frost/freeze protection methods and resource recovery. In combination, these rules along with the non-regulatory mechanisms are intended to result in recovery of the minimum aquifer level.

The preliminary comprehensive assessment for 2020 indicates that the minimum aquifer level is being met. However, the recovery strategy requirement of 20 percent reduction in groundwater withdrawal quantities used for frost/freeze protection has not been met. In 2021, the District will complete the comprehensive assessment and reassess the recovery strategy.

The **SWUCA** encompasses southern Hillsborough County. In the eight-county SWUCA, an area covering approximately 5,100 square miles, depressed aquifer levels have caused saltwater intrusion along the coast, contributed to reduced flows in the upper Peace River and lowered lake levels in areas of Polk and Highlands counties.

Groundwater withdrawals were identified as the primary cause of the depressed aquifer levels throughout the groundwater basin, with drawdowns in some areas exceeding 50 feet.

As of 2019, the District has adopted MFLs for 45 priority water bodies in the SWUCA and approximately half of these MFLs are not being met. The District adopted the SWUCA Recovery Strategy to recover flows and levels to established MFLs. The major goals for the recovery strategy are reducing the rate of saltwater intrusion in the MIA, restoring minimum flows in the upper Peace River, and restoring minimum levels to the priority lakes in the Ridge area, which extends roughly 90

miles along the center of the state in Polk and Highlands counties.

The District is helping to fund the Hillsborough County SHARP project to expand the use of reclaimed water to recharge nonpotable portions of the Upper Floridan aquifer to improve aquifer water levels in the MIA of the SWUCA and to slow the rate of saltwater intrusion.

Primary elements of the SWUCA Recovery Strategy for this region include:

- Updating the Regional Water Supply Plan to identify how to address increasing water needs while minimizing impacts to the water resources and related natural systems. The District approved a plan update in 2020 and will update it again in 2025.
- Providing financial incentives for conservation, creation of alternative supplies and regional interconnections.
- Monitoring and reporting.



Weather station in Hillsborough County.

Regional Priorities and Objectives

Tampa Bay Region — Improve Water Bodies

PRIORITY:

Improve Tampa Bay and lakes Seminole, Tarpon and Thonotosassa

OBJECTIVES:

- Develop and implement natural system projects that restore critical shoreline, coastal uplands and intertidal systems and freshwater wetlands
- Develop and implement water quality projects to reduce nutrient loading
- Initiate updates to the Tampa Bay, Lake Tarpon and Lake Thonotosassa SWIM plans

NARRATIVE:

Tampa Bay is designated as an “Estuary of National Significance” and a District SWIM priority water body. The 373-square-mile bay is Florida’s largest open-water estuary. Its 2,200-square-mile watershed contains more than two million residents.

Three main challenges exist in the Tampa Bay watershed. Coastal uplands and wetlands have been altered and lost. Nonnative animal and plant species have spread, and water quality has been degraded from pollutants and nutrient loading.

The District is working with the Tampa Bay Estuary Program (TBEP) and local governments to update the comprehensive conservation and management plan and the Tampa Bay SWIM Plan. These plans will be used to identify water quality and natural systems improvement projects to protect and restore Tampa Bay. Success indicators include coverage of seagrasses identified by the Tampa Bay Estuary Program. The program has met its goal of recovering seagrasses to the acreage observed in the 1950s. In addition, the bay’s nitrogen loading is on the decline, and the District SWIM Program and local cooperators restored 6,637 acres of coastal habitats as of December 2019. The District and its partners have provided water quality projects treating more than 118 square miles of contributing area to Tampa Bay.



Dredging on Lake Seminole in Pinellas County.

Lake Seminole is a 684-acre freshwater lake in west-central Pinellas County that was created in the 1940s by the impoundment of an arm of Long Bayou, a brackish water segment of Boca Ciega Bay. The Lake Seminole watershed encompasses approximately 3,500 acres, of which almost 90 percent is developed. Water quality concerns in Lake Seminole began in the 1960s as urbanization of the watershed increased. Conditions in the lake worsened in the 1980s and 90s.

Lake Seminole was included in the DEP’s draft verified list in 2006 for nutrients and trophic state index. The primary pollutants associated with this impairment are nutrients, which have resulted in hyper-eutrophic conditions and poor water quality. Due to its impaired status, Pinellas County developed a Reasonable Assurance (RA) Plan in 2007 which was submitted to DEP. This RA Plan established the trophic state index and chlorophyll-a as the success indicators for Lake Seminole. Control

of excessive nutrients entering the lake and the fate of the nutrients that do reach the lake (e.g., internal nutrient recycling) would help in achieving the targets, which is consistent with implementation of the Lake Seminole Watershed Management Plan. In 2004, Pinellas County adopted the Lake Seminole Watershed Management Plan to identify and implement projects to reduce nutrient concentrations in the lake and to meet targeted water quality goals.

These projects included retrofitting stormwater outflows from five of the highest nutrient loading sub-basins, which were completed, and removing nutrient rich sediments from the lake. In 2017, the Pinellas County Board of County Commissioners approved funding, matched with District funding, to dredge nutrient-rich sediments from the lake. Dredging of the nutrient-rich organic sediment is completed and the project is currently in the close-out phase.



Lake Seminole dredge material management area.

Regional Priorities and Objectives

Tampa Bay Region — Improve Water Bodies

Lake Tarpon is a 2,532-acre lake, making it the largest freshwater lake in the Tampa Bay area. The lake is designated as an Outstanding Florida Water, a fish management area and a District SWIM priority water body. Overall, Lake Tarpon can be described as a water body with excellent sport fishing and healthy submerged aquatic vegetation (SAV) habitat.

Despite its healthy status, the lake is currently listed by DEP as being impaired for chlorophyll-a (a measure of phytoplankton abundance) based on exceedance of the state's Numeric Nutrient Criteria (NNC). However, the lake is in compliance with water quality standards for both total nitrogen (TN) and total phosphorus (TP), creating a disconnect between chlorophyll-a and nutrient concentrations. In recent years, the Pinellas County and District have co-funded technical projects to examine this disconnect.

The Lake Tarpon Water Quality Management Plan was completed in 2017. One of the many findings of this report was that chlorophyll-a concentrations were a function of residence time and lake levels and not nutrient loading. The report also postulated that the NNC may be overly restrictive, and not locally appropriate, to Lake Tarpon. In 2018, Pinellas County completed a Lake Tarpon Paleolimnological Study to give historical context to the lake's status. That study concluded that relatively high concentrations of chlorophyll-a existed in the lake prior to human impacts and are a result of natural phenomena, not increased nutrient pollution. Based on these studies, it is likely that the NNC for Lake Tarpon should be revised.



The Rock Ponds project involves the restoration of approximately 1,043 acres of various coastal habitats. This project, which is the largest habitat restoration effort for Tampa Bay to date, was completed in cooperation with Hillsborough County.

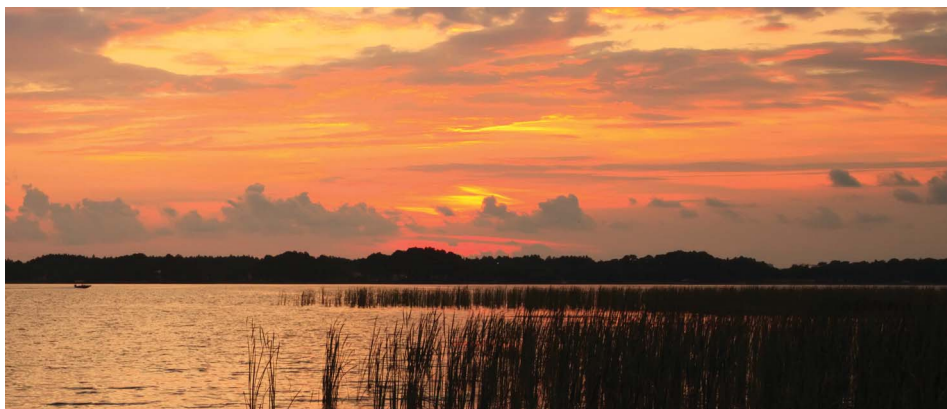
The findings of these projects will be incorporated into the next SWIM Plan update, which began in 2020. The first Lake Tarpon SWIM Plan technical stakeholders meeting was in June 2020. Success indicators included for Lake Tarpon are being revised as part of the SWIM Plan update process.

Lake Thonotosassa, the largest natural lake in Hillsborough County with a surface area of greater than 800 acres, is popular for recreational use as it is one of the few natural lakes in the area with public access. The lake discharges into the Hillsborough River, which is used for the City of Tampa's municipal water supply and the lake is designated as a District SWIM priority water body.

Four main challenges exist in the Lake Thonotosassa watershed. Nutrient loadings

from the watershed have caused extreme nutrient enrichment resulting in algal blooms within the lake. Habitat quality and species diversity have declined. Nonnative plant species are more abundant, while availability of desirable sport fish has decreased.

The District completed a nutrient source tracking project with Hillsborough County to identify nutrient sources in the watershed. Areas with high nutrient loadings were prioritized for projects, such as stormwater improvement projects, maintenance/control of exotic plants, enhancement of wetland and aquatic habitats and public education and awareness of stormwater pollution prevention. As part of this implementation, the District's FARMS and SWIM programs are coordinating with the Florida Department of Agriculture and Consumer Services to work with agriculture operations in the watershed to implement BMPs. During 2018 and 2019, the District participated in DEP's development of a nutrient Total Maximum Daily Load (TMDL) for Lake Thonotosassa, which was adopted by DEP in July 2019.



Lake Tarpon in Pinellas County.

Regional Priorities and Objectives

Tampa Bay Region — Flood Protection

PRIORITY:

Improve flood protection in Anclote, Hillsborough and Pithlachascotee rivers, Lake Tarpon, and Pinellas County coastal watersheds

OBJECTIVES:

- Implement BMPs to reduce the impact of existing intermediate and regional system flooding while maximizing opportunities for improving water quality in priority areas
 - Pithlachascotee River (Pasco County)
 - Anclote River (Pinellas/Pasco counties)
 - Curlew Creek and Smith Bayou (Pinellas County)
 - City of St. Petersburg (Pinellas County)
 - City of Tampa Watersheds (Hillsborough County)
- Develop watershed management plans for priority areas to better support floodplain management decisions and initiatives
 - Curlew Creek and Smith Bayou (Pinellas County)
 - Lake Tarpon (Pinellas County)
 - Anclote River (Pinellas/Pasco counties)
 - Hammock Creek (Pasco County)
 - Lower Peninsula (City of Tampa)
 - City of St. Petersburg (Pinellas County)
 - City of Tarpon Springs (Pinellas County)
 - City of Oldsmar (Pinellas County)
- Update watershed management plans and develop alternative analyses to improve flood protection
 - Hillsborough River/Tampa Bypass Canal (Hillsborough County)
 - Pemberton Creek/Baker Canal (Hillsborough County)
 - Alafia River (Hillsborough County)
 - Stevenson Creek (Pinellas County)
 - City of Seminole (Pinellas County)
 - City of Safety Harbor (Pinellas County)
 - City of Dunedin (Pinellas County)

NARRATIVE:

In recent years, the Tampa Bay region has experienced significant rainfall events resulting in local, intermediate and regional drainage system flooding. In late July and early August of 2015, western portions of Pasco County experienced a 500-year storm event, receiving 12 to 30 inches of rain in

a 20-day period. During this same period, northwest Hillsborough County experienced similar rainfall totals and flooding. In 2016, Hurricane Hermine released 15 inches of rain in Pinellas County and the coastal portions of Pasco County over a four-day period. In September 2017, Hurricane Irma released 8-12 inches of rainfall overnight into the headwaters of the District's river systems. As a result, major rivers reached flood stage, including several in the Tampa Bay region (e.g., Hillsborough River, Anclote River, Cypress Creek). This caused widespread flooding, as some rivers recorded peak levels not surpassed since 1960. Overall, 2018 was a very wet year, with the District averaging more than 60 inches of rain, 7 inches above average. This was the highest annual rainfall received since 2004. These events highlight the importance of watershed management.

The District's WMP identifies, prioritizes and addresses flood-related water resource issues within a watershed. Information developed through the WMP is used by local governments, the District, and state and federal governments in regulatory and advisory floodplain management programs. The District takes a watershed approach to managing water and water-related resources within its boundaries. By doing so, the characteristics of each watershed can be evaluated to reflect the interconnected nature of Florida's water resources. The WMP provides a method to evaluate the capacity of a watershed to protect, enhance and restore water quality and natural systems while achieving flood protection.

The District has been working with cities and counties to develop a list of projects and a plan to implement projects over both the short and long-term. These projects are listed, updated and maintained in the District's WMP Five-Year Plan. District assistance can include co-funding the construction of flood protection projects through the Cooperative Funding Initiative. Currently, the District is helping the City of Tampa to fund two large flood protection projects, the Dale Mabry Henderson Trunk Line and the Cypress Street Outfall projects. Additionally, there are several cooperatively-funded projects under construction in Pinellas, Pasco and Hillsborough counties that will reduce flooding in intermediate and regional stormwater systems.

The District's ERP program protects floodplain and historic basin storage and helps to ensure that new development does not adversely impact neighboring properties. Information developed from the WMP is used by regulatory staff and industry consultants to identify flood-prone areas and to ensure that a proposed project design provides the required level of protection. Coordination among these groups begins during the pre-application process to identify minimum flood protection requirements and continues as needed through the permit application review process. During flood events, District staff coordinate internally with regulatory and operations staff and externally with local governments to investigate flooding complaints and facilitate emergency measures needed to alleviate flood risks that pose an immediate threat to public health and safety.

In the Tampa Bay region, chronic flooding occurs primarily in areas that were developed prior to 1984, when the District's stormwater permitting rules went into effect. District regulatory staff coordinate with the residents and local governments to provide guidance on permitting options for temporary and permanent flood relief measures. Some of these relief options can be co-funded through the District's CFI.



Flooding in Hillsborough County, vicinity of Lake Armistead.

Regional Priorities and Objectives

Heartland Region — SWUCA Recovery

PRIORITY:

Implement SWUCA Recovery Strategy

OBJECTIVES:

- Achieve 40 mgd of offsets in groundwater withdrawals in the SWUCA by 2025
- Achieve the SWUCA saltwater intrusion minimum aquifer level (SWIMAL) for the Upper Floridan aquifer to slow the rate of saltwater intrusion in the MIA
- Assist in recovering the minimum flows for the upper Peace River through implementation of the Lake Hancock Lake Level Modification project
- Recover minimum levels at nine Polk County lakes and nine Highlands County lakes by 2025
- Ensure a sustainable water supply
 - Achieve and maintain daily 150-gallon compliance per capita with all public supply utilities
 - Achieve and maintain a reduction in 2011-2015 regional average unadjusted gross per capita (111 gpcd) water use by 4.3 percent to 106 gpcd by 2025. This represents a water savings of 3.8 mgd.
 - Assist Polk Regional Water Cooperative (PRWC) in the development of 30 mgd of alternative water supply sources and implementation of conservation programs including a demand management plan
 - Increase percentage of total water use supplied by alternative sources
 - Maximize the water conservation potential for the region
 - Maximize interconnects among public supply utilities
 - Complete the Lower Floridan aquifer study in Polk County to assess its viability as an alternative water supply source and to gain a better understanding of the Lower Floridan aquifer characteristics and groundwater quality

- Complete the next updates for the District and Central Florida Water Initiative Regional Water Supply Plans by 2025
- Achieve 75 percent utilization of all wastewater flows and a 75 percent resource benefit by 2040. As part of this effort, assist in the implementation of potable reuse (As of 2019, the Heartland region had 38.3 mgd of wastewater flow and 28.9 mgd of reuse for a utilization rate of 75 percent)

NARRATIVE:

Most of the District's Heartland region falls within the eight-county SWUCA, which encompasses approximately 5,100 square miles. In the SWUCA, depressed aquifer levels have caused saltwater intrusion along the coast, contributed to reduced flows in the upper Peace River and lowered lake levels in areas of Polk and Highlands counties.

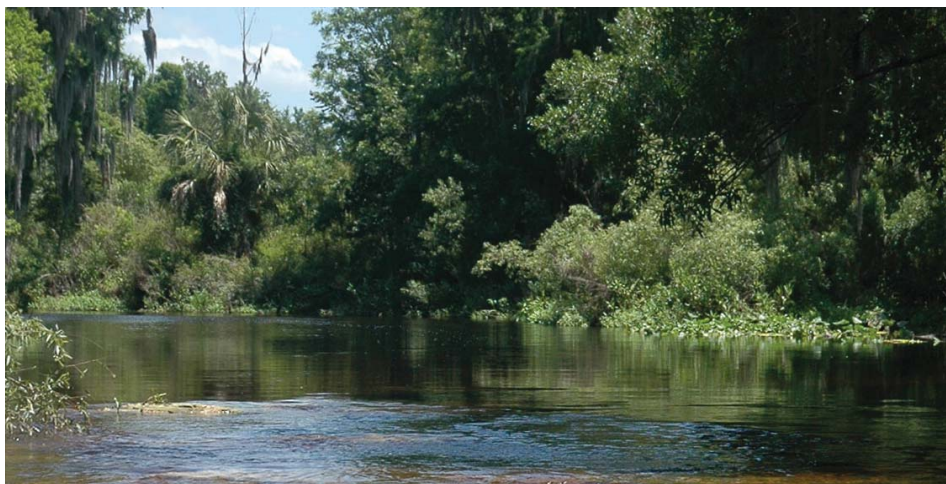
Groundwater withdrawals were identified as the primary cause of the depressed aquifer levels throughout the groundwater basin, with drawdowns in some areas exceeding 50 feet.

As of 2019, the District Governing Board has adopted MFLs for 45 priority water bodies in the SWUCA and approximately half of these MFLs are being met. An MFL is the limit at which withdrawals would be significantly harmful to the water resources or ecology

of the area. The District adopted the SWUCA Recovery Strategy to address those MFLs that are not being met by reducing the rate of saltwater intrusion in the MIA, restoring minimum flows to the upper Peace River and restoring minimum levels to priority lakes in the Ridge area, which extends roughly 90 miles along the center of the state in Polk and Highlands counties.

Primary SWUCA Recovery Strategy elements for this region include:

- Updating the Regional Water Supply Plan to identify how to address growing regional water needs while minimizing impacts to water resources and related natural systems. The District approved a plan update in 2020 and will update it again in 2025.
- Providing financial and regulatory incentives for conservation, construction of alternative supplies and regional interconnections.
- Monitoring and reporting.
- Developing and implementing water resource projects to aid in reestablishing minimum flows to rivers, recover levels in Ridge Lakes and enhance recharge.



Peace River in Hardee County.

Regional Priorities and Objectives

The District has been successful in multiple efforts associated with its SWUCA goals. Partnering with the Peace River Manasota Regional Water Supply Authority, the District has assisted in developing a sustainable water supply to meet the needs of a four-county region in the south. The District has also assisted with the creation of the PRWC and is helping to fund its evaluation and development of AWS projects, including conservation. The District's cooperatively-funded FARMS Program has helped the agricultural community reduce its use of groundwater from the Upper Floridan aquifer. The FARMS Program and other conservation efforts have reduced Upper Floridan groundwater withdrawals in the SWUCA, which has helped to increase groundwater levels in the MIA. The SWIMAL elevation of 13.1 feet above the NGVD29 must be met or exceeded for five consecutive years. In 2018 and 2019, this elevation was met or exceeded. Achieving the SWIMAL is the first step in meeting the recovery strategy's goal to slow saltwater intrusion. To further this effort, the District will reevaluate the SWIMAL in 2023 to incorporate updated data and model information. The District's Lake Hancock Lake Level Modification Project became fully operational in 2014 and a reservation was established in 2020 for water stored in Lake Hancock and released to Lower Saddle Creek to help recover the minimum flows for the upper Peace River.

Significant challenges remain in meeting minimum levels for Ridge lakes in Highlands and Polk counties, but progress is being made. Individual lake restoration projects have been initiated for several lakes in this area. While the southern portion of Polk County is included in the SWUCA, all of Polk County is part of a designated Central Florida Water Initiative (CFWI) planning region that is reaching sustainable groundwater withdrawal limits, facing increased demands on water resources and inconsistencies among regulatory programs.

The CFWI planning area covers five counties, including Polk, Orange, Osceola, Seminole and southern portions of Lake. The boundaries of the St. Johns River, South Florida and Southwest Florida water management districts meet in the planning area.

The District is collaborating with the other water management districts, the state and local governments and utilities to identify a sustainable water supply for the region. Key components in meeting the water resource challenges of the CFWI planning area have included refinement of a shared groundwater model to determine regional resource availability and the publication of the second CFWI Regional Water Supply Plan in 2020. Other ongoing efforts include coordination and planning for water resource data collection needs and establishment of consistent rules among the three water management districts with jurisdiction in the CFWI planning area.

As part of the CFWI planning area, the Polk County area has a need to develop 30 mgd of AWS sources by 2040. The District assisted in the establishment of the PRWC in 2016 as a collaborative entity to address water supply needs among its member governments. The District is currently coordinating with the PRWC on maximizing water conservation efforts and the development of AWS projects to meet the projected 2040 water supply demands. Such efforts include, but are not limited to, a long-term demand management plan, ongoing District investigation of the Lower Floridan aquifer as a potential alternative water supply source and provision of \$40 million in initial funding to the PRWC to assist in implementation of identified projects. In 2017, co-funding agreements were executed that assigned \$11.5 million of the initial funding for Phase I of three projects. At its April 2018 meeting, the Governing Board approved an additional \$5 million per year (FY2019–23) for Phase II implementation of the selected projects. The PRWC is currently evaluating four AWS projects and has initiated preliminary design for both the Southeast and West Polk Lower Floridan Aquifer Wellfield projects. Water conservation efforts and demand management plans will help reduce and delay the need for these expensive AWS projects.



Surface water pump station at Windmill Farms, Hardee County.

Regional Priorities and Objectives

Heartland Region — Improve Water Bodies

PRIORITY:

Improve Winter Haven Chain of Lakes and Ridge Lakes

OBJECTIVE:

- Implement plans and projects for water quality and natural systems improvement

NARRATIVE:

The **Winter Haven Chain of Lakes** is a system of 19 interconnected lakes in Polk County. Designated as a District SWIM priority water body, the chain encompasses a 32-square-mile watershed and is made up of two major groups with five lakes in the northern chain and 14 in the southern chain. The lakes are interconnected through the construction of canals to promote recreational access.

Two main challenges exist in the Winter Haven Chain of Lakes watershed: nutrient loading from urban runoff and the loss of natural systems. The District is working with local governments through the cooperative funding program to reduce nutrient loadings by improving stormwater management and to restore natural systems.

Success will be measured by water quality improvements including reductions in non-point source loading of nutrients and increases in restored natural systems. Additionally, it is envisioned that lakes with sufficient water quality data will be evaluated against the DEP's numeric nutrient criteria.

As of 2019, water quality improvement projects have been implemented for eight lakes (Conine, Howard, May, Lulu, Hartridge, Jessie, Cannon, and Mariana). In addition, more than 30 low impact development (LID) best management projects have been installed within the downtown area of the City of Winter Haven.

Approximately 130 lakes lie within the **Ridge Lakes** area, which extends roughly 90 miles along the center of the state in Polk and Highlands counties. The high number of deep sinkhole basin lakes makes this region uniquely different from the other lake regions in the District, and throughout the state.



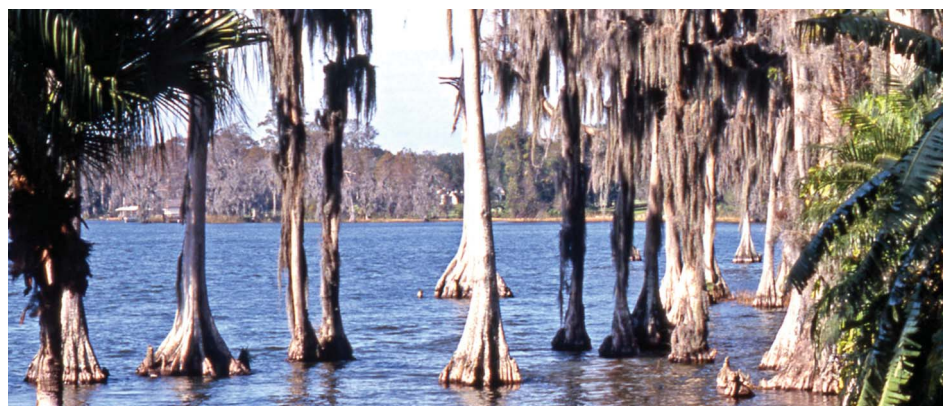
Lake Gwyn in Polk County.

Declining water quality and lake levels are challenges for the lakes in the Ridge Lakes area. Common water quality impacts include stormwater runoff, wastewater effluent, residential and fertilizer applications, agricultural runoff, shoreline habitat degradation and hydrologic alterations.

Through the District's Ridge Lakes Restoration Initiative, emphasis has been placed on protective lake management strategies. Stormwater treatment has been a high priority, as well as enhancement and restoration of natural systems and additional flood protection.

The District-led Ridge Lakes Plan update was completed in 2019. The project's purpose was to propose lake-specific action plans and conceptual designs for prioritized lakes. In addition, a general action plan was also developed for the non-prioritized lakes to provide a path forward to further

efforts in all of the Ridge Lakes. Data needs are identified for lakes without sufficient water quality information. Of the 136 lakes studied, 21 are impaired or potentially impaired for one or more nutrients, 23 are not impaired and more than 94 lakes do not have enough water quality data to determine impairments. Improved monitoring plans were recommended for the 94 lakes with insufficient data. Conceptual designs for water quality improvement projects were prepared for 12 prioritized lakes. The plan will be used to work with local governments to develop projects and programs aimed at water quality improvements.



Lake Eloise in Polk County.

Regional Priorities and Objectives

Southern Region — SWUCA Recovery

PRIORITY:

Implement SWUCA Recovery Strategy

OBJECTIVES:

- Achieve 40 mgd of offset in groundwater withdrawals in the SWUCA by 2025
- Achieve the SWUCA saltwater intrusion minimum aquifer level for the Upper Floridan aquifer to slow the rate of saltwater intrusion in the MIA
- Ensure a sustainable water supply
 - Achieve and maintain 150-gallon daily compliance per capita with all public supply utilities
 - Assist the Peace River Manasota Regional Water Supply Authority in the development of 21 mgd of alternative supply sources
- Achieve and maintain a reduction in 2011-2015 regional average unadjusted gross per capita (84 gpcd) water use by 5.2 percent to 79.7 gpcd by 2025. This represents a water savings of 4.7 mgd
 - Maximize water conservation
 - Maximize public supply interconnects
- Achieve 75 percent utilization of all wastewater flows and a 75 percent resource benefit by 2040. As part of this effort, assist in the implementation of potable reuse (As of 2019, the Southern region had 67.3 mgd of wastewater flow and 36.8 mgd of reuse for a utilization rate of 55 percent)
- Develop ASR options for potable and reclaimed water supply
- Increase the percentage of total water use supplied by alternative sources
- Continue assessing the viability of using excess runoff in Flatford Swamp for improving groundwater levels in the MIA

NARRATIVE:

The entire Southern region of the District falls within the eight-county SWUCA. In the SWUCA, which encompasses approximately 5,100 square miles, depressed aquifer levels have caused saltwater intrusion along the coast, contributed to reduced flows in the upper Peace River and lowered lake levels in areas of Polk and Highlands counties.

Groundwater withdrawals were identified as the primary cause of the depressed aquifer levels throughout the groundwater basin, with drawdowns in some areas exceeding 50 feet.

As of 2019, the District has adopted MFLs for 45 priority water bodies in the SWUCA and approximately half of these MFLs are being met. The District adopted the SWUCA Recovery Strategy to recover flows and levels to established MFLs. The major goals for the recovery strategy are reducing the rate of saltwater intrusion in the MIA, restoring minimum flows to the upper Peace River and restoring minimum levels to the priority lakes in the Ridge area, which extends roughly 90 miles along the center of the state in Polk and Highlands counties.

Primary SWUCA Recovery Strategy elements for this region include:

- Updating the Regional Water Supply Plan to identify how to address growing regional water needs while minimizing impacts to the water resources and related natural systems. The District approved a plan update in 2020 and will update it again in 2025.
- Providing financial incentives for conservation, development of alternative supplies and regional interconnections.
- Monitoring and reporting.

The District has been successful in multiple efforts associated with its SWUCA goals. Partnering with the Peace River Manasota Regional Water Supply Authority, the District has assisted in developing a sustainable water supply to meet the needs of this southern four-county region. The District has also assisted with the creation of the PRWC and is helping to fund its evaluation and development of AWS, including conservation. The District's cooperatively-funded FARMS Program has helped the agricultural community reduce its use of groundwater from the Upper Floridan aquifer. The FARMS Program and other conservation efforts have reduced Upper Floridan groundwater withdrawals in the SWUCA, which in turn has helped to increase groundwater levels in the MIA. The SWIMAL elevation of 13.1 feet above NGVD29 must be met or exceeded for five consecutive years. In 2018 and 2019, this elevation was met or exceeded. Reaching the SWIMAL is the first step in meeting the recovery strategy's goal to slow saltwater intrusion. The District's Lake Hancock Lake Level Modification project became fully operational in 2014 and a reservation was established in 2020 for water stored in Lake Hancock and released to Lower Saddle Creek to help meet the minimum flows for the upper Peace River. Recovery in the upper Peace River has led to improvements in low-flow conditions in the lower portion of the river within the Southern region.

Based on groundwater modeling, the District's Flatford Swamp MIA Recharge/SWIMAL Recovery project continues to show promise in helping to slow saltwater intrusion by recharging the Floridan aquifer system near the MIA. As of August 2020, test recharge and monitoring wells are completed and construction of surface facilities is underway.

Much progress has been made in the region, but challenges remain to reduce the rate of saltwater intrusion along the coast and move toward meeting minimum levels.

Regional Priorities and Objectives

Southern Region — Improve Water Bodies

PRIORITY:

Improve Charlotte Harbor, Sarasota Bay, Shell/Prairie/Joshua Creeks

OBJECTIVES:

- Develop plans and implement projects for water quality improvement
- Develop plans and implement projects to restore natural systems

NARRATIVE:

Charlotte Harbor is Florida's second largest open water estuary at 270 square miles. Generally considered one of the most productive estuarine ecosystems in southwest Florida, the harbor is designated an "Estuary of National Significance" and a SWIM priority water body.

Challenges for the 4,400-square-mile Charlotte Harbor watershed include alteration and loss of wetlands, an increase in nonnative plant species and water quality degradation from point and non-point source pollutants.

The success indicator for this system as reported in the recent update to the Charlotte Harbor SWIM Plan is a harbor-wide, including Lemon Bay, seagrass coverage target of 23,503 acres within the District's boundary.

The District participates with other government agencies through the Coastal and Heartland National Estuary Partnership to update and implement the comprehensive conservation and management plan, and implement water quality and hydrologic alteration improvement projects to restore coastal upland, wetland and intertidal habitats.

As of 2019, the District and its cooperators have completed 19 natural systems projects, which have restored approximately 4,907 acres of coastal habitats for Charlotte Harbor. The District and its partners have provided water quality projects treating more than 147 square miles of contributing area for the watershed. Construction of the District's Lake Hancock Outfall Treatment System has been completed. This project, when fully operational, will remove an estimated 85 tons of nitrogen annually discharged from Lake Hancock to the Peace River and, ultimately, Charlotte Harbor.



Sarasota Bay is designated as an "Estuary of National Significance" and a SWIM priority water body. Like Charlotte Harbor, challenges to this 150-square-mile watershed include changes to coastal uplands, loss of wetlands and an increase in nonnative plant species and water quality degradation from point and non-point source pollutants.

The bay's success indicator is the seagrass coverage target of 9,779 acres adopted by the Sarasota Bay Estuary Program. As is the case for Charlotte Harbor, the District is working with other government agencies on initiatives for Sarasota Bay. These include updating the comprehensive conservation and management plan, implementation of water quality improvement projects and restoration of coastal upland, wetland and intertidal habitats. As of July 2019, the District and its partners have completed projects to provide water quality treatment for 133 square miles of watershed contributing to Sarasota Bay, including the Dona Bay project. Additionally, more than 925 acres of coastal habitats have been restored in Sarasota Bay.



Shell Creek in Charlotte County.

Regional Priorities and Objectives

Shell, Prairie and Joshua Creek (SPJC)

watersheds are in the southern region of the Peace River Basin. Combined, the SPJC watersheds comprise a surface area of 487 square miles, or approximately 20 percent of the Peace River Basin.

The City of Punta Gorda obtains its potable water supply from the Shell Creek in-stream reservoir. Prairie and Shell creeks (and associated tributaries) are designated as Class I waters, which means they are designated for use as potable water supplies. These creeks converge at, and sustain, the city's reservoir.

Groundwater withdrawals for agricultural irrigation created mineralized water quality issues in the SPJC watersheds. The FARMS Program was created in 2003 with the goal of improving the watersheds' water quality. Through BMP implementation, the FARMS Program has partnered with producers to reduce groundwater use and capture runoff in tailwater recovery ponds and reuse the water for irrigation. This reduces the amount of mineralized groundwater used within the watershed and results in downstream water quality benefits.

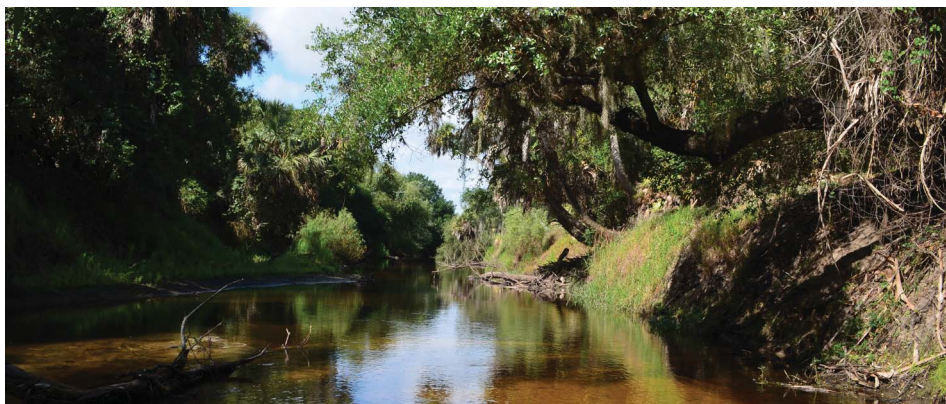
A key success indicator is the reduction of total dissolved solids (TDS) in these surface waters. Through the implementation of FARMS Program projects and other initiatives, water quality concentrations for chloride, specific conductance and TDS measured at key surface water reference sites in the SPJC watersheds have significantly improved. Additionally, these FARMS Program projects have reduced approximately 10.5 mgd of groundwater use which contributes to SWUCA recovery.



Newly created freshwater wetlands at Coral Creek, Phase 2 in Charlotte County.



District staff educating environmental students on the importance of water quality monitoring.



Prairie Creek in Charlotte County.

Core Business Processes

Managing and protecting the water resources of a 16-county area requires a highly skilled, motivated work force with the right tools, support and good information to make informed decisions and provide high quality service to the residents of the District. All the various functions of this workforce have been evaluated and categorized into seven core business processes. To successfully achieve our Strategic Initiatives and Regional Priorities, the District must excel in each of these.

WATER RESOURCES PLANNING

Water Resources Planning encompasses surface water and groundwater resource evaluations and other comprehensive planning efforts in partnership with local, state, regional, federal and other stakeholders. These responsibilities include identifying, collecting, analyzing and disseminating relevant and accurate data and providing technical assistance.

Examples include the Southern Water Use Caution Area Recovery Strategy Five-Year Assessment, Minimum Flows and Levels studies, Regional Water Supply Planning, Strategic Plan update, Consolidated Annual Report and reviews of proposed comprehensive plan amendments and large-scale development, including developments of regional impact.

INNOVATIVE PROJECTS

The District initiates and supports creative, collaborative projects to produce measurable benefits to the environment, water resources and the regional community. The projects address the core mission goals for water supply, flood protection, water quality and natural systems.

To ensure tax dollars are used as efficiently and effectively as possible, the District created a Project Management Office. Comprising a team of project managers, this Office oversees District project processes to increase efficiency and maximize benefits.

FINANCIAL SUSTAINABILITY

The District's primary funding source is ad valorem taxes, which vary from year to year. In addition to paying for its operating costs, the District provides financial incentives through partnerships with public and private entities on projects that protect and restore the water resources of the region, such as promoting water conservation, developing alternative water supplies, enhancing natural systems and water quality, and promoting flood management activities.

The District operates on a pay-as-you-go basis that allows it to make more funding available for projects. The District targets at least 50 percent of its budget each year for water resources projects.

REGULATION

Regulation involves multiple permit activities that promote a fair allocation of the water resources, protect wetlands, enforce well construction standards and ensure that new

activities do not increase the risk of flooding or degrade water quality. The permitting process also monitors subsequent operational performance of permitted systems to protect the region's citizens and water resources.

The District is committed to protecting its water resources and related natural systems while also providing quality service in a timely, convenient and consistent manner to the regulated community. The District's Regulation Division is structured to eliminate duplication, increase efficiency and consistency and reduce costs. Centralizing the permitting review process in the District's Tampa office ensures that permit applicants throughout the District are treated consistently. Improved online permitting services make it easier and more convenient to submit a permit application and access permit data.

The District is also working with the other water management districts and the DEP to achieve statewide permitting consistency wherever possible while allowing for regional water resource differences.

LAND MANAGEMENT AND STRUCTURE OPERATIONS

Land Management and Structure Operations operate and maintain District lands and water control structures to restore and sustain natural systems and minimize flood damage.

In its 10,000-square-mile region, the District owns 450,000 acres of land that provide various water resource benefits. These lands are managed to restore and sustain those ecosystems, store flood waters, recharge the aquifer and improve water quality.

District lands are evaluated periodically to ensure that benefits are being achieved. Surplus is considered when lands are not necessary for statutory requirements, benefit only one of the District's areas of responsibilities or present a management inefficiency for the District.



Prescribed burn conducted on District land.

Core Business Processes

The District also operates 85 water control structures. Most of these structures are conservation structures that are operated to maintain water levels and provide limited flood relief. The larger flood control structures, like those associated with the Tampa Bypass Canal, are capable of quickly moving large quantities of water and are operated to provide maximum flood protection. Structure S-160 on the Tampa Bypass Canal is the largest flood control structure in the state.

KNOWLEDGE MANAGEMENT

As an information-based organization, high quality data are critical to making informed decisions that protect and enhance the water resources. Knowledge Management is the practice of systematically and actively collecting, managing, sharing and leveraging an organization's data, information and processes. As the region's knowledge leader for water resources information, the District collects a variety of regulatory, scientific and socio-economic and business data to support its Strategic Initiatives. While the focus of Knowledge Management activities is on meeting and supporting these initiatives, it is recognized that many public and private stakeholders also rely on this information to meet their business needs. Since FY2016, an emphasis has been placed on building awareness and expanding a culture of Knowledge Management throughout all business units within the agency, as well as improving the documentation, organization, review and storage of key business practices and related supporting documentation (governing documents). During FY2021, the District will continue efforts to organize governing documents to facilitate knowledge sharing, ensure the alignment of division/ bureau practices with the Governing Board's policies and executive director procedures and allow for timely retrieval and review of existing governing documents. The focus also will cover streamlined processes for maintenance of updated documents.

Information technology and water resource data collection activities at the District are managed by a governance procedure, with oversight by a governance committee that includes members of the District's Executive Team. The information technology and data governance process monitors, informs, and controls the efficient and effective use of



Regulatory staff explaining stormwater management.

information technology and data collection to ensure these initiatives and associated resource expenditures are in alignment with the strategic direction and priorities of the District. The focus for the future will be on expanding governance processes across all business practices at the District to further supplement the District's Knowledge Management initiatives.

The District promotes consistency of data collection activities by coordinating with local, regional and state entities through participation on statewide, regional councils and interagency workgroups. The District is also working with the other water management districts and state agencies to implement common replacement standards for equipment; to develop common standards for sharing financial, geospatial, scientific and permit information; and to establish frameworks for joint development of software applications.

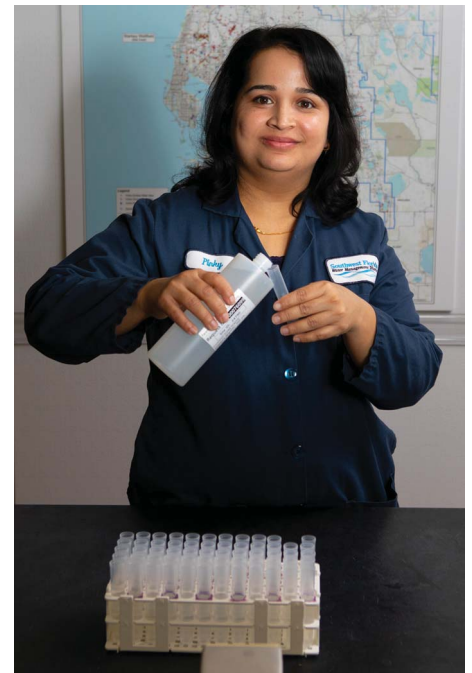
ENGAGEMENT

Engagement is a key to retaining a highly skilled and motivated work force, the cornerstone of any successful organization. Keeping staff informed and involved promotes good morale and increases productivity. Additionally, engagement extends beyond internal staff.

To manage water resources effectively over a large region, engaging external publics, including citizens, media, elected officials, advisory committees and other stakeholders is also critical. Outreach and education engage these various groups to foster behaviors, secure funding and assist in developing laws

that conserve, protect and sustain Florida's water and related natural resources. Also, through its planning and outreach processes the District collaborates with stakeholders and advisory committees to help meet those goals. Input from stakeholders and advisory committees is used by the Governing Board to make water resource decisions.

Engagement helps to communicate those shared interests, forging relationships that support collaboration to benefit the region's water and related resources, economic stability and quality of life.



District staff analyzing samples in lab.



Southwest Florida *Water Management District*

Photo Credits

Julie Branaman and SWFWMD staff.

VISAY 01-26-2021

The Southwest Florida Water Management District (District) does not discriminate on the basis of disability. This nondiscrimination policy involves every aspect of the District's functions, including access to and participation in the District's programs, services and activities. Anyone requiring reasonable accommodation, or who would like information as to the existence and location of accessible services, activities, and facilities, as provided for in the Americans with Disabilities Act, should contact the Human Resources Office Chief, at 2379 Broad St., Brooksville, FL 34604-6899; telephone (352) 796-7211 or 1-800-423-1476 (FL only), ext. 4747; or email ADACoordinator@WaterMatters.org. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1-800-955-8771 (TDD) or 1-800-955-8770 (Voice). If requested, appropriate auxiliary aids and services will be provided at any public meeting, forum, or event of the District. In the event of a complaint, please follow the grievance procedure located at WaterMatters.org/ADA.

Strategic Plan Annual Work Plan Report

Section 373.036(2)(e)4 Florida Statutes (F.S.) indicates the water management districts may substitute an Annual Work Plan Report, included as an addendum to the annual Strategic Plan, for the statutorily-required District Water Management Plan. The Annual Work Plan Report must detail the implementation of the Strategic Plan for the previous fiscal year, addressing success indicators, deliverables and milestones. The Southwest Florida Water Management District (District) has decided to submit an annual Strategic Plan and Annual Work Plan Report in lieu of the District Water Management Plan.

The Annual Work Plan Report is intended to fulfill the statutory requirement by identifying the regional priorities and objectives in the Strategic Plan, and providing a discussion of the milestones, success indicators and deliverables achieved in FY2020 as they relate to the specific programs that implement the plan.

Northern Region Priorities and Objectives

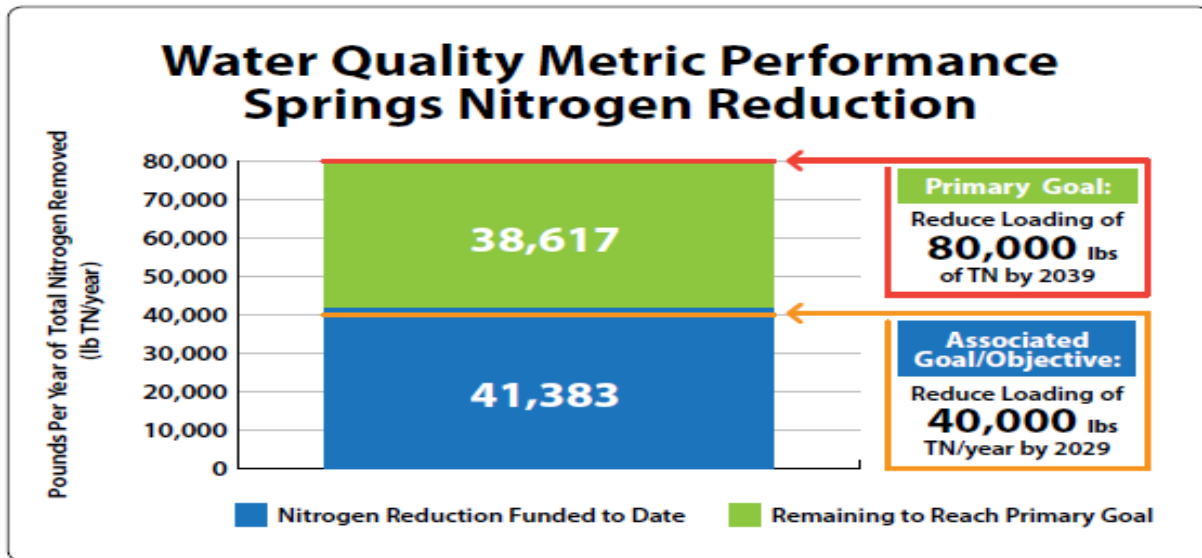
Priority: Improve Northern Coastal Spring Systems

Objective: Implement water quality and natural systems projects identified in the five Surface Water Improvement Management Plans

Surface Water Improvement Management (SWIM) plans have been approved for the Rainbow, Homosassa, Chassahowitzka and Weeki Wachee rivers and Crystal River/Kings Bay. These plans identify and implement specific management actions and projects (i.e., programs, initiatives, and Cooperative Funding Initiative (CFI)) to address major issues facing the systems. The SWIM Plans include numeric targets called quantifiable objectives. These are long-term objectives used to develop and prioritize management actions and projects, thus promoting effective and efficient resource management. If the objectives are achieved, the expected result is a healthy spring ecosystem.

The District implements studies and data collection and habitat restoration and water quality improvement projects to support the SWIM Plans in the five springsheds. In FY2020, mapping and evaluation of submerged aquatic vegetation was completed in the Weeki Wachee, Chassahowitzka and Homosassa systems (WS01). Design was completed and construction started on stormwater retrofit projects within the Weeki Wachee (WW05) and Crystal River (W433) springsheds. The Weeki Wachee Channel Restoration Project (WW04) will remove sediments from a 1.5-mile segment of the river impacted by excessive sedimentation. The project will improve habitat for fisheries and manatee passage, as well as remove a source of sediments in the river. Design was completed, and permit applications were approved in 2020. It is expected that sediment removal will begin in 2021. Also, in FY2020, two Mini-Facilitating Agricultural Resource Management Systems (FARMS) projects and one FARMS project were approved in the northern coastal springs systems, resulting in an estimated 30,000 gpd reduction in groundwater use and a reduction of an estimated 347 pounds of nitrogen per year.

In addition, the District's Governing Board supported a water quality metric in February 2020 to measure the success in assisting state and local governments by funding projects that achieve a nitrogen reduction within the District's five first-magnitude springs basin management action plans (BMAPs) boundaries. This metric has a start date of June 2018. The metric includes a primary goal to reduce nitrogen loading to the springs through District-funded projects by 80,000 pounds per year (lbs/year) of total nitrogen (TN) by FY2039. The metric also includes an associated goal/objective to reduce nitrogen loading through District-funded projects by 40,000 lbs/year of TN by FY2029. District staff evaluated performance by compiling and analyzing data from projects completed or funded after June 2018 through FY2020. The evaluation revealed that 11 District-funded projects within the five first-magnitude springs BMAPs boundaries are expected to reduce nitrogen loading by 41,383 lbs/year of TN. This achieves 52 percent of the primary goal and exceeds the associated goal/objective. (See graphic for an illustration of this.) The District will continue to prioritize funding for projects that reduce nitrogen loading and protect the District's first-magnitude springs.



Source: District Water Supply staff, 2020

Objective: Assist with septic to sewer conversion within the five first-magnitude spring areas

Converting properties on septic systems to centralized sewer by constructing line connections has been identified to improve the water quality of Florida springs. In an August 2017 workshop, the District's Governing Board prioritized combining District funds with state and local funds for projects that would connect domestic septic systems to central sewer to benefit springs. The Board also identified the need to protect the District's investment by ensuring controls are in place to prevent additional pollution from new conventional septic systems and to ensure the new infrastructure is utilized. In 2020, five construction projects were included in the District's budget through the CFI program.

Objective: Monitor status and trends associated with targets in each springs plan to assess the health of the spring systems

Each of the SWIM Plans for the five first-magnitude spring systems on the Springs Coast have identified quantifiable objectives for the three focus areas of water quality, water quantity and natural systems. The District closely monitors the water quality and the submerged aquatic vegetation (SAV) to track the status and trends in the various quantifiable objectives. Beyond the quantifiable objectives, District status and trend monitoring is part of a holistic approach to evaluating the overall ecological health of the five first-magnitude spring systems. Data collection and analysis has been ongoing since the mid-1990's and forms the foundation upon which science-based decisions are made. The District has a comprehensive array of water quality monitoring activities including groundwater monitoring wells in the springsheds, individual spring vents and surface water stations in the rivers and nearshore coastal stations. Through the District's joint funding agreement with the United States Geological Survey (USGS), stage, discharge, velocity and select water chemistry analytes are also collected. For SAV, the District has been monitoring vegetation in these systems for over 20 years. Current SAV mapping and monitoring occur every two years. Leveraging years of experience by District scientists, the information is analyzed and reported on an annual basis and placed in the context of long-term trends. This information is presented to the Springs Coast Management Committee (SCMC), Springs Coast Steering Committee (SCSC), and several community and volunteer organizations throughout the year. Additionally, the District maps seagrass in the offshore areas on a four-year cycle through photointerpretation of aerial photography acquired specifically for seagrass mapping.

Objective: Continue support of the Springs Coast Steering Committee

The SCSC meets on a quarterly basis and is supported by the SCMC and Technical Working Group (TWG). The initial focus of these groups was to create SWIM plans for each of the five first-magnitude springs in the District. These SWIM plans were finalized between 2015 and 2017, and subsequently, the SCSC and SCMC's primary focus has been on soliciting and evaluating projects which will benefit the water quality, water quantity or natural systems of springs within the SWFWMD. The committees allow city, county and other local stakeholders to submit projects which are evaluated using DEP guidelines to be considered for State springs funding on an annual basis. In 2020, 12 projects were evaluated and recommended to DEP for funding. Eight projects, including previously selected multi-year projects, received \$24.5 million in FY2021 state springs funding.

Objective: Implement Minimum Flows and Levels to protect spring flow

Minimum flows have been established for 10 springs or spring groups within the District, including all five of the Outstanding Florida Springs within the District (i.e., the Chassahowitzka, Homosassa, Kings Bay, Rainbow and Weeki Wachee Spring groups). Ongoing hydrologic and hydrogeological data collection, annual status assessments, evaluations completed on a five-year basis as part of the District's regional water supply planning, consideration of spring minimum flows and levels (MFLs) during water use permit review processes, and as-needed reevaluations of spring and other MFLs ensure successful implementation of MFLs to protect spring flows.

Priority: Ensure Long-Term Sustainable Water Supply***Objective: Increase conservation***

The District has been making progress toward meeting the conservation and per capita goals for the Northern Region. In 2011, there were 14 utilities not in compliance. As of this report, only four utilities were not in compliance. The regional average compliance per capita in 2019 has decreased to 119 gpcd from 130 gpcd in 2017.

The District has also been active in promoting conservation in the Northern Region. These efforts include cooperatively funding one conservation project with northern utilities in FY2020 through the District's CFI program. This project is estimated to conserve a total of 26,474 gpd and has a District investment of \$45,000. The District also provides cooperative funding for conservation projects through the Water Incentives Supporting Efficiency (WISE) program. In FY2020, the District co-funded six projects in the Northern Region through WISE with a District investment of \$51,051.18, saving an estimated 10,138 gpd. Additionally, the District operates a leak detection program to help public supply water utilities locate water leaks in utility water distribution systems. Since the program's inception, 676 water leaks have been identified in the Northern Region, resulting in over 2.5 mgd of water conserved.

The District partnered with four northern utilities in FY2020 through the Conservation Education Program (CEP) to develop, implement and evaluate four conservation education projects to help reduce residential water use. CEP projects are fully funded by the District at a total investment of \$30,000. The District also oversees the Florida Water StarSM (FWS) program, a voluntary water conservation certification program for new residential and commercial construction. In FY2020, there were 137 residential properties that achieved FWS certification in the Northern Region, with a total estimated water savings of approximately 11,500 gpd. Additional conservation outreach efforts in the Northern Region in FY2020 included ongoing community-wide outreach programs and awareness campaigns, the provision of free publications and water-conserving items, and school district funding support (\$60,400).

Objective: Maximize beneficial use of reclaimed water

The Strategic Plan identifies the objectives of 75 percent reclaimed water utilization and resource benefit by 2040. As of 2019 (latest data), with District assistance, this region has achieved 65 percent utilization and 72 percent resource benefit, exceeding the interim 2020 goals of 55 percent utilization and resource

benefit. For 2019, the region had a beneficial reclaimed water flow of 13.5 mgd, while the objectives are 12 mgd by 2020 and 24 mgd by 2040. The regional water supply planning process updates these targets as needed.

Objective: Continue to partner with the Withlacoochee Regional Water Supply Authority to promote regional water supply planning and development

The District maintains an ongoing partnership with the Withlacoochee Regional Water Supply Authority (WRWSA) to promote regional water supply planning and development. In cooperation with the District, the WRWSA completed the most recent update to its Regional Water Supply Plan (RWSP) in 2019. This Plan evaluated water use demand for all use categories and identified projected increases of approximately 67.3 mgd from 2015 to 2040. The quantity of water available and demand reduction potential for the same period ranges from 126.4 to 142.3 mgd, indicating that demands for all use categories can be met through 2040. An ongoing water conservation partnership with the WRWSA currently includes Phase Five of the Regional Irrigation System Audit program, which addresses outdoor water conservation.

Tampa Bay Region Priorities and Objectives

Priority: Implement Minimum Flows and Level Recovery Strategies

Objective: Northern Tampa Bay Water Use Caution Area Recovery Strategy

The Northern Tampa Bay Water Use Caution Area (NTBWUCA) was established to address adverse impacts to water resources from groundwater pumping. The “Comprehensive Environmental Resource Recovery Plan for the Northern Tampa Bay Water Use Caution Area” serves as the recovery plan for the NTBWUCA.

Under the Comprehensive Plan, Tampa Bay Water (TBW) is required to develop and implement a “Permit Recovery Assessment Plan.” This plan will identify assessments to determine the beneficial impact of reducing groundwater withdrawals in regional wellfields. Additionally, TBW will identify remaining adverse impacts and evaluate potential options to address them. A draft Permit Recovery Assessment Plan was submitted to the District in 2018. The District and TBW have been meeting frequently to review the plan analyses and findings. The final Recovery Assessment Plan will be submitted by TBW with its water use permit renewal request in 2021.

The 2020 MFLs status assessment, which was based on hydrologic data collected through 2019, indicated that MFLs for 7 of 7 groundwater levels, 34 of 36 wetlands, 3 of 3 freshwater river segments, 2 of 2 springs, 3 of 4 estuaries and 71 of 72 lakes within the NTBWUCA are currently met. The assessment also documented improved status of MFLs established for 5 wetlands, 16 lakes and 1 spring within the NTBWUCA. However, 4 of the 124 adopted MFLs in the NTBWUCA are not being met.

The specific recovery strategy for the lower Hillsborough River within the NTBWUCA calls for augmentation of flows in the river below the Hillsborough River Reservoir using a variety of sources and projects. For strategy implementation, the District has independently and cooperatively worked with the City of Tampa on the diversion of water from the Tampa Bypass Canal through the reservoir to the lower river. The District has also supported City of Tampa projects involving diversions from Sulphur Springs and Blue Sink to the base of the dam for river recovery. The District continues to support the City’s investigation of the feasibility of the Tampa Augmentation Project for storage and recovery of reclaimed water in the Floridan aquifer system that could increase supplies to the reservoir and enhance lower river recovery.

The Morris Bridge Sink Project, which will be funded, owned and operated by the District, is also expected to assist in meeting minimum flows in the lower Hillsborough River. The project involves pumping water from Morris Bridge Sink into the Tampa Bypass Canal for diversion to the lower river through the reservoir. A water use permit for the planned withdrawals from the sink has been issued to the District by the DEP and pre-withdrawal monitoring and reporting requirements continue to be addressed. Although project design and permitting have been completed, implementation of future project activities is contingent upon the possibility of the City’s proposed Tampa Augmentation Project becoming operational and potentially negating the need for the diversions from Morris Bridge Sink. As necessary for minimum flow recovery, the District can use portable pumps and piping to convey water from the sink to the Tampa Bypass Canal for delivery to the lower river through the Hillsborough River Reservoir.

The District continues to evaluate and monitor recovery of the MFLs established throughout the NTBWUCA, including those established for the lower Hillsborough River. In 2020, the District completed the second of three planned five-year recovery strategy assessments for the river. This assessment documented hydrologic and other environmental improvements associated with the ongoing implementation of recovery strategy projects. The third assessment has been initiated for completion in 2023.

In addition, the District continues to encourage water reuse which helps with the achievement of MFLs through groundwater use reduction. The Strategic Plan identifies the objectives of 75 percent reclaimed water utilization and resource benefit by 2040. As of 2019 (latest data), with District assistance, this region has achieved 45 percent utilization and 68 percent resource benefit, which is on the way to

meeting the interim 2020 goals of 55 percent utilization and resource benefit. For 2019, the region had a beneficial reclaimed water flow of 109.5 mgd, while the objectives are 139 mgd by 2020 and 202 mgd by 2040. The regional water supply planning process updates these targets as needed.

Objective: Assist Tampa Bay Water in the development of 20 mgd of alternative supply sources

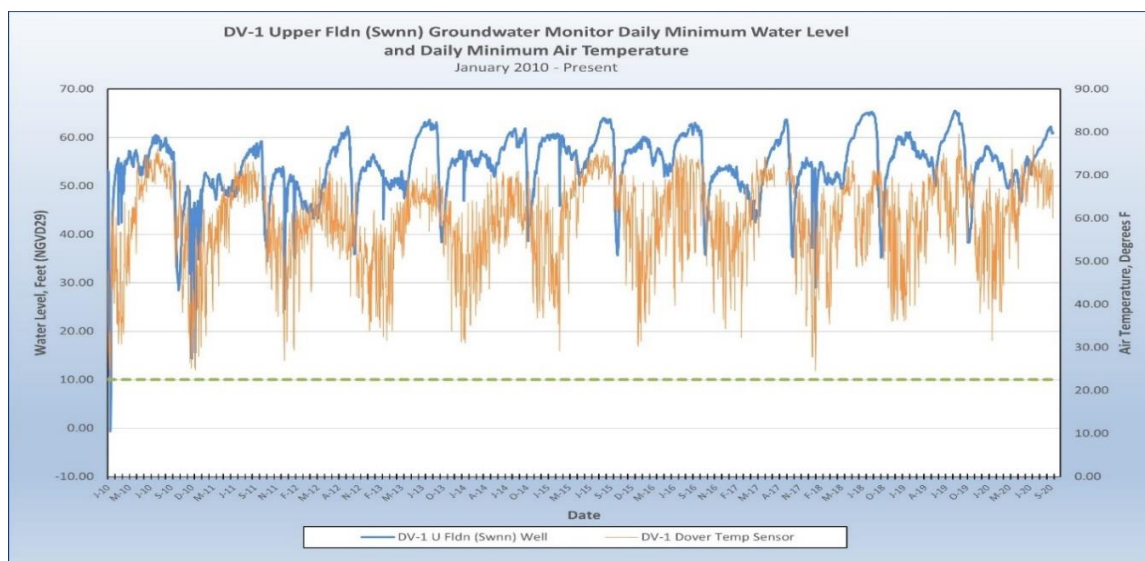
In FY2020, the District assisted with funding feasibility studies for TBW's upcoming transmission and supply projects. The TBW Regional Surface Water Treatment Expansion Feasibility Study is assessing options to either expand the existing treatment systems or add an additional facility that may increase treatment capacity by 10 mgd or more. The TBW Desalination Facility Expansion Feasibility Study is also evaluating a capacity increase of 10 to 15 mgd from the seawater desalination system. A project to increase pumping capacity at TBW's Regional Facility High Service Pump Station was ongoing. The District is also assisting TBW with a Demand Management Plan to improve efficiencies in customer water use.

Objective: Dover/Plant City Recovery Strategy

The Dover/Plant City Water Use Caution Area (DPCWUCA) was established to address impacts from groundwater pumping for cold protection activities associated with agricultural water use. The District has developed and adopted a comprehensive management plan to reduce and monitor groundwater pumping during future freeze events.

The DPCWUCA's recovery strategy established a minimum aquifer level (MAL) of 10 feet NGVD at the DV-1 monitoring well. A new DPCWUCA MAL annual status assessment strategy is in the process of being adopted. This new status assessment methodology used for the 2020 Recovery Assessment has resulted in the designation of the DPCWUCA MAL being met as of 2020. The graph below depicts the correlation between temperature and the water levels at DV-1. As temperature drops, farmers increase pumping for crop protection, affecting the aquifer. The graph below depicts temperature and aquifer levels. Evaluation of the MFL status has determined the MAL has not been exceeded.

**Water Level and Air Temperature Tracking
(January 2010-September 2020)**



Source: District Hydrologic Data staff, 2020

Previous minimum level status evaluations were based on a prolonged 11-day freeze event that had a recurrence interval of once every 600 years based on temperature records. This resulted in a recovery

plan that was uniquely developed just for this unprecedented extreme 2010 freeze event. The initial recovery plan required a 20 percent reduction in the estimated quantities pumped during that extreme event (891 mgd) by January 2020. A comprehensive reevaluation of the MAL was conducted in 2020 considering additional factors such as land use changes, temperature trends, and a review of all freeze events over a period of record extending back to the late-1800s. This evaluation, completed in 2020, determined that the required 20 percent reduction in groundwater withdrawals for cold protection was not required and the MFL was being met under more typical freeze events.

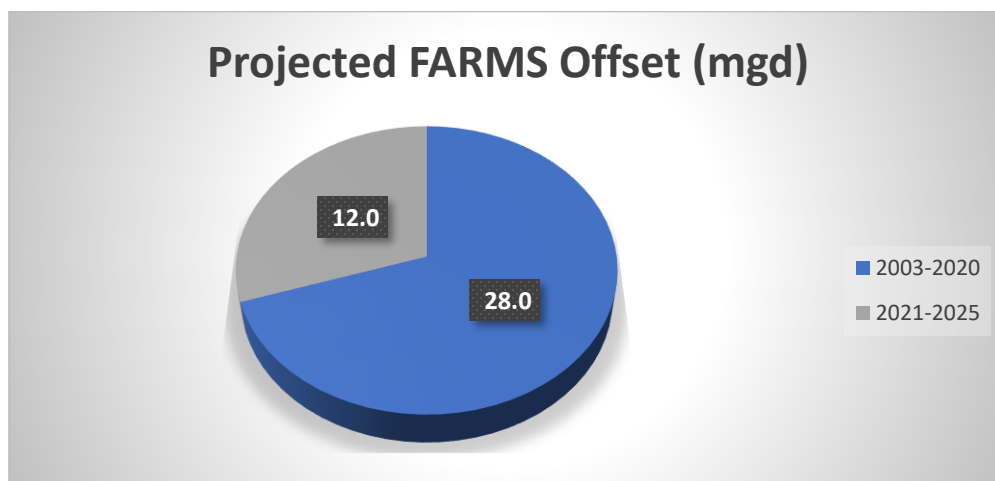
Based on the preventative measures that have been implemented since 2010, no new cold protection groundwater withdrawals have been allocated within the MAL protection zone, and the reductions in groundwater withdrawals in the water use caution area are continuing to occur, primarily because of declines in citrus cold protection and land use transition. The continuation of anticipated withdrawal reductions will be monitored and evaluated on an annual basis to ensure that the MAL status is continuing to be achieved.

The installation of automatic meter (AMR) devices is another critical component of the DPCWUCA recovery strategy. Metering is critical for an empirical evaluation of pumping reduction, as opposed to only a review of permitted quantities. At the time of rule development, there were approximately 626 unmetered agricultural withdrawal points in the DPCWUCA that required flow meters. At the start of the DPCWUCA AMR installation program in 2013, there were 961 agricultural withdrawal points that required AMR devices. At the completion of phase one of the program, 541 withdrawals were equipped with flow meters and 852 sites were equipped with AMR devices. At completion of the flow meter reimbursement program on December 31, 2018, 541 flow meters have been successfully installed. As of October 1, 2020, 787 withdrawals are currently equipped with AMR devices, leaving 30 sites that will receive an AMR device during the next five-year contract term. The decrease in AMR devices on withdrawal sites is due to AMR removals of devices no longer required by water use permit conditions.

In addition, in FY2020 five Mini-FARMS and two FARMS projects were approved in the DPCWUCA Priority area, resulting in an estimated 127,000 gpd reduction in groundwater use for daily supplemental irrigation, and an estimated 3.62 mgd reduction in groundwater used for cold protection.

Objective: Southern Water Use Caution Area Recovery Strategy

The District has a target of offsetting up to 50 mgd in groundwater withdrawals in the Southern Water Use Caution Area (SWUCA) in 2025, with 40 mgd to be achieved through the FARMS program. The District has offset approximately 28.0 mgd of groundwater in the SWUCA through FARMS projects that are operational, under construction and/or have contracts pending. In FY 2020, 25 Mini-FARMS projects and five FARMS projects were approved in the SWUCA, resulting in an estimated 488,000 gpd reduction in groundwater use. The table below depicts current offsets and future FARMS targets for the period to 2025. The projection for 2020-2025 has been capped at the 40 mgd target.



Source: District FARMS staff, 2020

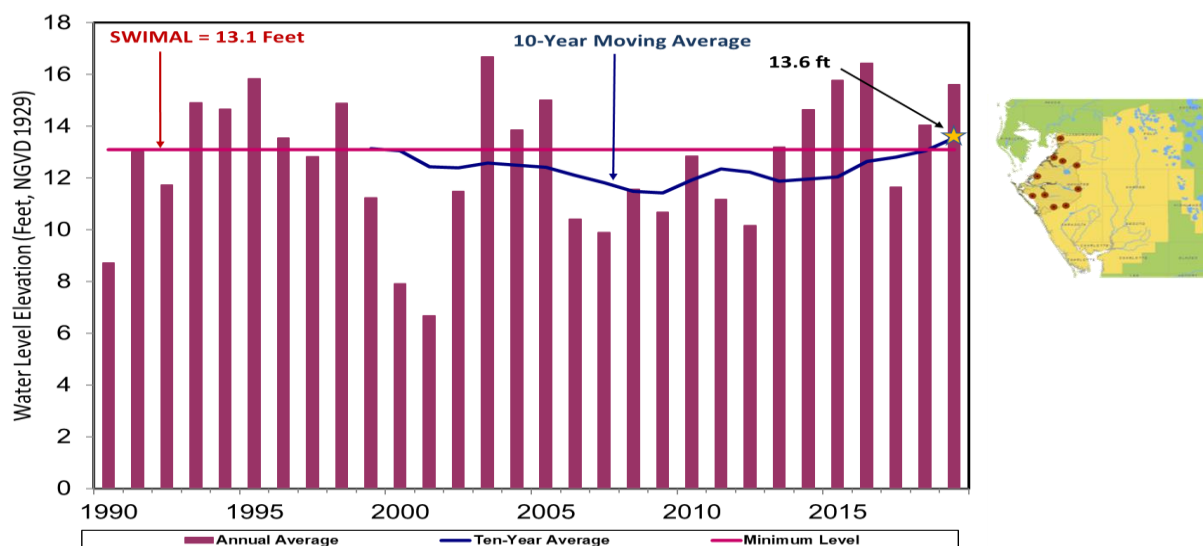
The two primary factors influencing water levels in the region are rainfall and groundwater withdrawals. Rainfall, the primary source of water to the hydrologic system in the groundwater basin, has been highly varied over the last several years. Additionally, activities that use water, such as agricultural and landscape irrigation, require increased withdrawals to supplement lower rainfall amounts. Increases in groundwater withdrawals during these periods can cause water levels to decline further than would be expected, given below average rainfall alone. Estimated groundwater withdrawals (including metered withdrawals) have generally declined due to changes in water use related activities in the basin, averaging about 525 mgd from 2006-2018. Withdrawals from the Upper Floridan aquifer represent about 90 percent of total groundwater withdrawals in the area. Though total groundwater withdrawals in the region have decreased over the past 10 years, locally there are areas that have experienced increases in withdrawals, as well as a shift from one water use type to another.

The first five-year assessment for the SWUCA Recovery effort was completed for the period 2007-11 in 2013, and the most recent assessment covering the period 2012-16 was finalized in April 2018. The next assessment is due for the period covering 2016-2020 in 2021. In addition, the Governing Board is provided an annual update on the recovery's progress.

The recovery's water supply goal is to ensure sufficient water supplies. The District's RWSP and the Central Florida Water Initiative (CFWI) RWSP have recently been updated. The District also assisted with the creation of the Polk Regional Water Cooperative (PRWC) for the regional development of water. In addition, the District funded three completed and two ongoing phases of the Peace River Manasota Regional Water Supply Authority's (PRMRWSA) regional integrated loop system. See discussions for the Heartland and Southern regions for additional information on the PRWC and PRMRWSA.

The saltwater intrusion minimum aquifer level (SWIMAL) for the Most Impacted Area (MIA) of the SWUCA is an important indicator of overall progress due to the regional nature of the aquifer and implications for requests for new groundwater withdrawals. One of the goals for this effort is the recovery of the SWIMAL by 2025. Although the SWIMAL is not currently met, the 13.1 ft Upper Floridan aquifer elevation associated with it was achieved for the first time in 2018 and again in 2019 as shown in the figure below. The most recent measurement (2019) is 13.6 feet.

Groundwater Levels in the SWUCA Most Impacted Area



Source: District Resource Evaluation staff, 2020

Priority: Improve Lake Seminole, Lake Tarpon, Lake Thonotosassa and Tampa Bay

Objective: Implement plans and projects for water quality, critical shoreline, wetlands and/or submerged habitats in each priority water body

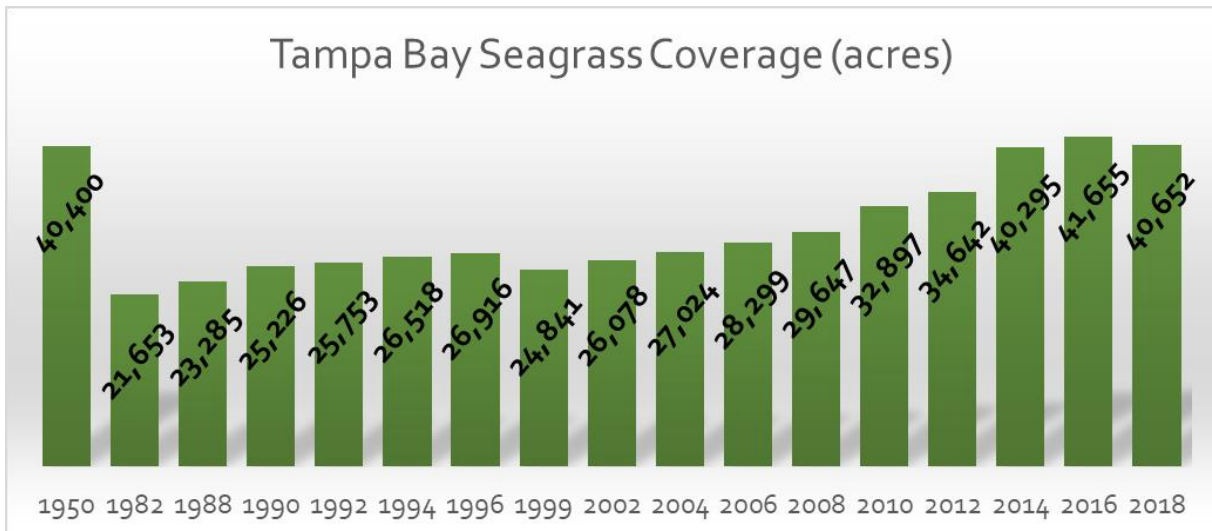
The District's Tampa Bay water quality priorities include Lake Seminole and the SWIM water bodies, Lake Tarpon, Lake Thonotosassa and Tampa Bay. The District is continuing to work with local governments on projects to assess the conditions of these water bodies and to identify and implement projects to improve water quality and habitat. Specific projects and associated FY2020 milestones are discussed below.

Lake Seminole: Lake Seminole is the only non-SWIM priority water body included as a regional priority for the Tampa Bay Region. A major concern for Lake Seminole is nutrients. The District cooperatively funded a project with Pinellas County for the design, permitting and implementation of four water quality treatment systems to improve the quality of runoff currently entering Lake Seminole. The objective is to remove 2,055 lbs of nitrogen per year. In FY2014, the District completed two of these projects, which removed 623 lbs of nitrogen per year. Another Lake Seminole project was completed in a previous fiscal year, bringing the total removal rate to 1,397 lbs per year. Construction of the last sub-basin Best Management Practices (BMPs) was completed and operational in FY2018. In addition to these stormwater projects, Pinellas County selected a contractor to complete the cooperatively funded Lake Seminole Sediment Removal project anticipated to remove approximately 900,000 lbs of total nitrogen from the lake. Site preparation for dredging began in 2019 and dredge removal of 930,000 cubic yards was completed in October 2020. The contractor has commenced dewatering activities in the dredged material management area, with reclamation of the site scheduled for completion in 2021.

Lake Tarpon: In FY2020, the District continued to work with a consultant to assist with the update to the Lake Tarpon SWIM Plan. The District, in coordination with Pinellas County, held the first technical work group to assist with this update. The update will follow the process identified in Chapter 373.451, Florida Statutes, for development of SWIM plans and will build on the findings of the cooperatively-funded Lake Tarpon Water Quality Management Plan, developed with Pinellas County and Pinellas County's paleolimnology study of historic chlorophyll conditions in the lake.

Lake Thonotosassa: As a result of the recommendation in the FY2017 Nutrient Source Tracking Project, the District's FARMS program continues to work with the Florida Department of Agriculture and Consumer Services (FDACS) to enroll farmers in the BMP program and provide education and outreach regarding Lake Thonotosassa water quality.

Tampa Bay: Since the 1980's, Tampa Bay has shown significant water quality improvements, resulting in a significant increase in seagrass acreage. Seagrass is a good indicator of the bay's overall health due to its sensitivity to water quality. Given the importance of seagrass habitat to a healthy bay, the District has mapped seagrasses every two years since 1988. The figure below shows the trend in mapped seagrass acres from 1982 to 2018 (latest information). The figure also presents seagrass acreage in 1950. From 1982 to 2014, there has been a steady increase in seagrass coverage, almost doubling the acreage over that period. From 2014 to 2018, seagrass coverage has remained relatively stable at or slightly above 1950 levels and above the Tampa Bay Estuary Program's goal of 38,000 acres.



Source: District SWIM staff, 2018

- Since 2014, the Tampa Bay Estuary Program seagrass goal of 38,000 acres has been achieved and exceeded.
- From 1982 to 2014, there has been almost a doubling of seagrass coverage.
- Since 2014, seagrass acreage has remained relatively stable.
- In 2016 and 2018, seagrass acreage exceeded that of 1950.
- 2018 marks the completion of the 15th biennial seagrass map and represents one of the most comprehensive and consistent seagrass mapping programs in the nation.
- The next seagrass mapping effort is scheduled for 2020.

The District's SWIM program continues its restoration work for Tampa Bay. The Balm Boyette Habitat Restoration Project completed construction and is now in plant maintenance phase. In addition, the District had several ongoing restoration projects in FY2020 in Tampa Bay, including the Terra Ceia Huber and Frog Creek Upland Restoration Project, Kracker Avenue Restoration Project, Boyd Hill Nature Preserve, Mobbly Bayou Preserve, as well as preliminary data collection to support design efforts on the first restoration sector of the Little Manatee River Corridor.

The District invested in and worked with TBEP complete the Habitat Restoration Master Plan Update in August 2020. This document will be utilized by the District to evaluate habitat restoration priorities in Tampa Bay.

Objective: Initiate updates to Tampa Bay, Lake Tarpon and Lake Thonotosassa Surface Water Improvement and Management Plans

In FY2020, the District continued to work with a consultant to assist with the update to the Lake Tarpon SWIM Plan. The District, in coordination with Pinellas County, held the first technical work group to assist with this update. The update will follow the process identified in Chapter 373.451, Florida Statutes, for development of SWIM plans and will build on the findings of the cooperatively-funded Lake Tarpon Water Quality Management Plan, developed with Pinellas County and Pinellas County's paleolimnology study of historic chlorophyll conditions in the lake.

In FY2020, the District began work with a consultant to update the Tampa Bay SWIM plan. District staff are coordinating with the Tampa Bay Estuary Program for this update to the Plan. In FY2019, the DEP developed and adopted a total maximum daily load (TMDL) for Lake Thonotosassa. The District will continue to coordinate with DEP regarding the TMDL prior to the next Lake Thonotosassa SWIM Plan update, which is projected to begin in FY2022.

Priority: Improve flood protection in Anclote, Hillsborough and

Pithlachascotee rivers, Lake Tarpon, and Pinellas County coastal watersheds

Objective: Implement Best Management Practices to reduce the impact of existing intermediate and regional system flooding in priority areas

- ***Pithlachascotee River (Pasco County)***
- ***Anclote River (Pinellas/Pasco Counties)***
- ***Curlew Creek and Smith Bayou (Pinellas County)***
- ***City of St. Petersburg (Pinellas County)***

In 2019, Pasco County and the District entered into an agreement for the Hidden Lake/Yellow Lake Stormwater Improvement Project. Once implemented, this project will provide flood protection for the downstream Yellow Lake residential area by attenuating stormwater within the Hidden Lake property. In addition, the District is cooperatively funding the Pasco-Hernando State College (PHSC)/Boggy Creek Berm Flood Protection Project which will also benefit this area by providing an alternative stormwater outlet through the PHSC berm to Boggy Creek. Both Best Management Practices (BMP) projects are in the preliminary design phase and will reduce flooding impacts within the Pithlachascotee River watershed in Pasco County. For the Anclote River Watershed, there are two FY2018 BMP implementation projects that the District is cooperatively funding with Pasco County: Forest Hills Conveyance Improvements and Colonial Manor Drainage Improvements. The Forest Hills project is currently under construction and the Colonial Manor project is nearing design completion.

Pinellas County is currently leading Watershed Management Plans (WMP), cooperatively-funded with the District, for the Anclote River, Curlew Creek and Smith Bayou watersheds. These studies will include an alternative analysis to assess potential BMPs for improved flood protection and water quality benefits. The District is also cooperatively funding a WMP with the City of St. Petersburg which will result in the analysis of implementation projects to improve flood protection within the city.

Objective: Develop watershed management plans for priority areas to better support floodplain management decisions and initiatives

- ***Curlew Creek and Smith Bayou (Pinellas County)***
- ***Lake Tarpon (Pinellas County)***
- ***Anclote River (Pinellas/Pasco Counties)***
- ***Hammock Creek (Pasco County)***
- ***Lower Peninsula (Hillsborough County)***
- ***City of St. Petersburg (Pinellas County)***
- ***City of Tarpon Springs (Pinellas County)***
- ***City of Oldsmar (Pinellas County)***

The District is currently participating in cooperative funding projects for all watersheds identified in this objective. The Lower Peninsula and City of Oldsmar WMPs will soon be completed. The data produced through these studies is already being utilized for better planning and decision-making within those areas.

Objective: Update watershed management plans and develop alternative analyses to improve flood protection

- ***Hillsborough River/Tampa Bypass Canal (Hillsborough County)***
- ***Pemberton Baker (Hillsborough County)***
- ***Alafia River (Hillsborough River)***
- ***Stevenson Creek (Pinellas County)***
- ***City of Seminole (Pinellas County)***
- ***City of Safety Harbor (Pinellas County)***
- ***City of Dunedin (Pinellas County)***

Hillsborough County and the District are currently cooperatively funding updates to the Hillsborough River/Tampa Bypass Canal, Pemberton/Baker Canal, and Alafia River WMPs. These WMPs, when completed, will provide additional information on current watershed conditions for use in the development of alternative analysis and BMP recommendations.

The City of Seminole submitted a FY2021 CFI funding application for the update of its existing WMP. This project will begin in October of 2020. The District will partner with the city to obtain the mutually beneficial objective of identifying BMPs to improve flood protection.

The District has identified Stevenson Creek, City of Safety Harbor and City of Dunedin WMPs as some of the top 20 watersheds requiring updates in its five-year planning program. The ranking criterion is based on land use changes, number of Environmental Resource Permits, flood complaints and age of topography. Having identified the need, the District is currently working with local governments to determine the potential for future coordination on the WMP updates.

Heartland Region Priorities and Objectives

Priority: Implement Southern Water Use Caution Area Recovery Strategy

Objective: Achieve a net reduction of up to 50 million gallons daily of groundwater use in SWUCA by 2025 with 40 mgd of offsets achieved through agricultural reductions via the Facilitating Agricultural Resource Management Systems Program

See Tampa Bay Regional Priorities and Objectives for a discussion on this objective.

Objective: Recover the SWUCA saltwater intrusion minimum aquifer level of 13.1 ft NGVD for the Upper Floridan aquifer to slow the rate of saltwater intrusion in the MIA

Although the SWUCA saltwater intrusion minimum aquifer level is not yet met, the target elevation associated with the minimum level was achieved for the first time in 2018 and again in 2019. To fully meet the minimum level, the target elevation must be achieved or exceeded for five consecutive years. In addition, the 2020 MFL status assessment, which was based on hydrologic data collected through 2019, indicated that MFLs for 5 of 7 freshwater river segments, 1 of 1 spring group, 4 of 4 estuaries and 14 of 32 lakes within the SWUCA are currently met. The assessment also documented improved status of MFLs established for 1 lake.

Objective: Recover minimum levels at Polk County and Highlands County lakes by 2025

Based on the 2020 MFL status assessment, minimum levels are being met at 10 of 19 lakes within Polk County with adopted levels and at 3 of 12 Highlands County lakes with adopted levels.

Objective: Assist in recovering the minimum flows for the upper Peace River through implementation of the Lake Hancock Lake Level Modification Project

The District's Lake Hancock Lake Level Modification Project became fully operational in 2014. Following an approximate one-year period during which inflows were stored in the lake, releases through the P-11 structure at the lake outlet to lower Saddle Creek were initiated in late-2015 to help achieve minimum flows in the upper Peace River. In 2020, the District established a reservation for the water stored in Lake Hancock and released to lower Saddle Creek to support river recovery efforts. The District anticipates monitoring the effectiveness of project-related flow improvements in the upper Peace River during at least a five-year operating period prior to evaluating other projects that may be needed for river recovery.

Objective: Restore minimum flows to upper Peace River by 2025 with Minimum Flows being met 95 percent of the year for three consecutive years

Minimum Low Flows are established for the upper Peace River at Zolfo Springs, Ft. Meade and Bartow as annual 95% exceedance flows that are met when the measured flow rate at the respective location is at or above the Minimum Low Flow for three consecutive years. The target flows associated with the Minimum Low Flows are 45 cfs at Zolfo Springs, 27 cfs at Ft. Meade, and 17 cfs at Bartow.

The 2020 MFLs status assessment, which was based on hydrologic data collected through 2019, indicated the Minimum Low Flow continues to be met at Zolfo Springs. The Minimum Low Flow for this location was most recently met in 2016, when the flow target of 45 cfs was achieved >99%, 97% and 100% of the time, respectively in 2014, 2015 and 2016. In 2017, 2018 and 2019, the flow target was equaled or achieved 89%, 98% and 100% of the time, respectively. Although the 95% annual exceedance of the flow target was not achieved in 2017, the Minimum Low Flow at Zolfo Springs will continue to be met through 2026, unless the measured flow rate during any year between 2020 and 2026 is below the flow target.

Based on the 2020 MFLs status assessment, Minimum Low Flows are not being met at Ft. Meade or Bartow. The flow target of 27 cfs at Fort Meade was achieved or exceeded on an annual basis 87%, 100%

and 100% of the time in 2017, 2018 and 2019 respectively. The flow target of 17 cfs at Bartow was achieved or exceeded 91%, 100% and 100% of the time in 2017, 2018 and 2019 respectively. These results indicate the flow target was not met for three consecutive years at either Fort Meade or Bartow. Previous status assessments have also indicated non-compliance with the Minimum Low Flows established at these locations. However, if the measured flow rate in 2020 at Ft. Meade or Bartow equals or exceeds the location-specific flow target, the Minimum Low Flow at that location will be met.

Objective: Ensure a sustainable water supply

The District utilizes per capita water use to help ensure a sustainable water supply in the future and to measure progress in measuring conservation. Specifically, the goals are to achieve and maintain 150 gallons per day compliance per capita with all public supply utilities and to reduce the 2011 Heartland regional average compliance per capita by five percent by 2020. The District has been making progress

toward meeting these per capita objectives in the Heartland Region. The region's average compliance per capita has declined eight percent since 2011 to 97 gpcd in 2019.

The progress in per capita water use can be attributed to water savings achieved through a combination of regulatory, economic, incentive-based and outreach measures, as well as technical assistance. The number of utilities above 150 gpcd has declined from four utilities above 150 in 2011 to only three in 2019.

The PRWC was created in 2016 through an inter-local agreement to promote regional cooperation in the development of new water supplies. A comprehensive water supply assessment was completed to assist the PRWC with evaluation of potential water supply projects for the development of up to 30 mgd of alternative water supply (AWS). Four project options have been identified with the potential to collectively provide 30 mgd of supply: (1) West Polk County Deep Wells (N882); (2) Polk Southeast Wellfield (N905); (3) Peace Creek Integrated Water Supply Plan (N928); and (4) Peace River/Land Use Transition Treatment Facility and Reservoir Project (Q133). The District's Governing Board previously allocated \$40 million for Phase I development of the selected projects, and subsequently approved an additional \$5 million per year for five years (FY2019-2023) for Phase II implementation pending achievement of specific project objectives.

The Lower Floridan aquifer (LFA) study is ongoing in Polk County. This project assesses the LFA's viability as an AWS and seeks to gain a better understanding of its characteristics and quality in Polk County. The District has executed agreements with three consultants for investigations near Crooked Lake and the cities of Frostproof and Lake Wales. Well construction and testing are proceeding at all three sites.

The District also approved the 2020 CFWI RWSP in November 2020. The CFWI region covers five counties, including Polk and southern Lake in the District, as well as Orange, Osceola and Seminole counties. The 2020 CFWI RWSP details how to best meet the regional water supply needs for the region to 2040. As part of this planning effort, the CFWI teams identified potential AWS, reclaimed water and conservation project options. A number of AWS projects and conservation initiatives identified as part of the 2015 CFWI RWSP are currently being implemented. In FY2020, 12 Mini-FARMS projects were approved in the CFWI which reduce agricultural groundwater use.

The Strategic Plan identifies reclaimed water objectives of 75 percent utilization and resource benefit by 2040. With District assistance, as of 2019 (latest data), this region has achieved 76 percent utilization and 94 percent resource benefit, exceeding the interim 2020 goals of 55 percent utilization and resource benefit. As of 2019, the region has a beneficial reclaimed water flow of 29.0 mgd, while the objectives are 23 mgd by 2020 and 42 mgd by 2040. The regional water supply planning process updates these targets as needed.

Objective: Assist the Polk Regional Water Cooperative in the development of 30 mgd of alternative water supply sources

In FY2020, the District has provided cooperative funding and technical guidance to the PRWC for four alternative water supply projects and seven conservation projects. Through Governing Board Resolution 18-06, the District reserved an additional \$5 million per year for five years for the future design and construction of water supply projects. The Southeast Wellfield Project continued its Preliminary Design phase. The West Polk Wellfield Project completed its conceptual design phase and advanced into preliminary design. The initial construction phases are anticipated to provide a combined 12.5 mgd for PRWC members and will have expansion flexibility to keep pace with future demands. The two wellfield projects received a total of \$2.424 million in State grants that were applied to the design phase expenses in FY2020. Feasibility studies for the Peace Creek and Peace River water supply projects are advancing after the completion of a water availability model, developed with input from the District's MFL staff and the PRMRWSA, a major downstream water user. The Conservation projects include indoor water conservation initiatives, outdoor watering best management practices,

the Florida Water StarSM Rebate Program, support to administer the multiple initiatives, and development of a Demand Management Plan to identify the most beneficial conservation strategies.

Conservation Projects for reference:

1. N948 Indoor Water Conservation Initiatives
2. N971 Outdoor Best Management Practices
3. P920 PRWC Outdoor BMPs
4. P921 Indoor Conservation Initiatives
5. P922 Florida Water Star Rebate Program
6. Q023 Demand Management Plan
7. Q187 Demand Management Conservation Projects Administrator

Priority: Improve Ridge Lakes, Winter Haven Chain of Lakes and Peace Creek Canal

Objective: Implement plans and projects for water quality, critical shoreline, wetlands and/or submerged habitats in each priority water body

An assessment of the Ridge Lakes was completed in 2003 for development of management strategies. Assessments were performed for 105 lakes (i.e., 61 in Highlands County, 44 in Polk County) and updated in FY2019. Initial studies identified 26 lakes as threatened by the direct discharge of untreated stormwater. Of these 26 lakes, 11 were selected for additional analysis and implementation activity based on a variety of factors (cost, land ownership, feasibility, etc.). Since that time, projects have been completed for lakes Isis, Tulane, Clinch, Verona, Clay and Menzie.

The District continues to partner with local governments to implement projects to improve water quality in the Winter Haven Chain of Lakes. Most of downtown Winter Haven is located within the Northern and Southern Chain of Lakes watersheds, which are SWIM priority water bodies. Hydrologic changes to the lakes and the high degree of urbanization have increased nutrient loading to the lakes and degraded water quality. More than 40 BMPs, including the addition of rain gardens, improved swales and small, isolated wetlands and other passive treatment methods within the downtown area of the City of Winter Haven and the outlying neighborhoods, have been installed. Ongoing projects with the City and Polk County include the design and construction of low impact design (LID) percolation and infiltration BMPs and the South Lake Conine Watershed Restoration Project.

The District also continues to partner with local governments to implement projects to improve water quality within the Peace Creek watershed. The Lake Gwyn East Surface Water Restoration Project is an ongoing project with Polk County to restore approximately 60 acres of freshwater wetlands to treat 378 acres of stormwater runoff. Construction is expected to be completed in early FY2021. This project is complementary to the previous cooperatively funded Lake Gwyn West Surface Water Restoration

Project which was completed in FY2016.

Objective: Identify priority Ridge Lakes in need of further evaluation and data collection

The District initiated a project to prepare and update the implementation plan for the Ridge Lakes Restoration Initiative in FY2017. The primary objective of this project is to create a planning document to identify additional projects in the Ridge Lakes watershed for water quality improvements and restoration of natural systems. The project was completed in FY2019. The plan was provided to stakeholders to guide future projects and priorities. Utilizing this plan to guide and set priorities, the District continues to partner with local governments to implement projects to improve water quality.

In FY2018, the District, in cooperation with Highlands County, began a watershed study to determine pollutant sources and loading in the Lake June-In-Winter watershed. The study includes developing a prioritized list of BMPs and natural system restoration projects to improve water quality. The study was completed in FY2020.

Southern Region Priorities and Objectives

Priority: Implement Southern Water Use Caution Area Recovery Strategy

Objective: Achieve a net reduction of up to 50 million gallons daily of groundwater use in SWUCA by 2025 with 40 mgd of offsets achieved through agricultural reductions via the Facilitating Agricultural Resource Management Systems Program

See the Tampa Bay Regional Priorities and Objectives for a discussion on this objective.

Objective: Recover the SWUCA saltwater intrusion minimum aquifer level of 13.1 ft NGVD for the Upper Floridan aquifer to slow the rate of saltwater intrusion in the Most Impacted Area

Although the SWUCA saltwater intrusion minimum aquifer level is not yet met, the target elevation associated with the minimum level was achieved for the first time in 2018 and again in 2019. To fully meet the minimum level, the target elevation must be achieved or exceeded for five consecutive years. Achieving the SWIMAL is the first step in meeting the Recovery Strategy's goal to slow saltwater intrusion. To further this effort, the District will reevaluate the SWIMAL in 2023 to incorporate updated data and model information.

In addition, the 2020 MFLs status assessment, which was based on the hydrologic data collected through 2019, indicated that MFLs for 5 of 7 freshwater river segments, 1 of 1 spring group, 4 of 4 estuaries and 14 of 32 lakes within the SWUCA are currently met. The assessment also documented improved status of MFLs established for 1 lake.

See the Tampa Bay Regional Priorities and Objectives for additional information relating to this objective.

Objective: Ensure a sustainable water supply

The District utilizes per capita water use to help ensure a sustainable water supply in the future and to measure progress in measuring conservation. Specifically, the goal is to achieve and maintain 150 gallons per capita per day compliance with all public supply utilities and to reduce the 2011 Southern Region average compliance per capita by five percent by 2020. The region has no utilities above 150 gpcd, and the regional average compliance per capita has declined by nine percent to 79 gpcd in 2019.

The Strategic Plan identifies reclaimed water objectives of 75 percent utilization and resource benefit by 2040. With District assistance, as of 2019 (latest data), this region has achieved 55 percent utilization and 83 percent resource benefit, exceeding the interim 2020 goals of 55 percent utilization and resource benefit. As of 2019, the region has a beneficial reclaimed water flow of 36.8 mgd, while the objectives are 39 mgd by 2020 and 65 mgd by 2040. The regional water supply planning process updates these targets as needed.

The District continues to explore aquifer storage and recharge options and partnership opportunities in the SWUCA. Both surface water and reclaimed water sources exist in sufficient quantity for recharge and aquifer storage and recovery to provide recovery benefit. Preliminary stakeholder feedback on this issue indicates that utilities will be looking for ways to provide a benefit to their customers. The District continues to fund aquifer recharge feasibility and pilot-testing projects. One example is the Southern Hillsborough Aquifer Recharge Program, which consists of several recharge wells that will use reclaimed water to recharge non-potable portions of the Upper Floridan aquifer to improve aquifer water level conditions in the MIA of the SWUCA. Potential benefits include providing a saltwater intrusion barrier.

The District is also working to develop AWS in the SWUCA. Alternative supply is an important tool in meeting recovery goals, specifically to offset projected increases in public supply groundwater demand. The SWUCA recovery strategy identified more than 50 mgd of potential AWS projects.

A major District project aimed at recovering the SWIMAL is the Flatford Swamp Project in eastern Manatee County. Hydrologic alterations and excess water have resulted in tree mortality within the swamp. The District continues to explore a project that would recharge the Floridan aquifer with the excess water within the swamp. This option would benefit both the recovery of the SWIMAL and the hydroperiod of the swamp. The test well drilling was completed in 2019 and the Floridan aquifer in that area was found suitable for recharge. The construction of diversion infrastructure was initiated in May 2020, with testing of recharge scheduled to begin in mid-2021.

The PRMRWSA has one ongoing and four completed phases of the Regional Integrated Loop System Project. These projects are part of a series of transmission pipelines developed to transfer and deliver water from existing and future alternative supplies to demand centers. This will provide the PRMRWSA's customers in four counties with maximum flexibility to address changing needs and emerging circumstances. The ongoing phase, cooperatively funded with the District, is under construction and will improve flow capacity and reliability to northern Sarasota County, and will extend to Manatee County in future phases. Additional phases are planned for the next 20 years. District funding has helped with the four completed phases of the regional loop system.

Objective: Assist the Peace River Manasota Regional Water Supply Authority in the development of 21 mgd of alternative supply sources

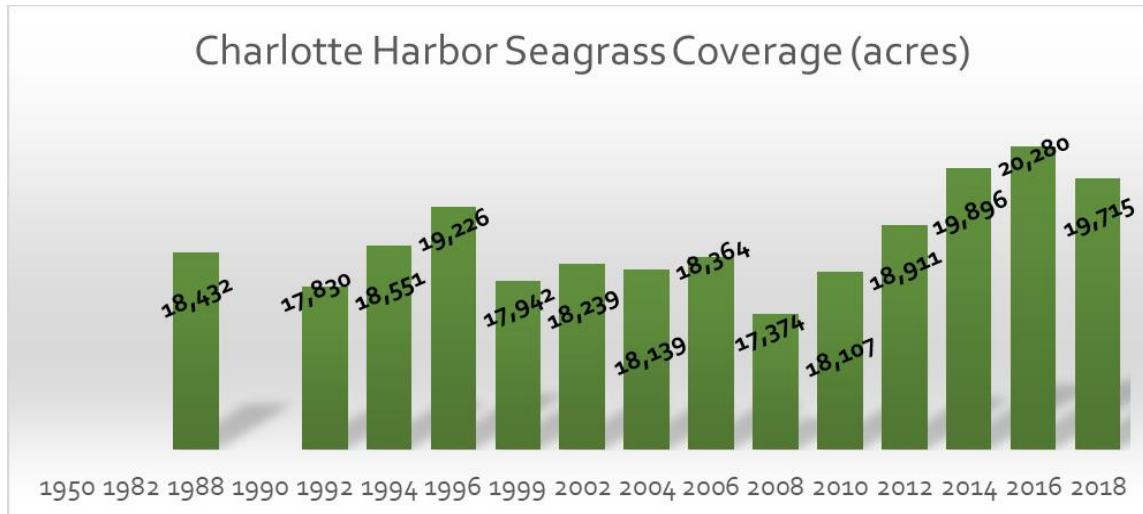
In FY2020 the District provided 50 percent funding to the PRMRWSA during construction on two Regional Loop System phases to deliver alternative water supplies throughout its four-county region, thereby reducing the member utilities' reliance on traditional groundwater sources in the SWUCA. The Phase 3B Interconnect Project in central Sarasota County commenced construction and will extend regional service from the Mabry T Carlton Treatment Facility up to State Road 72. Future extensions are expected to interconnect with facilities in Manatee County. The Phase 1 Interconnect Project reached substantial completion in FY2020 and created a direct pipeline connection between their Peace River Facility and the City of Punta Gorda's Shell Creek and Brackish Groundwater facilities. This interconnect also received 33 percent funding from the State.

Priority: Improve Charlotte Harbor, Sarasota Bay, Shell/Prairie/Joshua Creeks

Objective: Implement plans and projects for water chemistry, wetlands, critical shoreline and/or submerged habitats in each priority water body

The District continues to work with local governments on projects to assess the conditions of these water bodies and to identify and implement projects to improve water quality and habitat.

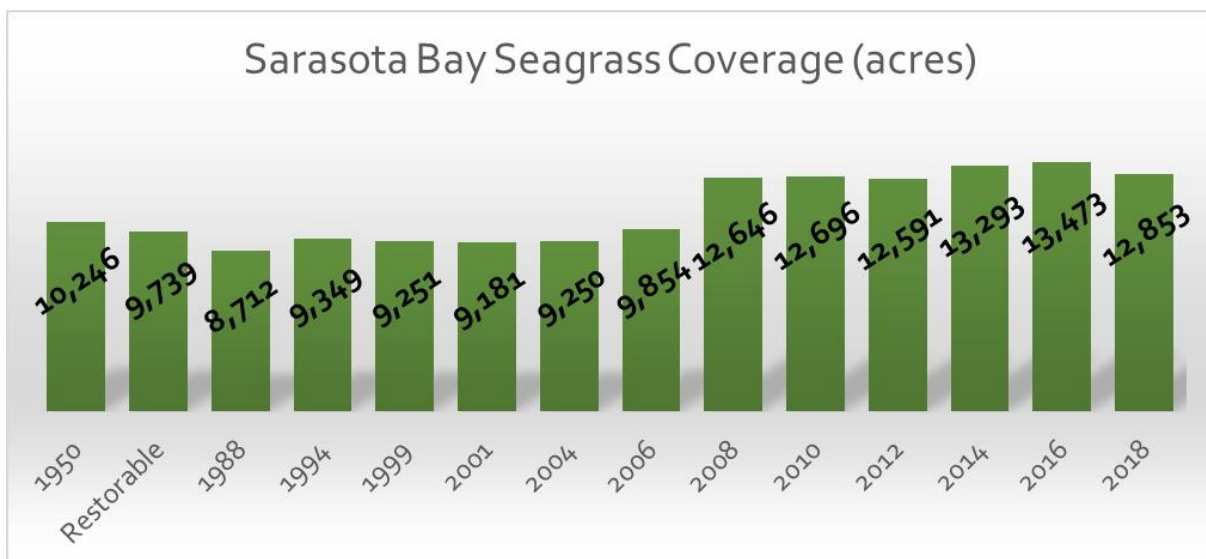
Charlotte Harbor: Charlotte Harbor is generally characterized as having good water quality. Unlike nearby estuaries like Tampa Bay and Sarasota Bay, seagrass in Charlotte Harbor is not driven by nutrient loads. Charlotte Harbor is unique in that it has relatively high amounts of colored dissolved organic matter. During wet periods, discharge from the Peace River brings large quantities of brown-colored river water, limiting the amount of light penetrating the bottom. The figure below shows mapped seagrass acreage from 1988 to 2018. While there is no significant trend over time, the last three mapping efforts (2014-2018) reported the greatest seagrass coverage over the period of record.



Source: District SWIM staff, 2019

- Seagrass coverage in 2018 decreased by 2.8 percent when compared to the 2016 map.
- Despite the decrease in coverage from 2016 to 2018, the last three mapping efforts (2014, 2016, 2018) reported the greatest seagrass coverage over the entire period of record.
- 2018 marks the completion of the 14th biennial seagrass map.
- The next seagrass mapping effort is scheduled for 2020.

Sarasota Bay: Sarasota Bay seagrass coverage has remained relatively stable since 2008 and continues to be above what was estimated to exist in 1950. Since 2006, seagrass coverage has exceeded the Sarasota Bay Estuary Program goal of 9,739 acres. Seagrass in Sarasota Bay is considered an indicator of bay health due to its sensitivity to water quality. Though water quality has fluctuated in the bay over the years, seagrass coverage has remained relatively consistent. The figure below represents seagrass acreage based on the District's biennial seagrass mapping program.



Source: District SWIM staff, 2019

- Seagrass coverage between 2016 and 2018 decreased by 4.6 percent.
- Seagrass coverage has been relatively stable since 2008 and remains well above the goal of 9,739 acres.
- 2018 marks the completion of the 12th biennial seagrass map and represents one of the most comprehensive and consistent seagrass mapping programs in the nation.
- The next seagrass mapping effort is scheduled for 2020.

Shell/Prairie and Joshua Creeks: The intent of the Shell, Prairie and Joshua Creeks Reasonable Assurance Plan (SPJCRAP), adopted on February 7, 2012, pursuant to a DEP order, was to improve water quality within these watersheds with explicit emphasis on TMDL impaired sub-basins. Specifically, the goal was to consistently meet Class I surface-water quality criteria (F.A.C. 62-302.530) for chloride, specific conductance and total dissolved solids (TDS). The target date for achieving reductions in the identified water quality parameters was 2014.

In April 2016, the District, along with the Shell, Prairie and Joshua Creek Stakeholders Group (SPJCSG), submitted the final performance monitoring report required under the SPJCRAP to DEP. This report documented water quality improvements resulting from regulatory and resource management actions specified in the plan. The DEP delisted Prairie Creek as impaired for TDS and specific conductance based on the findings in the final monitoring report and a request by the District and the SPJCSG. The final monitoring report also suggested that surface waters within WBIDs 2040 and 2041 naturally exceed DEP Class I drinking water standards. Management actions will continue to be implemented in the Shell Creek watershed to address both water quality and quantity issues (Southern Water Use Caution Area Recovery Strategy, SWFWMD, 2015). DEP did not delist the two WBIDs in Shell Creek (2040 and 2041) as impaired, but the DEP has categorized them as a low priority for TMDL development, due in part to the continuing management actions that will be taken by the stakeholders. In FY2020, five FARMS projects were approved in the SPJC Priority area, resulting in an estimated 488,000 gpd reduction in groundwater use and a reduction in TDS from reaching receiving water bodies.

In FY2020, the District continued water quality monitoring in the Shell Creek watershed to assist with identifying areas for implementation of management actions to address water quality and quantity issues.

Objective: Develop and update plans and implement natural system projects that restore critical shoreline, coastal upland and intertidal habitats

The District's SWIM program continues restoration activities for Charlotte Harbor and Sarasota Bay. In FY2019, the District completed Coral Creek Phase II, a 300-acre restoration project in Charlotte County. There are currently two other ongoing cooperative funding projects in these watersheds as described below.

Robinson Preserve Environmental Restoration: The District is working with Manatee County and other stakeholders on this project. The goal is to restore 150 acres of coastal habitat within Sarasota Bay through non-native vegetation removal, creation of freshwater and intertidal wetlands and upland enhancement. This project is expected to be completed in FY2021.

Lemon Bay Habitat Restoration Project: The District and the Lemon Bay Conservancy have partnered to initiate a project at an abandoned 80-acre golf course now known as Wildflower Preserve. The project plans include improving the tidal connectivity between Lemon Creek and Lemon Bay, enhancing the existing freshwater and estuarine wetlands, creating new estuarine wetlands, removing exotic vegetation, and adding native wetland and coastal upland plantings. This project is expected to be completed in FY2021.

Objective: Assist local governments with implementation of Best Management Practices to achieve water quality standards

The District uses its local government comprehensive plan amendment review program to communicate development strategies and practices for achieving greater water quality protection. This tool has assisted with the implementation of many District efforts. Examples of strategies communicated include the retention of native vegetation and preference for central sewer use when water bodies are at risk; incorporation of open spaces in floodprone areas; and use of clustering in more appropriate development areas. Most plan review feedback is provided for consideration and voluntary implementation. The District's review feedback also helps in satisfying provisions in Chapters 373 and 163, Florida Statutes, which require technical assistance for the development of comprehensive plan amendments.

In addition, the District uses its CFI program to help fund BMP implementation. The funding of BMPs is used extensively for watershed management, SWIM and springs initiatives. The District, in cooperation with Sarasota County, funded and completed water quality improvements and urban upland and channel shoreline restoration in Hudson Bayou which contributes to improvements in Sarasota Bay. Also, through CFI, the City of Bradenton Beach completed design on stormwater retrofits in the area of Avenues B and C that will contribute to improvements to Sarasota Bay.

All Regions

Strategic Initiative: Develop and implement a capital improvement plan for District flood control and water conservation structures and associated facilities

Objective: Development and implementation of Asset Management Program

Minimizing flood risks is a component of the District's mission that is supported by the operation and maintenance of the District's 18 flood control structures. In 2018, the District Structure Operations staff began developing an Asset Management Program, which uses risk to prioritize how available resources are used within the program. The program consists of four elements: a Capital Improvement Plan (CIP), Breakdown and Repair program, Maintenance Management program, and Life Cycle Management program. Work within each of the four elements will be prioritized by total risk which consists of the likelihood and the consequences of a failure. Each element is also evaluated for efficiency opportunities and the possibility of a reduction in responsibilities. Several steps towards the implementation of the Asset Management Program have already been initiated.

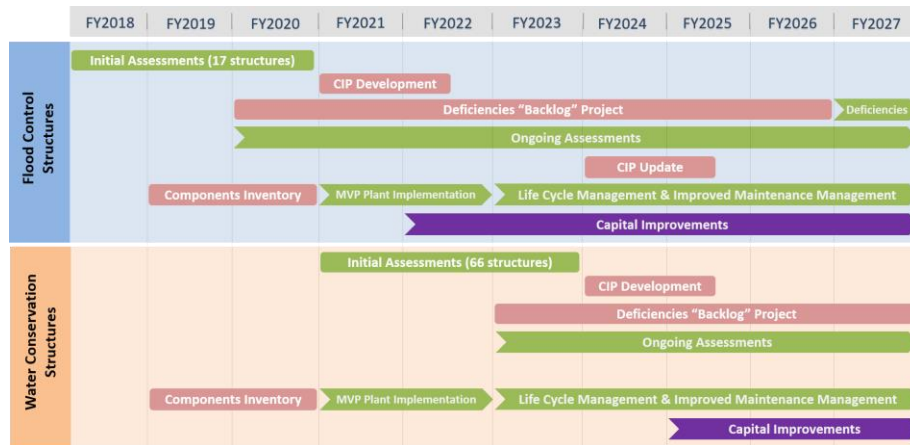
Below is a summary of the Asset Management Program activities to date:

- 100 percent of flood control structures (16) had their inventories completed by FY2020. Two flood control structures (Channel A and G structures) are no longer being operated and scheduled for decommissioning in FY2021, and therefore did not require inventories or assessments.
- 100 percent of water conservation structures (67) had their inventories completed by FY2020. One water conservation (Kell structure) is not owned by the District and is no longer being operated or maintained by the District as of FY2020, and therefore did not require an inventory or assessment.
- 100 percent of flood control structures (16) had assessments completed by FY2020 (FY2018-5 structures, FY2019-5 structures, FY2020-6 structures). Two flood control structures (Channel A and G structures) are no longer being operated and scheduled for decommissioning in FY2021, and therefore did not require inventories or assessments.
- 1.5 percent of the water conservation structures (1) had assessments completed by FY2020 (FY2020-1 structure). 66 water conservation structures have not had assessments completed as of FY2020. 37 percent of water conservation structure (25) assessments are scheduled for completion by end of FY2021. One water conservation structure (Kell structure) is not owned by the District and is no longer being operated or maintained by the District as of FY2020 and therefore will not require an inventory or assessment.

Objective: Minimize risk to the District and the public through effective asset management of the District's flood control structures

The CIP is the backbone of the Asset Management Program. This plan will ensure that the rehabilitation or replacement of any of the District's flood control structures is properly planned and budgeted. The CIP will serve as a long-term budgeting tool and will allow for the creation of a stable capital budget. It will also serve as a decision-making tool for competing resource needs within the Structure Operations Section and the District. Maintenance management is essential to ensure asset life cycles are reached or exceeded. This ensures the District will maximize its investment in assets for the taxpayers. Life cycle management of individual structure components will ensure components are replaced prior to the failure risk increasing beyond acceptable levels.

Asset Management Program Timeline (FY2018-2027)



Source: District Operations and Land staff, 2020

Priority: Ensure long-term sustainable water supply

Objective: Maximize beneficial use of reclaimed water

The Strategic Plan identifies the objectives of 75 percent reclaimed water utilization and resource benefit by 2040. As of 2019 (latest data), with District assistance, utilities within the District have achieved 51 percent utilization and 75 percent resource benefit, which is on the way to meeting the interim 2020 goals of 55 percent utilization and resource benefit. For 2019, District-wide there was a beneficial reclaimed water flow of 189 mgd, while the objectives are 213 mgd by 2020 and 333 mgd by 2040. The regional water supply planning process updates these targets as needed.

