1

Introduction

TOPICS

- 2026 UEC Plan Update
- Goal and Objectives
- Legal Authority and Requirements
- Regional and Local Planning Linkage
- Plan Development Process
- Progress Since the 2021 UEC Plan Update

The South Florida Water Management District (SFWMD or District) develops and updates regional water supply plans to address current and future water needs while protecting central and southern Florida's water resources. This *2026 Upper East Coast Water Supply Plan Update* (2026 UEC Plan Update) assesses existing and projected water demands as well as water sources to meet those demands through 2050 in the UEC Planning Area.

The UEC Planning Area includes all of Martin and St. Lucie counties, and the northeastern portion of Okeechobee County (**Figure 1-1**). The 2026 UEC Plan Update presents population estimates and associated water demands and projections, water resource and water supply development projects, and related water supply planning information. Demand estimates are provided for the 2024 base year as well as projections through 2050. Designed to be a planning guide for local governments, utilities, agricultural operations, and other water users, this 2026 UEC Plan Update provides a framework for local and regional water supply planning and management decisions in the UEC Planning Area.

The UEC Planning Area covers approximately 1,230 square miles and generally reflects the watersheds of the C-23, C-24, C-25, and C-44 canals. To the north of the UEC Planning Area is the St. Johns River Water Management District, to the west is the Lower Kissimmee Basin Planning Area and Lake Okeechobee, to the south is the Lower East Coast Planning Area, and to the east is the Atlantic Ocean. In the eastern portion of the planning area, there are metropolitan areas from Fort Pierce to Stuart, and in the western portion, there is a mixture of agricultural and urban areas from Okeechobee to Indiantown. Along the eastern boundary of the planning area are the St. Lucie Estuary and Indian River Lagoon, which provide critical habitat to a wide variety of species.

Notable water resources that are partially in and affect the UEC Planning Area include the Northwest Fork of the Loxahatchee River and Lake Okeechobee. Because these two water bodies span more than one planning area, they are noted in this plan update but are fully addressed in the *2023–2024 Lower East Coast Water Supply Plan Update* (SFWMD 2024). The Northwest Fork of the Loxahatchee River, a federally designated Wild and Scenic River, extends from southern Martin County into northern Palm Beach County. The Lake Okeechobee Service Area includes portions of Palm Beach, Martin, Okeechobee, Hendry, Glades, and Lee counties. Because the UEC Planning Area depends on surface water from

Lake Okeechobee and its connected conveyance canals for a portion of its water supply, the UEC planning efforts are tightly linked with restoration efforts and management decisions concerning those water resources.

Other unique and critical ecosystems located in the UEC Planning Area include the Indian River Lagoon, St. Lucie Estuary Watershed, Allahpattah Flats, Ten Mile Creek Water Preserve Area, Cyprus Creek, Lakeside Ranch Stormwater Treatment Area, and the Hobe Sound National Wildlife Refuge. In addition to important natural areas, the UEC Planning Area includes an extensive agricultural industry and several major urban communities, all with unique water supply needs.

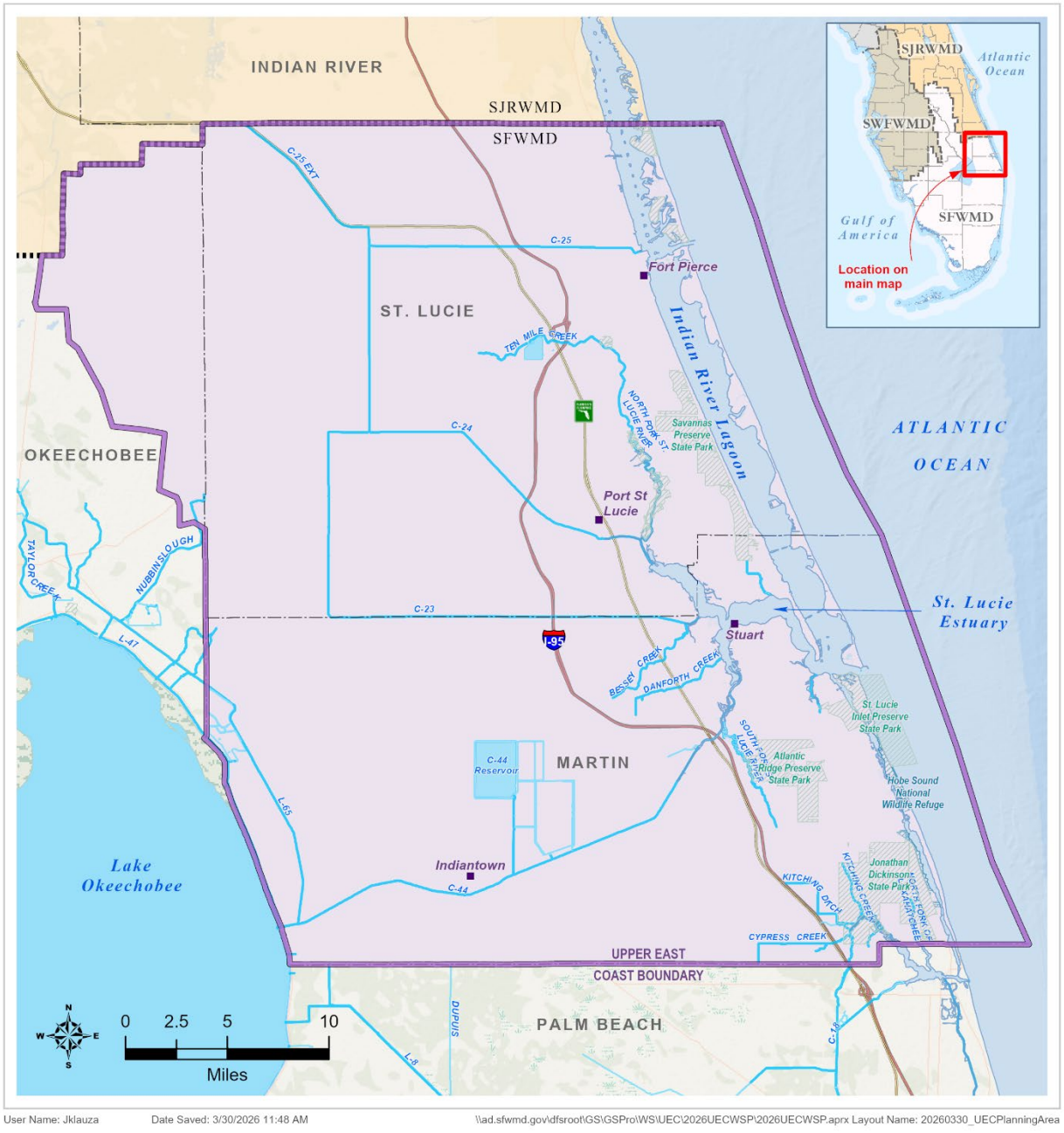

Figure 1-1. UEC Water Supply Planning Area.

Determining the availability of water needed to meet projected demands requires consideration of the area's water resources. The primary sources of fresh water throughout the UEC Planning Area are surface water and groundwater. To a much lesser extent, reclaimed water also is used for nonpotable uses like irrigation. Major surface water resources in the UEC Planning Area include the C-23, C-24, C-25, and C-44 canals as well as Lake Okeechobee and its hydraulically connected water bodies. The availability of surface water in the UEC Planning Area is limited, primarily due to water resource protection criteria (**Chapter 4**). Groundwater resources in the UEC Planning Area include the surficial and Floridan aquifer systems (SAS and FAS). Further information about water source options is provided in **Chapter 5**.

2026 UEC PLAN UPDATE

The 2026 UEC Plan Update reflects the changes experienced in the UEC Planning Area since 2021, describes the effects these changes have had on water use, and provides updates to include increased total projected water demands from 2045 to 2050. This update consists of two documents. First, the planning document with appendices focuses specifically on the UEC Planning Area. Second, the *2026–2029 Support Document for Water Supply Plan Updates* (2026–2029 Support Document; SFWMD 2026) discusses aspects common to four of the five SFWMD regional planning areas, including the legal authority and requirements for water supply planning. The Upper Kissimmee Basin is not included in the 2026–2029 Support Document because it is part of the Central Florida Water Initiative, which has its own support documents.

GOAL AND OBJECTIVES

The goal of the 2026 UEC Plan Update is to identify sufficient water supply sources and future projects to meet existing and future reasonable-beneficial uses during 1-in-10-year drought conditions through 2050 while sustaining water resources and related natural systems. The objectives for this 2026 UEC Plan Update are as follows and were updated (reviewed and modified) from the *2021 Upper East Coast Water Supply Plan Update* (2021 UEC Plan Update; SFWMD 2021):

1. **Water Supply** – Quantify sufficient volumes of water and water supply projects to meet reasonable-beneficial consumptive uses projected through 2050 under 1-in-10-year drought conditions.

2. **Natural Systems** – Sustain natural systems and water resources, including the St. Lucie River and Estuary, the Indian River Lagoon, the Northwest Fork of the Loxahatchee River, and other federal, state, and local natural resource areas.

3. **Water Conservation and Alternative Water Supply Development** – Encourage water conservation measures to improve water use efficiency. Continue to encourage development of the FAS as an alternative water supply (AWS) and monitor the SAS and FAS to enhance understanding of the relationships among water use, water levels, and water quality. Promote the development of water storage options for water supply, such as aquifer storage and recovery (ASR) systems, reservoirs, and projects that increase use of reclaimed water.

4. **Linkage with Local Governments** – Provide information to support local government Comprehensive Plans. Promote compatibility of the 2026 UEC Plan Update with local government land use decisions.

5. **Compatibility and Linkage with Other Efforts** – Achieve compatibility and integration with the following planning-related activities within the region:

   - Comprehensive Everglades Restoration Plan (CERP) and other environmental restoration projects
   - Other state and local water resource initiatives
   - Existing and proposed environmental projects
   - Modifications to operating schedules for the regional system, including Lake Okeechobee
   - Water use permitting process, minimum flow and minimum water level criteria, water reservations, and restricted allocation areas
   - Local, District, and state resiliency efforts addressing the impacts of future changing conditions, including rising sea levels and changing rainfall and flood patterns

LEGAL AUTHORITY AND REQUIREMENTS

The legal authority and requirements related to water supply planning are included in Chapters 163, 187, 373, and 403, Florida Statutes (F.S.) with Chapter 373, F.S. establishing the District's legal authority. In accordance with Florida's Water Protection and Sustainability Program, regional water supply plans and local government Comprehensive Plans must ensure that adequate potable water facilities are constructed and concurrently available to meet the demands of new development. The water supply planning region identified in this plan update shall be designated a Water Resource Caution Area under Rule 62-40.520(2), Florida Administrative Code (F.A.C.), and for purposes of Rule 62-40.416(6), F.A.C. Affected parties may challenge the designation pursuant to Section 120.569, F.S.

The SFWMD is required by statute to provide updates for a variety of resource development, restoration, and monitoring programs implemented within the District's boundaries. Such updates are provided in the annual publication of the *South Florida Environmental Report* (https://www.sfwmd.gov/sfer), as it contains relevant information for water supply planning, and is referenced as needed in this plan update.

REGIONAL AND LOCAL PLANNING LINKAGE

The SFWMD's regional water supply planning process is closely coordinated and linked to the local water supply planning of municipal/county governments and utilities. Coordination and collaboration among all water supply planning entities is needed throughout the regional water supply plan development and approval process.

While this 2026 UEC Plan Update addresses regional and Districtwide water supply issues, local governments are required to plan for their water and wastewater needs (as well as other infrastructure and public service elements) through their Comprehensive Plans. These Comprehensive Plans also include Water Supply Facilities Work Plans (Work Plans), which are required by statute. Local governments are required by Chapter 163, F.S., to update their

Work Plans and adopt revisions to their Comprehensive Plans within 18 months following approval of this 2026 UEC Plan Update. Revisions may include population projections, established planning periods, existing and future water resource projects, intergovernmental coordination activities, conservation and reuse measures, and the capital improvements element. More information on Comprehensive Plan and Work Plan requirements is provided in the 2026–2029 Support Document (SFWMD 2026).

To assist local governments in updating their Comprehensive Plans and Work Plans, the SFWMD has developed technical assistance tools and informational documents, which are available on the SFWMD webpage (https://www.sfwmd.gov/doing-business-with-us/work-plans). Additional information about developing a Work Plan is available from the Florida Department of Economic Opportunity webpage (https://www.floridajobs.org/community-planning-and-development/programs/community-planning-table-of-contents/water-supply-planning).

Public Participation

Public participation is a key component of the water supply plan development process to ensure the water supply plan update addresses the issues and concerns of stakeholders and that the future direction and projects are appropriate for future water needs. The SFWMD held three virtual workshops for this plan update. Stakeholders representing a variety of interests in the region, such as agriculture, industry, environment, utilities, local government planning departments, and state and federal agencies as well as the general public, were invited to attend the workshops. The workshops provided participants with an opportunity to review and comment on projected demands, water supply issues, the condition of regional water resources, water source options, groundwater modeling, and other key aspects of the plan update.

Individual meetings were held throughout the planning process with public supply utilities, other planning agencies, local government planning departments, and agricultural representatives to discuss water demand projections and coordinate planning efforts. During meetings with the region's major utilities and local governments, population and demand estimates and projections were reviewed and verified, and the condition of regional water resources and AWS development efforts were discussed. Additionally, the District's Governing Board was provided with an overview of the plan update for comments. Following the public comment period, the final version of the plan update was brought to the District's Governing Board for consideration of approval.

PLAN DEVELOPMENT PROCESS

This 2026 UEC Plan Update describes how anticipated water supply needs will be met in the UEC Planning Area through 2050. The planning process used to develop this plan update is outlined below.

PLAN DEVELOPMENT PROCESS

1

Planning and Assessment

The process incorporated public participation and coordination with local stakeholders, including water supply utilities, agricultural operations, nongovernmental environmental groups, local governments, the Florida Department of Environmental Protection, the Florida Department of Agriculture and Consumer Services, and other appropriate state and federal agencies. A review of previous planning efforts in the region and documentation of activities since the approval of the 2021 UEC Plan Update (SFWMD 2021) were key starting points.

2

Data Collection, Analyses, and Issue Identification

Using the 2021 UEC Plan Update (SFWMD 2021) as a foundation, developing this plan update involved collecting the latest information on current and projected population and water demands (**Chapter 2**), water conservation (**Chapter 3**), water resource protection (**Chapter 4**), water source options (**Chapter 5**), and water resource analyses (**Chapter 6**).

3

Evaluation of Water Resources and Water Source Options

This phase of the planning process involved reviewing existing monitoring data and updated regional modeling used for evaluation of water resources to identify issues. Where projected demands exceed available supplies, water supply project options were identified, including alternative water supplies and water conservation.

4

Identification of Water Resource and Water Supply Development Projects

Where resource conditions warranted, the SFWMD identified water resource development projects (**Chapter 7**). With input from stakeholders, the public, and other agencies, the SFWMD identified, compiled, and evaluated water supply development projects intended to meet water needs over the planning horizon. The SFWMD also considered water supply projects in local government Work Plans and adopted Sector Plans, which are required to identify needed water supplies and available water sources pursuant to Section 163.3245(3)(a)2., F.S. Additionally, the projects were screened for permitting feasibility (**Chapter 8**).

PROGRESS SINCE THE 2021 UEC PLAN UPDATE

Since the 2021 UEC Plan Update (SFWMD 2021), the following activities have improved the understanding of and are supporting the sustainability of the region's water resources, water supply, and natural systems.

Hydrologic Studies, Monitoring, and Modeling

- **Updated Delineation of the Saltwater Interface** – The SFWMD reviewed 2024 water quality data from Martin and St. Lucie counties and prepared updated maps comparing the 2009, 2014, 2019, and 2024 extent of saltwater intrusion within the SAS (**Chapter 6**).
- **FAS Monitoring Network** – The SFWMD continues to maintain and update a network of more than 117 FAS monitor wells, 16 of which are within the UEC Planning Area. Water level data from the monitor wells help manage use of the FAS as a water supply source. In addition, water quality sampling and analyses are conducted periodically to observe any trends that might signal overuse of the resource.
- **Hydrogeologic Studies** – Between 2021 and 2024, the SFWMD and its partners completed the following hydrogeologic investigations in the UEC Planning Area:
  - *Saltwater Interface Monitoring and Mapping Program Update 2024* (Zumbro and Coonts 2025)
  - *Hydrostratigraphic Mapping of the Surficial Aquifer System, Upper and Lower East Coast Planning Areas* (Coonts 2024)
  - *Upper East Coast Floridan Aquifer System Groundwater Monitoring Network Data Report 1999–2007* (Zumbro and Sunderland 2022)
- **United States Geological Survey (USGS)/SFWMD Cooperative Monitoring** – Water level and water quality monitoring at existing monitor wells provides critical information to develop groundwater models, assess groundwater conditions, and manage groundwater resources. The SFWMD maintains extensive groundwater monitoring networks and partners with the USGS to provide additional support and funding for ongoing monitoring. Well details and monitoring data are provided in various SFWMD technical publications and in the District's corporate environmental and water quality database, DBHYDRO Insights on the SFWMD webpage https://www.sfwmd.gov/science-data/dbhydro. Data from sites monitored by the USGS are archived in a USGS database and published annually.
- **East Coast Floridan Model** – The East Coast Floridan Model (Billah et al. 2021) was updated to identify potential changes in water quality, flows, and water levels in the FAS for the 2024 and 2050 withdrawal scenarios. **Chapter 6** provides information about the modeling effort for this plan update.
- **East Coast Surficial Model** – The East Coast Surficial Model, a density dependent groundwater model (Obeysekera et al. 2026), was updated to evaluate changes in water levels and water quality in the SAS for the 2024 and 2050 withdrawal scenarios (**Chapter 6**).

Water Supply Studies

- **Annual Estimated Water Use Reports** – The SFWMD prepared annual reports that summarize estimated use (based on reported withdrawals) for the water use categories: Public Supply, Domestic Self-Supply, Agriculture, Commercial/Industrial/Institutional, Landscape/Recreational, and Power Generation. The annual reports can be found at https://www.sfwmd.gov/our-work/studies-and-reports.
- **2023 Water Supply Cost Estimation Study** – The SFWMD funded an engineering evaluation of the capital and operational costs of various water supply facilities, including groundwater wellfields, surface facilities, water treatment processes, storage, piping and distribution facilities, and other ancillary components that was completed in 2023. The report can be found at https://www.sfwmd.gov/our-work/studies-and-reports.

Regulations and Operations

- **Lake Okeechobee System Operating Manual (LOSOM)** – A re-evaluation of the lake regulation schedule by the United States Army Corps of Engineers (USACE) began in 2019 to coincide with the Herbert Hoover Dike repairs which were completed in 2023. The water control plan was completed, and the final Record of Decision was signed in August of 2024.

Water Storage, Construction, and Restoration Projects

- **Herbert Hoover Dike/Lake Okeechobee** – In 2006, the USACE designated the Herbert Hoover Dike as a Level 1 risk, the highest risk for dam failure. Rehabilitation and repair of the Herbert Hoover Dike was completed in 2023. Twenty-eight water control structures were replaced with new structures, one culvert was removed, and three were filled in. Construction of all works are completed, and the Dam Safety Action Classification rating improved from a Level 1 to a Level 4 (lowest risk of dam failure).

Herbert Hoover Dike

- **Lake Okeechobee Watershed Restoration Project (LOWRP)** – The purpose of the LOWRP, as part of CERP, is to improve the ecology of Lake Okeechobee, improve the quantity and timing of releases to the St. Lucie and Caloosahatchee estuaries (northern estuaries), increase the extent and functionality of aquatic and wildlife habitat within Lake Okeechobee and the surrounding watershed, and improve water supply for existing legal users. The Florida State Legislature appropriated funding to the SFWMD for LOWRP in 2019-2021 for the design, engineering, and construction of specific LOWRP components designed to achieve the greatest reduction in harmful discharges to the Caloosahatchee and St. Lucie estuaries. The SFWMD and USACE determined the ASR well component would provide the greatest benefits to the estuaries. The SFWMD is currently implementing the ASR component of LOWRP while addressing the remaining uncertainties and stakeholder concerns regarding regional implementation of this technology. To reduce critical scientific uncertainties, the SFWMD and USACE developed the ASR Science Plan, which outlined potential studies to be conducted as additional ASR wells are implemented in a phased manner. SFWMD and USACE update the ASR Science Plan with investigations' findings, including additional studies proposed by the U.S. Army Engineer Research and Development Center (ERDC). The ERDC studies are ongoing and are anticipated to be completed in 2026. The LOWRP Planning effort is currently on hold and is pending direction from USACE. See **Chapter 7** for more LOWRP details.
- **Lake Okeechobee Component A Reservoir (LOCAR)** – The SFWMD, working in conjunction with the USACE, conducted and prepared a Section 203 Feasibility Study (FS) and Environmental Impact Statement (EIS) for the North of Lake Okeechobee Storage Reservoir, also known as LOCAR. The FS and EIS explored opportunities for 200,000 acre-feet of aboveground water storage north of Lake Okeechobee to maintain the basin storage in the original Recommended Plan for LOWRP. The study area covers a large portion of the Lake Okeechobee Watershed north of Lake Okeechobee, and the project will provide ecological benefits to the lake and the northern estuaries. The LOCAR FS and EIS were submitted on February 28, 2024 to the Assistant Secretary of the Army for Civil Works for consideration by Congress in the Water Resources Development Act (WRDA) of 2024. LOCAR was authorized in the WRDA 2024 and is currently under the preliminary engineering design phase. By creating additional water storage north of Lake Okeechobee, the LOCAR project, in conjunction with the LOWRP ASR systems, will improve flexibility in the timing and distribution of water in the lake, to the estuaries, and throughout the watershed. Water can be stored during wet times to reduce damaging high lake levels and can be released into the lake during dry times to reduce adverse impacts of low lake levels, thereby improving the reliability of water supplies. Additional LOCAR details are provided in **Chapter 7**.

- **Indian River Lagoon – South Project** – The Indian River Lagoon – South (IRL-S) project is part of CERP and was authorized by WRDA 2007. The purpose of the IRL-S project is to restore, preserve, and protect the Indian River Lagoon, St. Lucie Estuary, and associated watershed while maintaining the existing level of flood control and water supply. Structural project components for the IRL-S project, such as reservoirs and stormwater treatment areas (STAs), will capture, store, and treat local runoff to the Indian River Lagoon and St. Lucie Estuary from the C-44, C-23, C-24, and C-25 basins. The C-44 reservoir and STA construction was completed in 2021, and operational testing and monitoring has commenced. Additional structural and operational components of the IRL-S project, such as the C-23 to C-44 Estuary Discharge Diversion, the C-23/C-24 and C-25 STAs and reservoirs, the North Fork Floodplain Restoration project, and natural storage and treatment areas are discussed in **Chapter 7**.

C-44 Reservoir and STA

- **Ten Mile Creek Water Preserve Area** – The Ten Mile Creek Water Preserve Area consists of a 526-acre water storage area and 132-acre STA that improves the quantity and timing of water discharged into the St. Lucie River and Estuary. Originally constructed by the USACE, the project was transferred to the SFWMD in May 2016. Rehabilitation of the water preserve area was completed, and routine operation at a 4-foot maximum depth commenced in August 2017. See **Chapter 7** for more details.
- **Lakeside Ranch STA** – The Lakeside Ranch STA is a key component of the Lake Okeechobee Watershed Construction Project authorized under the Northern Everglades and Estuaries Protection Program, designed to reduce phosphorus loads to Lake Okeechobee. Located in northwestern Martin County, the Lakeside Ranch STA project consists of canals, levees, and treatment cells with an effective treatment area of 1,707-acres, a central preserve area, and a southern preserve area on a 2,700-acre parcel of land adjacent to Lake Okeechobee. The project was completed in August 2021. See **Chapter 7** for more details.

Cooperative Funding Program

As part of the regional water supply plans' water resource development component (**Chapter 7**), and to assist local water users in implementation of the water supply development component (**Chapter 8**), the SFWMD periodically provides funding assistance to public water suppliers, local governments, special districts, homeowners' associations, water users, and other public and private organizations for AWS and water conservation projects that are consistent with the SFWMD's core mission. In 2019, the Florida Department of Environmental Protection and the SFWMD initiated annual funding for the construction and implementation of AWS and water conservation projects to qualified applicants through the Cooperative Funding Program.

- **Alternative Water Supply** – From Fiscal Year (FY) 2022 through FY2026, the SFWMD provided approximately $2.5 million for one AWS project that is under construction in the UEC Planning Area, generating 2 million gallons per day (mgd) of additional brackish water capacity.
- **Water Conservation** – From FY2022 through FY2026, the SFWMD provided $94,125 in funding for one water conservation project that was implemented in the UEC Planning Area. The project is estimated to save 6.69 million gallons per year (0.02 mgd).

REFERENCES

Billah, M., R. Earle, and U. Bandara. 2021. *Re-Calibration and Application of the East Coast Floridan Model*. South Florida Water Management District, West Palm Beach, FL. September 2021.

Coonts, S. 2024. *Hydrostratigraphic Mapping of the Surficial Aquifer System, Upper and Lower East Coast Planning Areas.* Technical Publication WS-64. South Florida Water Management District, West Palm Beach, FL. November 2024.

Obeysekera, A., Y. Assegid, P. Kwiatkowski, K. Rodberg, J. Grisales, B. Martinez, and A. Magloire. 2026. *Model Calibration Report East Coast Surficial Aquifer System Model (ECSM).* South Florida Water Management District, West Palm Beach, FL.

SFWMD 2021. *2021 Upper East Coast Water Supply Plan Update*. South Florida Water Management District, West Palm Beach, FL. November 2021.

SFWMD 2024. *2023–2024 Lower East Coast Water Supply Plan Update*. South Florida Water Management District, West Palm Beach, FL. September 2024.

SFWMD. 2026. *2026–2029 Support Document for Water Supply Plan Updates.* South Florida Water Management District, West Palm Beach, FL. January 2026.

Zumbro, J. and S. Coonts. 2025. *Saltwater Interface Monitoring and Mapping Program Update 2024*. Technical Publication WS-67. South Florida Water Management District, West Palm Beach, FL. February 2025.

Zumbro, J. and S. Sunderland. 2022. *Upper East Coast Floridan Aquifer System Groundwater Monitoring Network Data Report 1999–2007.* Technical Publication WS-60. South Florida Water Management District, West Palm Beach, FL. June 2022.