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# Fiscal Year 2020 Five-Year Water Resource Development Work Program

October 2019

sfwmd.gov

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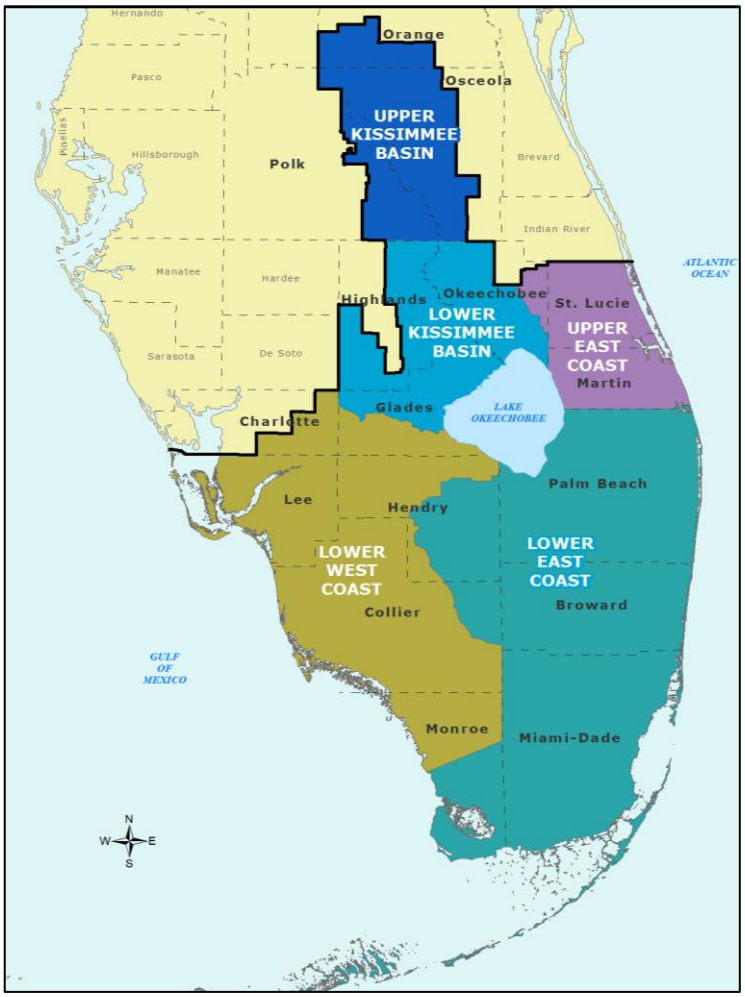
# INTRODUCTION

Water management districts are required by Section 373.709, Florida Statutes (F.S.), to develop a regional water supply plan (RWSP) if they determine the existing sources of water are (1) inadequate to supply water for all existing and future reasonable-beneficial uses, and/or (2) may not sustain water resources and related natural systems for a 20-year planning period. RWSPs include analysis of current and future water demands, evaluation of available water sources, and identification of water resource and water supply development projects to meet demands.

The South Florida Water Management District (SFWMD or District) is required to prepare a Five-Year Water Resource Development Work Program (Work Program) as a part of its annual budget reporting process, pursuant to Subsection 373.536(6)(a)4, F.S. The Work Program must describe SFWMD's implementation strategy relating to its water resource development and water supply development (including alternative water supply [AWS] sources) components over the next 5 years. Furthermore, the Work Program must do the following:

- Address all the elements of the water resource development component of the approved RWSPs as well as the water supply projects proposed for SFWMD funding and assistance.
- Identify anticipated available SFWMD funding and additional funding needs for years 2 through 5 of the funding plan.
- Identify projects that will provide water, including an estimate of the quantity produced.
- Explain how each water resource and water supply development project will produce additional water supply for consumptive uses.
- Assess the contribution of the RWSPs in supporting the implementation of minimum flows and minimum water levels (MFLs) and water reservations.
- Ensure sufficient water is available to meet the water supply needs of existing and future reasonable-beneficial uses for a 1-in-10-year drought event and to avoid adverse effects of competition for water supplies.

This Work Program covers the period from Fiscal Year (FY) 2019-2020 through FY 2023-2024 and is consistent with the planning strategies of SFWMD's RWSPs. SFWMD has developed RWSPs for five distinct regional planning areas (**Figure 1**): Upper Kissimmee Basin, Lower Kissimmee Basin, Upper East Coast, Lower West Coast, and Lower East Coast. The Upper Kissimmee Basin is part of the Central Florida Water Initiative (CFWI), which covers Orange, Osceola, Polk, and Seminole counties as well as southern Lake County. The CFWI is a collaborative planning effort by three water management districts (SFWMD, Southwest Florida Water Management District, and St. Johns River Water Management District) to identify sustainable water supply options and potential projects to meet future demands while protecting, conserving, and restoring water resources in Central Florida. The approval dates of the most recent SFWMD RWSPs (SFWMD et al. 2015; SFWMD 2016, 2017, 2018, 2019 [in prep]) and the next updates for each planning area are identified in **Table 1**. Starting in 2016, RWSP updates have a common planning horizon of 2040. For additional information about SFWMD's RWSPs, please see https://www.sfwmd.gov/our-work/water-supply.




- **Upper Kissimmee Basin:** Portions of Osceola, Orange, and Polk counties
- **Lower Kissimmee Basin:** Portions of Okeechobee, Highlands, and Glades counties
- **Upper East Coast:** Martin and St. Lucie counties and eastern Okeechobee County
- **Lower East Coast:** Palm Beach, Broward, and Miami-Dade counties, and portions of Monroe, Collier, and Hendry counties
- **Lower West Coast:** Lee County and portions of Collier, Glades, Hendry, Monroe, and Charlotte counties

**Figure 1**. Regional water supply planning areas in SFWMD.

**Table 1**. Current water supply plan and 5-year updates schedule.

| Planning Region | Current Water Supply Plan | Next Update |
|---|---|---|
| Central Florida Water Initiative | November 2015 | November 2020 |
| Upper East Coast | March 2016 | March 2021 |
| Lower West Coast | December 2017 | December 2022 |
| Lower East Coast | November 2018 | November 2023 |
| Lower Kissimmee Basin | December 2019 [a] | December 2024 |

a. The *2019 Lower Kissimmee Basin Water Supply Plan Update* is scheduled for Governing Board approval in December 2019.

The population within SFWMD's boundaries is expected to increase by approximately 2.2 million people to approximately 10.9 million people by 2040. The rate of population growth varies throughout the SFWMD area, with some counties experiencing faster growth than others. Raw water demand for all water use categories is projected to increase by 571 million gallons per day (mgd) to approximately 4.1 billion gallons per day (bgd) in 2040. Overall, demand projections in the most recent water supply plan updates are lower than previous updates due to the reasons explained below.

In response to rapid population increases between 2006 and 2010 and high population projections at that time, many utilities within SFWMD's boundaries expanded water treatment facilities, developed AWS, and secured increased permit allocations to meet anticipated water needs. Some of these activities received funding assistance through SFWMD's Cooperative Funding Program (CFP) and the state's Water Protection and Sustainability Program. However, following the economic recession in 2008 to 2012, the anticipated population growth did not occur and growth projections were substantially reduced. In addition, per capita use rates declined due to the economy, water shortage restrictions, implementation of year-round irrigation restrictions, and an emerging water conservation ethic. These conditions left many utilities with reduced future demands and constructed treatment capacity that may not be fully utilized until well into the future.

## WORK PROGRAM SUMMARY

The Work Program presented herein is adequate to ensure water is available to meet the water supply needs of existing and future reasonable-beneficial uses during a 1-in-10 year drought event, to avoid the adverse effects of competition for water supplies, and to maintain the function of natural systems. This Work Program outlines SFWMD's planned funding over the next 5 years, including implementation of MFLs and Water Reservations.

SFWMD projects that supply water primarily for the environment, including projects associated with the Comprehensive Everglades Restoration Plan (CERP), Restoration Strategies, or other restoration projects are presented in SFWMD's, *2020* South Florida Environmental Report (SFER) – Volume II, and SFER Consolidated Project Report Database, which are accessible at www.sfwmd.gov/sfer.

The FY 2019-2020 through FY 2023-2024 implementation schedule and projected expenditures (including salaries, benefits, and operating expenses) for water resource development activities are detailed in this document and reflect SFWMD's continued commitment to ensuring adequate resources are available to meet existing and future reasonable-beneficial needs. The estimated funding allocation identified for the next 5 years is more than $1,075 million. Water resource development activities are listed in **Table 2**, and the implementation schedule and projected expenditures are listed in **Table 3**. This Work Program is estimated to make available more than 1,755 mgd annually as a result of these ongoing programmatic efforts, the majority of which is delivered from the Central and Southern Florida Flood Control Project (C&SF Project) regional system to the Lower East Coast through structure releases to maintain Lower East Coast canal levels, and regional seepage that helps maintain Lower East Coast groundwater levels, for water supply purposes. This amount will increase with water made available upon completion of water supply projects, including reuse and non-reuse water for urban and agricultural water supply that will be funded through the CFP. Included is $432 million in budgeted or proposed funding over the next five years for the Lake Okeechobee Watershed Restoration Project (LOWRP) and Everglades Agricultural Area (EAA) Storage Reservoir Conveyance Improvements and Stormwater Treatment Areas which also provide water supply benefits consistent with the Governor's Executive Order 19-12.

Potable water supply utilities have tentatively identified 24 reuse and non-reuse water supply development projects they plan to construct between FY 2019-2020 through FY 2023-2024 with local funding as part of their annual progress report required by Subsection 373.709(8)(b), F.S. The 24 projects will create an estimated 29.6 mgd of alternative water supply capacity and 55.4 mgd of reclaimed water distribution capacity.

In addition to salary, benefits, and operating expenses for MFL criteria and rule development, almost $676 million over the next 5 years (**Table 4**) is planned for construction projects supporting MFL prevention and recovery strategies. However, new water will not be available for many projects associated with MFL water bodies until all project components are completed. Funding for the CERP Caloosahatchee River (C-43) West Basin Storage Reservoir project is expected to make approximately 152 mgd of non-

reuse water available upon completion to be used solely for environmental purposes benefitting the Caloosahatchee River MFL. The stormwater stored in the reservoir is protected by a water reservation to prevent allocation to consumptive uses.

## WATER RESOURCE AND WATER SUPPLY DEVELOPMENT

Water resource development components are those that involve 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. 373.019" (Section 373.019(24), F.S.). These types of projects are regional in nature and primarily the responsibility of SFWMD. Two examples would be the C&SF Project and CERP projects. The C&SF project canals move water from Lake Okeechobee and the Water Conservation Areas (WCAs) to maintain coastal canal levels, augment water supplies during dry times, and prevent saltwater intrusion. The canals provide water to major ecosystems and agricultural and urban areas. They are also a crucial component of the region's flood control system. CERP, a partnership between the United States Army Corps of Engineers (USACE) and SFWMD, is a critical component of water supply planning, which includes capital projects needed to protect and restore natural systems and enhance water availability. CERP capital projects include the EAA Reservoir and Stormwater Treatment Area (STA), Caloosahatchee River (C-43) West Basin Storage Reservoir, and C-44 Reservoir and STA. The Governor's Executive Order 19-12 directed funding be secured for projects that provide water quality, quantity and supply benefits. In response to that Order, $432 million in funding is budgeted or proposed in the next five years for the Lake Okeechobee Watershed Restoration Projects (LOWRP) and Everglades Agricultural Area (EAA) Storage Reservoir Conveyance Improvements and Stormwater Treatment Areas which also provide water supply benefits.

**Table 2**. SFWMD water resource development activities and descriptions.

| Water Resource Development Activity | Activity Description |
|---|---|
| Water Supply Planning | Work associated with developing 5-year updates to SFWMD's RWSPs, not including the CFWI RWSP. |
| CFWI Planning Project | Work associated with developing the 5-year update to and implementation of the 2015 CFWI RWSP, including well drilling, wetlands monitoring, data collection and analysis, East-Central Florida transient expanded groundwater modeling, participation in technical and management teams, and production of the 2020 CFWI RWSP. |
| Local Government Assistance | Review of local government comprehensive plans and plan amendments, including water supply facilities work plans (Chapter 163, F.S.). Technical assistance to local governments (Sections 189.4156 and 373.711, F.S.) to develop and revise local government comprehensive plan elements. |
| Water Supply Implementation | Implementation of RWSPs, including coordination, execution, and facilitation of water resource development activities, operational changes, implementation of AWS development projects, conservation programs, and rulemaking associated with the RWSPs. This is a multi-year process that involves working closely with other agencies, local governments, utilities, the agricultural industry, and environmental interests. |
| Cooperative Funding Program | Funding assistance provided to local water users for stormwater, AWS, and water conservation projects that are consistent with SFWMD's core mission and RWSPs. This also includes AWS funding by Big Cypress Basin when budgeted. Stormwater projects are not included in this Work Program. |
| Comprehensive Water Conservation Program | Activities associated with implementation of SFWMD's Comprehensive Water Conservation Program. |
| MFLs and Water Reservations Activities | Activities associated with development and re-evaluation of MFLs pursuant to Sections 373.042 and 373.0421, F.S., and water reservations. Further discussion and a list of projects associated with an MFL prevention or recovery strategy and water reservations for this report time period is provided in the following sections. |
| Hydrologic Investigations, Groundwater Monitoring, Data Collection, and Analysis | Costs associated with SFWMD's maintenance of extensive groundwater monitoring networks and partnering with the United States Geological Survey to provide additional support and funding for ongoing monitoring. Documentation (including location, well construction, geophysical logging, aquifer testing, water level, and water quality, and saltwater intrusion data) is provided in various SFWMD technical publications (www.sfwmd.gov/techpubs) and its corporate environmental database, DBHYDRO (www.sfwmd.gov/dbhydro). |
| Groundwater Modeling | Work associated with groundwater modeling efforts in support of RWSP updates. This 5-year report includes completion and application of the Lower West Coast Surficial/Intermediate Aquifer Systems Model, application of the Lower West Coast Floridan Aquifer Model and East Coast Floridan Model, and revisions to the Lower East Coast Subregional Model. |
| C&SF Project Operations and Maintenance | The estimated costs for operations and maintenance of the C&SF Project that are attributed to providing water supply. Approximately 50% of the operations and maintenance budget is allocated to providing water supply to the region. |

**Table 3**. Fiscal Year 2019-2020 through Fiscal Year 2023-2024 implementation schedule and projected expenditures (including salaries, benefits, and operating expenses) for water resource development activities.

| Activities | Plan Implementation Costs ($ thousands) | | | | | |
|---|---|---|---|---|---|---|
| | Fiscal Year 2019-20 | Fiscal Year 2020-21 | Fiscal Year 2021-22 | Fiscal Year 2022-23 | Fiscal Year 2023-24 | Total |
| Water Supply Planning<br>Estimated finish date: Ongoing | 1,036 | 1,036 | 1,036 | 1,036 | 1,036 | **5,180** |
| CFWI Water Supply Planning Project<br>Estimated finish date: Ongoing | 2,980 | 2,980 | 2,980 | 2,980 | 2,980 | **14,900** |
| Comprehensive Plan, Documents Review, and Technical Assistance to Local Governments<br>Estimated finish date: Ongoing | 219 | 219 | 219 | 219 | 219 | **1,095** |
| Water Supply Implementation<br>Estimated finish date: Ongoing | 218 | 218 | 218 | 218 | 218 | **1,090** |
| MFL, Water Reservation, and Restricted Allocation Area Activities<br>Estimated finish date: Ongoing | 337 | 337 | 337 | 337 | 337 | **1,685** |
| Comprehensive Water Conservation Program<br>Estimated finish date: Ongoing | 276 | 276 | 276 | 276 | 276 | **1,380** |
| Cooperative Funding Program<br>Estimated finish date: Ongoing | 18,121 | 0 [a] | 0 [a] | 0 [a] | 0 [a] | **18,121** |
| Groundwater Monitoring<br>Estimated finish date: Ongoing | 1,590 | 1,590 | 1,590 | 1,590 | 1,590 | **7,950** |
| Groundwater Modeling<br>Estimated finish date: Ongoing | 808 | 808 | 808 | 808 | 808 | **4,040** |
| Estimated Portion of C&SF Project Operation and Maintenance Budget Allocated to Water Supply [b]<br>Estimated finish date: Ongoing | 117,411 | 117,411 | 117,411 | 117,411 | 117,411 | **587,055** |
| **Subtotal** | **142,996** | **124,875** | **124,875** | **124,875** | **124,875** | **642,496** |
| **Regional Projects Benefitting Water Supply** | | | | | | |
| Lake Okeechobee Watershed Restoration [c] | 50,000 | - | - | 29,000 | 29,000 | **108,000** |
| EAA Storage Reservoir Conveyance Improvements and Stormwater Treatment Areas [c,d] | 36,892 | 70,034 | 99,468 | 118,135 | - | **324,529** |
| **Subtotal** | **86,892** | **70,034** | **99,468** | **147,135** | **29,000** | **432,529** |
| **Total** | **229,888** | **194,909** | **224,343** | **272,010** | **153,875** | **1,075,025** |

a. A determination of what funds, if any, will be allocated for cooperative funding projects will be made by the Governing Board during the fiscal year.

b. Approximated based on 50% of the Fiscal Year 2019-2020 operation and maintenance budget.

c. Information contained in the draft Fiscal Year 2019-2020 SFWMD Five-year Capital Improvement Plan (Fiscal Years 2019-2020 to 2023-2024).

d. EAA Storage Reservoir Conveyance Improvements and Stormwater Treatment Areas includes: C-44/C-23 Interconnect, Site Preparation, Inflow Canal Reservoir/STA, A-2 STA, North New River and Miami Canal Improvements and Bridges.

## Cooperative Funding Program

As part of the RWSPs' water resource development component and to assist local water users in implementation of the water supply development component, SFWMD periodically provides funding assistance to public water suppliers, local governments, special districts, homeowners' associations, water users, and other public and private organizations for stormwater, AWS, and water conservation projects, that are consistent with SFWMD's core mission, through the CFP. Water supply development components are those that involve "planning, design, construction, operation, and maintenance of public or private facilities for water collection, production, treatment, transmission, or distribution for sale, resale, or end use" (Section 373.019(26), F.S.) and are primarily the responsibility of local water providers. The CFP combines funding for these project types into one streamlined program to provide partnership opportunities and financial incentives to implement local projects that complement regional flood control, restoration, water quality, and water supply efforts. FY2019-2020 budget includes $17.5 million for the Florida Department of Environmental Protection's (FDEP's) AWS Funding Program. The FY 2019-2020 budget includes $600,000 for CFP AWS and water conservation projects, which includes $300,000 from the state's Water Protection and Sustainability Program and $300,000 from District ad valorem. A list of funded projects will be included at a future date.

## Minimum Flows and Minimum Water Levels and Water Reservation Activities

MFL implementation activities include conducting research to set scientifically based criteria for defining significant harm; conducting voluntary, independent scientific peer review of the associated science where needed; obtaining stakeholder input; and completing rulemaking. Prevention or recovery strategies are developed concurrently with MFLs to either maintain (prevention strategy) or achieve (recovery strategy) compliance with established MFLs. SFWMD has adopted MFLs for 9 water bodies, which include 40 MFL compliance monitoring sites. Five MFL water bodies have prevention strategies while the remaining four MFLs have recovery strategies. All four MFL water bodies that have recovery strategies have projects planned in the next 5 years to move toward meeting the minimum flow or level (**Table 4**). Three of the five MFL water bodies that have prevention strategies rely on existing regulatory components to meet the minimum flow or level and do not involve new projects. Of the two remaining MFL waterbodies that have prevention strategies (Florida Bay and St. Lucie Estuary), only the St. Lucie Estuary has CERP project components planned within this 5-year Work Program (**Table 4**). No new MFLs are proposed for future adoption within the 5-year period of this Work Program.

From 2011 to 2017, SFWMD scientists completed a comprehensive assessment of the science and research for the Caloosahatchee River Estuary to reevaluate the MFL (Appendix A in SFWMD 2018b). An MFL technical support document was developed and peer reviewed in 2017 (Buskey et al. 2018, SFWMD 2018b. In 2018, SFWMD staff began the rule development process and held two separate public rule development workshops. In September 2018, the SFWMD Governing Board approved the adoption of the revised MFL rule criteria. A rule challenge was subsequently filed, and a two-day administrative hearing occurred in October 2018. The final order was received in March 2019. The Administrative Law Judge ruled in favor of all merits of the petition. The Governing Board requested staff to hold additional public workshops to discuss supplemental statistical or mathematical approaches, within the existing scientific framework, that could be used to support a change in the MFL criteria. Three additional rule development workshops were held on May 31, June 20, and September 20, 2019. A rule adoption hearing is presently scheduled to occur at the Governing Board meeting on October 10, 2019.

MFL prevention or recovery strategy projects with implementation costs planned for FY 2019-2020 through FY 2023-2024 are listed in **Table 4**. These projects are designed to provide new water for the MFL water body once all the project components are completed. This list does not include projects associated with improving water quality or providing additional storage within the watershed (e.g., dispersed water management [DWM] projects).

A water reservation sets aside water for the protection of fish and wildlife or public health and safety. They also support restoration efforts and recovery or prevention strategies for established MFLs. The legal protection of water for the project is required before SFWMD and the USACE enter into a project partnership agreement. This protection is also required by the Water Resources Development Act of 2000 for construction of CERP project components such as reservoirs or stormwater treatment areas. SFWMD has adopted five water reservations. For the upcoming 5-year period, the Kissimmee River and Chain of Lakes (including the Chain of Lakes, Headwaters Revitalization Lakes, and Kissimmee River and floodplain) is a water reservation that is currently in the rule development process. District staff are in the process of revising the draft rules and supporting technical document. A public workshop is expected to occur in December 2020.

The annual priority list includes MFLs and water reservations that are approved by the Governing Board and submitted to the FDEP for review and approval. A complete list of MFL and water reservation development activities can be found on SFWMD's web page at https://www.sfwmd.gov/our-work/mfl and https://www.sfwmd.gov/our-work/water-reservations.

**Table 4**. Projects associated with an MFL prevention or recovery strategy for Fiscal Year 2019-2020 through Fiscal Year 2023-2024. (Note: All costs are from the draft Fiscal Year 2019-2020 SFWMD Five-year Capital Improvement Plan [Fiscal Years 2019-2020 to 2023-2024] and are subject to change until approved by SFWMD's Governing Board in February 2020).

| Projects | Project Implementation Costs [a] | | | | | |
|---|---|---|---|---|---|---|
| | Fiscal Year 2019-2020 [a] | Fiscal Year 2020-2021 [a] | Fiscal Year 2021-2022 [a] | Fiscal Year 2022-2023 [a] | Fiscal Year 2023-2024 | 5-Year Work Plan Cost Estimates |
| **St. Lucie Estuary** | | | | | | |
| Indian River Lagoon South (Land Acquisition) | - | - | - | - | TBD | - |
| **Everglades** | | | | | | |
| CEPP Predecessor New Water: C-44/C-23 Interconnect (EAA Reservoir) [b] | $4,000,000 | $11,000,000 | $11,000,000 | $11,000,000 | TBD | $37,000,000 |
| CEPP South: Old Tamiami Trail Removal [c] | $3,295,000 | $4,350,000 | - | - | TBD | $7,645,000 |
| CEPP South: S-333N Increase [c] | - | - | - | - | TBD | - |
| **Caloosahatchee River** | | | | | | |
| Caloosahatchee River (C-43) West Basin Storage Reservoir | $140,500,000 | $179,647,176 | $139,754,346 | $45,000,000 | TBD | $504,901,522 |
| **Lake Okeechobee** | | | | | | |
| Lake Okeechobee Watershed Projects [d] | $50,000,000 | - | - | $29,000,000 | $29,000,000 | $108,000,000 |
| **Lake Okeechobee, Loxahatchee River, and Western Everglades** | | | | | | |
| Restoration Project Planning [e] | $5,000,000 | $1,000,000 | $1,000,000 | $1,000,000 | $5,000,000 | $13,000,000 |
| **Total** | **$202,795,000** | **$195,997,176** | **$151,754,346** | **$86,000,000** | **TBD** | **$676,836,522** |

a. Information contained in the draft Fiscal Year 2019-2020 SFWMD Five-year Capital Improvement Plan (Fiscal Years 2019-2020 to 2023-2024).

b. The C-44/C-23 Interconnect project is associated with the Central Everglades Planning Project (CEPP). It is listed under the Everglades MFL recovery strategy because it is a precursor project that must be completed first in order to provide the downstream benefits for the Everglades MFL water body Note that EAA – Everglades Agricultural Area.

c. Project is a component of the Central Everglades Planning Project (CEPP).

d. Project is expected to provide new (recovered) water for the Lake Okeechobee MFL recovery strategy.

e. The costs for all three projects are combined due to a concurrent but independent planning process. Schedule and costs are subject to change based on the results of the ongoing planning process. All three projects are expected to be incorporated as part of the recovery strategies to provide new water for their respective MFL water bodies.

## APPENDIX: PROJECTS ASSOCIATED WITH A BASIN MANAGEMENT ACTION PLAN FOR FISCAL YEAR 2019-2020 THROUGH FISCAL YEAR 2023-2024

Basin management action plans (BMAPs) are the "blueprint" for restoring impaired waters by reducing pollutant loadings to meet allowable levels established by a total maximum daily load (TMDL). In 2016, the Florida legislature amended Section 373.036(7)(b)8, F.S., to require the identification of projects in the Work Program that implement a BMAP or an MFL recovery or prevention strategy. SFMWD's Work Program historically has identified water resource development projects that support MFL recovery and prevention strategies but has not included specific descriptions of projects primarily intended to implement BMAPs. Consistent with Section 373.036(7)(b)8, F.S., and in a manner coordinated with FDEP and all five water management districts, a 5-year funding outlook for projects specifically identified in an adopted BMAP are included in this Work Program.

There are five adopted BMAPs within SFWMD boundaries: Caloosahatchee Estuary Basin (FDEP 2012a), Everglades West Coast (FDEP 2012a,b), Indian River Lagoon (FDEP 2013a), St. Lucie River and Estuary (FDEP 2013b), and Lake Okeechobee (FDEP 2014). **Table 5** reflects BMAP projects planned costs for Fiscal Year 2019-2020 through Fiscal Year 2023-2024[1]. Of the 22 total projects listed in this table, 1 project is aligned with the St. Lucie River and Estuary BMAP, and 21 projects are aligned with the Lake Okeechobee BMAP; none are aligned with the Caloosahatchee Estuary, Everglades West Coast, or Indian River Lagoon BMAPs.

[1] BMAP projects that SFWMD is implementing are aligned with the *Florida Statewide Annual Report on Total Maximum Daily Loads, Basin Management Action Plans, Minimum Flows or Minimum Water Levels, and Recovery or Prevention Strategies* (FDEP 2018). Five-year (Fiscal Year 2019-2020 through Fiscal Year 2023-2024) cost estimates are shown as projections based on current BMAP-associated projects under contract by SFWMD or based on prior year expenditure trends, and do not include salaries; Fiscal Year 2020-2021 through Fiscal Year 2023-2024 costs are contingent on future legislative funding and Governing Board approval of future fiscal year funding.

**Table 5.** BMAP projects costs in dollars, excluding salaries for Fiscal Year 2019-2020 through Fiscal Year 2023-2024. (Note: All costs are from the Fiscal Year 2018-2019 Approved Five-Year Capital Improvements Plan and are subject to change until the Fiscal Year 2019-2020 Five-Year Capital Improvements Plan is approved by SFWMD's Governing Board in February 2020, including development of Fiscal Year 2023-2024 project implementation costs

| BMAP | Lead Entity | Partners | FDEP Project Number | Project Name | Project Type | Fiscal Year 2019-2020 | Fiscal Year 2020-2021 | Fiscal Year 2021-2022 | Fiscal Year 2022-2023 | Fiscal Year 2023-2024 | SFWMD Total | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STLU | Troup-Indiantown WCD | SFWMD/ USACE | TI-05 | C-44 STA | Land Use Change | $20,542,953 | $1,290,834 | $1,356,894 | $1,389,454 | TBD | $24,580,135 | O&M costs only. |
| OKEE | Coordinating Agency | FDEP/ SFWMD | CA-01 | Brighton Valley DWM | DWM | $3,125,000 | $3,125,000 | $3,125,000 | $3,000,000 | TBD | $12,375,000 | -- |
| OKEE | SFWMD | FDEP/ SFWMD | SFWMD-14 & SFWMD-15 | Dixie Ranch | DWM | $146,500 | $146,500 | $146,500 | $146,500 | TBD | $586,000 | -- |
| OKEE | SFWMD | FDEP/ SFWMD | SFWMD-16 | Lost Oak Ranch | DWM | $55,000 | $55,000 | $55,000 | $55,000 | TBD | $220,000 | -- |
| OKEE | SFWMD | FDEP/ SFWMD | SFWMD-17 | Willaway Cattle and Sod | DWM | $1,879 | $1,879 | $1,879 | $1,879 | TBD | $7,516 | -- |
| OKEE | SFWMD | FDEP/ SFWMD | SFWMD-18 | XL Ranch (Lightsey) | DWM | $137,000 | $137,000 | $137,000 | TBD | TBD | $411000 | -- |
| OKEE | SFWMD | FDEP/ SFWMD | SFWMD-19 | Triple A Ranch | DWM | $30,000 | $30,000 | $30,000 | $30,000 | TBD | $120,000 | -- |
| OKEE | SFWMD | FDEP/ SFWMD | SFWMD-20 | La Hamaca (Blue Head Ranch) | DWM | $361,200 | $361,200 | $361,200 | $361,200 | TBD | $1,444,800 | -- |
| OKEE | SFWMD | FDEP/ SFWMD | SFWMD-21 | Nicodemus Slough | DWM | $2,783,683 | $2,855,197 | $2,499,839 | TBD | TBD | $8,138,719 | -- |
| OKEE | SFWMD | USACE | SFWMD-22 | Kissimmee River Headwater Revitalization | Hydrologic Restoration | -- | -- | -- | -- | -- | -- | The Kissimmee River Restoration Project (SFWMD-05) includes the Lower Kissimmee Basin (Osceola, Polk, Highlands, and Okeechobee counties) and the Upper Kissimmee Basin – Kissimmee River Headwaters Revitalization Project (Osceola and Polk counties) (SFWMD-22). Costs may be included in SFWMD-05. |

**Table 5.** Continued.

| BMAP | Lead Entity | Partners | FDEP Project Number | Project Name | Project Type | Fiscal Year 2019-2020 | Fiscal Year 2020-2021 | Fiscal Year 2021-2022 | Fiscal Year 2022-2023 | *Fiscal Year 2023-2024 | SFWMD Total | Comments |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| OKEE | SFWMD | FDEP/ SFWMD | SFWMD-12 | Buck Island Ranch (NE-PES-1) | DWM | $173,600 | $173,600 | $173,600 | TBD | TBD | $520,800 | -- |
| OKEE | SFWMD | FDEP/ SFWMD | SFWMD-11 | Rafter T Ranch | DWM | $162,736 | $162,736 | $162,736 | $162,736 | TBD | $650,944 | -- |
| OKEE | SFWMD | FDEP/ SFWMD | SFWMD-23 | Buck Island Ranch WMA (NE PES-2) | DWM | $163,500 | $163,500 | $163,500 | $163,500 | TBD | $654,000 | -- |
| OKEE | SFWMD | FDEP/ SFWMD | SFWMD-13 | Dixie West | DWM | $51,500 | $51,500 | $51,500 | TBD | TBD | $154,500 | -- |
| OKEE | SFWMD | FDEP/ USACE | SFWMD-02 | Nubbin Slough STA Project | STA | $2,624,675 | $124,675 | $124,675 | $124,675 | TBD | $2,998,700 | Cost estimates based on average annual O&M costs for Fiscal Years 2014-2015 through 2016-2017. |
| OKEE | SFWMD | FDEP/ USACE | SFWMD-01 | Taylor Creek STA Project | STA | $170,448 | $170,448 | $170,448 | $170,448 | TBD | $681,792 | Cost estimates based on average annual O&M costs for Fiscal Years 2014-2015 through 2016-2017. |
| OKEE | SFWMD | FDEP/ USACE | SFWMD-03 | Lakeside Ranch – Phase I | STA | $246,653 | $366,653 | $386,653 | $386,653 | TBD | $1,386,612 | O&M costs only. |
| OKEE | SFWMD | USACE | SFWMD-05 | Kissimmee River Restoration Project | Hydrologic Restoration | $842,985 | $1,374,366 | $1,353,366 | $1,717,366 | TBD | $5,288,083 | O&M, monitoring, and evaluation costs. |
| OKEE | SFWMD | FDEP | SFWMD-06 | Rolling Meadows Wetland Restoration – Phase I | Wetland Restoration | $158,669 | $158,669 | $158,669 | $158,669 | TBD | $634,676 | Phase I O&M costs only. No future legislative funding for Phase II. |
| OKEE | SFWMD | FDEP/ SFWMD | SFWMD-10 | Lykes West Waterhole | DWM | $470,288 | TBD | TBD | TBD | TBD | $470,288 | -- |
| OKEE | Coordinating Agency | FDEP/ SFWMD | CA-05 | El Maximo Ranch DWM (previously Latt Maxcy DWM) | DWM | $3,863,204 | $3,863,204 | $3,863,204 | $3,863,204 | TBD | $15,452,816 | -- |
| OKEE | Coordinating Agency | N/A | CA-04 | Lakeside Ranch – Phase II | STA | $16,000,000 | $1,500,000 | TBD | TBD | TBD | $17,500,000 | Does not include O&M costs. |
| | | | **Total** | | | **$52,111,473** | **$16,111,961** | **$14,321,663** | **$11,731,284** | **TBD** | **$94,276,381** | -- |

Acronyms: BMAP – basin management action plan; FDEP – Florida Department of Environmental Protection; DWM – dispersed water management; N/A – not applicable; NE-PES_1 – Northern Everglades – Payment for Environmental Services Solicitation 1; NE-PES_2 – Northern Everglades – Payment for Environmental Services Solicitation 2; O&M – operations and maintenance; OKEE – Okeechobee; SFWMD – South Florida Water Management District; STA – stormwater treatment area; STLU – St. Lucie; TBD – to be determined; USACE – United States Army Corps of Engineers; and WMA – Wildlife Management Area.

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[2]All the FDEP BMAPs and associated annual progress reports are available at www.dep.state.fl.us/water/watersheds/bmap.htm. The Final Statewide Annual Report (FDEP 2018) is available at www.floridadep.gov/star.

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