

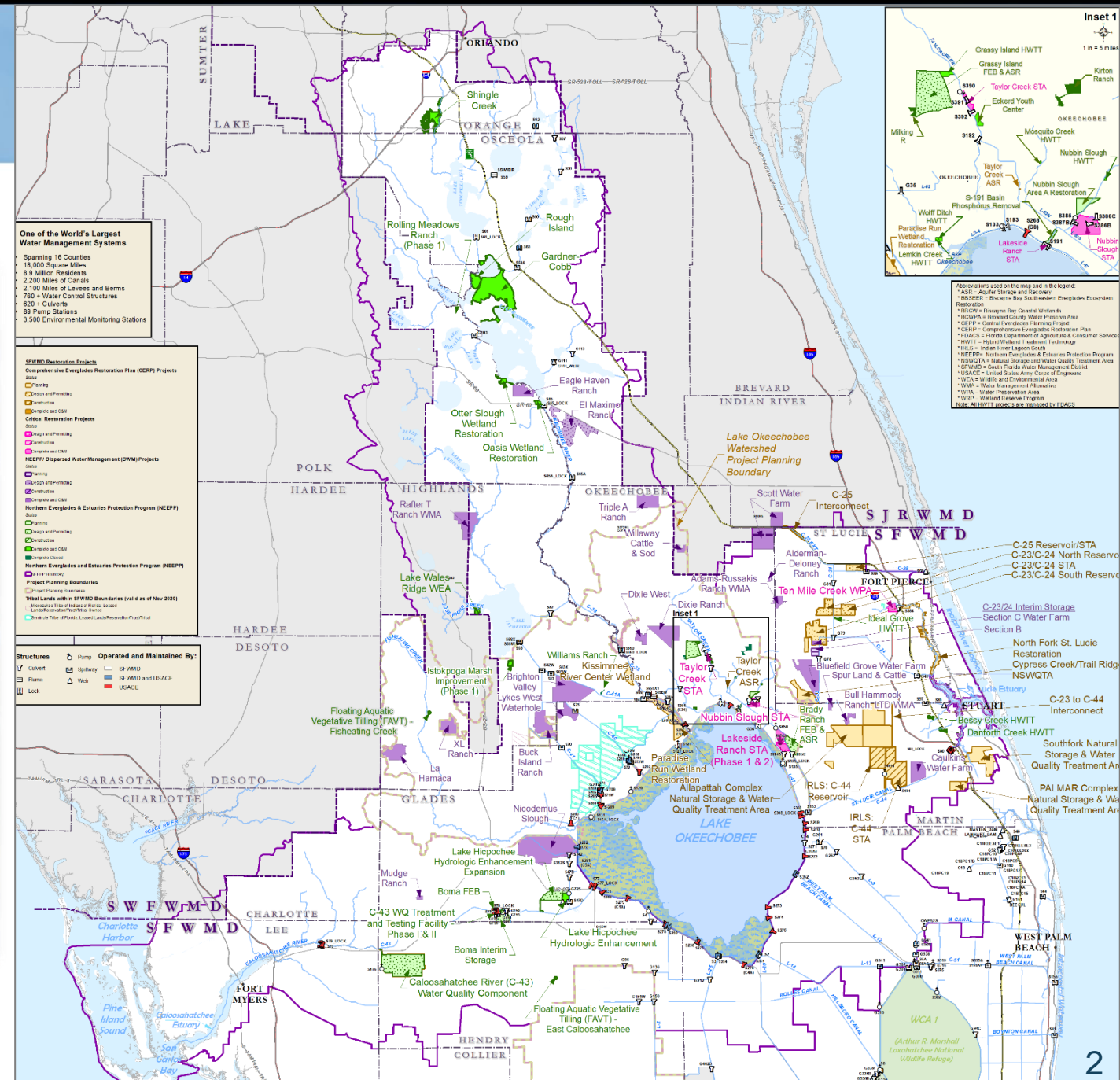
NORTHERN EVERGLADES PROJECT UPDATES

Jennifer Reynolds, Director
Ecosystem Restoration & Capital Projects
South Florida Water Management District
County Coalition Meeting, Okeechobee, FL
September 23, 2022





2



Interagency Coordination - Federal

➤ South Florida Water Management District



➤ U.S. Army Corps of Engineers



Integrated Delivery Schedule

- Sequencing strategy for planning, design, and construction
- Updated annually
- Public process facilitated by the US Army Corps of Engineers



INTEGRATED DELIVERY SCHEDULE 2021 UPDATE FINAL DRAFT

SOUTH FLORIDA ECOSYSTEM RESTORATION | CENTRAL AND SOUTHERN FLORIDA COMPREHENSIVE EVERGLADES RESTORATION PLAN

The Comprehensive Everglades Restoration Plan (CERP) is the largest aquatic ecosystem restoration effort in the nation, spanning over 18,000 square miles, and is designed to improve the health of more than 2.4 million acres. The Integrated Delivery Schedule (IDS) is a forward-looking snapshot of upcoming planning, design, and construction schedules and programmatic costs at a "top" line level for the South Florida Ecosystem Restoration (SFER) Program – including CERP, Modified Water Deliveries to Everglades National Park, the Critical Projects Program, Kissimmee River Restoration, and non-CERP Central and Southern Florida (C&SF) projects.

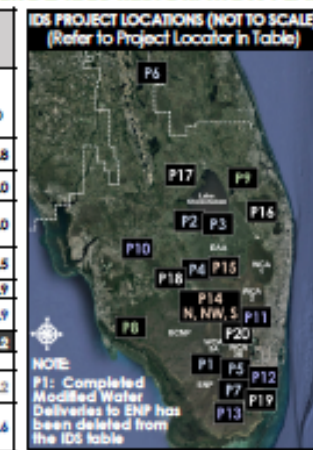
The IDS reflects the sequencing strategy for planning, design, and construction and does not include costs for work completed in other fiscal years or land acquisition. The IDS does not require an agency action and is not a decision document. It is a tool that provides information to decision-makers – a living document that is updated as needed to reflect progress and/or program changes. The IDS synchronizes program and project priorities with the State of Florida and achieves the CERP restoration objectives at the earliest practicable time, consistent with funding constraints and the interdependencies between project components.

Although non-CERP and Foundation projects upon which the CERP is dependent are reflected in the IDS schedule, they are not included in the funding scenario. These projects are funded through other program authorities or by other entities. Restoration projects by others are also not included but are considered during planning.

Note: The IDS serves the purpose of the Master Sequencing and Implementation Plan (MISP) described in the original CERP plan (Yellow Book). Funding shown for Fiscal Year 23 (Fiscal Year, October 1-September 30) and beyond is only notional, representing approximate funding levels that would be needed to sustain the work displayed in the IDS for any particular fiscal year. The funding does not represent a commitment by the Administration to budget the amounts shown.

Four projects successfully completed have been removed from the 2021 IDS: foundation project, Modified Water Deliveries to Everglades National Park, CERP Picayune Strand (Southern Golden Gate Estates) Faka Union and Miller Pump Stations; and CERP Broward County Water Preserve Areas Millcotton Area A, B, and C.

| SOUTH FLORIDA ECOSYSTEM RESTORATION (SFER) INVESTMENT THROUGH FY2020 (Millions) | | | | | |
|---|-------------------|-----------------|-------------------|-------------------|-------------------|
| | FEDERAL | | NON-FEDERAL | MULTIPLE AGENCIES | GRAND TOTAL |
| | USACE | DOI | TOTAL | | |
| Modified Water Deliveries to EHP | \$ 77.5 | \$ 317.3 | \$ 394.8 | - | \$ 394.8 |
| Critical Projects | \$ 88.9 | - | \$ 88.9 | \$ 88.2 | \$ 177.0 |
| Kissimmee River Restoration | \$ 402.5 | - | \$ 402.5 | \$ 396.5 | \$ 799.0 |
| C&SF Non-CERP | \$ 773.7 | \$ 51.8 | \$ 825.5 | \$ 225.1 | \$ 1,050.5 |
| C&SF CERP | \$ 1,492.9 | \$ 112.5 | \$ 1,605.4 | \$ 1,830.5 | \$ 3,425.9 |
| C&SF CERP to be credited | - | - | - | \$ 963.9 | \$ 963.9 |
| TOTAL SFER | \$ 2,835.5 | \$ 481.6 | \$ 3,317.1 | \$ 3,494.1 | \$ 6,811.2 |
| Herbert Hoover Dike Restoration Strategies and ECP | \$ 1,506.2 | - | \$ 1,506.2 | \$ 100.0 | \$ 1,606.2 |
| | - | - | - | \$ 2,041.6 | \$ 2,041.6 |



| | | | | | | | | | | | | | | | | |
|--|--|--|---|---|---|---|--------|--------|----------|----------|----------|--------|--------|--------|-------|--------|
| <div><div>●</div>●●●●●</div> <div>●●●●●</div> <div>●●●●●</div> | Non-federal Federal Rural Closeout Monitoring | <div>●●</div> <div>W</div> <div>●●●●●</div> <div>●●●●●</div> | Does not reflect budgetary development dollars or capability Expected WRDA year Project Implementation Report Project Implementation Report with Exemption | <div>●●●●●</div> <div>●●●●●</div> <div>●●●●●</div> <div>●●●●●</div> | Design, PPA Execution, Real Estate Acquisition Construction (Initiated by award of construction contract) Operational Plan Operational Testing and Monitoring Period | SCAN THIS CODE FOR QUICK ACCESS TO A DIGITAL COPY OF THE IDS | | | | | | | | | | |
| PROJECT LOCATOR | YELLOW BOOK COMPONENTS | PROJECT | | FISCAL YEAR DESIGN AND CONSTRUCTION COSTS (DOLLARS IN MILLIONS)* | | | | | | | | | | | | |
| | | | | 2020 W | 2021 | 2022 W | 2023 | 2024 W | 2025 | 2026 W | 2027 | 2028 W | 2029 | 2030 W | 2031 | 2032 W |
| | | | Planning Estimates Federal Construction Cost (SFER)** | \$ 255 | \$ 250 | \$ 350 | | | | | | | | | | |
| | | | Planning Estimates Non-Federal Construction Cost (SFER)** | \$ 363 | \$ 258 | \$ 329 | \$ 832 | \$ 836 | \$ 1,030 | \$ 1,253 | \$ 1,012 | \$ 830 | \$ 547 | \$ 170 | \$ 27 | \$ 27 |
| | | | Planning Estimates Total Construction Cost (SFER)** | \$ 598 | \$ 508 | \$ 679 | | | | | | | | | | |

Interagency Coordination - State

➤ FDEP

- Basin Management Action Plans (BMAP)
- Best Management Practices (BMP) enforcement

➤ FDACS

- BMP enrollment, verification and updates

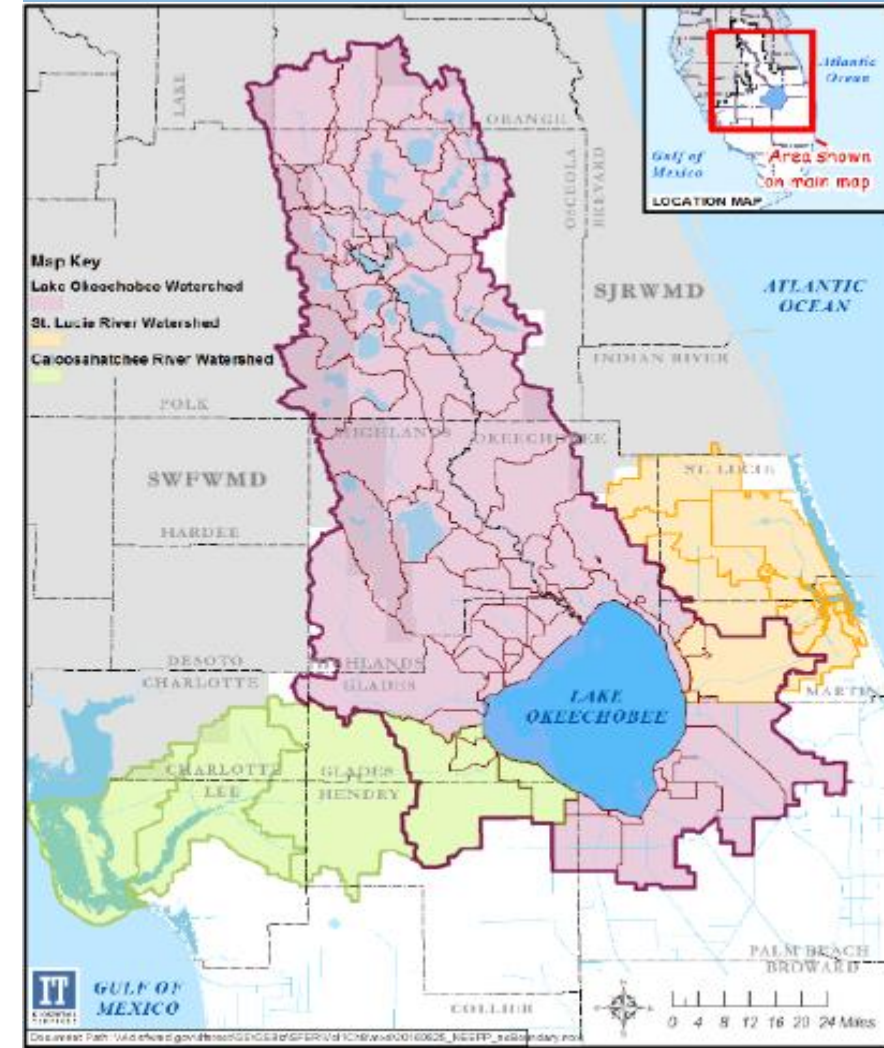
➤ SFWMD

- Watershed Protection Plans
 - Research and Water Quality Monitoring Program
 - Watershed Construction Projects

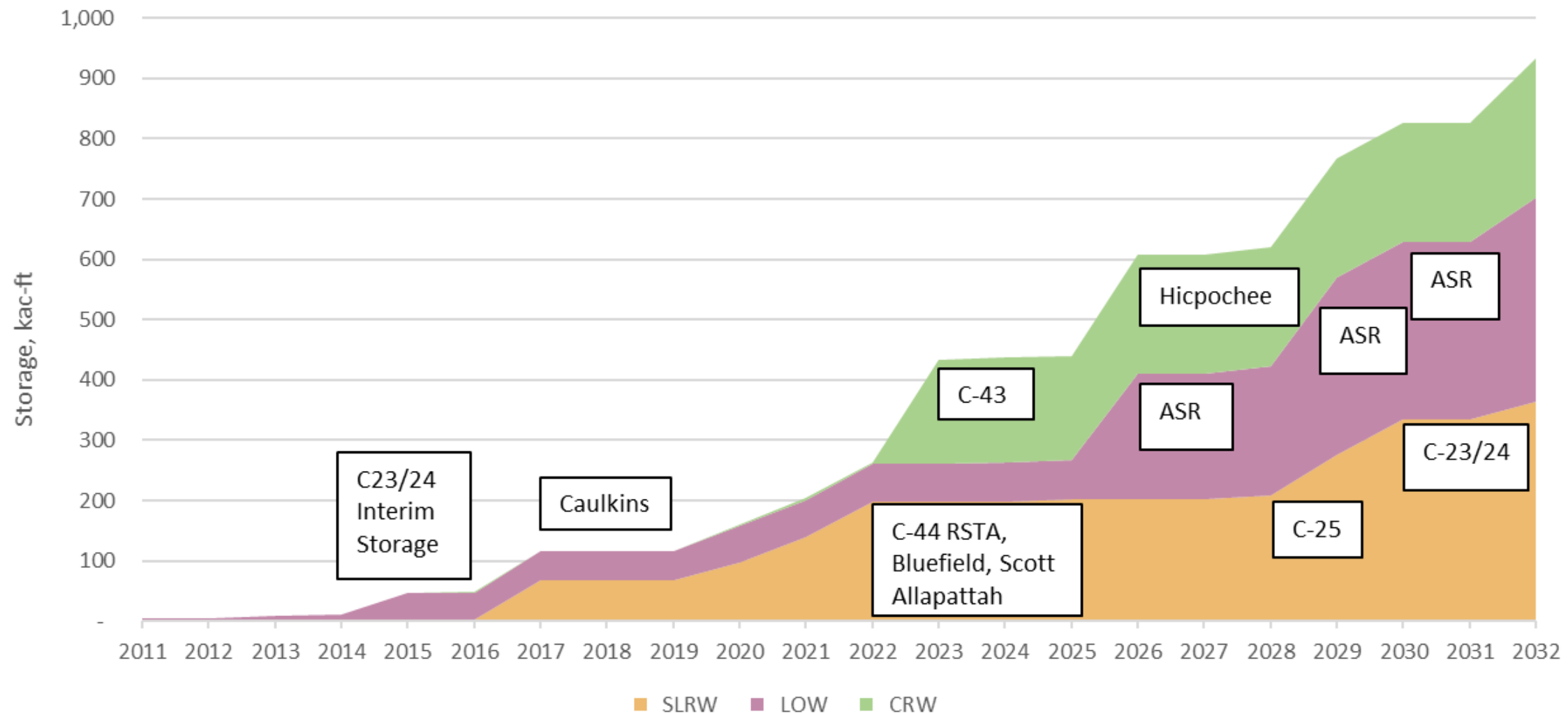


Watershed Protection Plans

- Science driven plans comprised of:
 - Research & water quality monitoring
 - Projects
- 3 watersheds:
 - Lake Okeechobee
 - St. Lucie River
 - Caloosahatchee River
- Progress reported annually in the South Florida Environmental Report
SFWMD.gov/SFER



Project Storage by Watershed



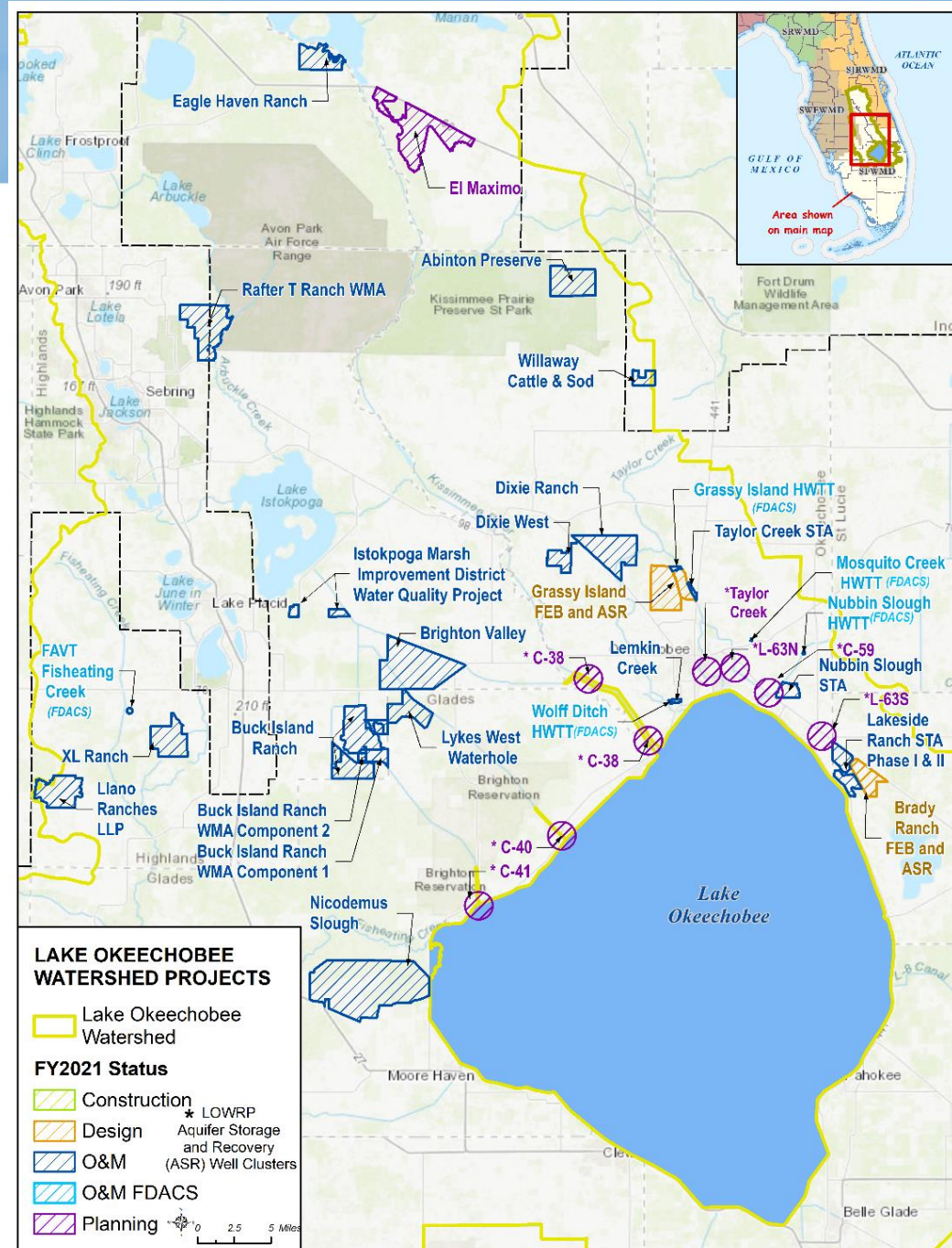
Lake Okeechobee Watershed Projects

➤ Status:

- 4 projects – planning/design
- 18 projects – operations



Brighton Valley DWM



Kissimmee River Restoration Project

- Restores over 12,000 acres of wetlands and 40 miles of historic river channel
- Status:
 - Construction complete – summer 2021
 - Headwaters Revitalization Schedule (HRS) – through 2026
 - Post restoration monitoring – 5 years post HRS



Lakeside Ranch STA

- Treats runoff from S-191 Basin
- Operational – 2013 (Phase I); 2019 (Phase II)
- S-191A Pump Station (Phase III) completed August 2021 to improve operations



Nubbin Slough STA



- Treats runoff from Nubbin Slough
- Operational since 2016, USACE transfer to SFWMD
- Rehabilitation to optimize treatment; repairs to levee and seepage ditch, completed in August 2021

Brighton Valley DWM

- ~8,100-acre NE-PPP Project in C-41 Basin
- Excess water treated before discharge to C-40 Canal
- Largest DWM project in LOW; treatment capacity ~39,000 ac-ft/yr; average reduction – 3.2 t/yr TP; 27.3 t/yr TN
- Water Year 2021 was first full year of operations



Inflow Basin



Outfall Monitoring

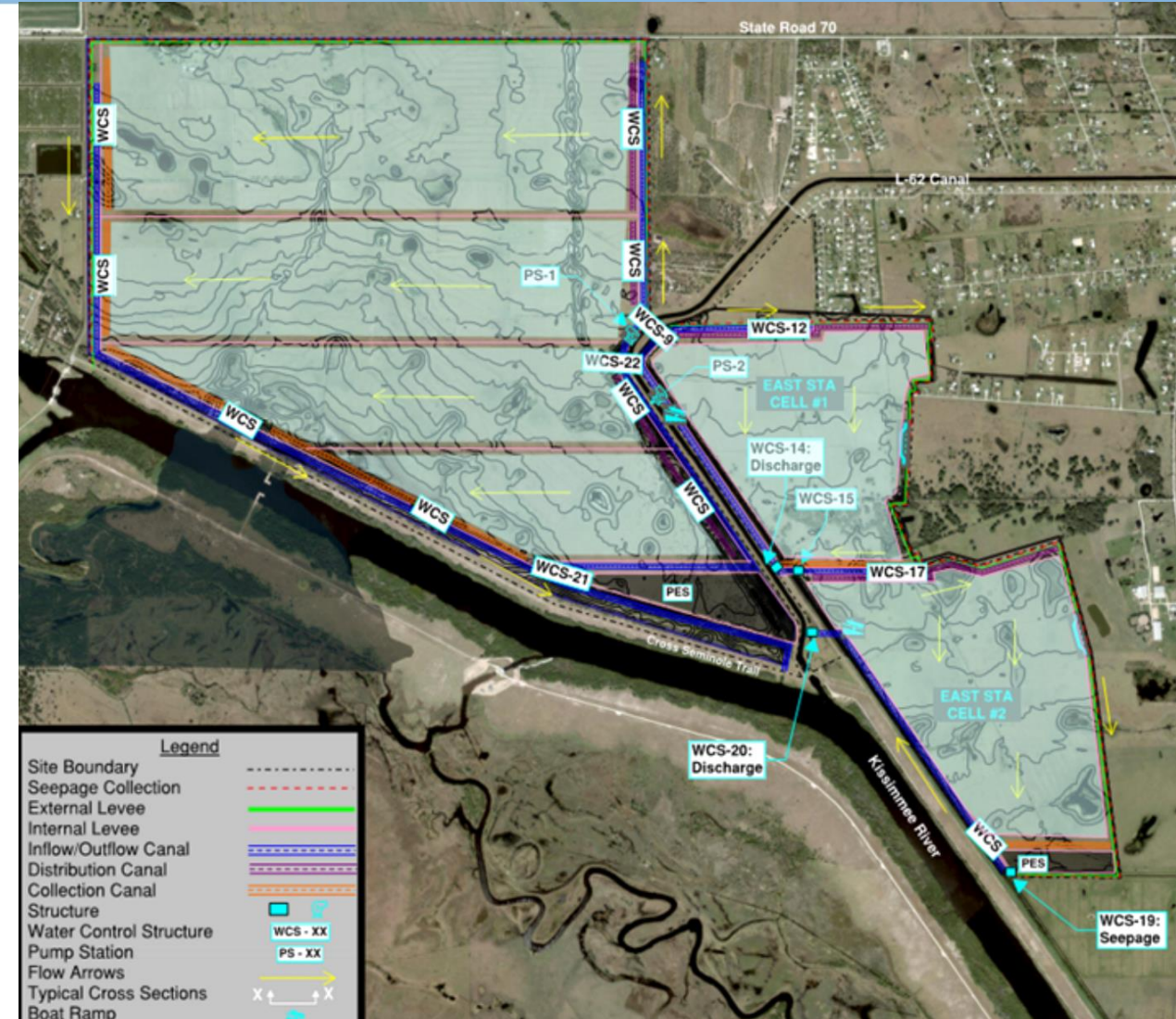
Lake Okeechobee Watershed Restoration Project



- Captures, stores and redistributes water entering Lake Okeechobee
- Aquifer storage and recovery
 - 55 ASR wells
 - 308,000 ac-ft of storage per year
- Wetland restoration
 - Paradise Run ~ 4,700 acres
 - Kissimmee River Center ~ 1,200 acres

Lower Kissimmee Basin STA (Alternative Delivery Project)

- FDEP BMAP Project (F-25) to address high nutrient areas in S-154, S-154C and S-133 priority basins
- New STA will treat water from L-62 Canal and Lake Okeechobee; also, water storage benefits
- Multi-phased implementation
 - Phase 1A - Reconnaissance Study and Design Documentation Report (*in progress*)
 - Phase 1B: Preliminary Design (2023)
 - Phase 2 - Design, Permitting, Land Transfer, Construction and 5 Years Operations (future)

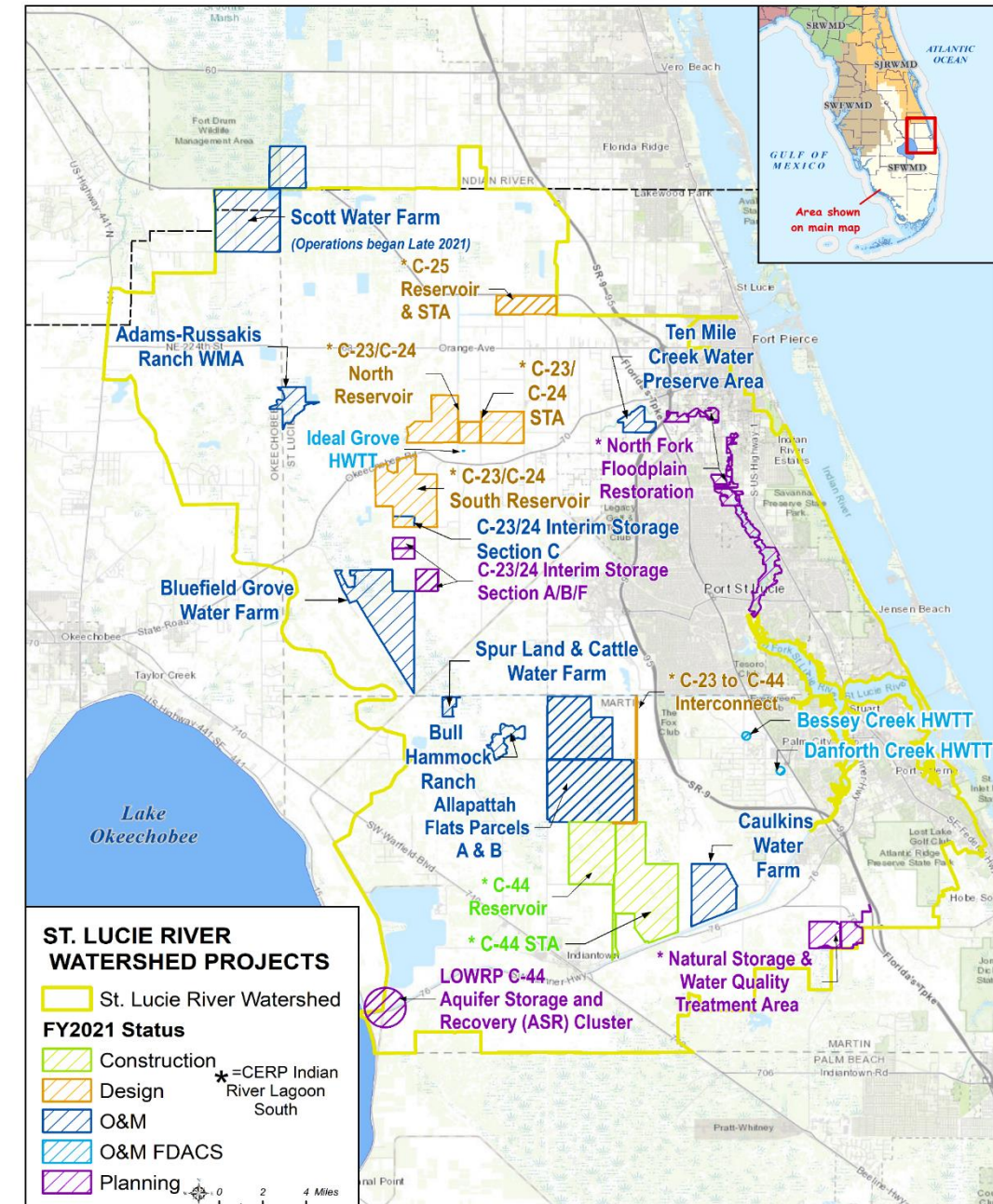


 Status:

- 9 projects – planning/design
- 1 project – construction
- 9 projects – operations



C-44 Reservoir & STA



Indian River Lagoon - South

- Reduce freshwater inflows and generate habitat/water quality improvements in St. Lucie Estuary/Indian River Lagoon
- C-44 Reservoir and STA completed October 2021; USACE testing and monitoring, prior to transfer to SFWMD in 2023
- C-23/C-24 STA design completed in September 2021; STA construction underway, complete in 2025
- C-23/C-24 N & S reservoirs and C-24/C-44 interconnect design under way; construction complete in 2025 (interconnect), 2028 (south), 2030 (north)
- C-25 Reservoir and STA design also under way; construction complete in 2028



C-23/24 Interim Storage Section C

- 297-ac storage reservoir on public land (2017)
- Will operate until land is required for C-23/24 South Reservoir; to be integrated into reservoir
- Estimated storage benefit of 2,950 ac-ft/yr



Section C Interim

Allapattah Flats Parcels A & B



Allapattah
Wetland

- ~6,700 acres of restored wetland area
- Water quality improvement, curtails ecologically harmful freshwater flows to St. Lucie Estuary
- Construction complete/operations began in 2021
- Estimated storage benefit of ~13,300 ac-ft/yr

Bluefield Grove Water Farm

- ~6,100-acre storage/treatment; reduce nutrient loads and excess discharges from C-23 to St. Lucie Estuary
- Construction complete August 2021; in operations, estimated storage benefit of 28,360 ac-ft/yr



Scott Water Farm



- ~7,500-acre storage/treatment; reduce nutrient loads and excess discharges from C-25 to St. Lucie Estuary and Indian River Lagoon
- Construction complete October 2021; in operations, estimated storage benefit of 29,005 ac-ft/yr

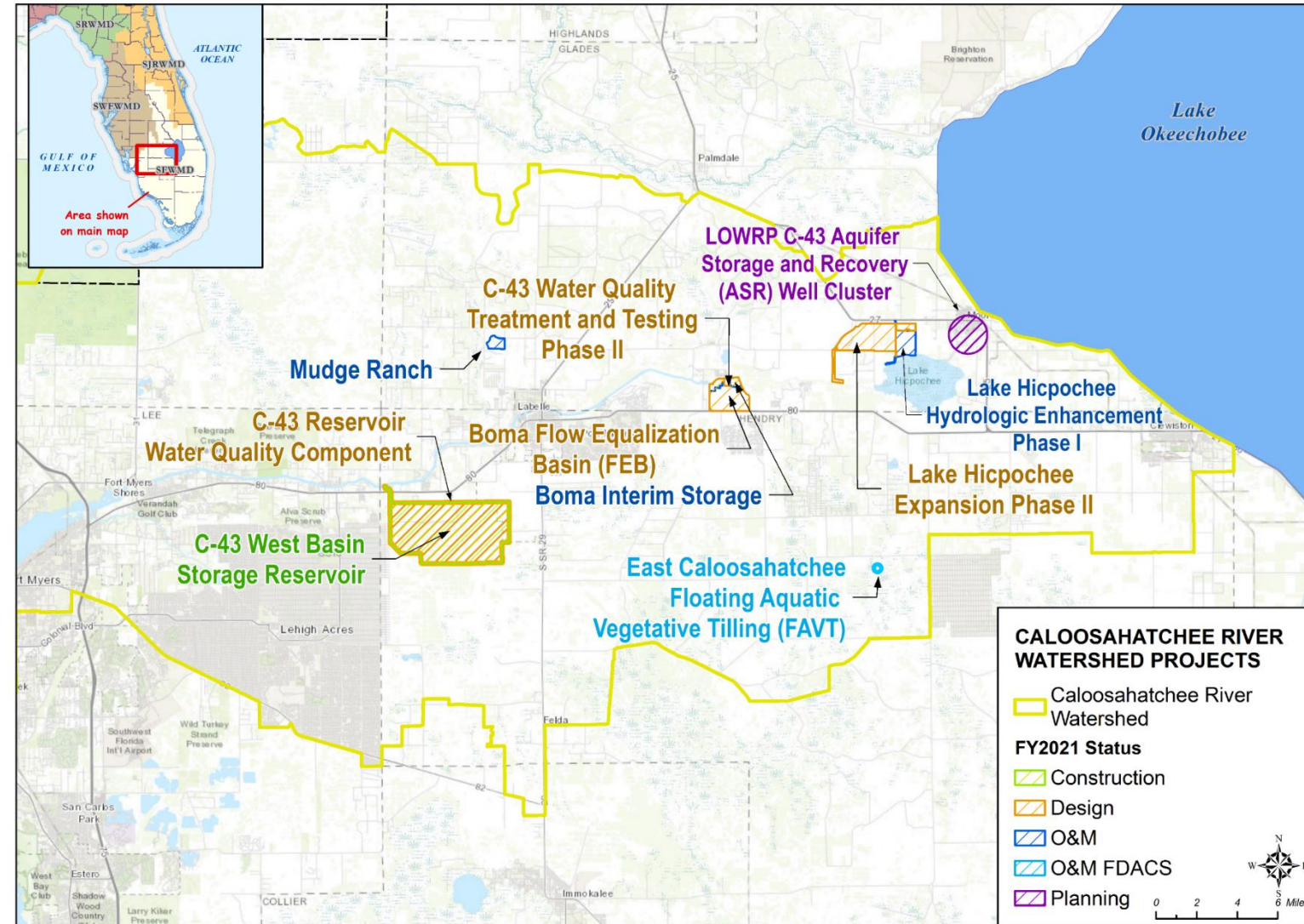
Caloosahatchee River Watershed Projects

➤ Status:

- 5 projects – planning/design
- 1 project – construction
- 3 projects – operations



C-43 Reservoir



C-43 West Basin Storage Reservoir

- 170,000 ac-ft storage reservoir
- Will reduce lake discharges (wet season); provide freshwater flow to Caloosahatchee (dry season)
- In construction since 2019; planned completion (2024) and operations (2025)



C-43 Reservoir Water Quality Component



- Feasibility Study (2020); Siting Evaluation (2021)
- *In-Reservoir Alum Injection* identified as most cost-effective technology to suppress algae, while optimizing discharges to Caloosahatchee Estuary
- Design (2023); construction (2024) operations (2025)

Boma Flow Equalization Basin (FEB)

C-43 Water Quality Treatment & Testing Facility

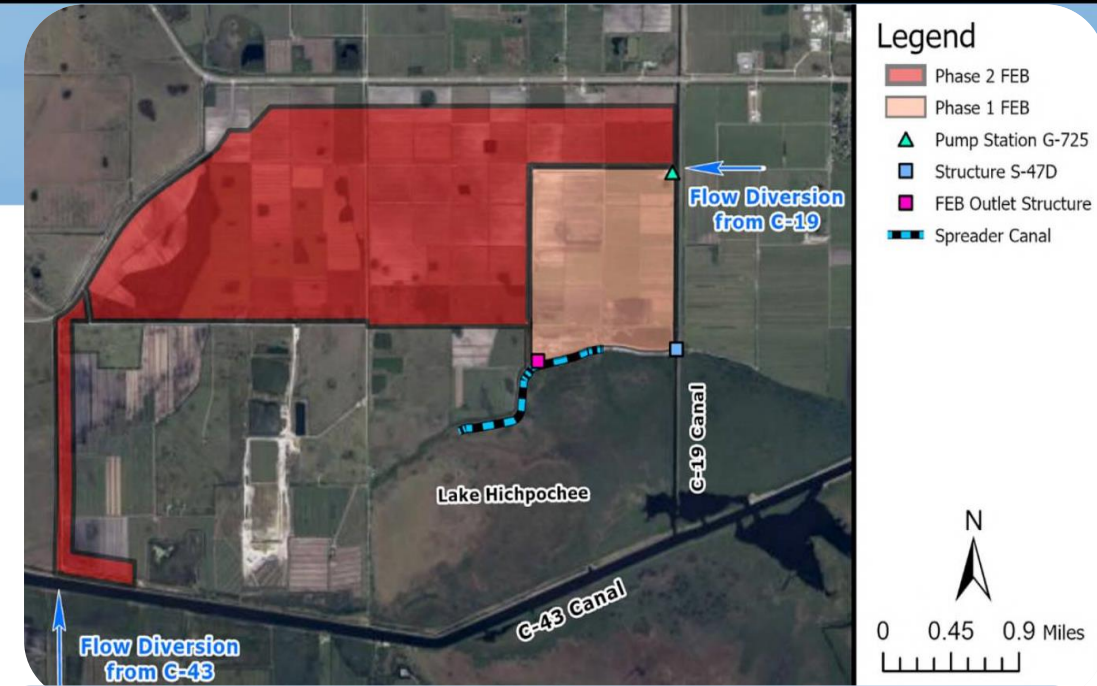
- ~7,200 ac-ft FEB on Boma property
- Will attenuate high flows and store excess runoff to reduce harmful releases to Caloosahatchee Estuary
- Design (spring 2023); construction complete (2026) and operations (2027)

- Co-located with FEB to maximize water quality and storage benefits at Boma property
- Phase II – evaluate effectiveness of constructed wetlands to reduce TN at test-cell scale
- Construction complete (early 2024), with multiyear research to follow



Lake Hicpochee Hydrologic Enhancement (Phase I) and Expansion (Phase II)

- Holds water in shallow storage and redistributes it to reduce harmful discharges to Caloosahatchee River
- Phase I – 692-acre FEB (2019); average storage capacity ~1,297 ac-ft/yr
- Phase II – 2,200-acre FEB and pump station; additional storage capacity ~17,162 ac-ft/yr
 - Design (late 2022); construction (2023–2025)



Watershed Protection Plan Reporting

For more information, refer to the
2022 South Florida Environmental
Report:

[SFWMD.gov/SFER](https://sfwmd.gov/SFER)



Questions