# 2023

# SOUTH FLORIDA ENVIRONMENTAL REPORT

WATER YEAR 2022 (MAY 1, 2021–APRIL 30, 2022)
FISCAL YEAR 2022 (OCT. 1, 2021–SEPT. 30, 2022)

## Highlights

The ***South Florida Environmental Report*** (SFER) documents an important year of restoration, scientific and engineering accomplishments in the Kissimmee Basin, Lake Okeechobee, Everglades and South Florida coastal areas.

The report also provides extensive peer-reviewed research summaries, data analyses, financial updates and a searchable database of environmental projects.

The report covers environmental information for Water Year 2022 (WY2022; May 1, 2021–April 30, 2022) and project budgetary and construction information for the South Florida Water Management District (SFWMD or District) for Fiscal Year 2022 (FY 2022; Oct. 1, 2021–Sept. 30, 2022).

The full 2,642-page report is available at SFWMD.gov/sfer.



*Great Blue Heron. (Photo by SFWMD)*

SOUTH FLORIDA WATER MANAGEMENT DISTRICT
PROTECTOR OF THE EVERGLADES SINCE 1949

**MARCH 1, 2023**

# IMPLEMENTING EXECUTIVE ORDER 23-06 AND CONTINUING PROGRESS ON 19-12

## Achieving *Even More* Now for Florida's Environment — New Executive Order Continues Momentum for Everglades Restoration



*Governor Ron DeSantis tours waterways on Jan. 10, 2019, at Florida Gulf Coast University's Vester Marine and Environmental Research Field Station in Bonita Springs, where he signed an executive order addressing problems with water quality that have plagued the state. (Photo by Andrew West Fort Myers News-Press via AP)*

The South Florida Water Management District (SFWMD) is working to implement Executive Order 23-06 that will continue the historic momentum for Florida's environment and bring additional resources to accelerate Everglades restoration and water quality projects. On January 10, 2023, Governor Ron DeSantis signed **Executive Order 23-06 (Achieving *Even More* Now for Florida's Environment)** to enhance ongoing efforts to expedite restoration projects and further advance the protection of Florida's natural resources. The Governor's announcement came exactly four years to the day after he signed **Executive Order 19-12 (Achieving More Now For Florida's Environment)** that resulted in record environmental funding, expedited Everglades projects, and water quality improvements.

The SFWMD and the Florida Department of Environmental Protection (DEP) made progress on critical Everglades restoration projects including efforts to build water storage north, south, east and west of Lake Okeechobee. More than 50 Everglades projects have been completed, broken ground or hit a major milestone since January of 2019. These projects are making a measurable difference for water quality and the ecological health of South Florida's natural resources. Executive Order 23-06 aims to secure a record-setting $3.5 billion over four years to protect our water resources and further restore America's Everglades.



*Executive Order 23-06 Announcement from Governor Ron DeSantis in Bonita Springs on Jan. 10, 2023. (Photo by SFWMD)*



*DEP Secretary Shawn Hamilton at the EAA Reservoir Groundbreaking on Feb. 22, 2023. (Photo by SFWMD)*

### MOMENTUM CONTINUES FOR SENDING MORE WATER SOUTH AND REDUCING HARMFUL DISCHARGES

Under the leadership of Governor Ron DeSantis, DEP Secretary Shawn Hamilton and the SFWMD Governing Board, significant progress has been made on the Everglades Agricultural Area (EAA) Reservoir Project. The EAA Reservoir groundbreaking was held on February 22, 2023 and is the culmination of decades of work to bring this project to life.

The EAA Reservoir Project is one of the most important Everglades restoration projects of the Comprehensive Everglades Restoration Plan (CERP). The project will provide ecological benefits, reduce harmful discharges to the St. Lucie and Caloosahatchee estuaries, and send more clean freshwater south to the Everglades.

The SFWMD began working on the project site in April 2020 for the 6,500-acre treatment wetland component, known as a Stormwater Treatment Area (STA) of the EAA Reservoir Project. The STA component is expected to be complete at the end of 2023. The U.S. Army Corps of Engineers is building the 10,500-acre reservoir component of the project and expects to be completed in 2030.

*"Four years ago, I promised to pursue a bold agenda and to commit to lead Florida into a new era of stewardship for Florida's natural resources, and we delivered. Today, I am proud to announce the next step in this administration's continued dedication to Florida's treasured environment. This order directs funding and strategic action that will continue our momentum and enhance our ongoing efforts to expedite critical Everglades restoration projects, employ sound science to protect and restore our waterways, and fund infrastructure projects to improve water quality and safeguard Florida's water supply." — Governor Ron DeSantis*



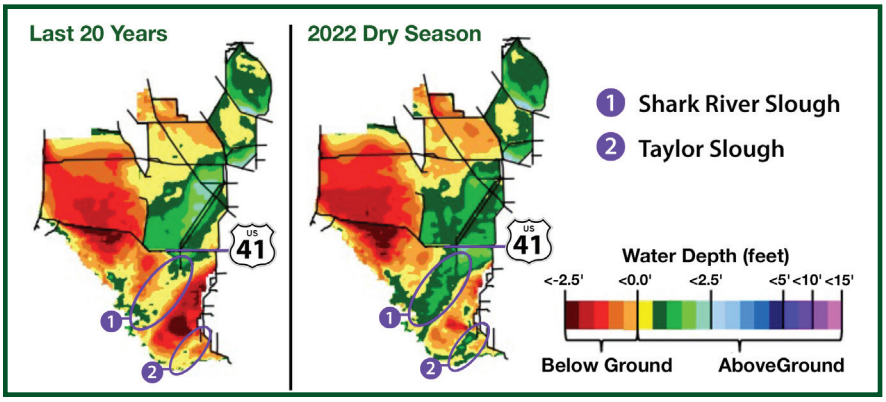
*EAA Reservoir Groundbreaking on Feb. 22, 2023. L-R: SFWMD Governing Board Members Jay Steinle and Cheryl Meads, USACE Jacksonville District Lt. Col. Todd Polk, City of South Bay Mayor Joe Kyles, SFWMD Governing Board Vice Chairman Scott Wagner, Former Florida Senate President Joe Negron, Assistant Secretary of the Army for Civil Works Michael Connor, USACE Jacksonville District Col. James Booth, SFWMD Executive Director Drew Bartlett, U.S. Rep. Debbie Wasserman-Schultz, U.S. Department of the Interior Office of Everglades Restoration Initiatives Director Adam Gelber, DEP Secretary Shawn Hamilton, Everglades Foundation President & CEO Eric Eikenberg, SFWMD Governing Board Member Charlette Roman, Captains for Clean Water Executive Director Daniel Andrews, Florida Farm Bureau Assistant Director of Government & Community Affairs Jake Fojtik, Office of U.S. Senator Marco Rubio – London Rotundo, SFWMD Governing Board Members "Alligator Ron" Bergeron, Jacqui Thurlow-Lippisch and Ben Butler. (Photo by SFWMD)*

## NEW DATA DEMONSTRATE THE SUCCESS OF EVERGLADES PROJECTS ACROSS SOUTH FLORIDA – PROVING RECENT INVESTMENTS AND MOMENTUM ARE WORKING

Together with our partners at the DEP and the U.S. Army Corps of Engineers (USACE) Jacksonville District, the SFWMD continues our significant efforts implementing CERP projects to improve the quantity, quality, timing and distribution of water within the Greater Everglades Ecosystem. Unprecedented state funding coupled with momentum are making a real difference to protect Florida's precious natural resources, support our economy and restore America's Everglades.

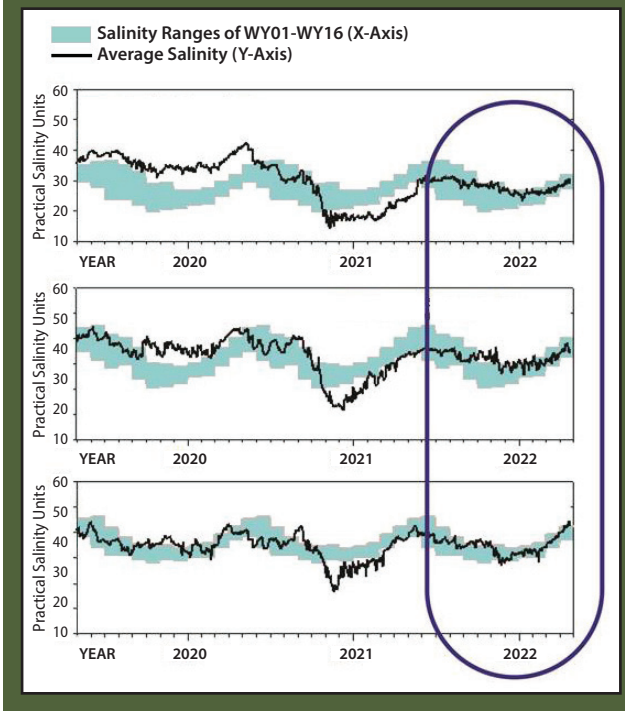
### Record Hydration in the Everglades

Current water depths in two key locations, Shark River Slough and Taylor Slough, demonstrate that restoration projects and operations work well together when coupled with rainfall to nourish the Everglades and send water south to support the health of Florida Bay.




### Salinity Levels in Florida Bay Stabilize

Record water flows and water depths in the Everglades coupled with rainfall demonstrated that restoration can support healthy salinity levels in Florida Bay. Balanced salinity supports sea grass and spawning fish.




## TAYLOR SLOUGH FLOW IMPROVEMENT PROJECT GROUNDBREAKING

The SFWMD along with the National Park Service broke ground on the Taylor Slough Flow Improvement Project within Everglades National Park on January 26, 2023. This environmental restoration project will allow more clean, freshwater to flow south through Taylor Slough and onto Florida Bay, where it is needed to balance salinity levels and promote ecological health.

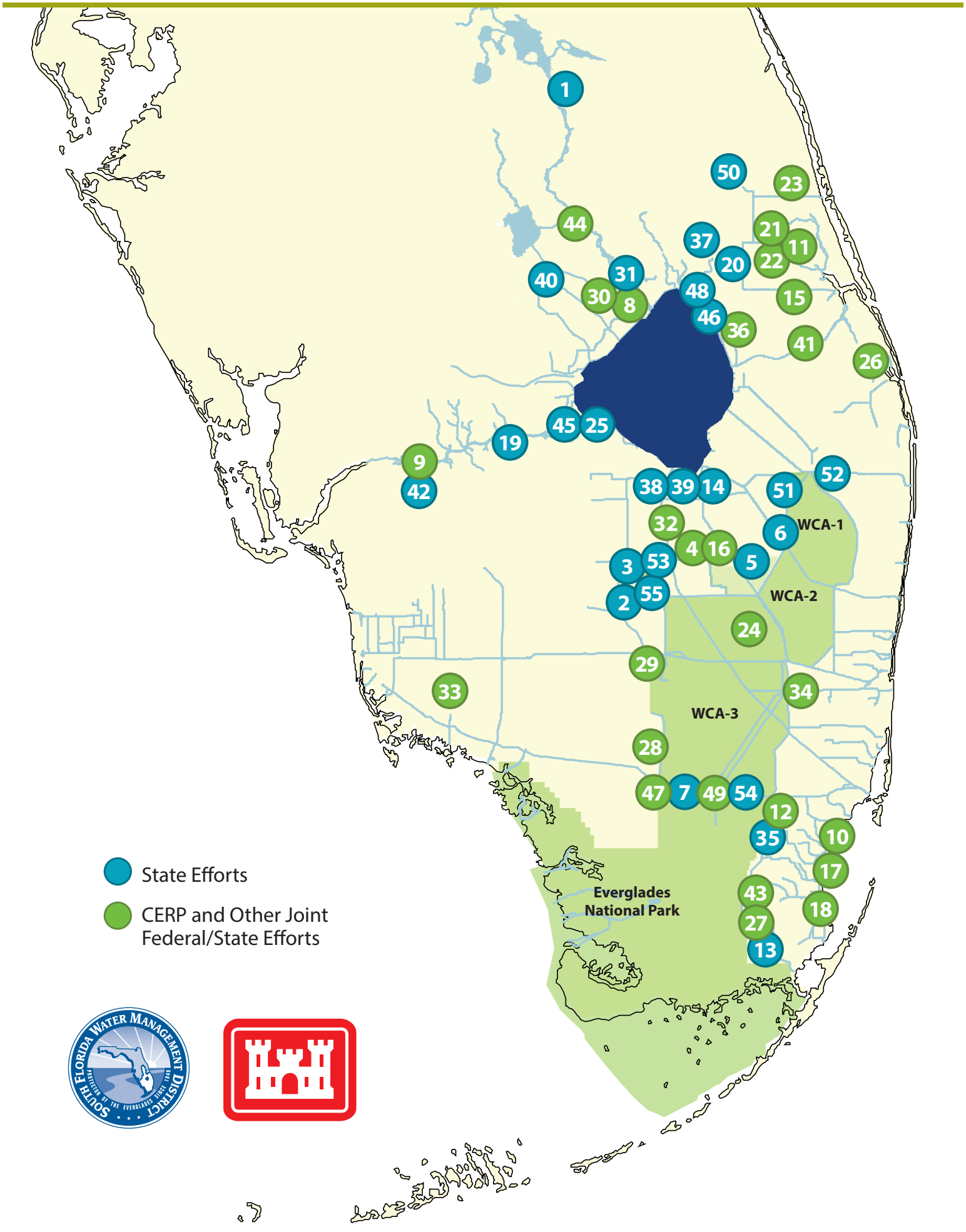
Taylor Slough is located in the southeastern part of Everglades National Park and was historically a major contributor of freshwater to Florida Bay. The duration, timing and extent of wetland inundation of Taylor Slough's interconnected wetlands and freshwater flows through Florida Bay are a critical component of the Everglades ecosystem.

In the early 1920's, surface flow was substantially reduced by the construction of Ingraham Highway, which was opened as the first motorway to Flamingo, a small fishing village on the edge of Florida Bay. Ingraham Highway acted as a dam, cutting off and redirecting freshwater flow away from Taylor Slough. Additional infrastructure changes, including the building of the regional flood control system known as the Central and Southern Florida (C&SF) Project, have also reduced the flow of water to this important ecological resource.

The Taylor Slough Flow Improvement Project will install up to 18 culverts at nine locations along a 3.2-mile section of Old Ingraham Highway in Everglades National Park to improve the distribution of freshwater flows and restore natural plant communities and wetlands. The project is expected to be complete in Summer 2023.



*Taylor Slough Groundbreaking on Jan. 26, 2023. L-R: Audubon Florida Director of Everglades Policy Kelly Cox, Florida Oceanographic Society Executive Director and CEO Mark Perry, State of Florida Chief Resilience Officer Dr. Wes Brooks, Superintendent of Everglades and Dry Tortugas National Parks Pedro Ramos, SFWMD Governing Board Chairman Chauncey Goss, U.S. Department of Interior Assistant Secretary for Fish and Wildlife and Parks Shannon Estenoz, SFWMD Governing Board Member Cheryl Meads, SFWMD Executive Director Drew Bartlett, SFWMD Governing Board Member Charlette Roman, Everglades Foundation President & CEO Eric Eikenberg, and USACE Jacksonville District Lt. Col. Todd Polk. (Photo by SFWMD)*


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State Efforts
CERP and Other Joint
Federal/State Efforts




*SFWMD Governing Board Vice Chairman Scott Wagner at the EAA Reservoir Groundbreaking on Feb. 22, 2023. (Photo by SFWMD)*

## GROUND BREAKING SINCE 2019

| # | PROJECT | EFFORT | GROUND BREAKING | COMPLETION DATE |
|---|---|---|---|---|
| 1 | El Maximo Dispersed Water Management | State | 2022 | 2023 |
| 2 | C-139 Wetland Restoration – Phase II | State | 2021 | 2027 |
| 3 | C-139 Water Storage Basin (FEB) | State | 2021 | 2023 |
| 4 | EAA Reservoir Project's Treatment Wetland | Joint | 2020 | 2023 |
| 5 | STA 2 Refurbishments | State | 2020 | 2022 |
| 6 | STA 1W – Expansion No. 2 | State | 2020 | 2023 |
| 7 | Raising Tamiami Trail (FDOT) | State | 2021 | 2024 |
| 8 | Lake O Watershed – Aquifer Storage & Recovery Wells | Joint | 2021 | 2030 |
| 9 | Caloosahatchee (C-43) Reservoir – Final Phase of Construction | Joint | 2019 | 2025 |
| 10 | Biscayne Bay Coastal Wetlands - L-31E Flow-way | Joint | 2020 | 2024 |
| 11 | C-23/C-24 Treatment Wetland | Joint | 2022 | 2025 |
| 12 | Everglades Nat'l Park Seepage Containment Wall – CEPP New Water | Joint | 2022 | 2024 |
| 13 | Taylor Slough Hydrologic Improvements | State | 2023 | 2023 |
| 14 | Bolles Canal Improvements – Final Segment | State | 2022 | 2023 |
| 15 | C-23/C-44 Canal to Divert Harmful Discharges to St. Lucie River | Joint | 2022 | 2025 |
| 16 | EAA Reservoir | Joint | 2023 | 2030 |

## MAJOR MILESTONE SINCE 2019

| # | PROJECT | EFFORT | RECENT ACCOMPLISHMENT | COMPLETION DATE |
|---|---|---|---|---|
| 17 | Biscayne Bay Coastal Wetlands – Cutler Wetlands | Joint | Finalized Planning and Initial Design | 2025 |
| 18 | Biscayne Bay and Southeastern Everglades Ecosystem (BBSEER) | Joint | Began Planning Efforts | TBD |
| 19 | Boma Water Storage Basin (FEB) | State | Started Design | 2026 |
| 20 | C-23/C-24 Interim Water Storage | State | Started Design | 2025 |
| 21 | C-23/C-24 North Reservoir | Joint | Completed Final Design | 2028 |
| 22 | C-23/C-24 South Reservoir | Joint | Started Design | 2030 |
| 23 | C-25 Reservoir and Treatment Wetland | Joint | Completed Land Acquisition, Started Design | 2028 |
| 24 | Central Everglades Planning Project (CEPP) North | Joint | Ready to Issue Construction Contact | 2026 |
| 25 | Lake Hicpochee Restoration – Phase II | State | Started Design | 2025 |
| 26 | Loxahatchee River Watershed Restoration | Joint | Authorized by Congress, Started Design | TBD |
| 27 | S-332B Pump Station Replacement | Joint | Started Design | 2026 |
| 28 | Western Everglades Restoration-South Features | Joint | Started Design | 2027 |
| 29 | Western Everglades Restoration-Remaining Features | Joint | Began Planning | TBD |
| 30 | Lake O Watershed – Wetland Restoration | Joint | Began Real Estate Acquisition | TBD |
| 31 | Lower Kissimmee Treatment Wetland | State | Began Initial Planning and Design | TBD |
| 32 | EAA Reservoir Project Conveyance Improvements | Joint | Started Design | 2027 |
| 33 | Picayune Strand Wetland Restoration | Joint | Began Partial Rehydration of Drained Wetlands | 2025 |
| 34 | C-11 Water Storage Impoundment | Joint | Began Final Design | 2028 |

## COMPLETED SINCE 2019

| # | PROJECT | EFFORT | YEAR |
|---|---|---|---|
| 35 | Everglades Nat'l Park Seepage Containment Wall – Phase I (8.5 SMA) | State | 2022 |
| 36 | Allapattah Flats Wetland Restoration | Joint | 2021 |
| 37 | Bluefield Grove Water Storage Farm | State | 2021 |
| 38 | Bolles Canal Improvements – Segment 3 | State | 2020 |
| 39 | Bolles Canal Improvements – Segment 4 | State | 2022 |
| 40 | Brighton Valley Dispersed Water Storage and Management | State | 2020 |
| 41 | C-44 Reservoir and Treatment Wetland | Joint | 2021 |
| 42 | Caloosahatchee (C-43) Reservoir Water Quality Improvements Study | State | 2021 |
| 43 | Improved Water Deliveries for ENP (COP) and C-111 South Dade Project | Joint | 2020 |
| 44 | Kissimmee River Restoration | Joint | 2021 |
| 45 | Lake Hicpochee Restoration – Phase I | State | 2020 |
| 46 | Lakeside Ranch Treatment Wetland | State | 2019 |
| 47 | Old Tamiami Trail Roadbed Removal | Joint | 2021 |
| 48 | S-191A Pump Station | State | 2021 |
| 49 | S-333N Structure for Everglades Nat'l Park Water Deliveries | Joint | 2020 |
| 50 | Scott Water Storage Farm | State | 2021 |
| 51 | STA 1W – Expansion No. 1 | State | 2020 |
| 52 | STA 1E Improvements | State | 2022 |
| 53 | STA 5/6 Improvements | State | 2020 |
| 54 | Bridging Tamiami Trail (FDOT) | State | 2019 |
| 55 | C-139 Wetland Restoration – Phase I | State | 2019 |




*DEP Deputy Secretary for Ecosystems Restoration Adam Blalock at the CEPP New Water Groundbreaking on Dec. 12, 2022. (Photo by SFWMD)*



*SFWMD Executive Director Drew Bartlett at the Taylor Slough Flow Improvement Project Groundbreaking on Jan 26, 2023. (Photo by SFWMD)*



*Ribbon Cutting Ceremony for the Kissimmee River Restoration Project, July 29, 2021. L-R: SFWMD Governing Board Members Ben Butler and Charlette Roman, SFWMD Governing Board Chairman Chauncey Goss and SFWMD Governing Board Member Jacqui Thurlow-Lippisch. (Photo by SFWMD)*



*Rehydration of Wetlands, Picayune Strand Restoration Project, July 2, 2021. (Photo by SFWMD)*

## MAJOR MILESTONE FOR PICAYUNE STRAND RESTORATION PROJECT

In 2021, the SFWMD reached a major milestone for the Picayune Strand Restoration Project in Collier County as the Faka Union Pump Station turned on for the first time. The pump station, coupled with other restoration activities, works to rehydrate drained wetlands in the Picayune Strand State Forest and restore the area's natural sheet flow and health of downstream estuaries and habitats.

## MAJOR COMPONENTS OF CALOOSAHATCHEE (C-43) RESERVOIR ARE ADVANCING

The Caloosahatchee (C-43) Reservoir aims to reduce harmful discharges to the Caloosahatchee Estuary and provide beneficial freshwater flows to the estuary in the dry season. This project is a major part of CERP and designed to store approximately 170,000 ac-ft of water.

After the signing of Executive Order 19-12, the SFWMD worked with the DEP, Lee County, Hendry County, Lehigh Acres Municipal Services Improvement District, the City of Cape Coral, the City of Sanibel, stakeholders and the public to complete a Caloosahatchee Reservoir Water Quality Feasibility Study to improve the quality of water leaving the reservoir. The Caloosahatchee Reservoir Project is expected to be complete and fully operational within the next couple of years.




*Governor Ron DeSantis, along with State and Local Officials, Breaks Ground on Embankments and Canals to Advance the C-43 Reservoir on Oct. 25, 2019. (Photo by SFWMD)*



*C-44 Ribbon Cutting, Nov. 19, 2021. L-R: SFWMD Governing Board Members Ben Butler and Jay Steinle, SFWMD Executive Director Drew Bartlett, SFWMD Governing Board Chairman Chauncey Goss, SFWMD Governing Board Members Jacqui Thurlow-Lippisch and Charlette Roman, USACE Jacksonville District Col. James Booth, Lt. Gov. Jeanette Nuñez, Rep. Toby Overdorf, DEP Secretary Shawn Hamilton, Sen. Gayle Harrell, Regional Director for U.S. Sen. Marco Rubio – Greg Langowski, Martin County Chairman Doug Smith, U.S. Department of the Interior Assistant Secretary for Fish and Wildlife and Parks Shannon Estenoz, and Martin County Commissioner Stacey Hetherington. (Photo by SFWMD)*

## COMPLETED C-44 RESERVOIR & STA TO CURB HARMFUL DISCHARGES TO ST. LUCIE ESTUARY

In 2021, the SFWMD and the USACE hosted a ribbon cutting to celebrate completion of the Indian River Lagoon-South C-44 Reservoir and STA. The C-44 component of the Indian River Lagoon-South project will capture, store, and treat nutrient-rich water, revitalize habitat, help restore the balance of fresh and salt water in the Indian River Lagoon and the St. Lucie Estuary, and provide significant water quality improvements.

The reservoir provides 50,000 ac-ft of new water storage and 6,300 acres of new wetlands. This is the largest CERP project ever completed. The completion of the C-44 Reservoir and STA is another example of Everglades restoration partnerships, success and progress.




*Indian River Lagoon-South C23/C-24 STA Groundbreaking, Feb. 18, 2022. L-R: USACE Jacksonville District Lt. Col. Todd Polk, U.S. Fish and Wildlife Service State Supervisor for Ecological Services in Florida Larry Williams, USACE South Atlantic Division Programs Director Dr. Larry McCallister, SFWMD Governing Board Chairman Chauncey Goss, USACE Jacksonville District Col. James Booth, SFWMD Executive Director Drew Bartlett, St. Lucie County Vice Chairman Frannie Hutchinson, SFWMD Governing Board Member Jacqui Thurlow-Lippisch, DEP Deputy Secretary for Ecosystems Restoration Adam Blalock and Florida Chief Science Officer Dr. Mark Rains. (Photo by SFWMD)*

## INDIAN RIVER LAGOON-SOUTH C-23/C-24 STA BREAKS GROUND: ANOTHER PIVOTAL MOMENT FOR ST. LUCIE RIVER & INDIAN RIVER LAGOON

On February 18, 2022, the SFWMD and the USACE celebrated the groundbreaking of the Indian River Lagoon–South C-23/C-24 STA. This important project will capture and treat local run-off from the C-23 and C-24 basins and reduce the sediment, phosphorus, and nitrogen going to the St. Lucie River Estuary and the southern portion of the Indian River Lagoon.

The STA is the first major construction feature of the Indian River Lagoon-South project to address the C-23 and C-24 basins in St. Lucie County. The STA is part of the Comprehensive Everglades Restoration Plan (CERP) and includes over 2,500 acres. When complete, this project will also provide valuable wetland and upland habitat.

## EVALUATING THE SUCCESS OF THE KISSIMMEE RIVER RESTORATION PROJECT

Monitoring and evaluation efforts to measure the success of the Kissimmee River Restoration Project continued, along with adaptively controlling invasive and undesirable species:

- Many methods are used to control invasive plants in the Kissimmee River floodplain. For example, populations of the brown lygodium moth continue to be released to combat the invasive exotic Old World climbing fern.
- Fish abundance increased by 60% in the Kissimmee River Restoration Project Phase I restoration area due mostly to an increase in bluegill sunfish and other sunfish.
- In the Phase IV restoration area, the abundance of largemouth bass increased during winter. Largemouth bass accounted for more than 70% of the total fish biomass.

## KISSIMMEE RIVER HEADWATERS REVITALIZATION SCHEDULE

The completion of construction for the Kissimmee River Restoration Project sets the stage for gradual implementation of the new Headwaters Revitalization Schedule (HRS), which regulates water levels in the Kissimmee River to support restoration goals. Phased HRS increments will allow successively higher stages in the Headwaters Lakes (Lakes Kissimmee, Cypress, and Hatchineha) until approximately 2026, when the HRS is currently projected to be fully implemented.

The objective of the HRS is to provide sufficient water storage to reestablish historical (pre-channelization) flow patterns to the Kissimmee River. The higher stages allowed by the schedule are also expected to improve littoral zone habitat in the lakes.



*Kissimmee River Restoration Area. (Photo by SFWMD)*



*Kissimmee River Restoration Project Ribbon Cutting, July 29, 2021. L-R: USACE Jacksonville District Col. Andrew Kelly, SFWMD Executive Director Drew Bartlett, SFWMD Governing Board Member Charlette Roman, Acting Assistant Secretary of the Army for Civil Works Jaime Pinkham, U.S. Department of Interior Assistant Secretary for Fish and Wildlife and Parks Shannon Estenoz, SFWMD Water Resources Director Lawrence Glenn, SFWMD Governing Board Chairman Chauncey Goss, DEP Secretary Shawn Hamilton, County Coalition Chairperson Karson Turner, SFWMD Governing Board Member Jacqui Thurlow-Lippisch, USACE Major General William (Butch) H. Graham, SFWMD Governing Board Member Ben Butler and Rep. Toby Overdorf. (Photo by SFWMD)*

## CONSTRUCTION COMPLETE ON THE KISSIMMEE RIVER RESTORATION PROJECT

In 2021, the SFWMD and the USACE hosted a ribbon cutting to celebrate construction completion for the Kissimmee River Restoration Project.

The Kissimmee River is a significant part of America's Everglades and this project is vital to restoring the Greater Everglades Ecosystem. The historic Kissimmee River once meandered for 103 miles through Central Florida. Its floodplain, reaching up to two miles wide, was inundated for long periods by heavy seasonal rains. Recurring and prolonged flooding impacted local residents and resulted in Congressional authorization of the Central and Southern Florida Project, which included channelizing the Kissimmee River and floodplain.

Construction of the C-38 Canal achieved flood reduction benefits, but it also harmed the river-floodplain ecosystem. The decline of the ecosystem spurred federal, state and local partnerships to embark on one of the world's largest riverine restoration efforts: the Kissimmee River Restoration Project.

## What is a Spillway?

A Spillway is a structure that allows the movement of water between water bodies by use of gates.

## PROGRESS CONTINUES ON INCREASING WATER STORAGE NORTH OF LAKE OKEECHOBEE

Progress continues to increase water storage and restore wetlands north of Lake Okeechobee. The SFWMD is continuing to implement the Lake Okeechobee Watershed Restoration Project (LOWRP) in accordance with its science plan in addition to supporting above-ground storage opportunities north of Lake Okeechobee.



*SFWMD C38-S and C38-N Drill Rigs. (Photo by SFWMD)*

## What is a Baffle Box?

A Baffle Box is an underground stormwater management device that uses barriers (or baffles) to slow the flow of water, allowing sediment to settle before water is released.

## DISPERSED WATER MANAGEMENT (DWM) PROJECTS

Brighton Valley DWM, Bluefield Grove Water Farm and Scott Water Farm provide water storage on private property by holding stormwater or even pulling excess water from a regional canal system. These projects help improve water quality and enhance plant and wildlife habitat. All three projects are complete and operational.

**Brighton Valley DWM Project**

This 8,000-acre project pumps excess water from the C-41A Canal and is estimated to treat up to 40,000 ac-ft of water per year and remove approximately 3 metric tons of phosphorus and 27 metric tons of nitrogen annually before it enters Lake Okeechobee.



*Brighton Valley DWM Project. (Photo by SFWMD)*

**Bluefield Grove Water Farm**

The Bluefield Grove Water Farm can capture over 9 billion gallons of regional stormwater before it enters the St. Lucie Estuary and makes a difference in water quality. This 6,100-acre project removes approximately 3 metric tons of phosphorus and 12 metric tons of nitrogen annually from the C-23 Basin.



*Bluefield Grove Water Farm Ribbon Cutting, Aug. 18, 2021. L-R: SFWMD Governing Board Member Jacqui Thurlow-Lippisch, Evans Properties Project Manager HM Ridgely, SFWMD Executive Director Drew Bartlett, Evans Properties CEO & President Ron Edwards, Rep. Toby Overdorf, St. Lucie County Vice Chairman Frannie Hutchinson, and SFWMD Governing Board Member Ben Butler. (Photo by SFWMD)*

**Scott Water Farm**

The Scott Water Farm can store more than 9 billion gallons of local stormwater runoff and was designed to reduce harmful estuary discharges. The project will retain onsite rainfall and pump water from the C-25 Canal and store it on approximately 7,500 acres of privately-owned land. The project has the capability to reduce more than 3 metric tons of phosphorus per year and over 13 metric tons of nitrogen per year.



*Scott Water Farm Ribbon Cutting, Feb 11, 2022. L-R: St. Lucie County Chair Sean Mitchell, Indian River County Commissioner Laura Moss, SJRWMD Governing Board Member Doug Bournique, Indian River County Vice Chairman Joe Earman, Evans Properties CEO & President Ron Edwards, Okeechobee County Vice Chairman David Hazellief, SFWMD Executive Director Drew Bartlett, SFWMD Governing Board Member Jacqui Thurlow-Lippisch, Rep. Toby Overdorf, SFWMD Governing Board Member Charlette Roman, DEP Deputy Secretary Adam Blalock, County Coalition Chairperson Karson Turner, SFWMD Governing Board Members Cheryl Meads and Ben Butler. (Photo by SFWMD)*

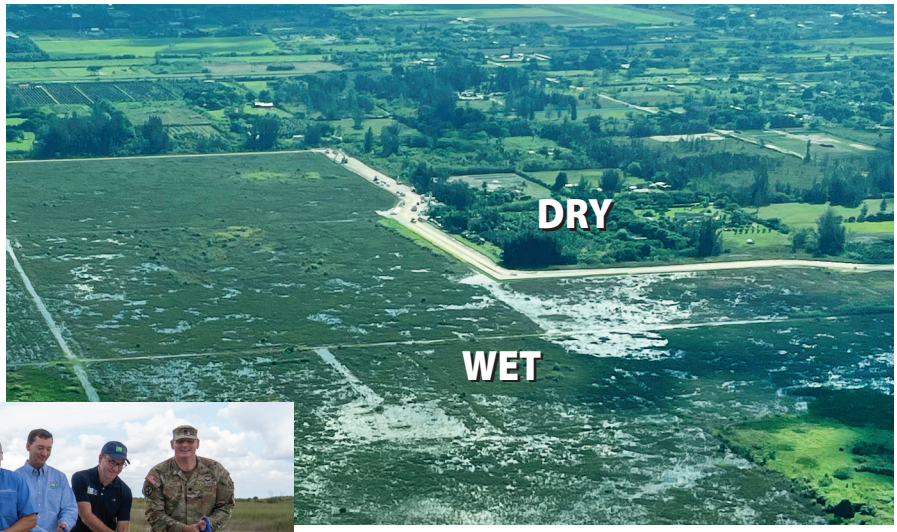
## UNDERGROUND SEEPAGE WALL SUPPORTS EVERGLADES RESTORATION AND MITIGATES FLOODING

On Dec. 12, 2022, the SFWMD and the USACE joined other federal, state, and local officials to break ground on the CEPP New Water Seepage Barrier Wall Project, which extends the successful underground wall that was built as part of the 8.5 Square Mile Area Seepage Wall Project. The project supports ongoing restoration efforts to move water south through the Everglades and into Florida Bay while mitigating potential flooding impacts in communities outside of Everglades National Park.

The CEPP New Water Seepage Barrier Wall Project adds five miles of underground seepage wall along the L-357 Levee. SFWMD completed the 2.3-mile first phase of the wall in September 2022 and the project is already demonstrating success. During heavy rain events, water that typically would flood communities remained inside Everglades National Park to support the park's historic hydrology. By supporting restoration flows of water through the Greater Everglades Ecosystem, the new underground wall supports the Combined Operating Plan (COP) and new infrastructure being put in place throughout the Everglades that delivers more water into Everglades National Park and Florida Bay—two key areas that need increased flows of water.



*Groundbreaking of the CEPP New Water Seepage Barrier Wall, Aug. 20, 2021. L-R: USACE Jacksonville District Lt. Col. Todd Polk, SFWMD Executive Director Drew Bartlett, Congressman Carlos Gimenez, Lt. Gov. Jeanette Nuñez, SFWMD Governing Board Member "Alligator Ron" Bergeron, Miami-Dade County Board of County Commissioners Chairman Jose "Pepe" Diaz, Superintendent of Everglades and Dry Tortugas National Parks Pedro Ramos, Everglades Foundation President & CEO Eric Eikenberg, and DEP Southeast District Director Jason Andreotta. (Photo by SFWMD)*






*8.5 SMA Seepage Wall - Phase I Ribbon Cutting, Sept. 15, 2022. L-R: Superintendent of Everglades and Dry Tortugas National Parks Pedro Ramos, SFWMD Executive Director Drew Bartlett, Miami-Dade County Board of County Commissioners Chairman Jose "Pepe" Diaz, SFWMD Governing Board Members Charlette Roman, "Alligator Ron" Bergeron and Charlie Martinez, SFWMD Governing Board Chairman Chauncey Goss, DEP Deputy Secretary for Ecosystems Restoration Adam Blalock, Everglades Foundation President & CEO Eric Eikenberg and USACE Jacksonville District Lt. Col. Todd Polk. (Photo by SFWMD)*

## UNDERGROUND WALL IN ACTION

Heavy rain events in 2022 demonstrated the success of the underground seepage wall. On the bottom left of the above photo, conditions in Everglades National Park are wet.

On the top right, the nearby community is dry. Prior to the installation of the seepage wall, the conditions in both areas of the image would have been wet with similar heavy rains.

## OLD TAMIAMI TRAIL ROADBED REMOVAL PROJECT COMPLETED SIX MONTHS AHEAD OF SCHEDULE

In 2021, Governor Ron DeSantis joined the DEP, SFWMD, USACE, and other state and federal officials to celebrate the completion of the Old Tamiami Trail Roadbed Removal Project, which was completed six months ahead of schedule. This project is a critical Everglades restoration project to remove nearly six miles of roadbed from Old Tamiami Trail to allow more water to naturally flow south into Everglades National Park.

Old Tamiami Trail is a historic highway that was built across the Everglades to connect Tampa and Miami in the early 1900s. By removing the roadbed, the project helps restore the ecologically important sheet flow of water south through the Everglades.



*Completion of the Old Tamiami Trail Roadbed Removal Project, Aug. 3, 2021. L-R: SFWMD Governing Board Members Charlie Martinez and "Alligator Ron" Bergeron, SFWMD Governing Board Vice Chairman Scott Wagner, SFWMD Governing Board Member Charlette Roman, Governor Ron DeSantis, SFWMD Governing Board Chairman Chauncey Goss, SFWMD Governing Board Members Cheryl Meads, Jacqui Thurlow-Lippisch and Jay Steinle, and SFWMD Executive Director Drew Bartlett. (Photo by SFWMD)*

### How much is an acre-foot?

An acre-foot (ac-ft) is the volume of water needed to cover one acre of land with one foot, or 325,851 gallons.

## MINIMUM FLOWS AND MINIMUM WATER LEVELS, WATER RESERVATIONS, AND RESTRICTED ALLOCATION AREAS

- Adopted Restricted Allocation Area Rule to protect water made available by the CERP Loxahatchee River Watershed Restoration Project.

## WATER SUPPLY AND QUALITY

- Completed the Draft 2022 LWC Water Supply Plan Update with demand projections through 2045 and initiated public review and comment period. Conducted stakeholder meetings and coordinated with the Southwest Florida Water Management District.
- Implemented the DEP Alternative Water Supplies grant program FY2022, which provided funding for three alternative water supplies and nine water conservation projects with regional stakeholders.



*2022 Lower West Coast Water Supply Plan Update.*

- Significantly advanced the number of local governments that have now adopted irrigation ordinances that comply with SFWMD's Year-round Irrigation Rule.
- Conducted an initial siting analysis for the Picayune Watershed Water Quality project. The objective of the study is to determine if there is land available and suitable for implementation of a water quality project in the Picayune watershed and improve water quality in the Outstanding Florida Waters.

## COMPREHENSIVE EVERGLADES RESTORATION PLAN

- For the Central Everglades Planning Project (CEPP), construction continues on the EAA Reservoir Project STA and design continues for the CEPP EAA Canal Conveyance Improvements. Completed design and permitting of the CEPP North S-620 Structure. The CEPP New Water Draft Validation Report and design of the seepage management feature were completed.
- Completed the 2nd annual Aquifer Storage and Recovery (ASR) Well Science Plan to identify potential studies to be conducted to address scientific uncertainties of phased implementation of ASR wells. Initiated several ASR wells for testing.
- Completed design and permitting of the remaining component of the Biscayne Bay Coastal Wetlands Phase I, the Cutler Flow Way and initiated construction of the S-701 Pump Station.

## LAND RESOURCES

- Swept over 150,000 acres of conservation and project lands to control invasive plant species, resulting in treatment of more than 40,000 acres of vegetation to maintain the ecological function and values of native plant species.
- Prescribed burns were conducted on 14,291 acres of fire dependent plant communities and wetlands on District-managed conservation and project lands.

### What is a Ditch?

A Ditch is a narrow channel dug in the ground, typically used for drainage alongside a road or the edge of a field. Ditches are typically dry except during rain events.

## RESTORATION STRATEGIES

The design and construction of Restoration Strategies projects is ongoing with completion of all projects expected by December 2024. In Water Year 2022 (WY2022; May 1, 2021–April 30, 2022), five milestones were completed on four projects: (1) STA 1 East (STA 1E) Repairs and Modification, (2) STA 1 West (STA 1W) Expansion No. 2, (3) G-341 Related Improvements, and (4) C-139 FEB.

STA 1E Repairs and Modifications were completed in March 2022. The project leveled out land surface issues of Cells 5 and 7 which improves treatment performance and is undergoing vegetation management activities prior to operating.

For the G-341 Conveyance Improvements Project, land needed was fully acquired in June 2021 and the final design was completed in March 2022. The C-139 FEB and STA 1 Expansion No. 2 construction status reports were submitted in February 2022.


*G-341 Conveyance & Related Improvements; Segment #4 Construction. (Photo by SFWMD)*

## RESTORATION STRATEGIES SCIENCE PLAN

Over the 10 years that the Restoration Strategies Science Plan has been in effect, nine studies have been completed and 12 are ongoing. In WY2022, the Floating Tussocks study was completed. The study evaluated factors that contribute to formation of floating mats of vegetation (tussocks) in STAs and their effects on phosphorus retention. An unmanned aerial vehicle (i.e., drone) equipped with imaging sensors took high resolution images of STA cells planted with emergent aquatic vegetation (EAV). EAVs are wetland plants that extend above the water surface.

A buoyancy model was developed to inform operational recommendations to reduce the formation of tussocks in the STAs. Regular use of drones to survey these areas could provide early detection, allowing management activities such as planting of deeply rooted EAV, harvesting, treatments, or lowering water levels to prevent further tussock expansion. See Chapter 5C for details about completed and ongoing studies.


*Mapping floating tussocks in an STA using a drone equipped with imagining sensors. (Photo by SFWMD)*





## SEA LEVEL RISE AND FLOOD RESILIENCY

The SFWMD is strongly committed to addressing the impacts of climate change, including rising sea levels, changing rainfall, and flood patterns.

The SFWMD's current resiliency efforts focus on assessing how sea level rise and extreme events, including flood and drought events, happen under current and future climate conditions, and how they affect water resources management.

The SFWMD is also making significant infrastructure adaptation investments that are needed to successfully implement its mission. As part of its resilience initiatives, SFWMD established an initial set of water and climate resilience metrics to track and document trends and shifts in water and climate data monitored by SFWMD.

The SFWMD continues to assess these data to better understand the current and predicted impacts of climate change on South Florida's ecosystems and water resources. This year's chapter 2B focuses on:

- Groundwater levels and coastal saltwater intrusion trends in South Florida — chloride data collected between 1990 and 2020 in the lower east coast surficial aquifer identify areas of westward (inland) saltwater movement and areas of eastward (seaward) saline water movement.
- Estuarine inland migration trends in South Florida — The distribution of coastal mangrove forests and adjacent estuarine ecosystems in South Florida is determined by tidal fluctuation, salinity, and sediment elevation. These forests are important buffer zones between land and sea that contribute to the formation of soil and stabilization of coastlines, acting as natural defense systems against hurricanes and tidal surge protecting inland habitats and coastal communities from flooding.
- Habitats are responding to global climate change and changes in historical water flows. Evaluation of the data also illustrates the role of water management in staving off the impacts of sea level rise through freshwater inputs.
- Evaluation of salinity trends in the South Florida Ecosystem and soil subsidence (loss of elevation).

### What are Dikes and Levees?

Dikes and Levees are barriers that divert or restrain the flow of water. The large earthworks that surround Lake Okeechobee are generally referred to as dikes, whereas the smaller earthworks surrounding canals and Water Conservation Areas are generally called levees.



## STORMWATER TREATMENT AREAS AND BEST MANAGEMENT PRACTICES HAVE PREVENTED THOUSANDS OF METRIC TONS OF TOTAL PHOSPHORUS FROM ENTERING THE EVERGLADES

Since 1994, the Everglades STAs have treated approximately 25.2 million ac-ft of water (~ 8.2 trillion gallons) and retained 3,221 metric tons (t) of TP with a 77% Total Phosphorus (TP) load reduction. The overall outflow TP Flow-Weighted Mean Concentration (FWMC) from these treatment wetlands during this period has been 30 µg/L. STA 3/4, over its 19-year operational history, has treated the most water (~ 8.3 million ac-ft), retained the most TP load (875 t), achieved the highest percent TP load retained (85%), and discharged water at the lowest outflow TP FWMC (15 µg/L) of all the Everglades STAs. See Chapter 5B, Volume I, for more information.

The SFWMD BMP Program prevented approximately 4,431 metric tons of TP from entering the Everglades for the WY1996–WY2022 period. With the WY2022 results, the 27-year average annual TP load reduction for the program is 57%. EAA basin runoff is directed to the Everglades STAs for further nutrient reduction before discharging to the Everglades Protection Area. See Chapter 4, Volume I, for more information.

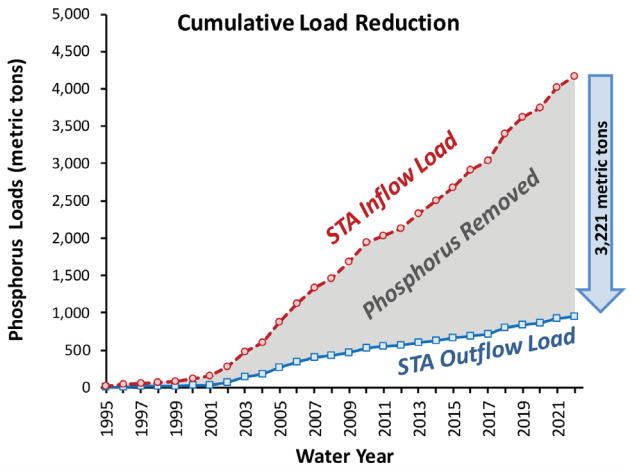



*Figure 1. Everglades STAs have prevented 3,221 metric tons of phosphorus from entering the Everglades since 1995.*

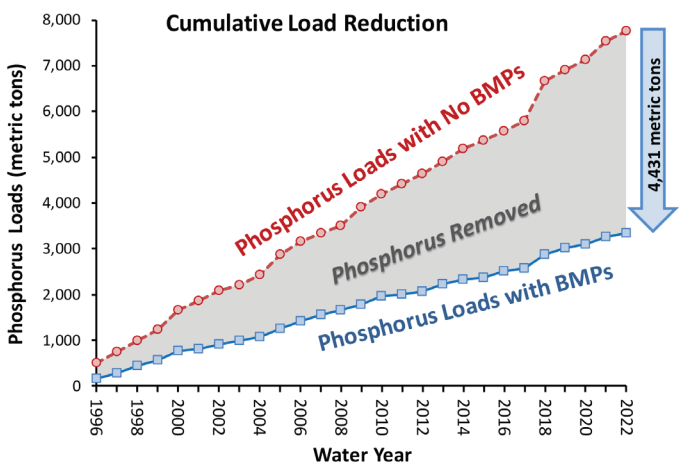



*Figure 2. BMPs have prevented 4,431 metric tons of phosphorus from leaving the EAA Basin in stormwater runoff since 1996.*

## What are Nutrients?

In aquatic environments, nitrogen and phosphorus are key nutrients that affect the growth rate of plants. Although the nutrients, phosphorus and nitrogen, are vital in all natural systems, too much nutrients in an ecosystem can have harmful ecological consequences. Nutrients can flow across the landscape in stormwater runoff as pollution (urban and agricultural). This can harm natural areas by promoting algae growth, creating an overabundance of non-native plants, crowding out natural vegetation and disrupting food sources and habitats.

The Everglades is naturally an extremely low-nutrient system. Even small amounts of additional nutrients can upset the delicate ecological balance needed by the native plants and animals in the historic "River of Grass." Phosphorus is normally recorded in micrograms per liter (µg/L) or parts per billion (ppb) and nitrogen is normally recorded in milligrams per liter (mg/L) or parts per million (ppm). In this document, Total Phosphorus (TP) and Total Nitrogen (TN) are used to denote measurement when monitoring the nutrients found in water bodies or as they relate to inflows and outflows of water.

## ADDRESSING BLUE-GREEN ALGAL BLOOMS

The SFWMD, in cooperation with the DEP, maintains a Blue-Green Algae (BGA) Response Plan. The plan outlines a threshold-based framework for monitoring and treating BGA blooms based on severity, with four main components: Field Reconnaissance, Treatment Response, Monitoring, and Experiments.

The SFWMD aims to use eco-friendly methods for BGA bloom management and control and continuously assess their effectiveness. Monitoring provides data to inform treatment and improve BGA management. Experiments will test new methods for future control and include the use of federal grants. Leveraging technology, including new laboratory equipment and automating processes, the SFWMD can provide more frequent reporting and data summaries to facilitate efficient coordination and response efforts.




*SFWMD Staff Deploying Nexsens CB 450 Data Buoys on Lake Okeechobee to Help Monitor Water Quality Across the Lake. (Photo by SFWMD)*



*A Group of Wood Storks Wading in an STA at Sunset. (Photo by SFWMD)*

## SECOND HIGHEST WADING BIRD NESTING SEASON ON RECORD

Wading birds help us understand the health of the Everglades. We know that if we get the water right for wading birds, we're getting it right for the ecosystem. SFWMD ecologists track the timing, location and distribution of wading bird nesting, as well as foraging patterns, in addition to other activities. The SFWMD regularly monitors ibises, wood storks, herons, roseate spoonbills and egrets. These species serve as important ecological indicators, especially during exceptionally wet and dry years. Most species exhibited considerably increased nesting efforts and nesting success during 2021.

According to the 2021 Wading Bird Report, nearly 102,000 wading bird nests were initiated during the 2021 wading bird nesting season! This represented the second largest number of nests initiated by wading birds, one of the bellwether species used by scientists to gauge the overall health of the Everglades, since scientists started surveying nesting throughout the Everglades in 1996.

*"This latest reporting year shows the benefits of Everglades restoration efforts when climatic conditions are favorable and the exciting potential for all the ongoing environmental restoration projects that will be finished in the coming years," said Dr. Mark Cook, lead editor of the SFWMD Wading Bird Report. "We had above average rainfall and favorable timing during the reporting period. This shows that as we are restoring the hydrology of the Everglades, getting the water right will allow Mother Nature to take advantage of favorable conditions when they are presented. All species, including wading birds, are benefiting."*

### What are STAs?

Stormwater Treatment Areas (STAs) are large, constructed wetlands with inflow and outflow structures for controlling water movement. Aquatic plants in the STAs remove and store excess nutrients (phosphorus) found in the stormwater runoff through growth and accumulation of dead plant material in the layers of sediment. This natural process cleanses the water before it is moved out of the STA and into the Everglades or other water bodies.

## TAKING AGGRESSIVE ACTION TO REMOVE INVASIVE BURMESE PYTHONS

To date, over 10,000 Burmese pythons have been removed from the Everglades and the surrounding rural areas.

Pythons are non-native, invasive snakes that pose direct threats to native wildlife. Pythons cause significant impacts to native prey, such as marsh rabbits, deer, wading birds and even alligators. Their aggressive predation negatively impacts the food sources of native species including panthers, raptors, alligators, and bobcats.

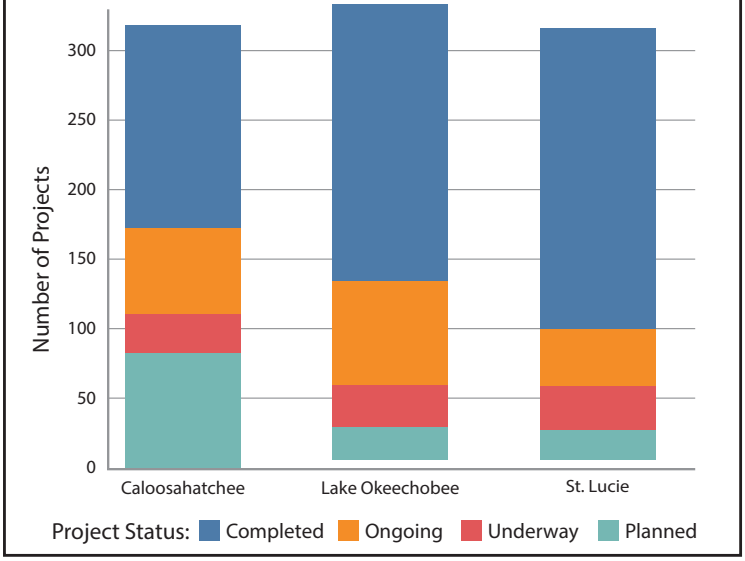


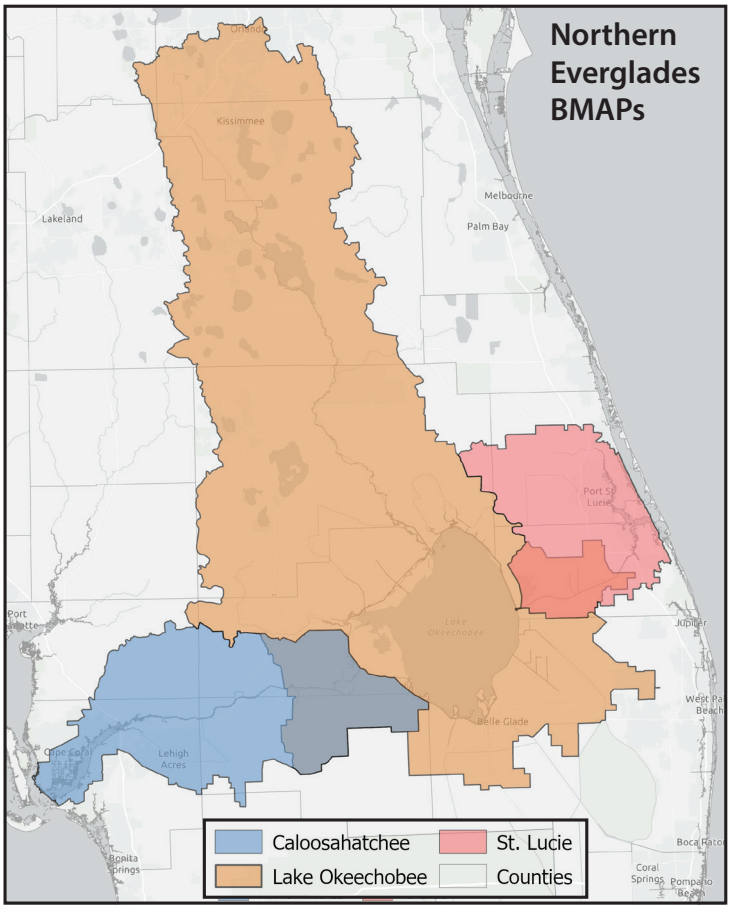
*SFWMD Python Elimination Specialist Donna Kalil. (Photo by SFWMD)*

## BASIN MANAGEMENT ACTION PLAN (BMAP) UPDATES SHOW ONGOING PROGRESS

Progress continues on DEP BMAPs designed to implement nutrient reductions established by the TMDLs for the Northern Everglades watersheds (see figure 1 below). The 2021 Statewide Annual Report on Total Maximum Daily Loads, Basin Management Action Plans, Minimum Flows or Minimum Water Levels, and Recovery or Prevention Strategies (STAR) details progress made through December 31, 2021 on implementation of the NEEPP BMAPs.

**Figure 1: BMAP Project Status**






*Pump Activated at Scott Water Farm, Feb 11, 2022. (Photo by SFWMD)*

## Project Successes

**Water Storage Benefits in the Northern Everglades:** During Water Year 2022 (WY2022; May 1, 2021–April 30, 2022), 28 projects were operational in the Northern Everglades watersheds, including 22 Dispersed Water Management (DWM) and six other regional restoration projects that provide water storage benefits. Collectively, these projects provided an estimated storage volume of approximately 142,195 ac-ft across the region.

**New Watershed Construction Projects Move Forward:** In May 2022, the SFMWD Governing Board authorized entering into contract negotiations for 14 projects under the Northern Everglades Watersheds Water Retention and Nutrient Load Reduction Projects Request for Proposals. This includes renewals for six DWM projects and eight new projects with water storage and/or quality benefits across the Northern Everglades watersheds.

**Coordinating Agencies Collaborate on New Rapid Assessment Process:** To be more proactive in managing specific water quality issues, the Coordinating Agencies' Water Quality Team has developed a new Rapid Assessment process to quickly notify and share information when unusual events occur based on field observations and/or lab data reviews. The Coordinating Agencies are the SFWMD, DEP, and Florida Department of Agriculture and Consumer Services (DACS). With the team's guidance, SFWMD also continues to conduct basin-specific assessments within the Northern Everglades and Estuaries Protection Program (NEEPP) priority areas to help pinpoint key nutrient sources and recommend targeted actions for further water quality and storage improvements.

**New Local Projects Advance in the St. Lucie River Watershed:** In 2020, nine water quality improvement projects by local governments were awarded state grant funds, which are being administered via a Memorandum of Understanding between SFWMD and St. Johns River Water Management District.

To date, design has been completed for all projects and construction has been fully completed for three projects:

- City of Port St. Lucie's Floresta Drive Baffle Box
- Sagamore Basin STAs
- North St. Lucie Water Control District's 10-Mile Creek Sediment Control Project

### What is a Pump?

A Pump is a mechanical control structure that forces the movement of water.

## LAKE OKEECHOBEE WATERSHED PROTECTION PLAN HIGHLIGHTS

### Advancing Watershed Construction Projects

**El Maximo Ranch:** A 7,000-acre treatment and attenuation project began construction in August 2022 and is expected to be operational in 2024.

**Lower Kissimmee Basin Stormwater Treatment Area (STA):** 3,350-acre treatment project at the confluence of the S-154 and S-154C structures and the Kissimmee River. Design was initiated in 2022, and construction is expected to commence in 2025.

**Brady Ranch & Grassy Island:** Two flow equalization basins (FEBs) located on District-owned properties that will capture peak stormwater flows and assist in hydrating adjacent STAs for improved nutrient removal. Design is underway and construction is expected to commence in 2025.

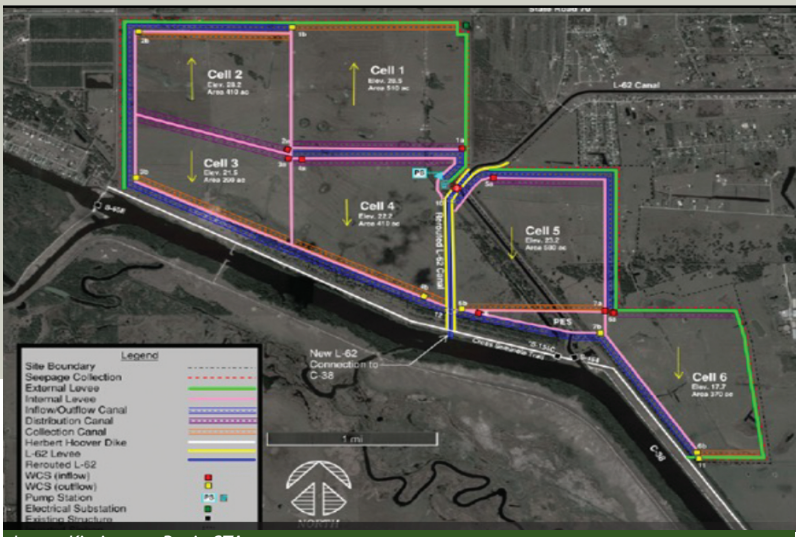
**S-191 Innovative Technology Treatment:** Nutrient load reduction project to remove phosphorus from the S-191 Basin before it enters Lake Okeechobee. Design was recently completed, and the project is expected to be operational in 2023.

**Kissimmee Headwaters Revitalization Schedule:** Continued development of the revised regulation schedule is for the restored portion of the Kissimmee River. Final schedule is anticipated in 2026.

**Taylor Creek Nubbin Slough (TCNS) 214 Storage and Treatment:** Capture and attenuate excess stormwater from Williamson Ditch into a shallow water storage feature. Planning and design began in 2022.



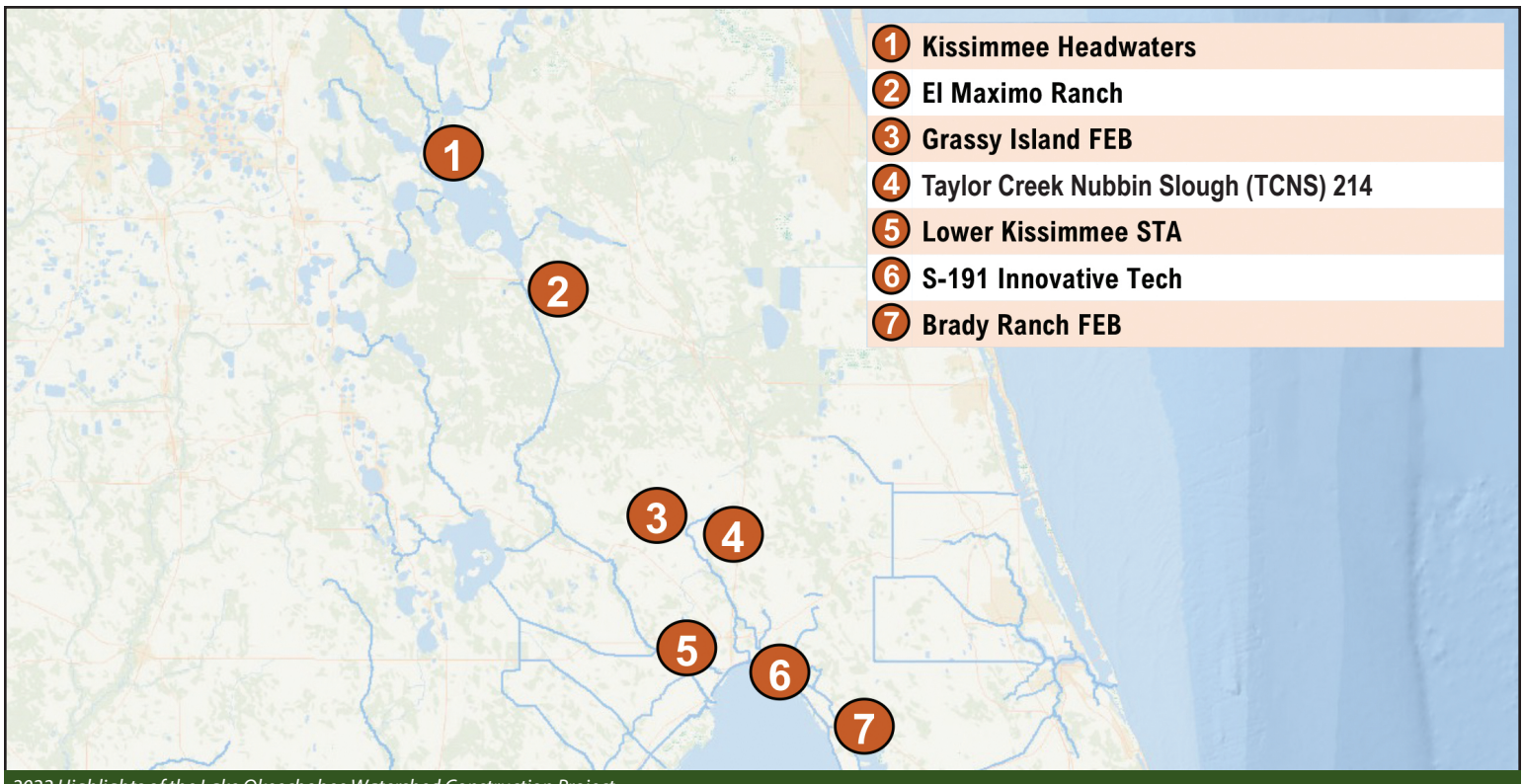
*El Maximo Ranch Property. (Photo by SFWMD)*




*Lower Kissimmee Basin STA*

## What are Canals?

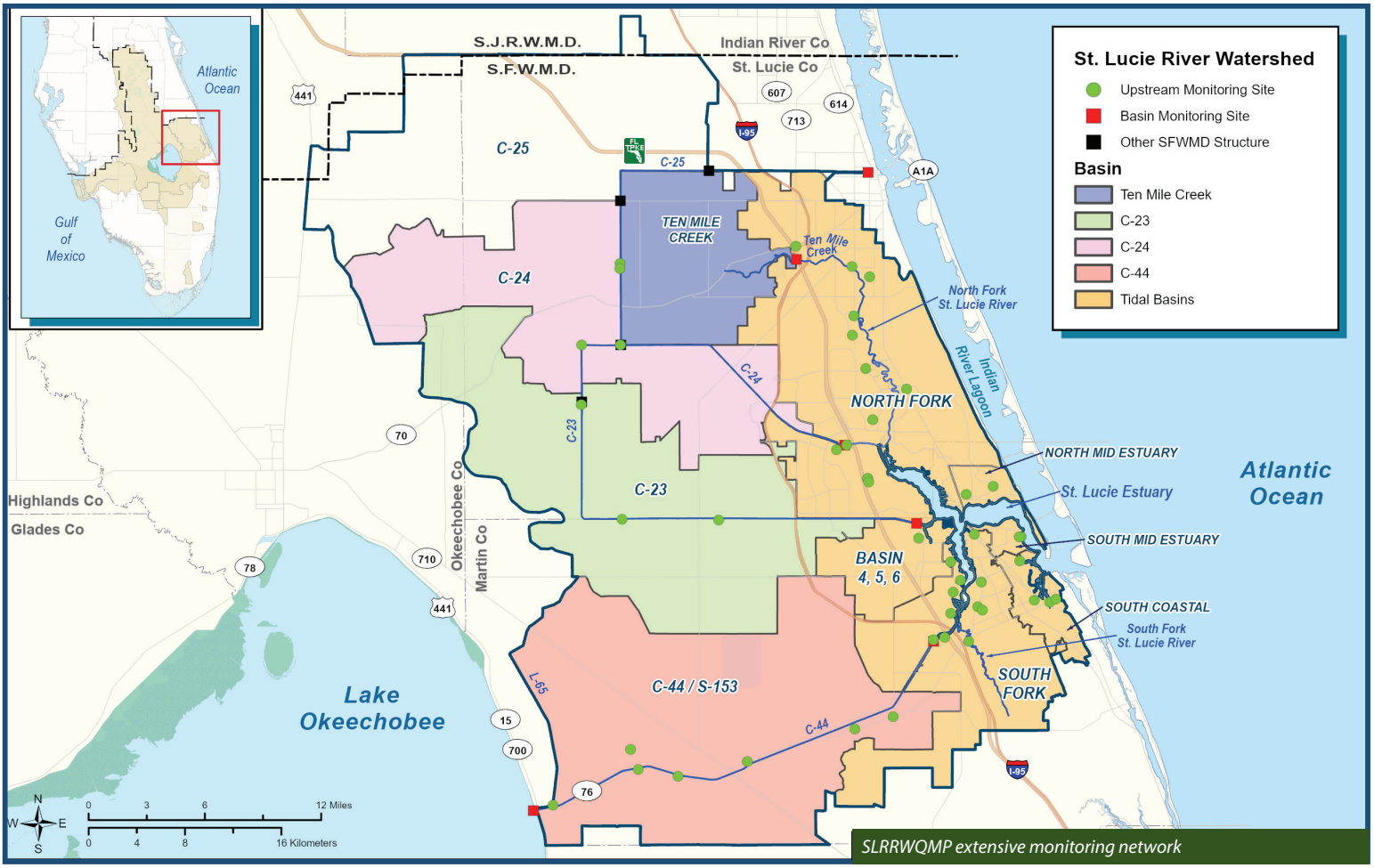
Canals are a system of human-made trenches used for the movement of water.




*2022 Highlights of the Lake Okeechobee Watershed Construction Project*

## ST. LUCIE RIVER WATERSHED PROTECTION PLAN HIGHLIGHTS

### Research & Monitoring Results

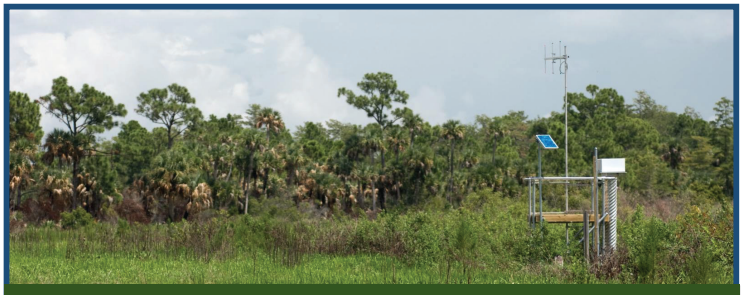



*SLRRWQMP extensive monitoring network*

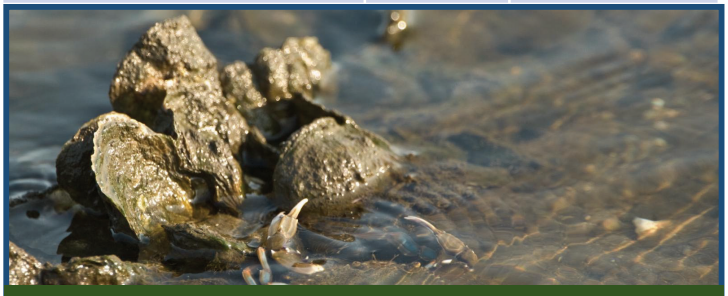
### WY2022 RESULTS – ST. LUCIE ESTUARY

| Hydrologic Conditions | WY2022 Results | Change from WY2021 |
|---|---|---|
| Rainfall (inches) | 46 | ↓ 33% |
| Lake Discharges (ac-ft) | 0 | ↓ 198,000 |
| Total Discharges (ac-ft) | 598,000 | ↓ 617,000 |
| Total Phosphorus Loading (t) | 115 | ↓ 66% |
| Total Nitrogen Loading (t) | 783 | ↓ 58% |

| Ecological Conditions | WY2022 Results | Change from WY2021 |
|---|---|---|
| Submerged Aquatic Vegetation<br>Dry Season Abundance<br>Wet Season Abundance | <br>0.25<br>0.27 | <br>↑ 308%<br>↑ 30% |
| Live Oyster Densities<br>(oysters per square meter)<br>Dry Season<br>Wet Season | <br>268<br>286 | <br>↓ 42%<br>↑ 98% |
| % of the year in optimum salinity range for oysters | 79% | ↑ 24% |

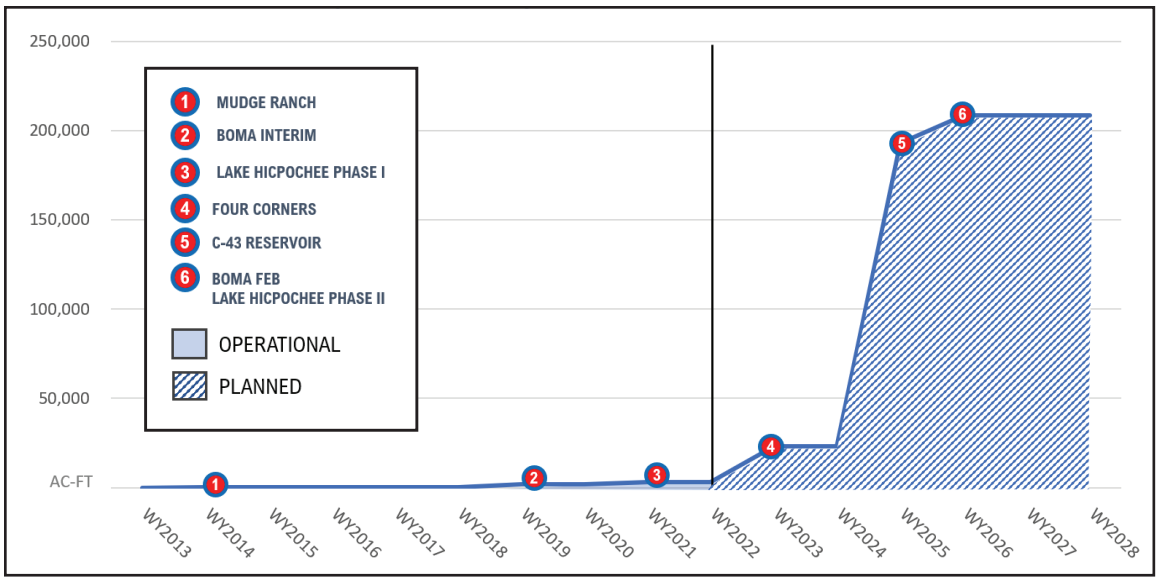


*Water Monitoring Platform at DuPuis Management Area. (Photo by SFWMD)*



*Oysters in the Indian River Lagoon. (Photo by SFWMD)*

## INCREASING WATER STORAGE IN THE CALOOSAHATCHEE RIVER WATERSHED







**Total Nitrogen (TN) Total Maximum Daily Load**




**Total Storage**

## CALOOSAHATCHEE RIVER WATERSHED PROTECTION PLAN HIGHLIGHTS

### Advancing Watershed Construction Projects

**Lake Hicpochee Hydrologic Enhancement Phase II:** Multi-phase project to enhance hydration of the historic Lake Hicpochee lakebed through storage and water quality improvements. Phase II includes a new 2,200-acre flow equalization basin (FEB), pump station to withdraw from the C-43 Canal, and associated connections to Phase I of the project. Construction begins this year, and the project will be operational in 2026.

**Boma FEB & Water Quality Treatment Technology (WQTT) Phase II Test Cells:** The 1,800-acre Boma FEB will expand regional storage in the Caloosahatchee River Watershed and store excess runoff to reduce harmful releases to the Caloosahatchee Estuary. Construction begins this year, and the project will be operational in 2026. The WQTT Phase II project includes interconnected test cells to evaluate the effectiveness of constructed wetland treatment in reducing nitrogen. Construction will begin this year and the project will be operational in 2024.

### What is a FEB?

Flow equalization basins (FEBs) are constructed impoundments designed to capture water. They can provide a steadier flow of water to STAs, helping to maintain desired water levels needed to achieve optimal water quality, improve performance and prevent dry out, which can be extremely damaging to STA vegetation.

**Progress Towards Water Quality and Storage Goals**
Three projects were operational in WY2022 and provided approximately:

- 8,800 ac-ft of storage
- 2 metric tons Total Phosphorus retention
- 27 metric tons Total Nitrogen retention

**Northern Everglades Request for Proposals:** In 2022, the SFWMD Governing Board authorized staff to negotiate two new projects in the Caloosahatchee River Watershed.

**Total flow** into the Caloosahatchee Estuary was 1.998 million ac-ft in WY2022, 10% **lower** than WY2021.

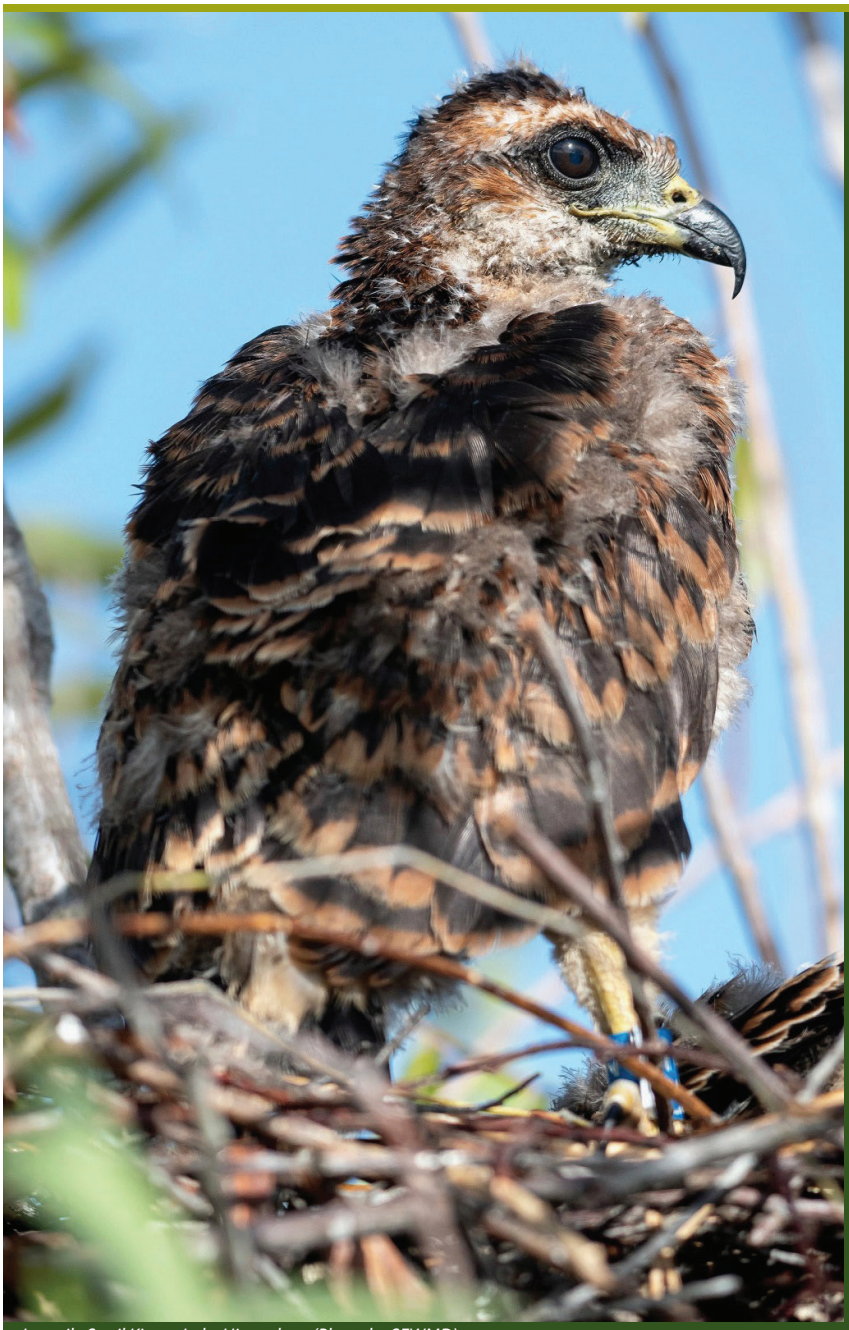
**Total Nitrogen** loading to the Caloosahatchee Estuary in WY2022 was 3,074 metric tons; 17% **lower** than WY2021 and bringing the 5-year average to 3,578 metric tons.

**Oyster densities** were measured biannually (fall and spring) at the Iona Cove and Bird Island sites. Oyster densities **increased** at both sites in WY2022, especially during the dry season.

**Submerged aquatic vegetation (SAV)** in the upper and middle estuary **remained low** in WY2022. The lower estuary had substantially **greater** spatial extent, abundance, and diversity of seagrass with *Thalassia testudinum* the most prevalent in WY2022 (below).



*Thalassia Testudinum.* (Photo by SFWMD)



*Juvenile Snail Kite at Lake Hicpochee. (Photo by SFWMD)*

## REQUIRED REPORTING FULFILLED BY 2023 SFER

The Florida Statutes (F.S.) contain specific reporting requirements that the SFER fulfills.

**Consolidated Water Management District Annual Report**

373.036(7), F.S., requires a consolidated report on the management of water resources be submitted annually. The 2023 SFER fulfills this requirement for SFWMD.

**Volume I**

- Appendix 1-2 provides the Everglades restoration report.
- Appendix 1-3 provides the Everglades Trust Fund expenditure report.
- Chapters 3, 4, 5A, 5B, 5C, 6, and 7 and associated appendices provide an update on Everglades progress.
- Chapters 8A, 8B, 8C, and 8D provide the Northern Everglades and Estuaries Protection Program annual progress report.

**Volume II** provides an annual update on the project status during Fiscal Year 2022 and planning for Fiscal Year 2023 for 10 annual reports required of all water management districts.

**Volume III** of the 2023 SFER provides an annual update on environmental restoration projects to comply with permits issued by DEP. Currently, annual updates are provided for five projects under construction, 19 projects operating, and two projects operating that also had a phase or component under construction during the water year.

**Ron DeSantis,** Governor

**SFWMD Governing Board**
**Chauncey Goss,** Chairman
**Scott Wagner,** Vice Chairman
**Ron Bergeron Sr.**
**Ben Butler**
**Charlie E. Martinez**
**Cheryl Meads**
**Charlette Roman**
**Jay Steinle**
**Jacqui Thurlow-Lippisch**

**Shawn Hamilton,** Secretary, Florida Department of Environmental Protection

**SFWMD Executive Management**
**Drew Bartlett**, Executive Director
**John Mitnik**, Asst. Executive Director & Chief Engineer
**Sean Cooley**, Communication & Public Engagement Director
**Jill Creech,** Regulation Director
**Maricruz Fincher**, General Counsel
**Lawrence Glenn**, Water Resources Director
**Candida Heater**, Administrative Services Director
**Lisa Koehler**, Big Cypress Basin Administrator
**Dr. Carolina Maran,** District Resiliency Officer
**Duane Piper**, Chief Information Officer
**Jennifer Reynolds**, Ecosystem Restoration Director
**Jennifer Smith**, Chief of Staff
**Rich Virgil**, Field Operations Director

### Get the latest information from SFWMD

Learn more about Everglades restoration projects in South Florida by signing up for the District's emails. Visit SFWMD.gov and click on ***"Subscribe for Email Updates."***

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