

**National Environmental Policy Act (NEPA)
Public Meeting
North of Lake Okeechobee Storage Reservoir Section 203 Study
Draft Environmental Impact Statement**

An open house will be held from 1:00-2:00 PM.
Opening remarks will begin at 2:00 PM.

SFWMD and USACE Jacksonville District

October 26, 2023



Opening Remarks

Ben Butler
SFWMD Governing
Board



Section 203 Feasibility Study Purpose

- Executive Order 23-06: January 10, 2023
- SFWMD initiated the planning of the *North of Lake Okeechobee Storage Reservoir Section 203 Study* in 2023 as the local sponsor
 - Also known as the *Lake Okeechobee Component A Storage Reservoir (LOCAR) Section 203 Study*
- SFWMD has prepared a Draft Feasibility Study to evaluate the effects of implementing the LOCAR project under Section 203 of Water Resources Development Act (WRDA) of 1986.
- Must be technically and policy compliant with federal planning process
- SFWMD will transmit the Final Feasibility Study to the Assistant Secretary of the Army (ASA) for submission to Congress

LOCAR Study Area



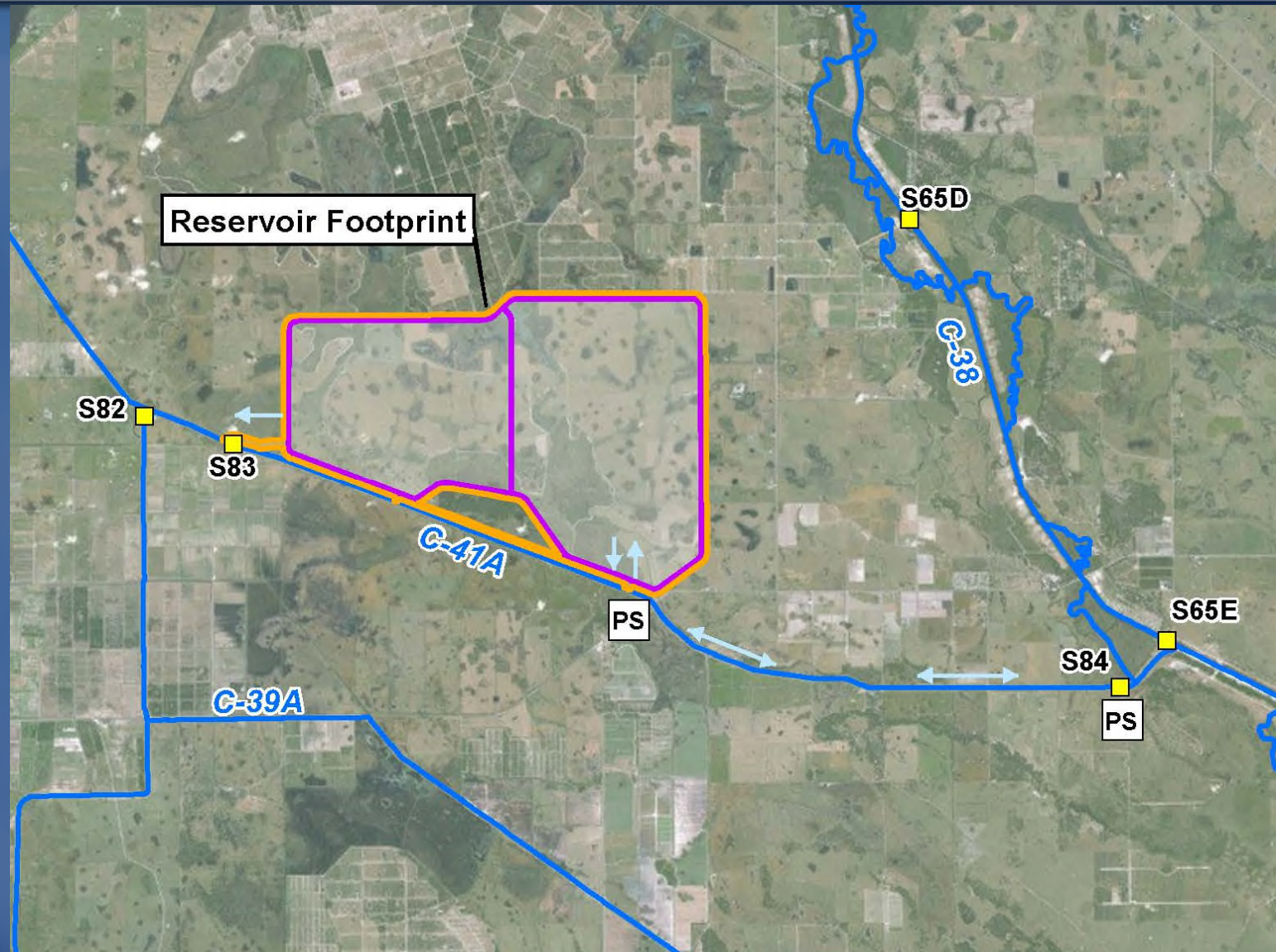
LOCAR Project Overview

- The goal of LOCAR is to construct Component A of CERP, a storage reservoir north of Lake Okeechobee providing approximately 200,000 ac-ft of storage.
- Store excess water during wet periods
- Reduce high and low water level events in Lake Okeechobee.
- Reduce large discharges from the lake that are damaging to the downstream estuaries.
- Keep more water in the system for environmental and water supply uses.



LOCAR Recommended Plan – Alternative 4

- 2 cells, ~12,000 acres total
- 200,000 ac-ft of storage
- Average depth of 18 ft
- 18 miles of embankment
- 2 inflow pump stations
- Improve canal conveyance
- Gravity discharge back to the C-41A
- Perimeter canal

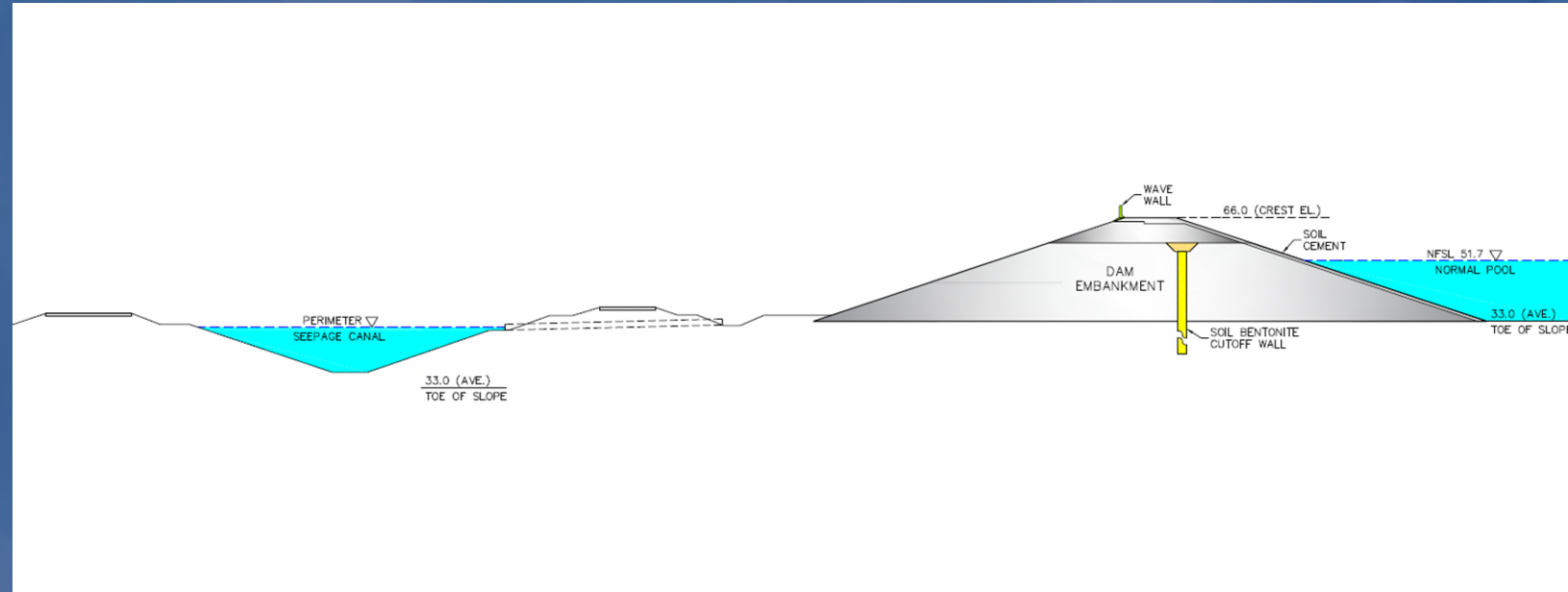


Reservoir Design Features

- **Designed to current USACE Dam Safety Requirements**
 - Robust, Redundant and Resilient
 - Maintains Flood Protection and Water Supply
- **Capture extreme storm events, including Probable Maximum Precipitation (PMP) and protected against Hurricane generated waves**
 - Designed to capture and control PMP which is 54 inches of rainfall
 - Designed to control waves in Category 5 storm
- **Possible recreational features could include: boat ramps, nature areas and other passive use features**

Typical Embankment and Seepage Management

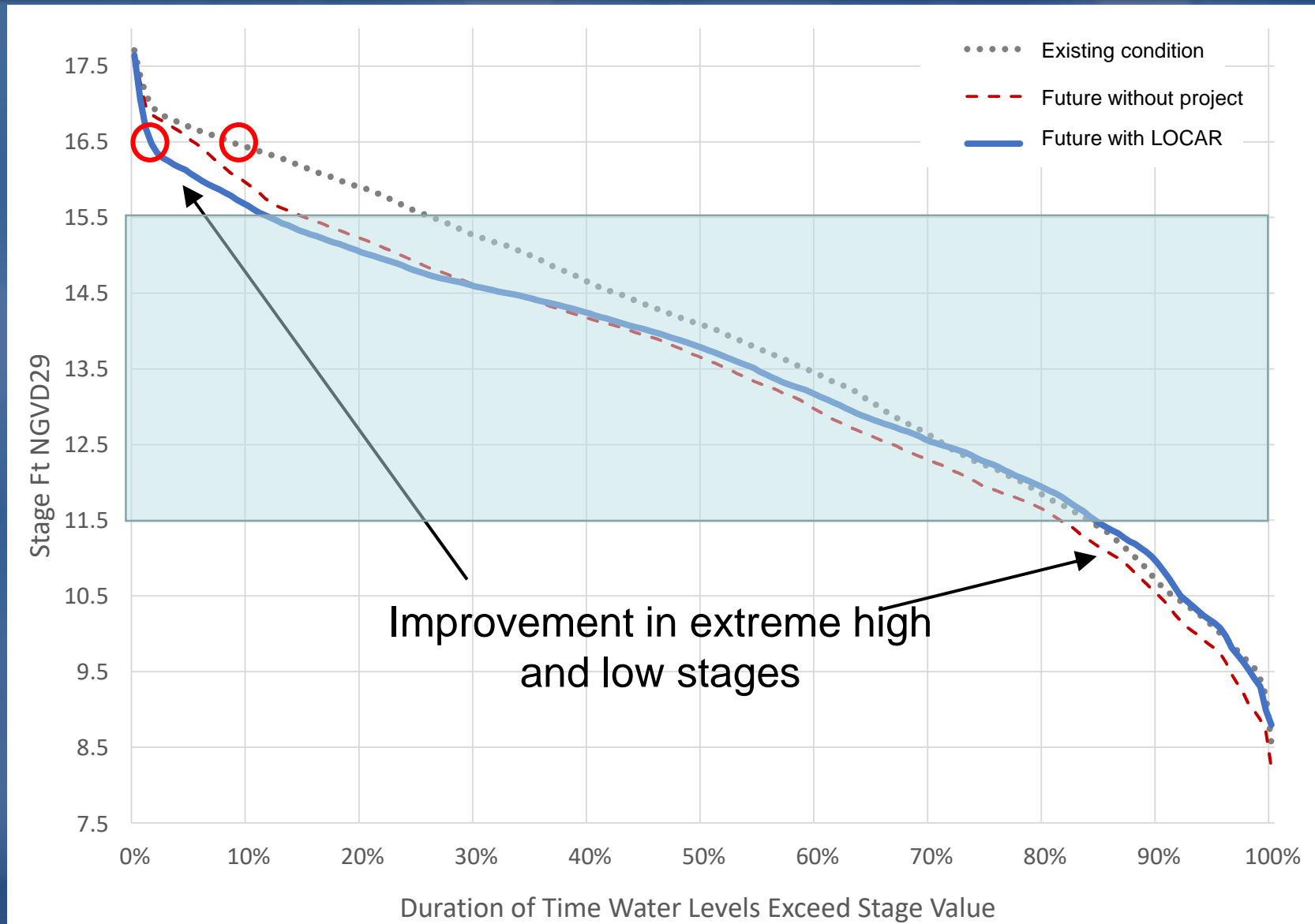
- Control offsite seepage to avoid impacts to neighboring water levels
- Incorporates bentonite seepage cutoff wall to minimize storage loss and control seepage
- Incorporates perimeter canal and pumping to return excess seepage and collects stormwater to send back to reservoir
- Internal seepage management system within the embankment



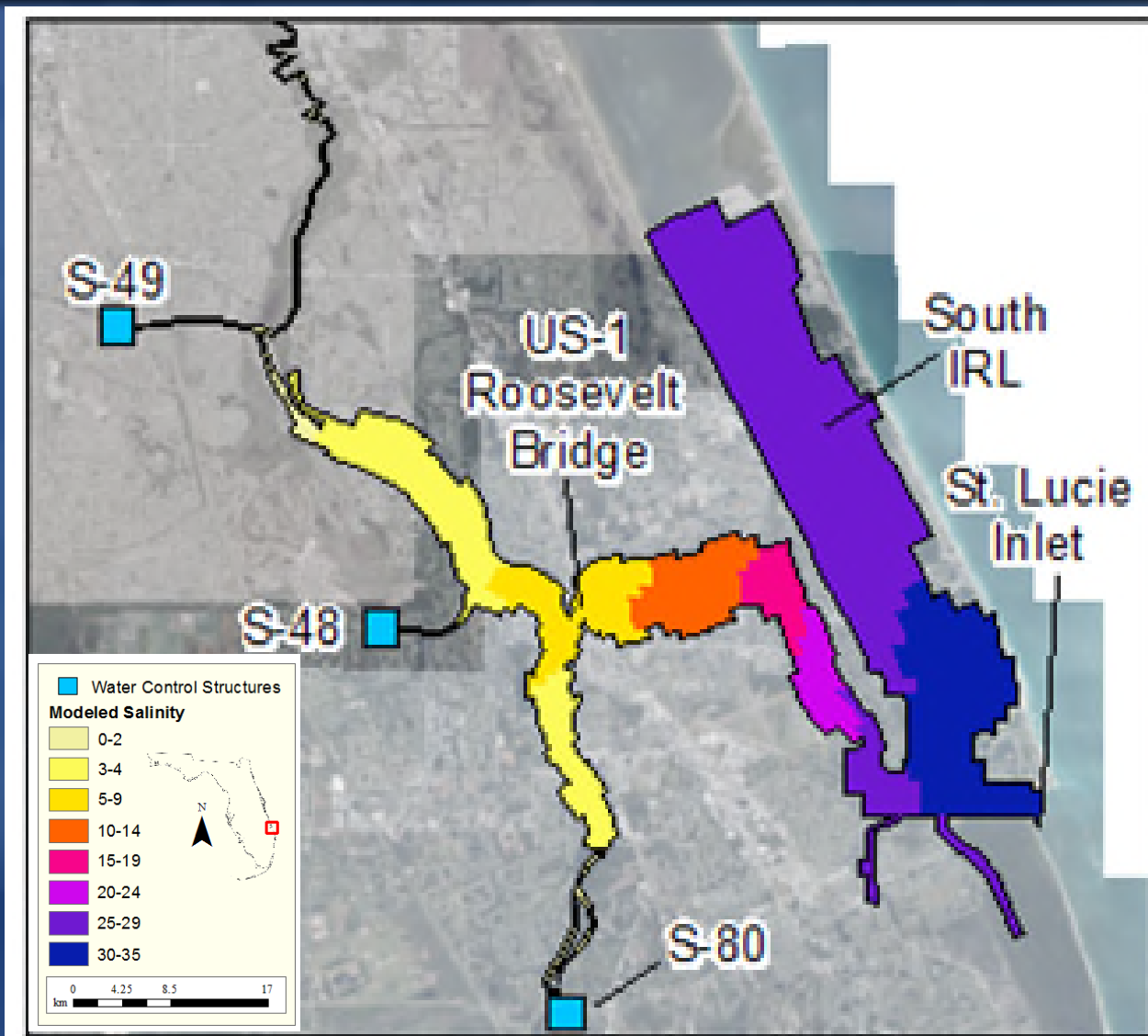
Lake Okeechobee LOCAR Effects

Stage Duration Curve

- LOCAR – More improvement at time >15 ft and extreme high stages
- Decrease from 10% to 2% at extreme high stage
- Less time at low stages
- Further flattening of curve: more time at average levels



St. Lucie Estuary – Benefits of LOCAR on Lake Okeechobee Triggered Flow Events



Reservoir capturing water that would have been sent to tide

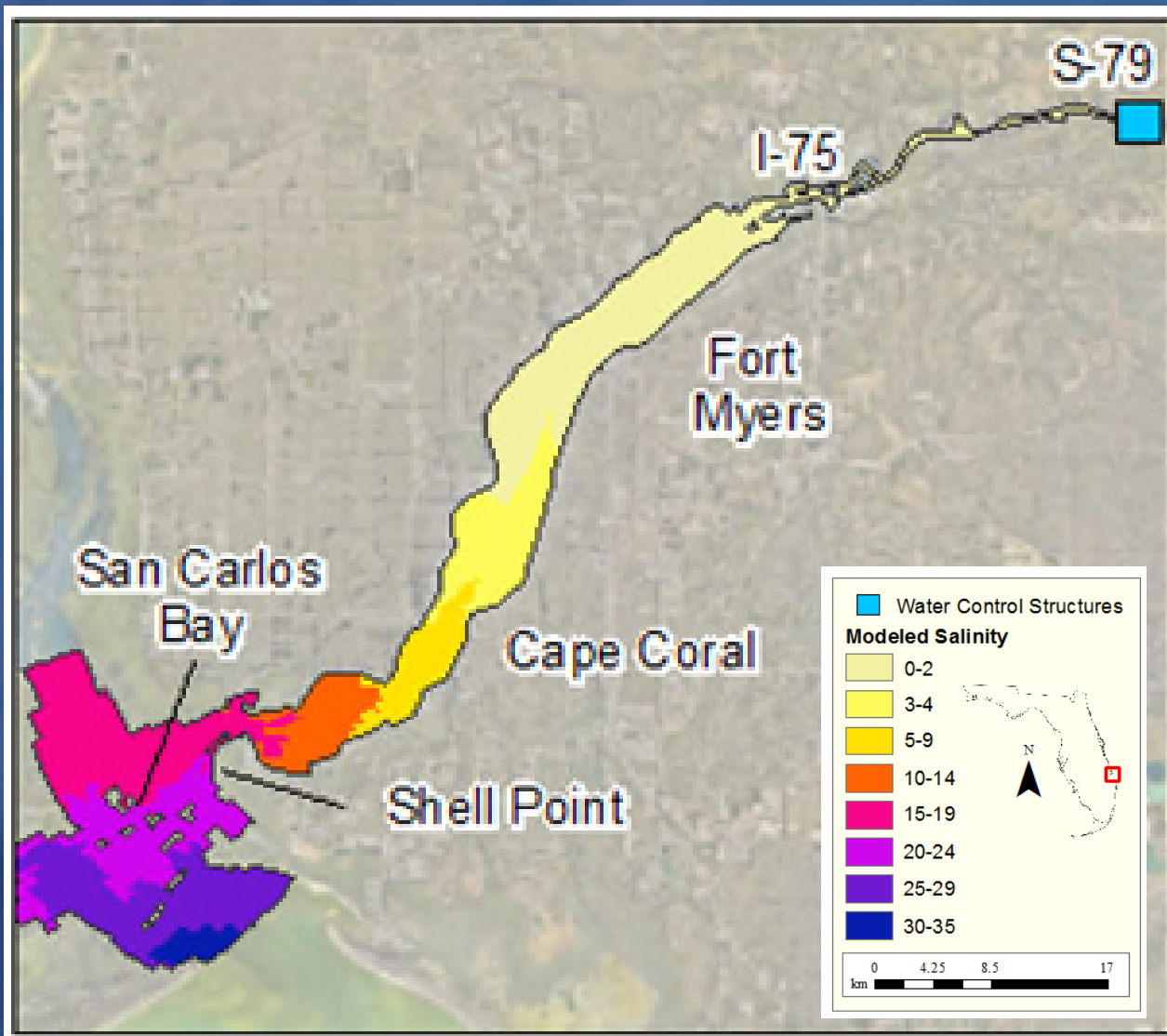
STRESS Flows (1400-1700 cfs)

- 33% decrease in Lake-triggered stressful flow events
- Existing condition = 30 events
- LOCAR = 20 events

DAMAGING Flows (>1700 cfs)

- 30% decrease in Lake-triggered damaging flow events with LOCAR
- Existing condition = 41 events
- LOCAR = 29 events

Caloosahatchee Estuary – Benefits of LOCAR on Lake Okeechobee Triggered Flow Events



Reservoir capturing water that would have been sent to tide

STRESS Flows (2100-2600 cfs)

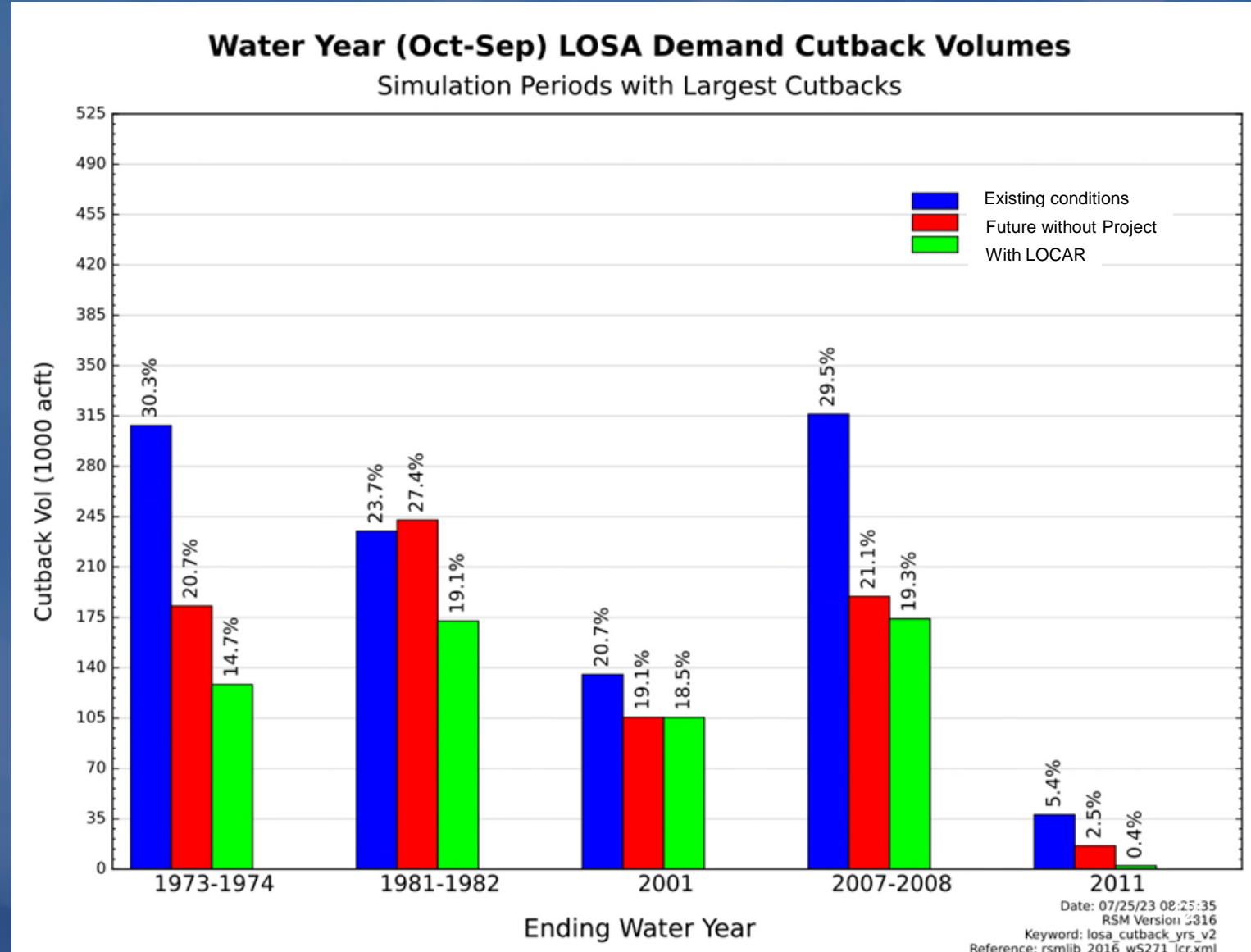
- 45% decrease of Lake-triggered stressful flow events with LOCAR
- Existing condition = 77 events
- LOCAR = 42 events

DAMAGING Flows (>2600 cfs)

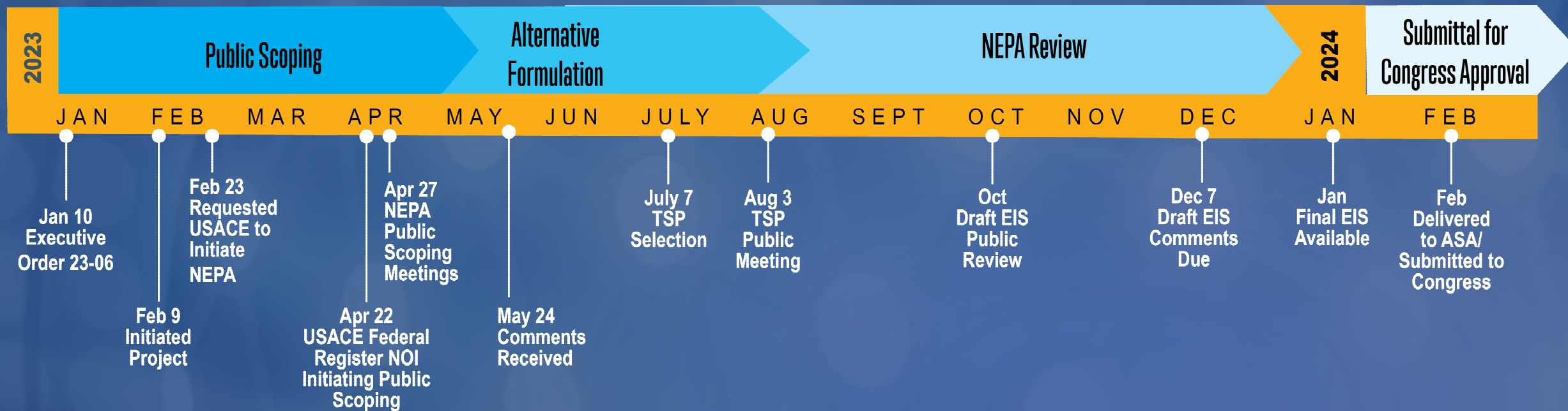
- 36% decrease of Lake-triggered damaging flow events with LOCAR
- Existing condition = 86 events
- LOCAR = 55 events

LOCAR Water Supply/Cutbacks

LOCAR alternatives show reduced cutbacks relative to existing conditions and future without



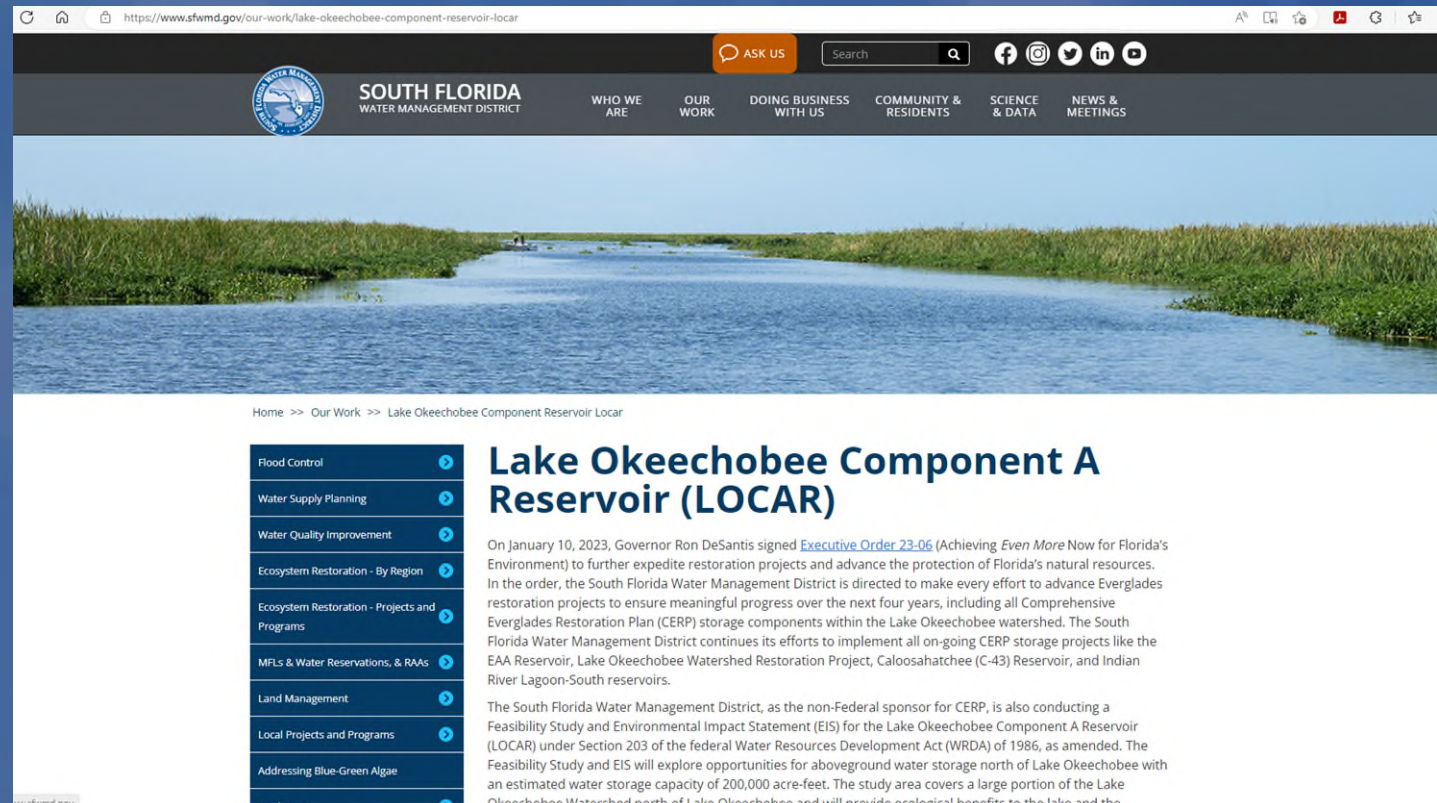
LOCAR Project Timeline



LOCAR Information

➤ Information regarding the LOCAR project can be found at:

- www.sfwmd.gov/LOCAR
- locar@sfwmd.gov



The screenshot shows the website page for the Lake Okeechobee Component A Reservoir (LOCAR) project. The page features a navigation menu with links for 'ASK US', 'WHO WE ARE', 'OUR WORK', 'DOING BUSINESS WITH US', 'COMMUNITY & RESIDENTS', 'SCIENCE & DATA', and 'NEWS & MEETINGS'. The main content area includes a large image of a waterway with reeds, a breadcrumb trail (Home >> Our Work >> Lake Okeechobee Component Reservoir Locar), and a sidebar menu with categories like Flood Control, Water Supply Planning, and Ecosystem Restoration. The main heading is 'Lake Okeechobee Component A Reservoir (LOCAR)', followed by a paragraph detailing the project's purpose and a section for the Feasibility Study and Environmental Impact Statement (EIS).

Home >> Our Work >> Lake Okeechobee Component Reservoir Locar

Lake Okeechobee Component A Reservoir (LOCAR)

On January 10, 2023, Governor Ron DeSantis signed [Executive Order 23-06](#) (Achieving Even More Now for Florida's Environment) to further expedite restoration projects and advance the protection of Florida's natural resources. In the order, the South Florida Water Management District is directed to make every effort to advance Everglades restoration projects to ensure meaningful progress over the next four years, including all Comprehensive Everglades Restoration Plan (CERP) storage components within the Lake Okeechobee watershed. The South Florida Water Management District continues its efforts to implement all on-going CERP storage projects like the EAA Reservoir, Lake Okeechobee Watershed Restoration Project, Caloosahatchee (C-43) Reservoir, and Indian River Lagoon-South reservoirs.

The South Florida Water Management District, as the non-Federal sponsor for CERP, is also conducting a Feasibility Study and Environmental Impact Statement (EIS) for the Lake Okeechobee Component A Reservoir (LOCAR) under Section 203 of the federal Water Resources Development Act (WRDA) of 1986, as amended. The Feasibility Study and EIS will explore opportunities for aboveground water storage north of Lake Okeechobee with an estimated water storage capacity of 200,000 acre-feet. The study area covers a large portion of the Lake Okeechobee Watershed north of Lake Okeechobee and will provide ecological benefits to the lake and the



The National Environmental Policy Act (NEPA)

**Dr. Gretchen Ehlinger – Environmental Branch
Chief, USACE Jacksonville District**

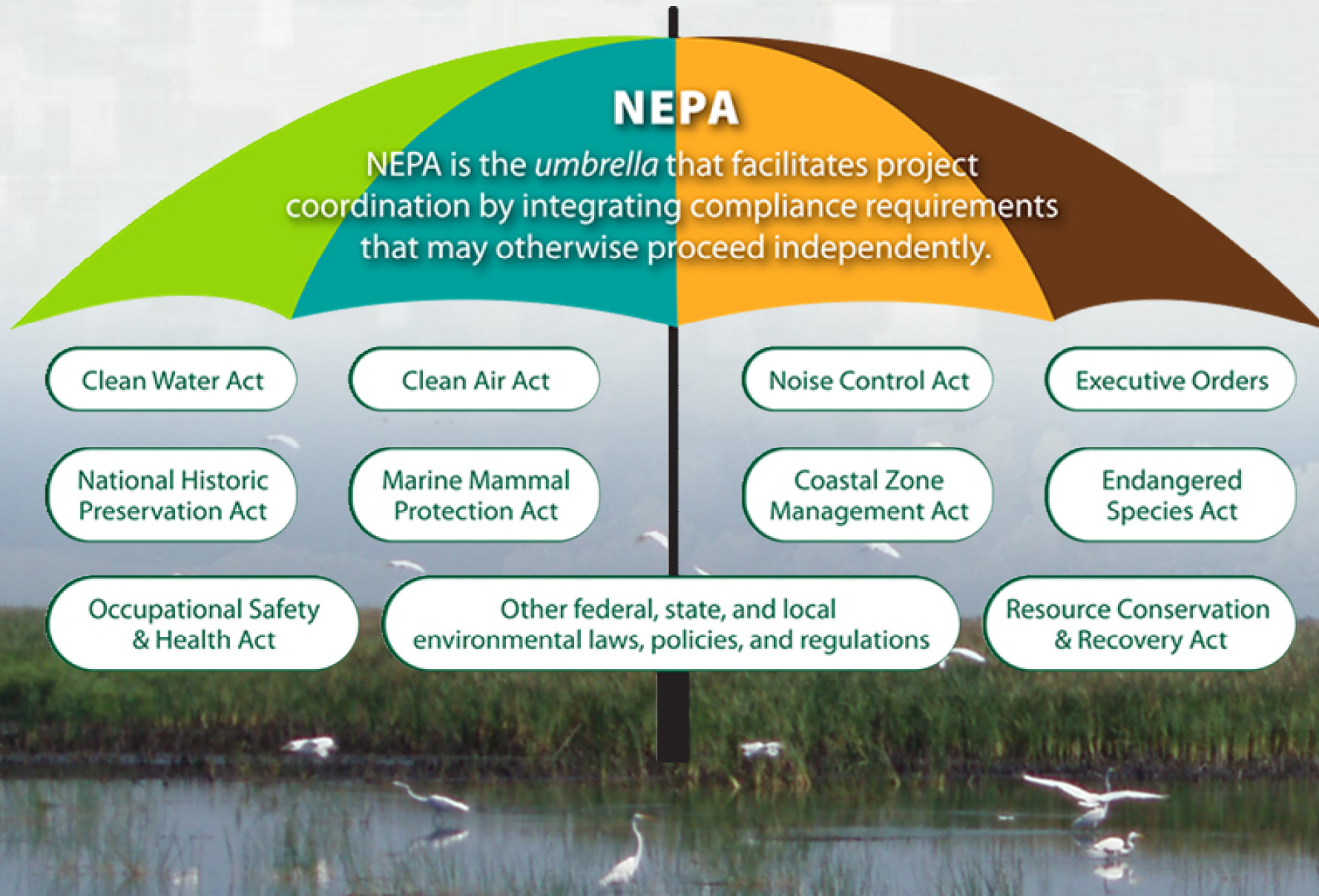


NATIONAL ENVIRONMENTAL POLICY ACT OF 1969 (NEPA)

- **NEPA is a federal law requiring federal agencies to consider the environmental impacts of a proposed study that are:**
 - **Major federal actions that may have a significant affect on the quality of the human environment**
 - **Solicit and consider public views on proposals**
 - **Consult with Tribal, state, and local governments concerning plans**
 - **Provide agencies with a mechanism to coordinate overlapping, jurisdictional responsibilities**



NEPA – WHAT IS IT?





ENVIRONMENTAL CONSIDERATIONS

- ✓ Aesthetics
- ✓ Air Quality
- ✓ Cultural Resources
- ✓ Contaminants
- ✓ Environmental Justice
- ✓ Fish & Wildlife Resources
- ✓ Noise
- ✓ Recreation
- ✓ Socioeconomics
- ✓ Threatened and Endangered Species
- ✓ Water Quantity
- ✓ Wetlands





NEPA & PUBLIC INVOLVEMENT

- Applies to all Federal actions
- Disclose proposed actions and alternatives
- Consider, evaluate, and document effects of proposed actions as part of *overall* decision-making
- Cooperate with Federal, state and local governments, private organizations, and concerned citizens





SECTION 203 AND USACE INVOLVEMENT

- **SFWMD is conducting the North of Lake Okeechobee Storage Reservoir Section 203 Study as the local sponsor**
- **SFWMD prepared a Feasibility Study to evaluate the effects of implementing the LOCAR project under Section 203 of Water Resources Development Act (WRDA) of 1986.**
- **Must be technically and policy compliant with federal planning process**
- **SFMWD will transmit it to the Assistant Secretary of the Army (ASA)**
- **SFWMD will recommend submission to Congress**
- **USACE is conducting the federal activities for this action – the NEPA, the ESA consultations, etc.**
- **USACE has posted the Draft EIS for public review**



DRAFT ENVIRONMENTAL IMPACT STATEMENT

- **Purpose of the draft EIS is to support the ASA(CW) review of and decision on the Feasibility Study prepared by the SFWMD**
- **The draft EIS evaluates alternatives that are designed to provide aboveground storage north of Lake Okeechobee.**
- **The draft EIS considers alternatives and evaluates anticipated improvements to the quantity, timing, and distribution of water flows to help manage Lake Okeechobee levels, improve lake ecology by detaining water during wet periods for later use in the dry periods, and enhance water supply reliability to realize the benefits envisioned in the CERP Component A**





ENVIRONMENTAL EFFECTS

NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) PROCESS CONSIDERATIONS FOR EACH CATEGORY ANALYZED

- **Type of effect**
 - Direct
 - Indirect
 - Cumulative
- **Duration of effect**
 - Short-term
 - Long-term
- **Degree of effect (beneficial and adverse)**
 - No effect
 - Negligible
 - Minor
 - Moderate
 - Major

“Degree” defined:

No Effect: Not discernable

Negligible: Barely perceptible, not measurable, or confined to a small area

Minor: Perceptible, measurable, or localized

Moderate: Clearly detectable and could have appreciable effect; or is perceptible and measurable throughout the project area

Major: Substantial, highly noticeable influence or occurs on a regional scale.

Beneficial: Action would benefit the resource or area.



ENVIRONMENTAL CONSIDERATIONS

RESOURCES CONSIDERED

- Physical Landscape *Minor*
- Vegetative Communities *Major*
- Threatened and Endangered (T&E) Species – *May Affect, Not Likely to Adversely Affect*
- Hydrology *Beneficial*
- Regional Water Management/Operations *Beneficial*
- Groundwater Resources *Negligible*
- Surface Water Quality *Minor beneficial*
- Flood Control *Negligible*
- Air Quality *Negligible*
- Noise *Long-term minor*
- Aesthetics *Long-term moderate*
- Land Use *Negligible*
- Recreation *Negligible*
- Socioeconomics *Minor beneficial*
- Cultural Resources *No adverse effect*
- Environmental Justice *No adverse impacts*
- Invasive and Exotic Species *Major*

ENVIRONMENTAL COMPLIANCE OVERVIEW

These activities are ongoing and are summarized in the draft EIS (consulting agency in parentheses):

- Endangered Species Act Coordination (*U.S. Fish and Wildlife Service – USFWS*)
- Clean Water Act under Section 401 (*U.S. Environmental Protection Agency/Florida Department of Environmental Protection – FDEP*)
- National Historic Preservation Act (*State Historic Preservation Officer*)
- Fish and Wildlife Coordination Act (*USFWS*)
- Farmland Protection Policy Act (*USDA/NRCS*)





ENVIRONMENTAL CONSIDERATIONS

EXAMPLE OF SPECIES OF CONCERN

Audubon's crested caracara (May Affect)

- Loss of nesting (cabbage palms) and foraging habitat in project area.

Eastern black rail (May Affect)

- Short-term effects from construction activity and loss of habitat.

Florida panther (May Affect)

- Loss of habitat, fragmentation of dispersal corridor.

Florida bonneted bat (May Affect)

- Loss of roosting, foraging, and drinking habitat. Some habitat would be retained by the creation of the reservoir for foraging and drinking habitat.

Eastern Indigo Snake (May Affect)

- Loss of habitat.

ESA Species Evaluated in EIS

Florida panther, Florida manatee, Florida bonneted bat, Eastern black rail, Everglade snail kite, Audubon's crested caracara, Florida grasshopper sparrow, wood stork, Eastern indigo snake, Okeechobee gourd, smalltooth sawfish, and sea turtles.

HABITATS OF CONCERN

Lake Okeechobee Watershed Vegetative Communities

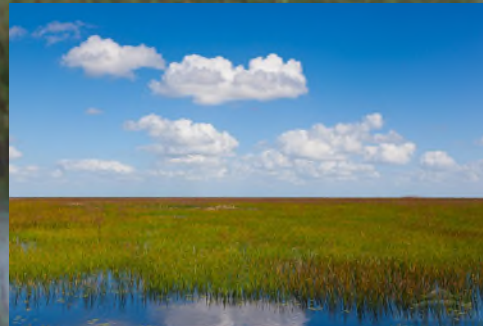
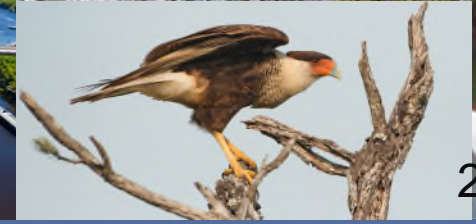
- **Adverse effects** from habitat fragmentation, but least amount between the alternatives.
- Reservoir **avoids high quality** habitat.

Lake Okeechobee Vegetative Communities

- **Beneficial effects** from **lower lake stages** and improvement to native plant communities in Lake Okeechobee, including submerged aquatic vegetation (SAV).

Northern Estuaries Vegetative Communities

- **Beneficial Effects** from **water storage** and improvement of native plant communities in the estuaries.





PUBLIC COMMENT PERIOD

Please provide written or verbal comments at this time

- Document available at <https://www.saj.usace.army.mil/About/Divisions-Offices/Planning/Environmental-Branch/Environmental-Documents/>
 - Under Highlands County
- Verbal or in writing via Public Comment Cards, email, or letters
- Email: LOCAR@usace.army.mil
- Mailing Address:
 - Dr. Gretchen Ehlinger
 - U.S. Army Corps of Engineers
 - 701 San Marco Blvd.
 - Jacksonville, FL 32207
- Public Comment Period Ends December 7, 2023
- Additional Information Available at: www.sfwmd.gov/LOCAR