



South Florida Water Management District

SFWMD RECREATIONAL FORUM MEETING AGENDA

September 19, 2022

5:00 PM

District Headquarters - B-1 Auditorium

3301 Gun Club Road

West Palm Beach, FL 33406

FINAL

1. Welcome and Opening Remarks - Drew Bartlett, Executive Director, SFWMD, and Newton Cook, Facilitator
2. Overview of the Florida Horsemen's Club (FHC) - Jamie Wilson, Vice President, FHC
3. Update on the Arthur R. Marshall Loxahatchee National Wildlife Refuge Implementation of the Visitor Services Plan & Hunt Program - Veronica Kelly, Park Ranger, U.S. Fish and Wildlife Service
4. Audubon Birding Tours on District Properties - Brian Garrett, Wildlife Coordinator, SFWMD
5. Loxahatchee River Watershed Restoration Project Update - Jeff Buck, Sr. Project Manager, SFWMD
6. Kissimmee River Restoration Project & Headwaters Revitalization Schedule Update - Mike Cheek, Recreation Project Manager, SFWMD
7. Public Use Project Updates - Dan Cotter, Section Leader, SFWMD
8. Recreational Discussion, Updates, and Future Meeting Topics
9. Adjourn

Presentations:

Agenda Item Background:

- 02 REC Florida Horsemen JWilson 202209.pdf
- 03 ARML Refuge KellyV FWC 202209.pdf
- 04 STA Aud Birding GarrettB 202209.pdf
- 05 REC Lox BuckJ RWRP 202209.pdf
- 06 REC KRR CheekM 202209.pdf
- 07 REC DCotter Updates 202209.pdf

MEMORANDUM

TO: Governing Board Members
FROM: , Real Estate & Land Management
DATE: September 19, 2022
SUBJECT: Presentations:

Agenda Item Background:

Core Mission and Strategic Priorities:

Funding Source:

Staff Contact and/or Presenter:

ATTACHMENTS:

[02 REC Florida Horsemen JWilson 202209.pdf](#)

[03 ARML Refuge KellyV FWC 202209.pdf](#)

[04 STA Aud Birding GarrettB 202209.pdf](#)

[05 REC Lox BuckJ RWRP 202209.pdf](#)

[06 REC KRR CheekM 202209.pdf](#)

[07 REC DCotter Updates 202209.pdf](#)

FLORIDA HORSEMEN'S CLUB

EQUESTRIAN TRAIL RIDING CLUB

ESTABLISHED 9/2011

Jamie Wilson, Vice President
Florida Horsemen's Club
SFWMD Recreational Forum
September 19, 2022



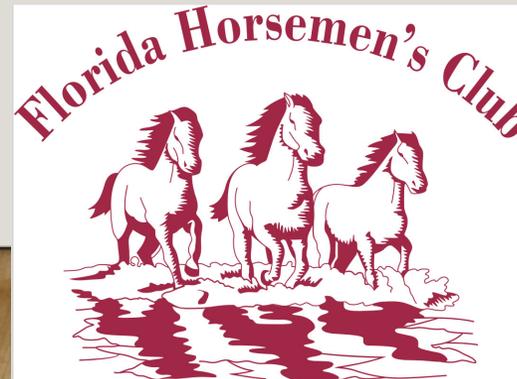
VISION

The purpose of Florida Horsemen's Club is to provide an enjoyable, social, safe and responsible platform in horsemanship for our club members.

We will promote horse friendly knowledge and skill both on and off the trail.

We are dedicated to the welfare of both horse and rider and also to all of those around us.

We will strive to gain the respect of our community by providing proper guidelines and horse etiquette to our members.



ACTIVITIES AND EVENTS

- Twice monthly trail rides, camping and/or fun equestrian activities
 - Group rides in Lucky Buck (The Slough), DuPuis, Nine Gems, Cypress Preserve, Riverbend, Atlantic Ridge, Jonathan Dickinson, Jim Brandon, Hickory Hammock, Bluefield Ranch, Allapatah Flats and many others
 - Camping in Kissimmee Prairie, DuPuis, Shangri-la, Alafia River, Black Prong, Ross Prairie, Hickory Hammock, Fechtel and others
 - Activities include Treasure Hunt, Annual Poker Run, Halloween Ride, Loxahatchee Canoe Trip, Progressive brunch rides, Derby parties, Bonfire parties, Pool parties, bowling, JF Christmas Parade, Full moon Rides, Ocean to Lake



ANNUAL DONATIONS

- Yearly donations to various equestrian groups
 - Twice to Hopes, Dreams and Horses and once to Vinceremos Riding Academy, ERAF, Big Dog Ranch, Busch Wildlife Vinceremos and Hopes, Dreams and Horses are Therapeutic Riding organizations for the mentally challenged and/or disabled



VOLUNTEERING

- Trail clean-up and marking
 - Lucky Buck (The Slough), Cypress Preserve, OTL trails, DuPuis
 - Adopt-a-road on Jupiter Farms Road to keep it clean
 - We have also volunteered for the restoration of the barns and paddocks in Dupuis on multiple occasions

Florida Horsemen's Club Want to comment?

Zoom:

- If you're participating via Zoom – use the Raise Hand feature

Phone:

- If you're participating via Phone –
 - *9 Raises Hand
 - *6 Mutes/Unmutes

Arthur R. Marshall Loxahatchee National Wildlife Refuge

**Update on the Arthur R. Marshall Loxahatchee National Wildlife Refuge's
Implementation of the Visitor Services Plan & Hunt Program**

**Veronica Kelly/Park Ranger
SFWMD Recreational Public Forum
September 19, 2022**



Welcome to Loxahatchee

Over 1,000,000 visitors per year

145,188 acres (over 220 square miles!)

Headquarters Area (Boynton Beach, FL) open 5:00 am to 10:00 pm

- **Visitor Center** 9:00 am to 4:00 pm daily. Closed Thanksgiving and Christmas days
- **Headquarters Office** 8:00 a.m. to 4:00 p.m. Mon – Fri. Closed on Federal Holidays

Hillsboro Area (near Parkland, FL) open 24 hours

20 Mile Bend (near Loxahatchee, FL) open 24 hours



Urban Wildlife Conservation Program

25 miles of population centers of 250,000 people or more. We are within a 1-hour drive of **6 million people**.

Urban national wildlife refuges work with community partners to expand outdoor recreation and education for Americans living in and around cities.

Conservation in urban areas helps protect our natural heritage and provides people with access to nature that raises their quality of life.

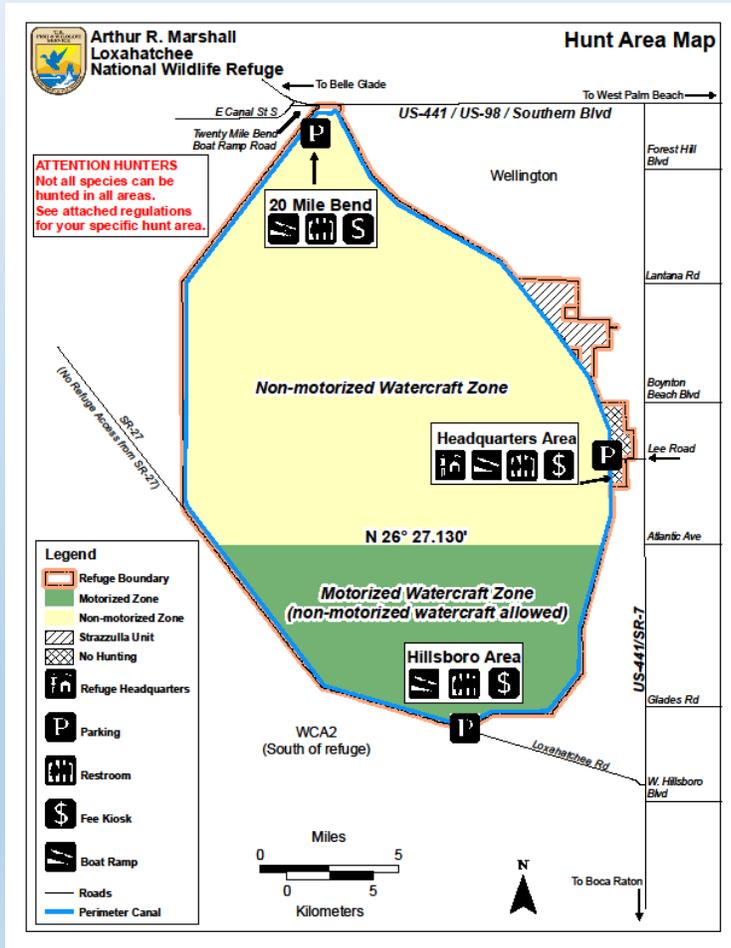


Recreation Opportunities

- Cypress swamps, wet prairies, sawgrass, sloughs, tree islands
- Over 50 miles of hiking, biking, and paddling **trails**
- **Birding, wildlife viewing, photography**
- **Hunting** (duck, coot, alligator, deer, hog)
- **Fishing** (Bank fishing, fishing piers, by boat)
- **Boating** in over 140,000 acres and 58 miles
 - non-motorized, motorized, airboats by permits
- **Pet walking & horseback riding** (36 miles of perimeter levee)
- **Rentals** through Loxahatchee Adventures
- **Volunteering** – get involved!



Alligator Hunting



Hunt Area: Motorized Zone (38,260 acres) and Perimeter Canal

2020: 11 permits, bag limit of 2/permit

- 18 harvested, 81.8% success

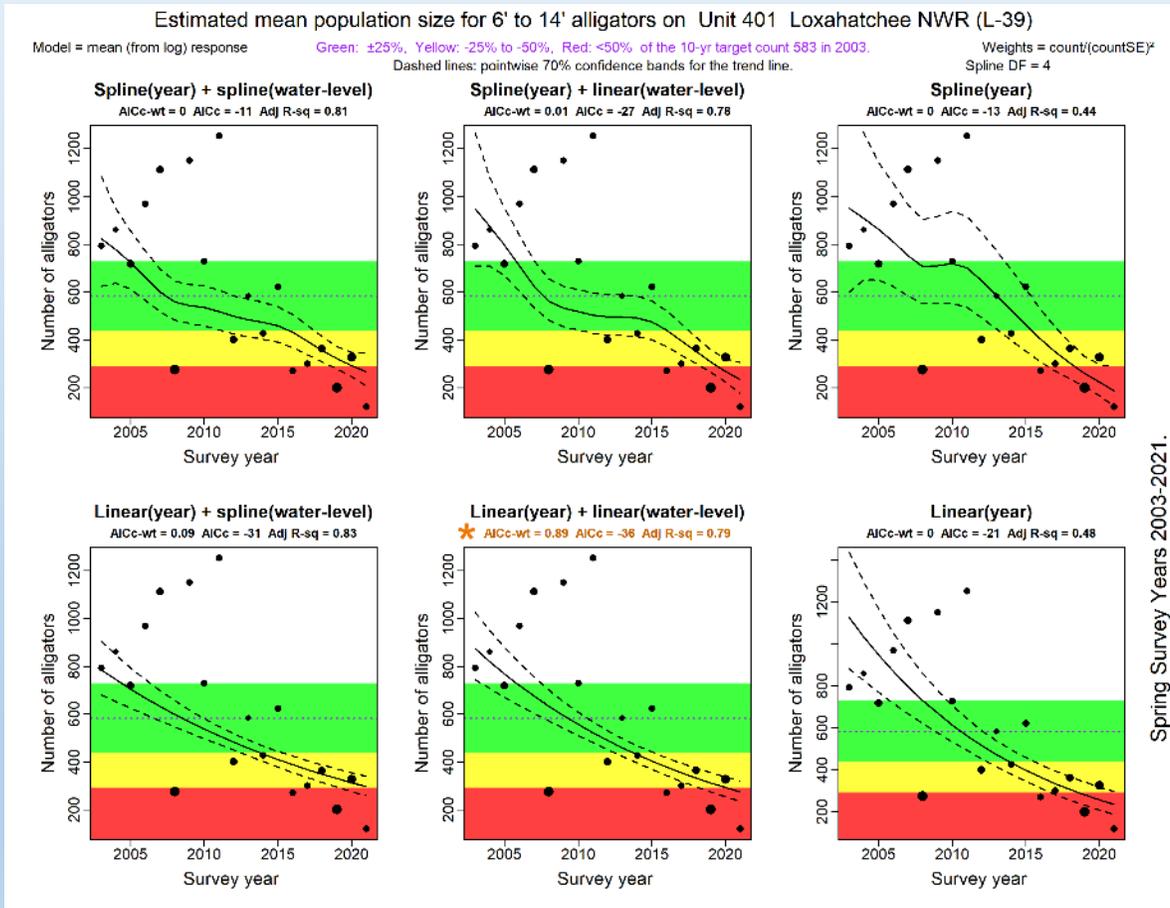
2021: 6 permits, bag limit of 2/permit

- 9 harvested, 75% success

2022: 0 quota



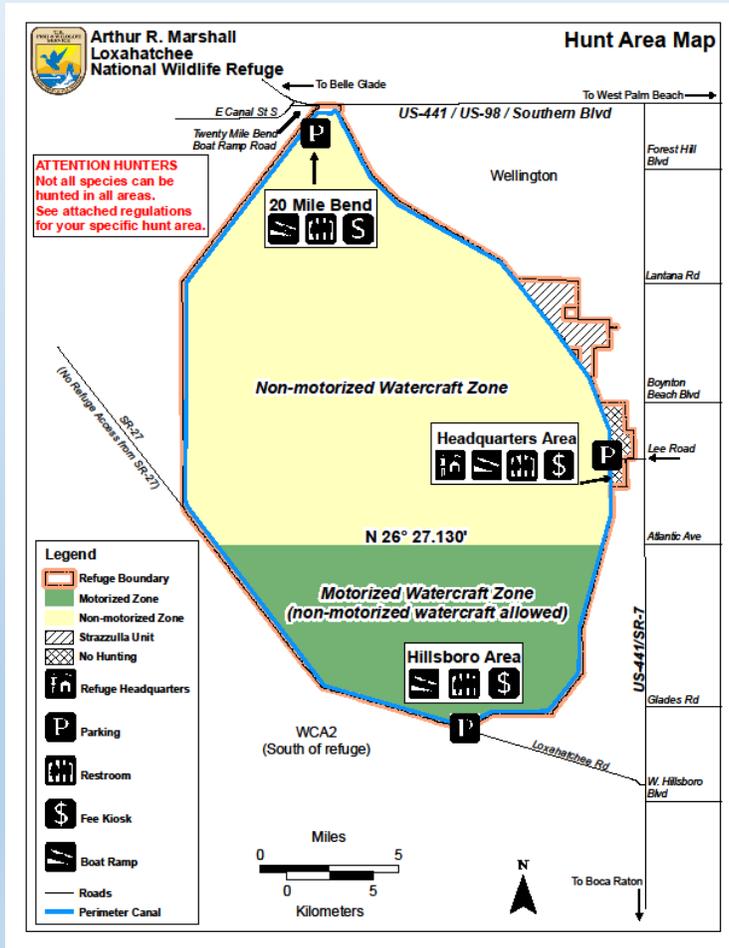
Alligator Hunt Quota Model



- Population size for 6' to 14' alligators (adults)
- Bottom middle graph best fit
- Trend line is decreasing into red
- Causes for declines are speculation at this point
- Need a cumulative impacts/reproduction study



Duck and Coot Hunting



Hunt Area: Refuge Interior (140,705 acres)

- Motorized and non-motorized zones

Open state hours and seasons

- Early teal (September)
- Early teal and wood duck (September)
- Phase 1 (November)
- Phase 2 (parts of December and January)

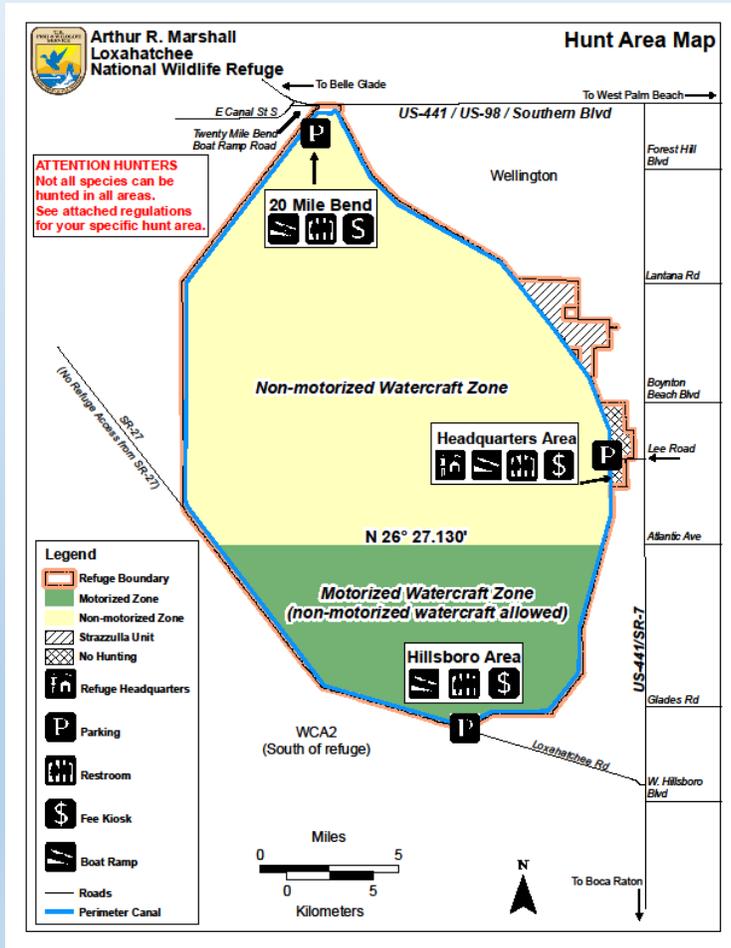
Duck/Coot Hunt Airboat Use Permit

Phase 2 of duck and coot hunting seasons

Apply through FWC in early September



Strazzulla Deer/Hog Hunt



Hunt Area: Strazzulla Unit (2,592 acres)

Season: Early August

Bag limit: One antlered deer (DMUA1)

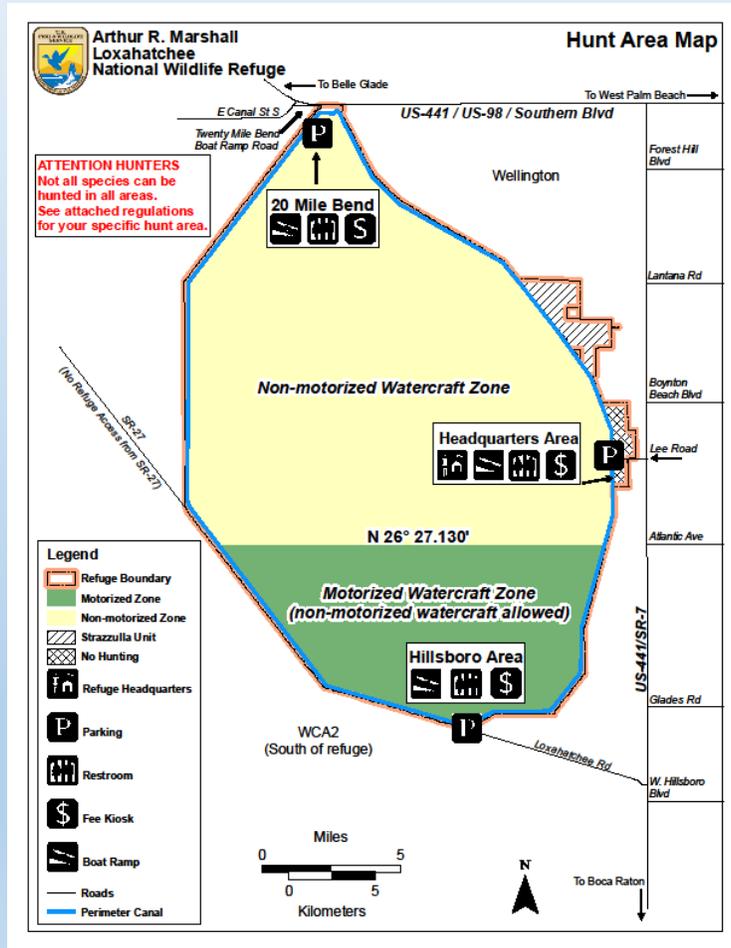
- Archery/Crossbow Hunt
- Guest permits added for 2022
- Apply through FWC in May

2021: 8 permits, 2,146 applicants, 6 hunters, 1 deer

2022: 8 permits, 1,744 applicants, 5 hunters, 0 deer



Refuge Interior Deer/Hog Hunt



Hunt Area: Refuge Interior (140,705 acres)

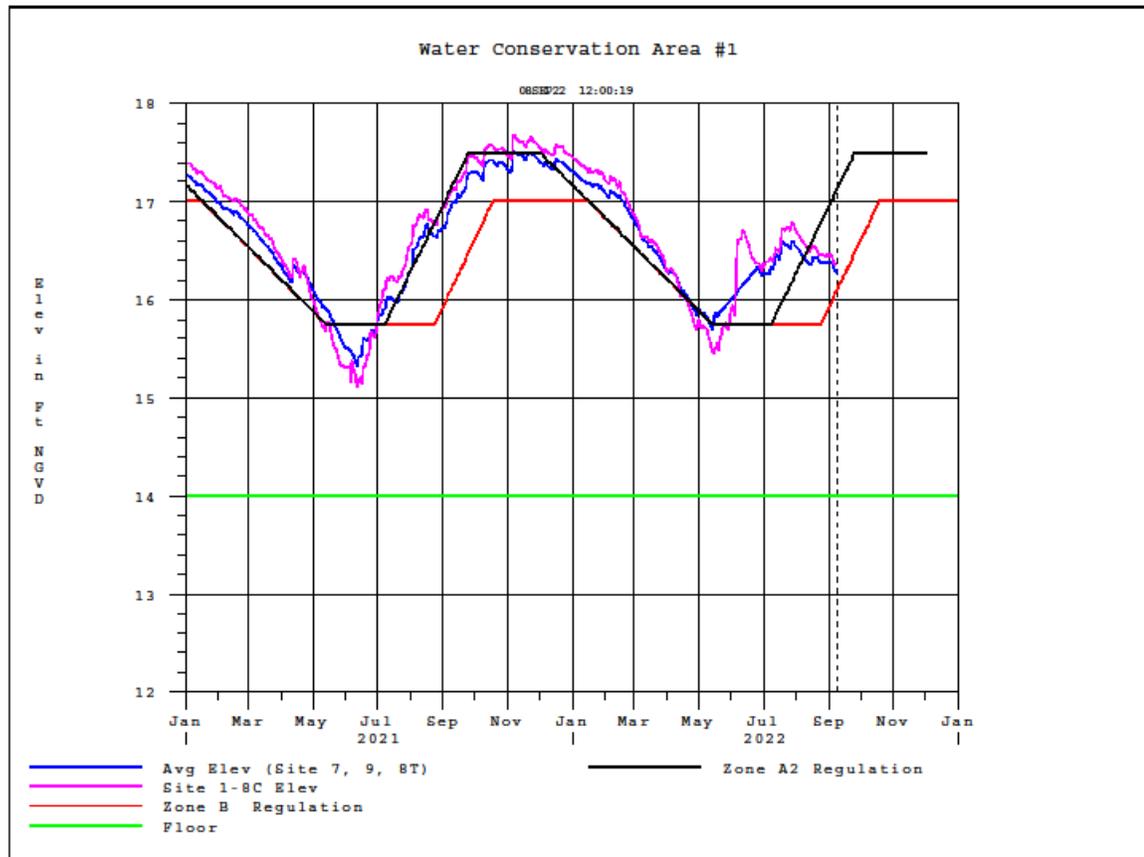
- Motorized and non-motorized zones
- Can use non-motorized, Jon boat, or airboat by permit
- Possible closures due to low water levels
- Guest permits added for 2022
- Apply through FWC in May

2021: 10 permits, 2,105 applicants, 3 hunters, 2 deer harvested

2022: 10 permits, 1,817 applicants, *TBA*



Decreasing Water Levels



- Possible closure in the north end due to low water levels
- May impact the December Interior Deer/Hog Hunt and other recreation
- Refuge Interior
 - Non-motorized boats
- Motorized Zone
 - Airboats by permits
 - Added Jon boats in for 2022



Mentored Youth Deer/Hog Hunt

- Dec 2-4, 2022
- Working with FWC's Youth Hunting Program and volunteer HuntMasters
- Target audience is youth ages 12-17 who have never hunted before
- Youth must take a complete the Hunter Safety Course
- How to hunt safely, legally, and ethically, marksmanship and firearm safety, tracking and processing game, and the relationship between hunting and conservation

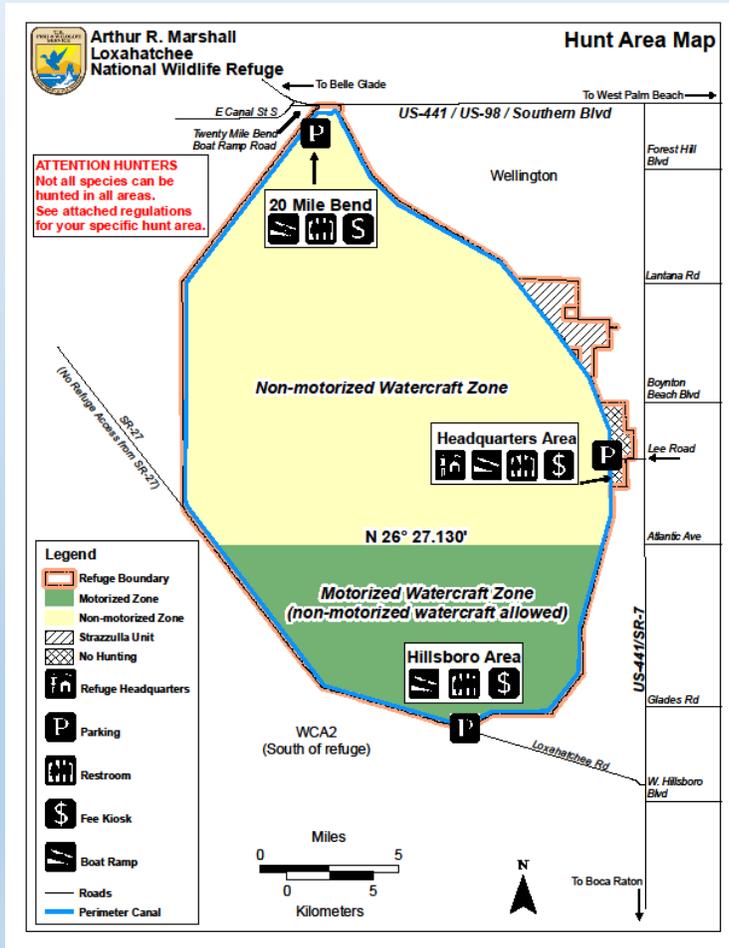


Photo: 2021 Mentored Youth Deer Hunt

Recruiting now on FWC's Events Calendar



Airboat Permits for Hunting



Alligator Hunt Airboat Permit

- 2020: 11 permits available, 1 permit issued
- 2021: 6 permits available, 1 permit issued
- 2022: 0 permits available/issued

Duck and Coot Hunt Airboat Permit

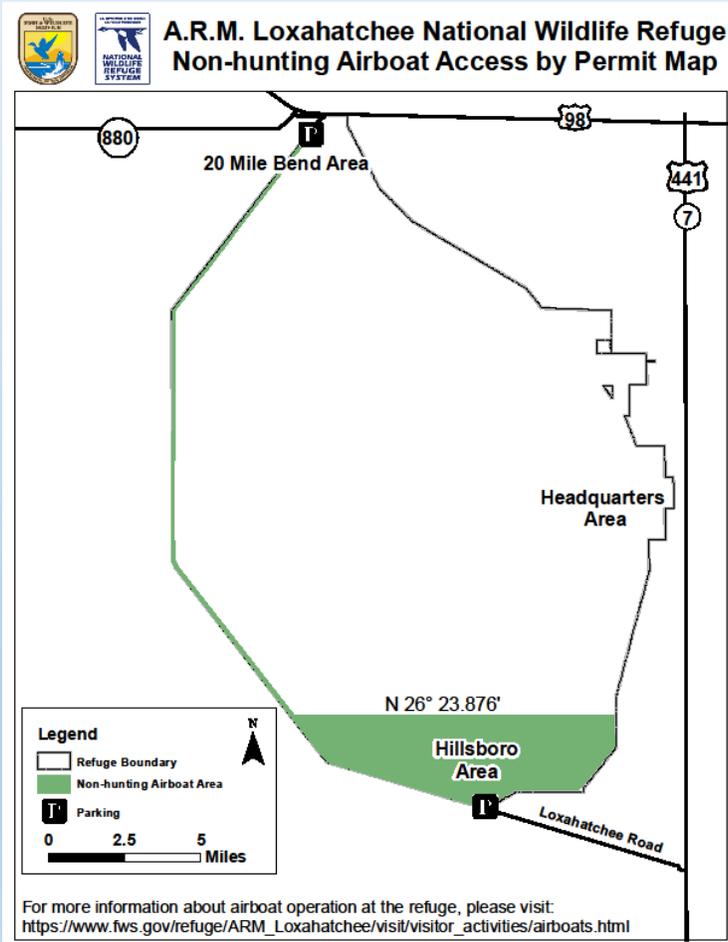
- 2020 (FWS) 7 applications received, 5 permits issued
- 2021 (FWC) 296 applicants, 2 permits issued
- 2022 (FWC) Sept, permits *TBA*

Deer Hunt Airboat Permit

2021: 2 airboat permits issued



Non-hunting Airboats by Permit



Area: 13,900 acres south of latitude line N 26° 23.876'

Season: July-November on Fri, Sat, and Sun. Restricted during duck and coot seasons

Submit applications May 1-15. Information is on the Motorized Boating page on Lox's website.

2020: 10 permits, 18 applications, 10 permits issued

2021: 10 permits, 10 applications, 10 permits issued

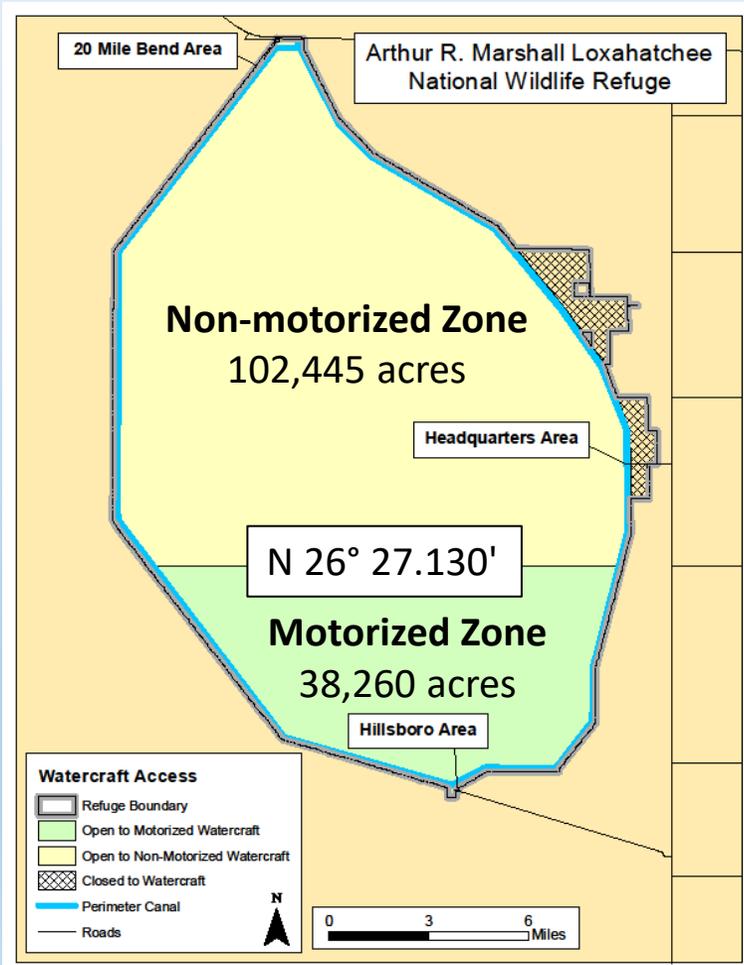
2022: 10 permits, 2 applications, 1 permit issued

Leftover permits are available on first-come, first-serve basis



Boating

All boats operating outside of the perimeter canals in Refuge Interior **must** fly a 10-inch by 12-inch (25-cm × 30-cm) orange flag 10 feet (3 m) above the vessel's waterline.



Non-motorized Boats

- Refuge Interior (140,705 acres)

Motorized Boats

- Perimeter canal (58 miles)
- Motorized Zone (38,260)

Airboat Permits

- Designated areas during specific times of the year



Boat Ramps at all three entrances



Freshwater Fishing

Over 140,000 acres open to freshwater fishing

Over 60 miles of trails provide access to bank fishing

- Bowfishing – year long
- Fish gigging – year long
- Frog gigging – July 16 to March 15



Photo: A visitor removes a hook from a fish caught at the refuge.



Horseback Riding



Parking at Lee Road and Lox Road boat ramps

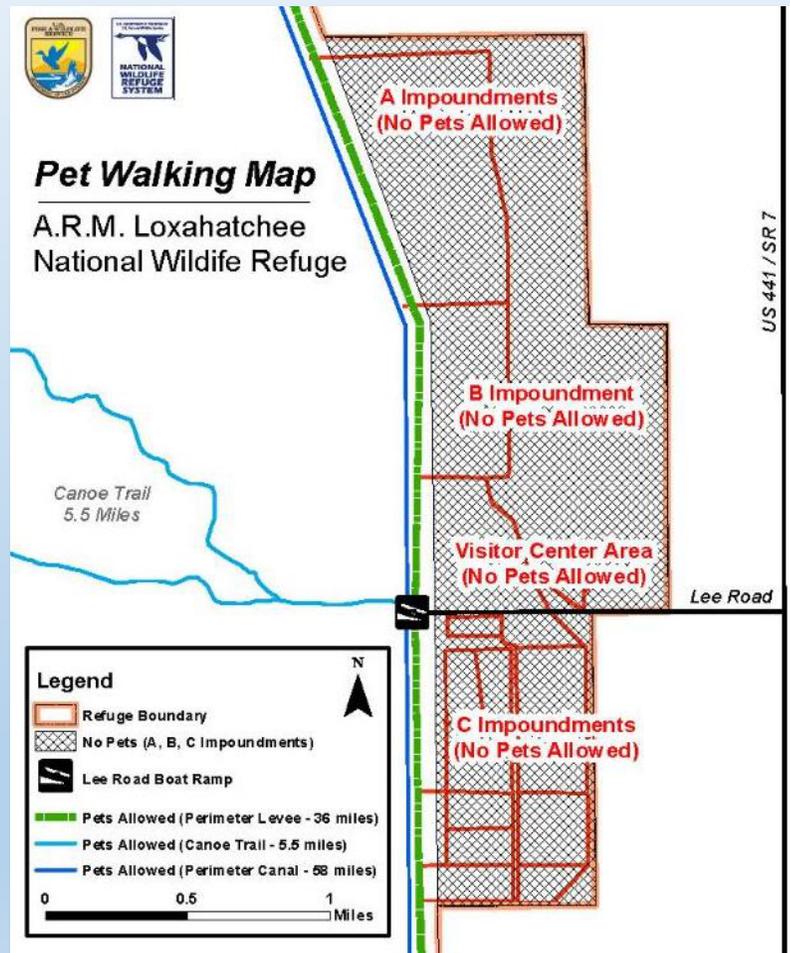
Access to 36 miles of perimeter levee. Strazzulla in plans for future

Gate modifications complete

No horseback riding in the A, B, C Impoundments



Pet Walking



Must be on a leash (max. of six feet).

Designated areas: vehicles and watercraft, all boat ramp parking lots, and the perimeter levee.

“No pets” signs are posted where pets are not allowed. (HQ, A, B, C Impoundments)

Maximum of two pets per visitor.

Pet owners must immediately bag and properly dispose of pet waste.



Entrance Fees and Passes



Fees collected are used to directly assist with providing safe and meaningful experiences to refuge visitors.

Passes can be purchased in person at the visitor center, seasonally at fee booths, or online at <https://www.recreation.gov/sitepass/1278>

Daily Pass \$10

Annual Pass \$25

Federal Duck Stamps

Interagency Pass Program



Concessions Operations

Loxahatchee Adventures

- New in Fall 2021
- Rentals at Headquarters & Hillsboro entrances
- Canoe, kayak, and Jon boat rentals and snacks
- Will expand to include fishing licenses, bait for sale, guided tours, and more



Recent Updates to Infrastructure

- Received funding in FY23 to replace the observation tower on the L-40 at the Lee Road Boat Ramps. The new tower will be made of aluminum and steel similar in design and construction to the fishing pier that reopened in late-2020.
- Hillsboro Area: installing an underground drainage system and regrading the parking area at end of Lox Road.
- Rebuilding boardwalk to photo blind.
- Replaced numerous interpretive signs in HQ area.
- Will be replacing the 3 entrance kiosks and installing a new kiosk at the C-6 pavilion.
- VC exhibits were cleaned and refurbished.
- Lee Road, the boats ramps, and boat ramp parking lot were repaved. Speed tables were installed to calm traffic.



Upcoming Infrastructure

Multiple new recreational infrastructure assets have been designed and are ready for permitting and construction pending funding:

- Construct a fishing pier at the Hillsboro recreation area.
- Construct a parking area, fishing pier, and canoe launch near ACME 2 at Strazzulla.
- Construct a parking area and trail system at Osprey Pond Road for access to Strazzulla.
- Construct a pedestrian, bicycle, and equestrian trail connecting Wellington's Marjory Stoneman Douglas Preserve with the L-40 bypassing the S-362 pump station.
- Camping
 - Depends on construction on west side of refuge
 - SFWMD building a camping area on the L-7
 - Camping platforms



Questions?

Connect with us

www.fws.gov/refuge/arthur-r-marshall-loxahatchee

www.facebook.com/ARMLoxahatcheeNWR

Veronica_Kelly@fws.gov





Audubon Birding Tours on District Properties

Brian Garrett – Wildlife Coordinator
SFWMD Recreational Public Forum – September 19, 2022



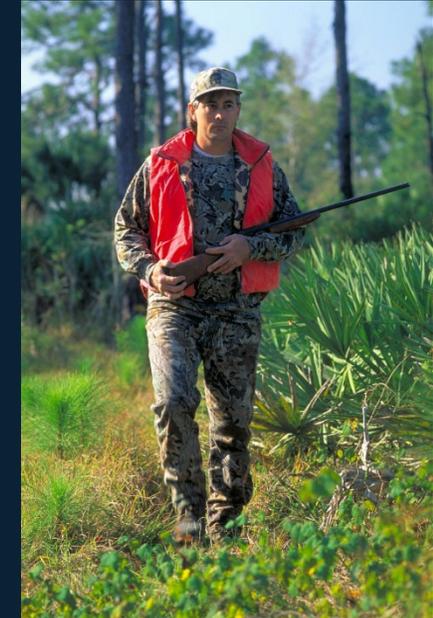
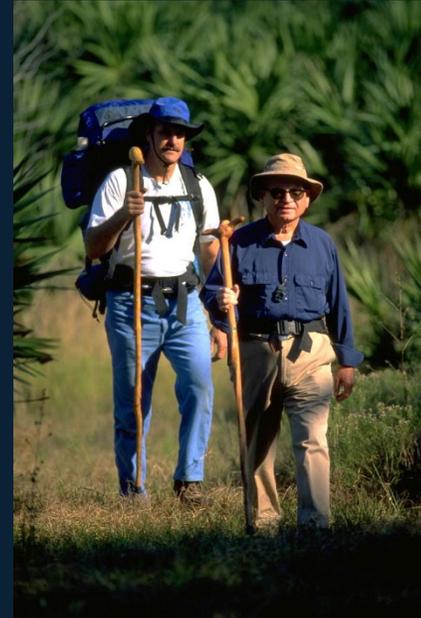
“If You Build It...”

- 
- Stormwater Treatment Areas (STAs) and Flow Equalization Basins (FEBs) are man-made wetlands that have been constructed to:
 - Reduce nutrients in downstream locations
 - Act as shallow reservoirs to hold large amounts of stormwater
 - Add supplemental water to downstream locations
 - Wildlife habitat was never the main intent of their construction...
...however, for many species of wildlife they are excellent habitat...
...especially for many species of BIRD.

Recreational Activities

➤ It was recognized early in the existence of the STAs that they were great places for many recreational activities such as:

- Hunting
- Hiking
- Biking
- And Birding as well as Viewing Other Wildlife



Audubon Chapter Led Tours

- It became apparent that guided tours by experts would be a great way for people to see the wildlife in these locations as well as learn about these District projects.
- The District worked with the Hendry-Glades Audubon Chapter in 2005 to start birding tours in STA-5/6 for the general public.



Audubon Chapter Led Tours

- These STA-5/6 tours were quickly very popular.
- They led to subsequent agreements with Everglades Audubon in Palm Beach County to lead STA-1E & STA-2 tours and Martin County Audubon to lead Lakeside Ranch STA tours.
- Additionally, the A1-FEB opened to the general public in 2019.



STA-1E Mixed Flock of Birds

Audubon Chapter Led Tours

- Tours are advertised to the general public by each Audubon chapter with which the District has an agreement.
- Audubon chapter volunteers organize and guide tours (or organize expert guides) for each date they have tours.



Birders in STA-2

Audubon Chapter Led Tours

- The volunteer guides keep the guided groups together, make sure people stick to areas that are open to the public, and makes sure everyone is out of the area at the end of the day.



Common
Nighthawk
Making Sure
People
Comply with
District
Signage

Audubon Chapter Led Tours

- The tours allow for groups of people to drive into the STA.
- Some photographic tours are available too.
- These allow for individual photographers to make sure they are back at the gates by the time the gates are closed.



Special Tour
Conducted in
Stormwater
Treatment
Area-1W

STA-5/6 Birding Tours

- Operated by Hendry-Glades Audubon
- Guided birding tours have been occurring since 2005.
- Over 230 species have been identified in the STA.
- Some species of interest over the years have included the:
 - Tropical Kingbird
 - Smooth-billed Ani
 - Crested Caracara
 - American White Pelican



Tropical Kingbird



Crested Caracara

STA-5/6

- Current Access: South End of Blumburg Road
- There are three public access entrances, but the current entrance at the end of Blumburg is the current active entrance.
- The main entrance at the east end of Deer Fence Canal Road is currently closed with construction occurring along this road.
- The south entrance is only open to hikers.
- Approximately 16,000 Acre Area



STA-1E Birding Tours

- Operated by Everglades Audubon
- Guided birding tours have been occurring since 2012.
- Over 170 species have been identified in the STA.
- Some species of interest over the years have included the:
 - Least Tern
 - Roseate Spoonbill
 - White-tailed Kite
 - Purple Gallinule



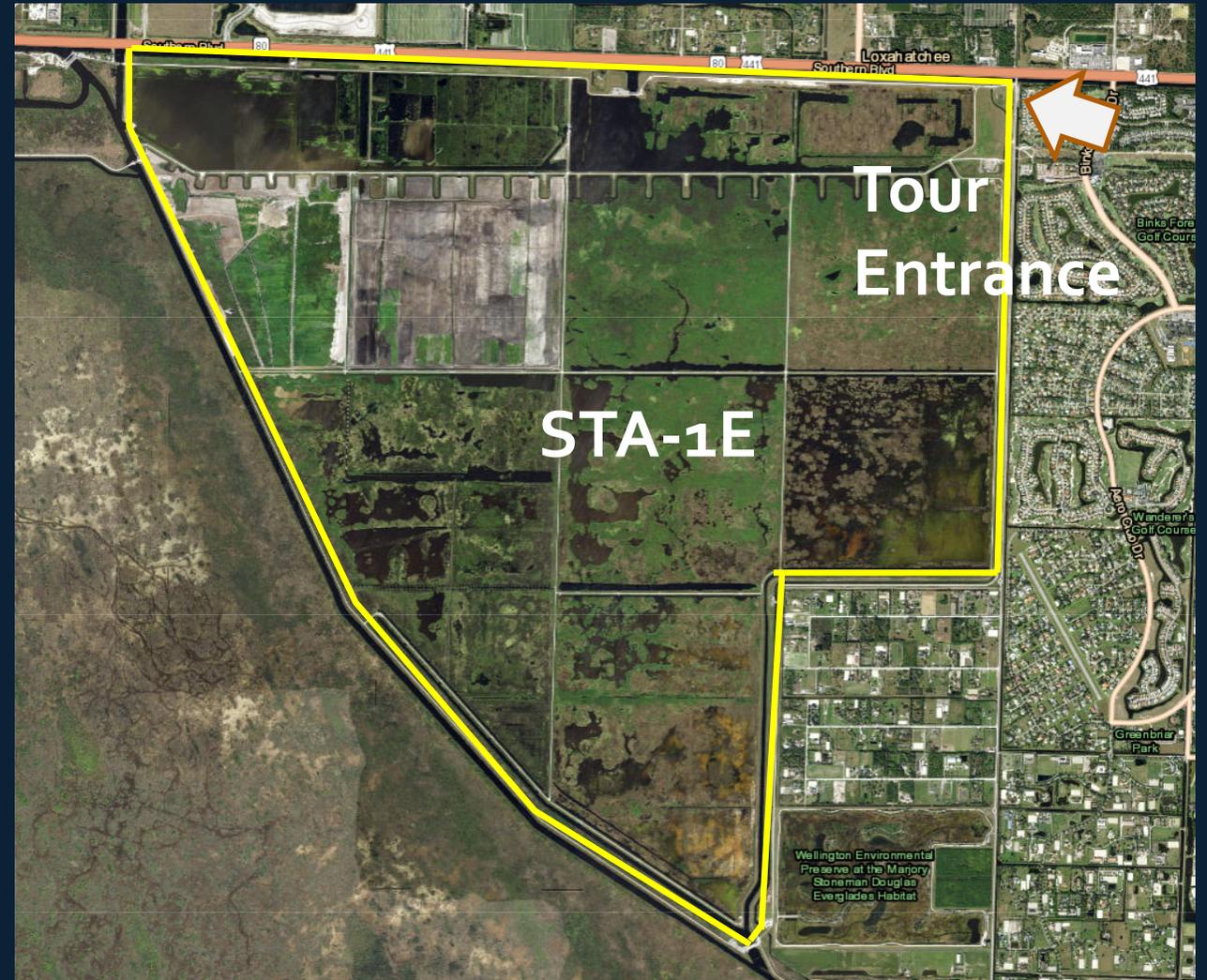
Least Terns



Purple Gallinule

STA-1E

- Access: Just South of Southern Blvd (State Road 80)
 - Turn on to Flying Cow Road and then the entrance is immediately to the West.
- There are two public access entrances, but the entrance for driving onto the property is the Flying Cow entrance
- Farther to the West on Southern Blvd is a Public Use entrance for hikers and bikers
- Approximately 5,000 Acre Area

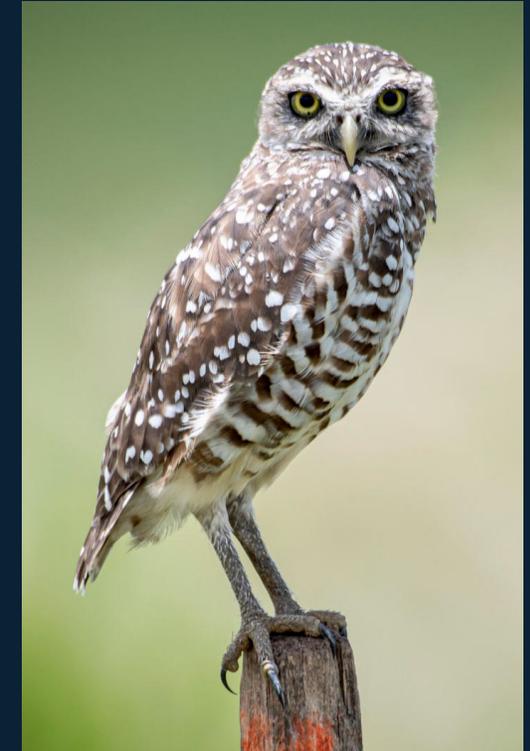


Lakeside Ranch STA Birding Tours

- Operated by Martin County Audubon
- Guided birding tours have been occurring since 2014.
- Over 180 species have been identified in the STA.
- Some species of interest over the years have included the:
 - American Bald Eagle
 - Florida Sandhill Crane
 - Florida Burrowing Owl
 - Bobolink



American
Bald Eagle



Florida
Burrowing
Owl

Lakeside Ranch STA

- Access: East of US-98/US-441
 - Just south of the Martin-Okeechobee county line
- There are two access entrances, but the southern entrance just off US-98/US-441 is the best entrance with a bathroom and large parking area.
- Approximately 1,700 Acre Area



STA-2 Birding Tours

- Operated by Everglades Audubon
- Guided birding tours have been occurring since 2016.
- Over 150 species have been identified in the STA.
- Some species of interest over the years have included the:
 - American Flamingo
 - Peregrine Falcon
 - Black Skimmer
 - Fulvous Whistling Duck



American Flamingos



Black Skimmer

STA-2

- Access: East of US-27
 - Between Mile Markers 50 & 51
- Internal access to the STA is restricted to birding tours
- There is access along the outer edges of the southern part of the wetland
- Entrance is currently in the southwest area of the property
- Approximately 15,500 Acre Area



A1-FEB Birding Tours

- Area is open over weekends –
Tours are organized by individual Audubon Society chapters
- Birding tours have been occurring since 2019.
- Over 160 species have been identified in the FEB.
- Some species of interest over the years have included the:
 - Everglade Snail Kite
 - Loggerhead Shrike
 - Black Rail
 - Killdeer



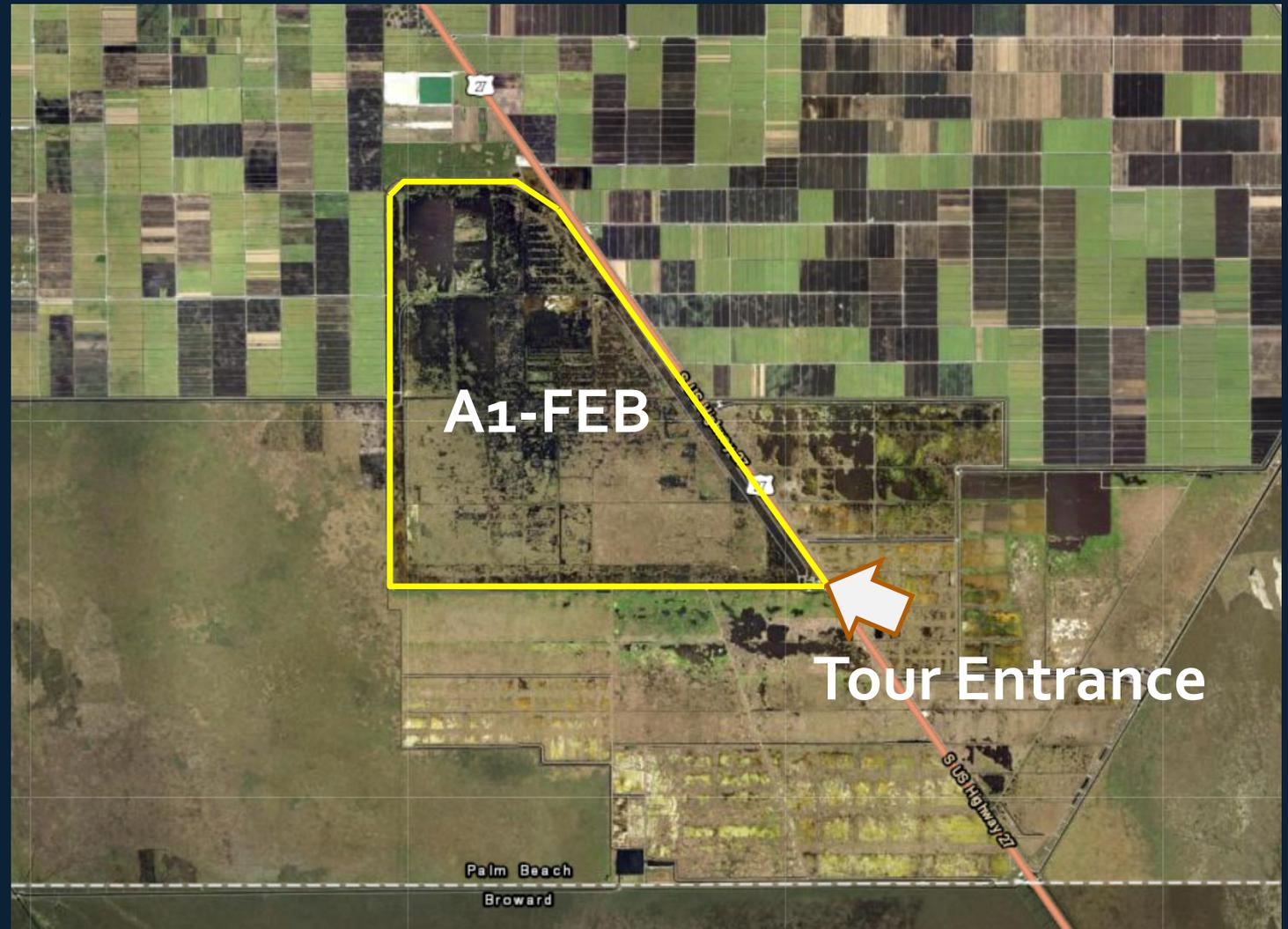
Everglade Snail Kite Nestling



Killdeer with Chick

A1-FEB

- Access: West of US-27
 - Between Mile Markers 52 & 53
- Open to the Public Friday to Sunday
- Entrance is currently in the Southeast corner of the property
- Approximately 15,500 Acre Area



In Conclusion

- Working with Audubon chapters to operate birding tours in District STAs and FEBs has been a huge success.
- These tours have allowed thousands of people additional access to view and photograph wildlife in the internal portions of these man-made wetlands over the past decade and half.
- This access helps the District in the sense that we can communicate to the public about the many restoration projects we have constructed and the benefits of the projects.



Northern
Bobwhite



Black-
necked
Stilt

Audubon Chapter Websites for Field Trips

- Hendry-Glades Audubon STA-5/6 Birding Registration:
 - www.hendrygladesaudubon.org/?page_id=110
- Everglades Audubon STA-1E and STA-2 Birding Trips:
 - <https://www.auduboneverglades.org/field-trips/>
- Martin County STA Lakeside Ranch STA Birding Trip Registration:
 - <https://www.audubonofmartincounty.org/events/birding-field-trip-2022-10-22-07-00>



Questions?

Zoom:

- If you're participating via Zoom – use the Raise Hand feature

Phone:

- If you're participating via Phone –
 - *9 Raises Hand
 - *6 Mutes/Unmutes

Lainhart Dam on
Loxahatchee River

Loxahatchee River Watershed Restoration Project (LRWRP) Update



Jeff Buck
Senior Project Manager
Ecosystem Restoration Planning Bureau

Presentation Overview

1. Purpose of the Loxahatchee River Watershed Restoration Project (LRWRP)
2. Overview of the Authorized Restoration Plan: Alt 5R
3. Existing Recreation Features at Cypress Creek Management Area (CCMA)
4. Proposed Restoration Activities and Recreation Features at CCMA
 - a. Gulfstream East/Moonshine Creek
 - b. Cypress Creek Canal
 - c. Gulfstream West
5. Integrated Delivery Schedule

Purpose of the LRWRP

➤ Project Purpose

Improve freshwater flows to the Northwest Fork of the Loxahatchee River, which is a nationally designated Wild and Scenic River, and to restore the hydrology and connectivity of wetlands and watersheds that form the historic headwaters of the river



Loxahatchee River

Authorized Plan: Alt 5R

Flow Way 3

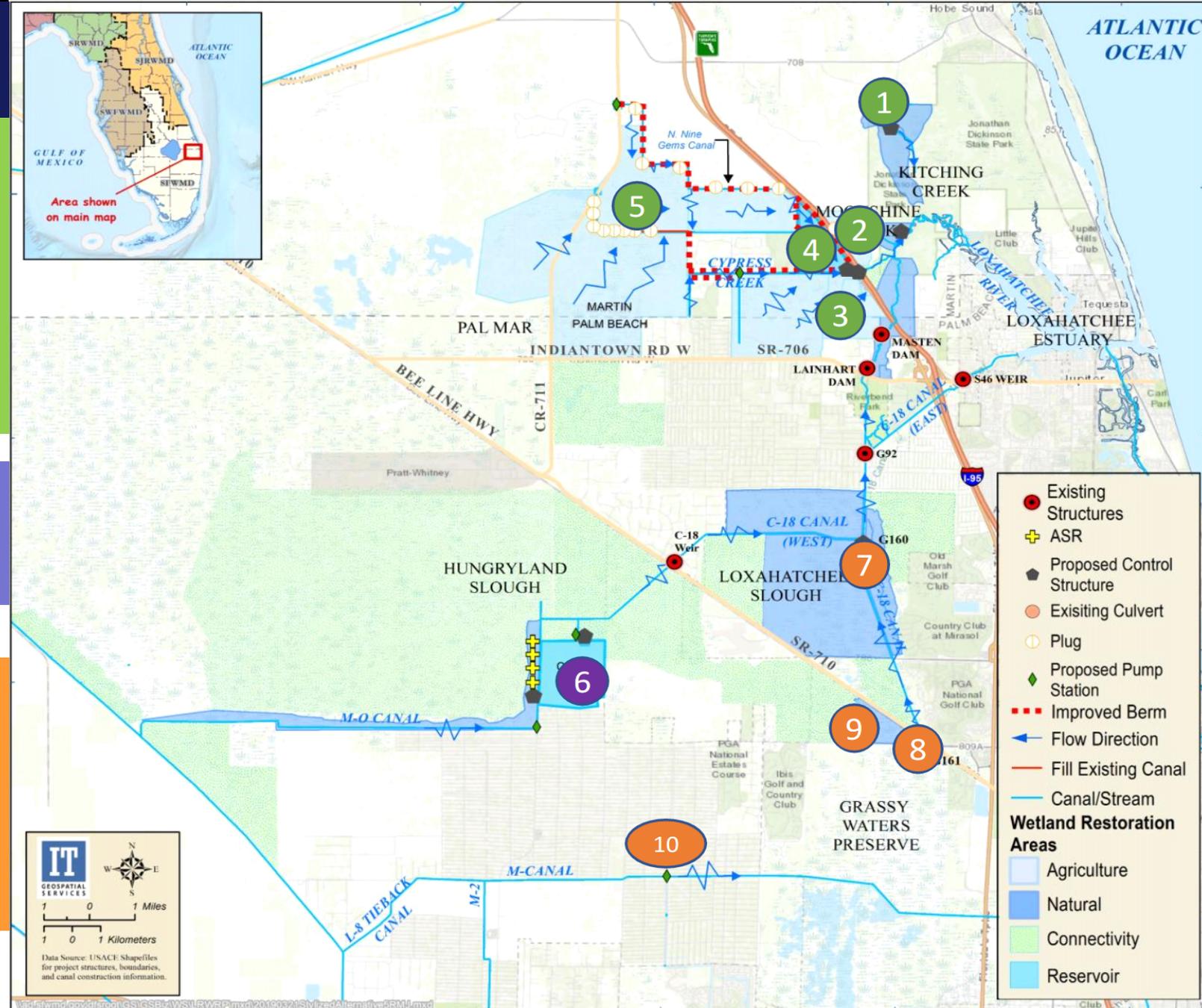
- Cypress Creek Management Area
- 1 - Kitching Creek
 - 2 - Gulfstream East/Moonshine Creek
 - 3 - Cypress Creek Canal
 - 4 - Gulfstream West
 - 5 - Palmar East

Flow Way 2

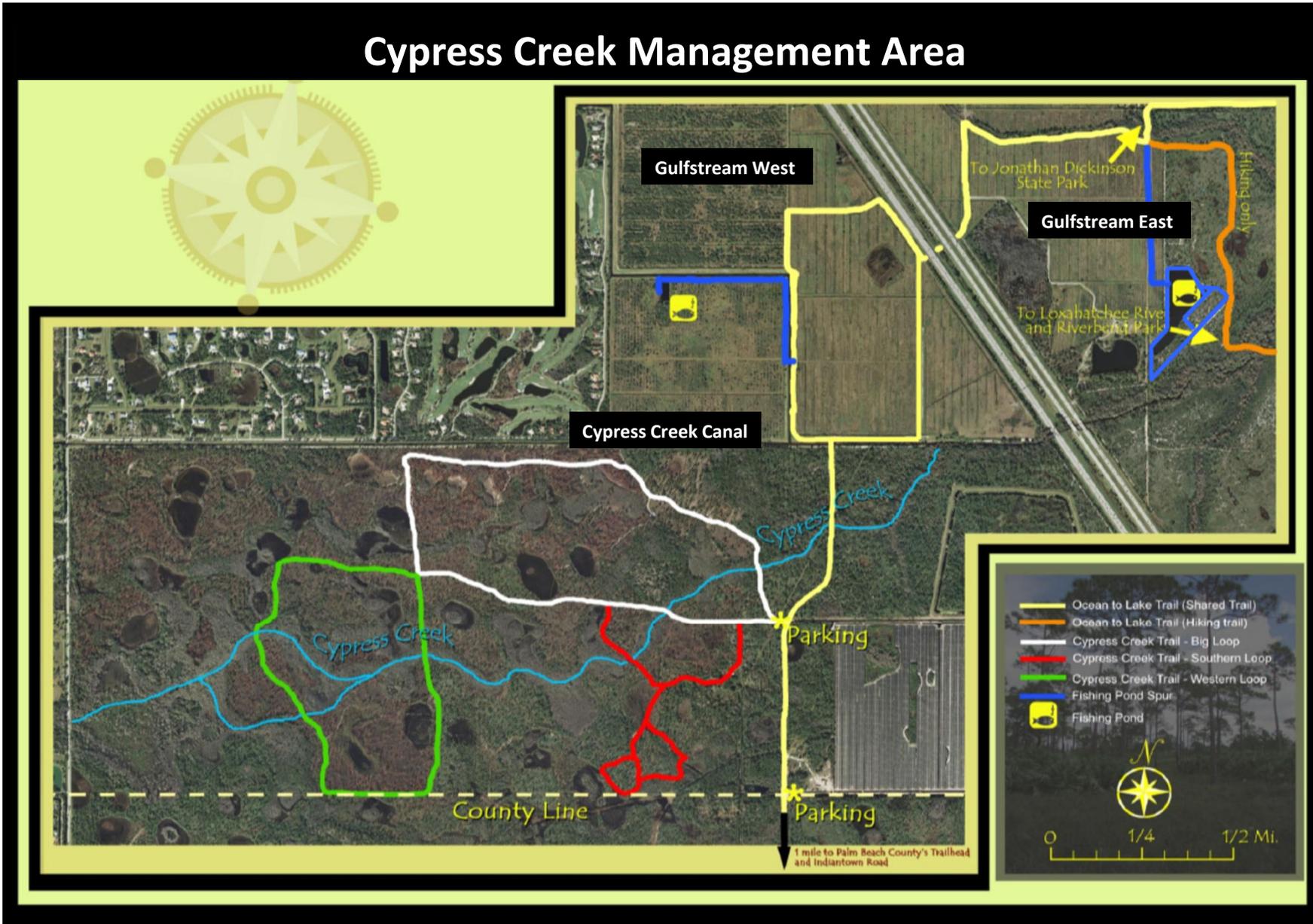
- 6 - C-18W Impoundment (9,500 ac/ft & 4 ASR wells)

Flow Way 1

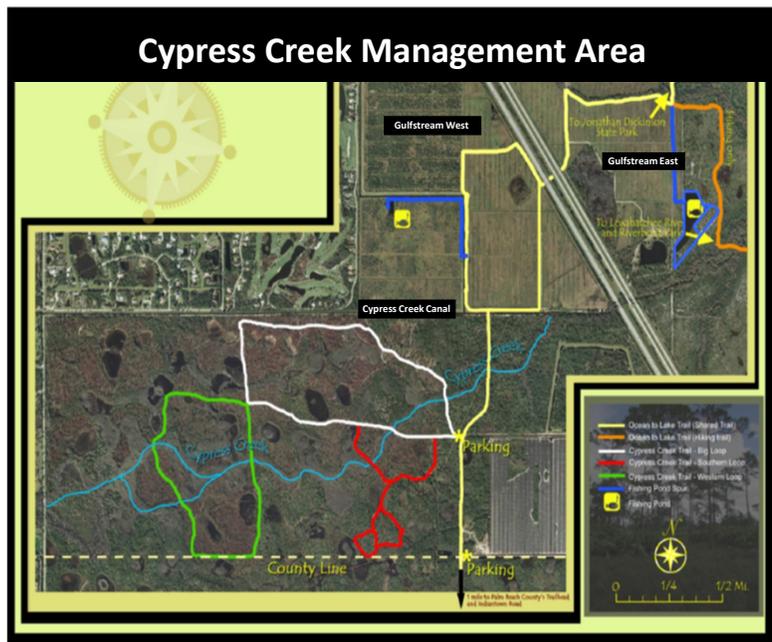
- 7 - G-160 Structure
- 8 - G-161 Structure
- 9 - Grassy Waters Triangle
- 10 - M-1 Pump Station



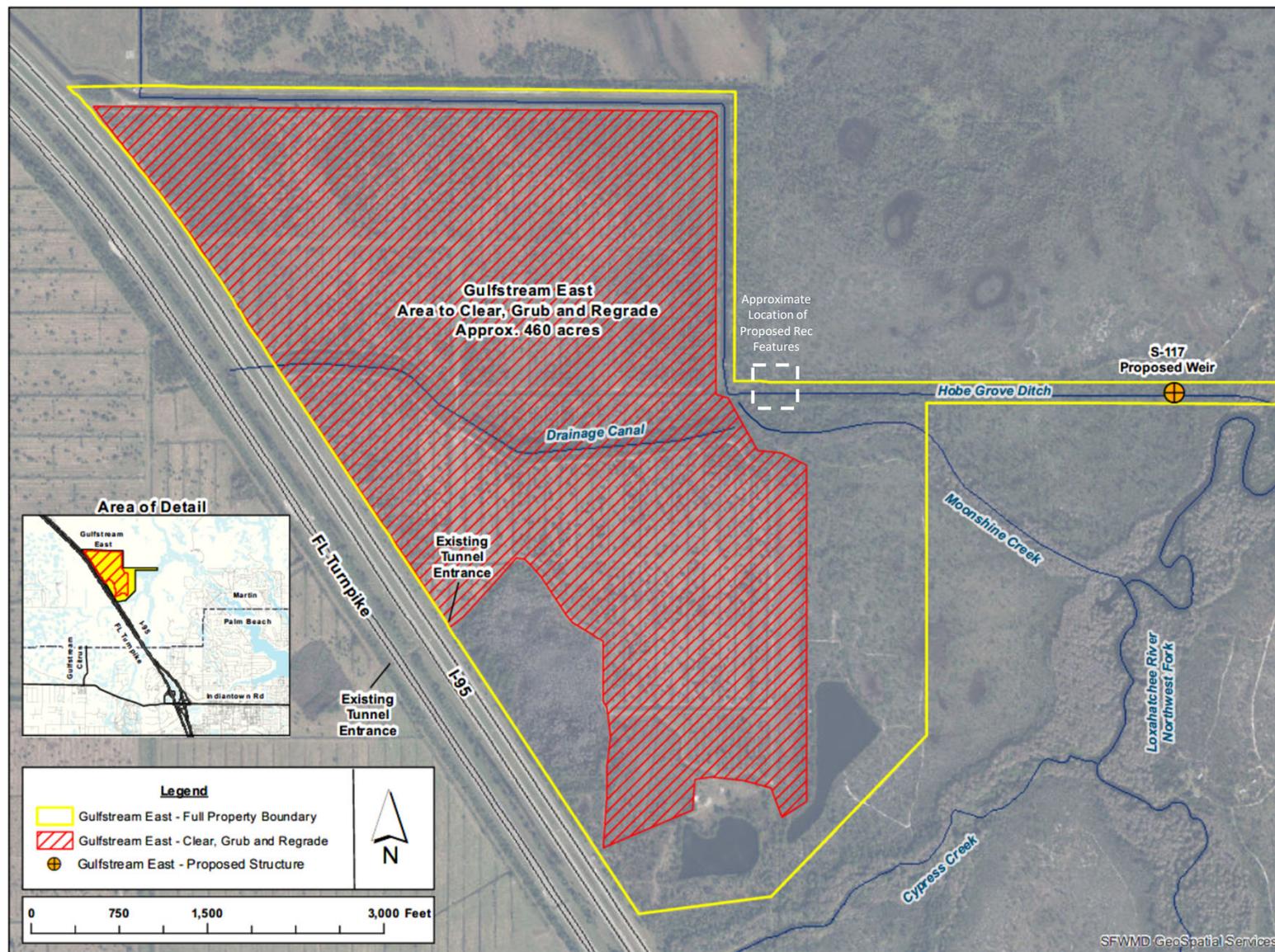
Cypress Creek Management Area



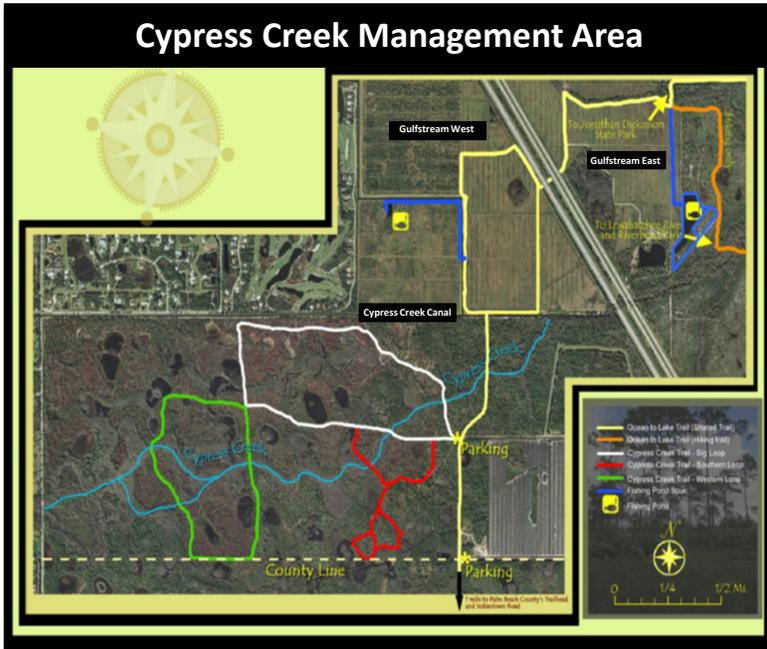
Cypress Creek Management Area: Gulfstream East/Moonshine Creek Restoration



- ### Restoration Activities
- Fill former agricultural ditches and regrade former citrus beds to restore historic topography
 - Construct weir in Hobe Grove Ditch (S-117) to rehydrate historic Moonshine Creek



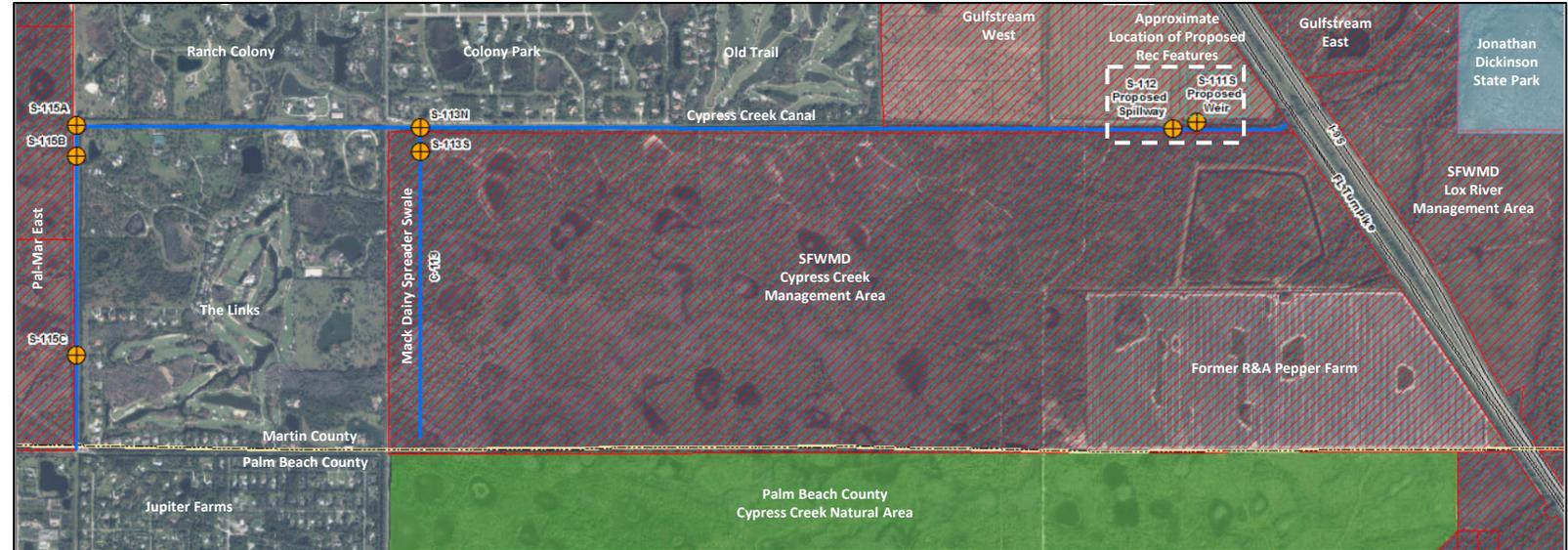
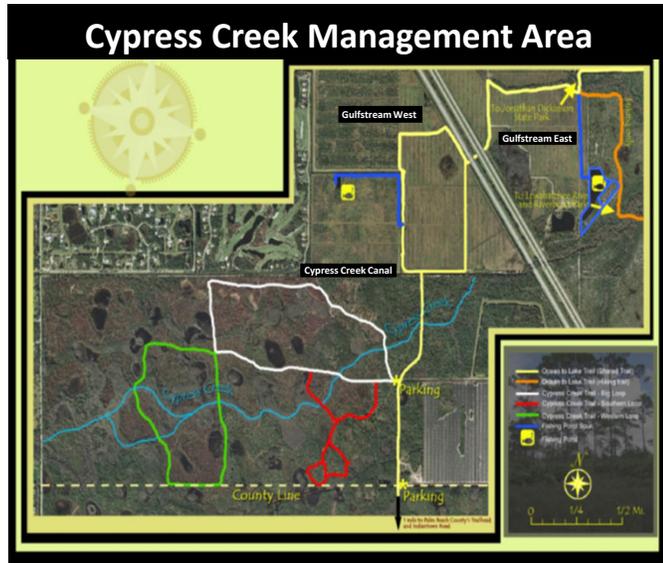
Cypress Creek Management Area: Gulfstream East/Moonshine Creek Proposed Recreation Features



Proposed Recreation Features

- Multiuse trail bridge
- Boardwalk to connect multiuse bridge
- Informational kiosk
- Shade shelter
- Picnic tables

Cypress Creek Management Area: Cypress Creek Canal Restoration



Restoration Activities

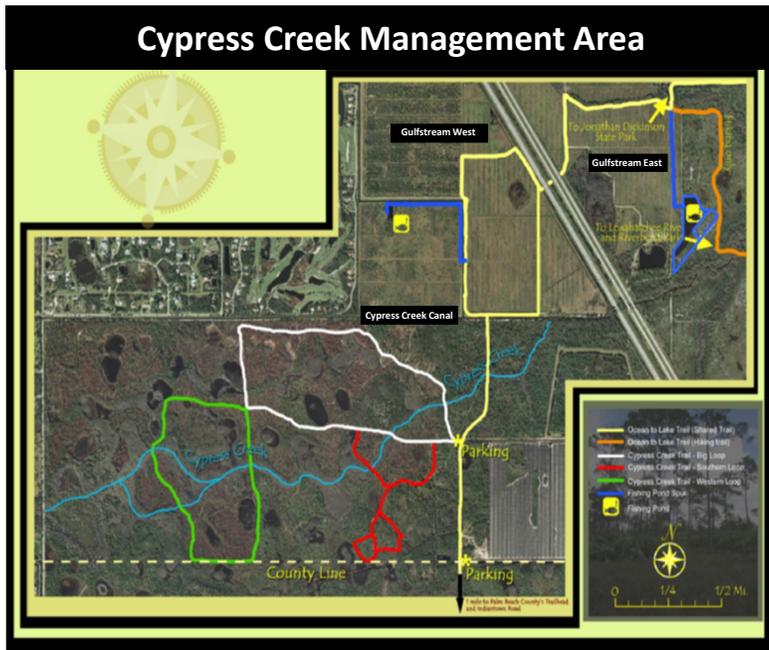
Cypress Creek Canal

- Add telemetry to 3 existing structures (S-115A, S-115B and S-115C)
- Raise/improve Cypress Creek Canal berm
- Construct spillway (S-112)

Mack Dairy Spreader Swale

- Construct pump station (S-113N)
- Construct weir (S-113S)
- Create spreader swale (C-113)

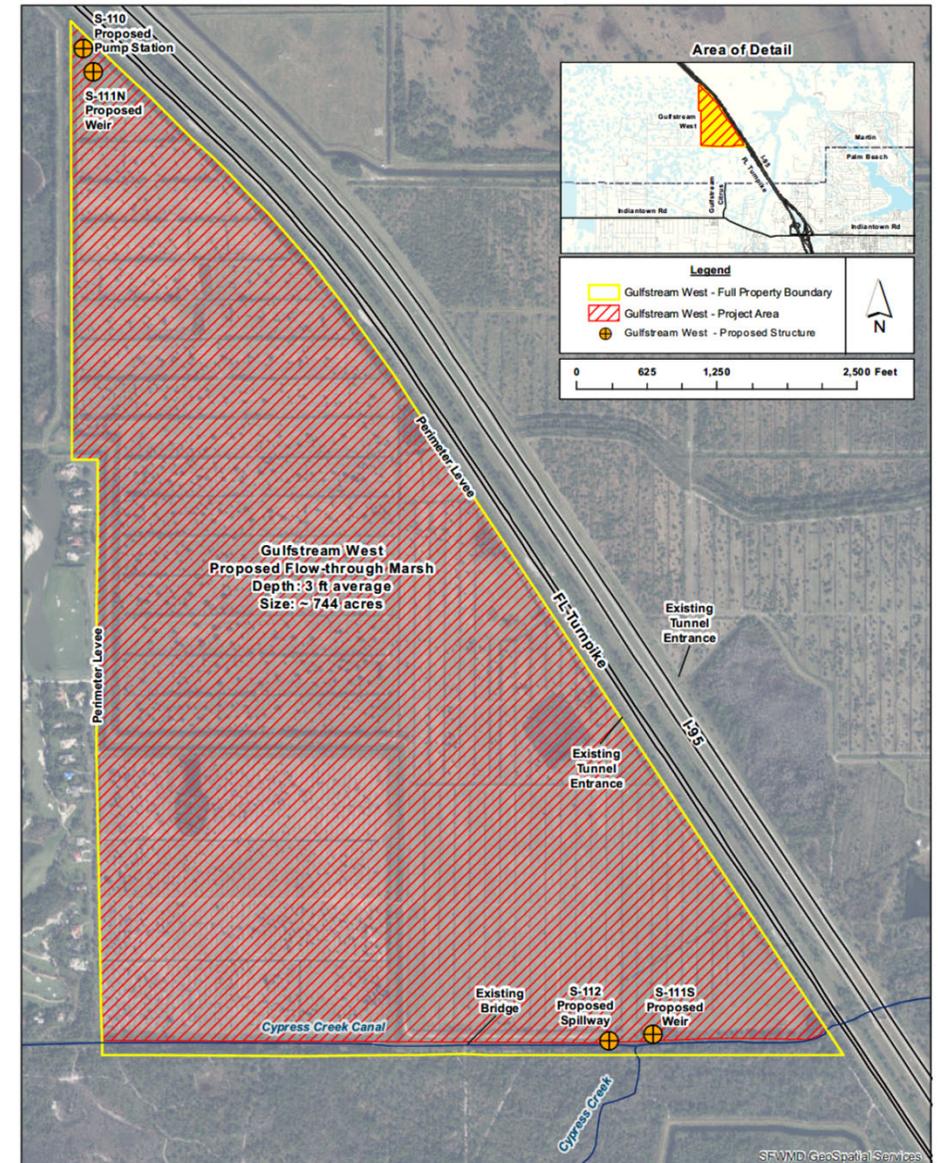
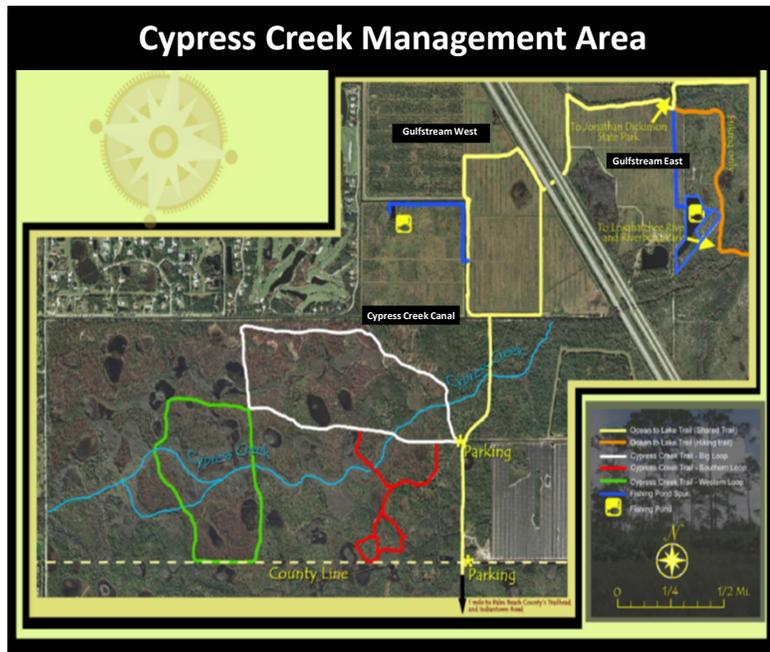
Cypress Creek Management Area: Cypress Creek Proposed Recreation Features



Proposed Recreation Features

- Multiuse trail bridge
- Fishing pier
- Kayak launch & portage
- Shade shelter
- Informational kiosk
- Nature study signs
- Dry vault toilets
- Parking Area

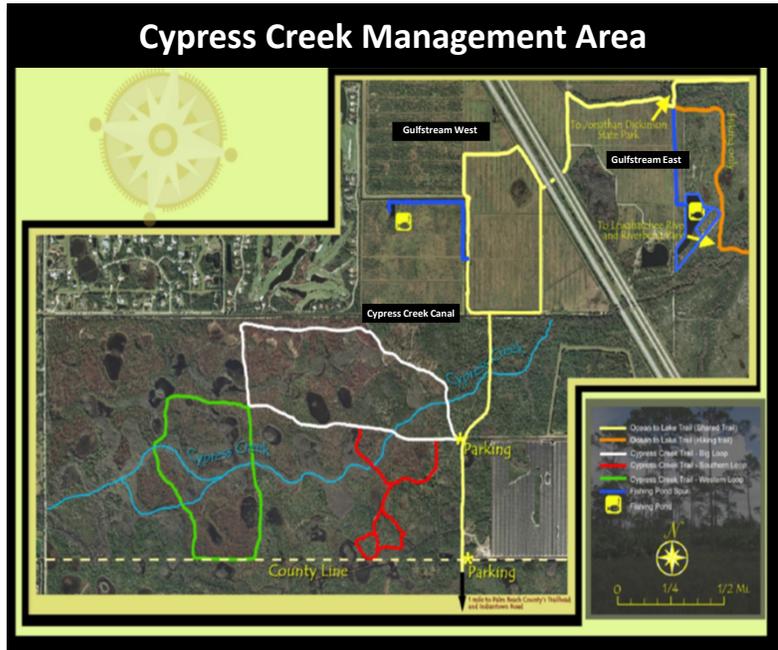
Cypress Creek Management Area: Gulfstream West Restoration



Restoration Activities

- Construct flow-through marsh to attenuate flows to Cypress Creek Canal
- Backfill interior canals and ditches within Gulfstream West
- Regrade property to promote north to south flow of water
- Construct perimeter berm/levee to contain surface water
- Construct pump station (S-110) and weir (S-111N) for inflow and notched weir (S-111S) for discharge
- Create by-pass canal along western boundary of flow-through marsh

Cypress Creek Management Area: Gulfstream West Recreation Features



Reroute Multiuse Trail

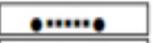
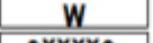
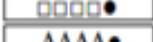
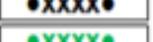
- The existing multiuse trail would be rerouted around the outer edge of Gulfstream West to maintain trail connectivity
- Potential to incorporate the perimeter levee of the flow-through marsh as part of the Cypress Creek and OTL trail system (~5 miles)

LRWRP Schedule

INTEGRATED DELIVERY SCHEDULE 2021 UPDATE **FINAL DRAFT**

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

PROJECT LOCATOR	YELOW BOOK COMPONENTS	PROJECT	FISCAL YEAR DESIGN AND CONSTRUCTION COSTS (DOLLARS IN MILLIONS) ²												
			2020 W	2021	2022 W	2023	2024 W	2025	2026 W	2027	2028 W	2029	2030 W	2031	2032W
		Planning Estimates Federal Construction Cost (SFER)++	\$ 235	\$ 250	\$ 350										
		Planning Estimates Non-Federal Construction Cost (SFER)++	\$ 363	\$ 258	\$ 329	\$ 828	\$ 814	\$ 964	\$ 1,275	\$ 983	\$ 731	\$ 468	\$ 256	\$ 154	\$ 88
		Planning Estimates Total Construction Cost (SFER)++	\$ 598	\$ 508	\$ 679										
CERP GENERATION 4 (AUTHORIZED IN WRDA 2020; PPA ANTICIPATED IN 2022)															
P16	K, OPE	Loxahatchee River Watershed Restoration Project			●●●●●										
		Flow-way 1 (M-1 Canal, G160/161, Grassy Water Preserve)				●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●				
		Flow-way 2 (C-18 Reservoir, ASR Wells)				●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●
		Flow-way 3 (Gulf Stream West, Nine Gems, Culpepper, Moonshine, Hobe Grove, Kitching Creek)			●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●	●●●●●

	Non-federal		Does not reflect budgetary development dollars or capability		Design, PPA Execution, Real Estate Acquisition
	Federal		Expected WRDA year		Construction (Initiated by award of construction contract)
	Fiscal Closeout		Project Implementation Report		Operational Plan
	Monitoring		Project Implementation Report with Exemption		Operational Testing and Monitoring Period

A photograph of a swampy forest. A small stream flows through the center, surrounded by dense vegetation including tall trees, palm trees, and large ferns. Several large logs are scattered along the banks and in the water. The scene is lush and green, with a sandy bank visible on the right side.

Discussion



Kissimmee River Restoration and Headwaters Revitalization Schedule Project Update



Michael Cheek

**Recreation Project Manager, Land Stewardship,
South Florida Water Management District**



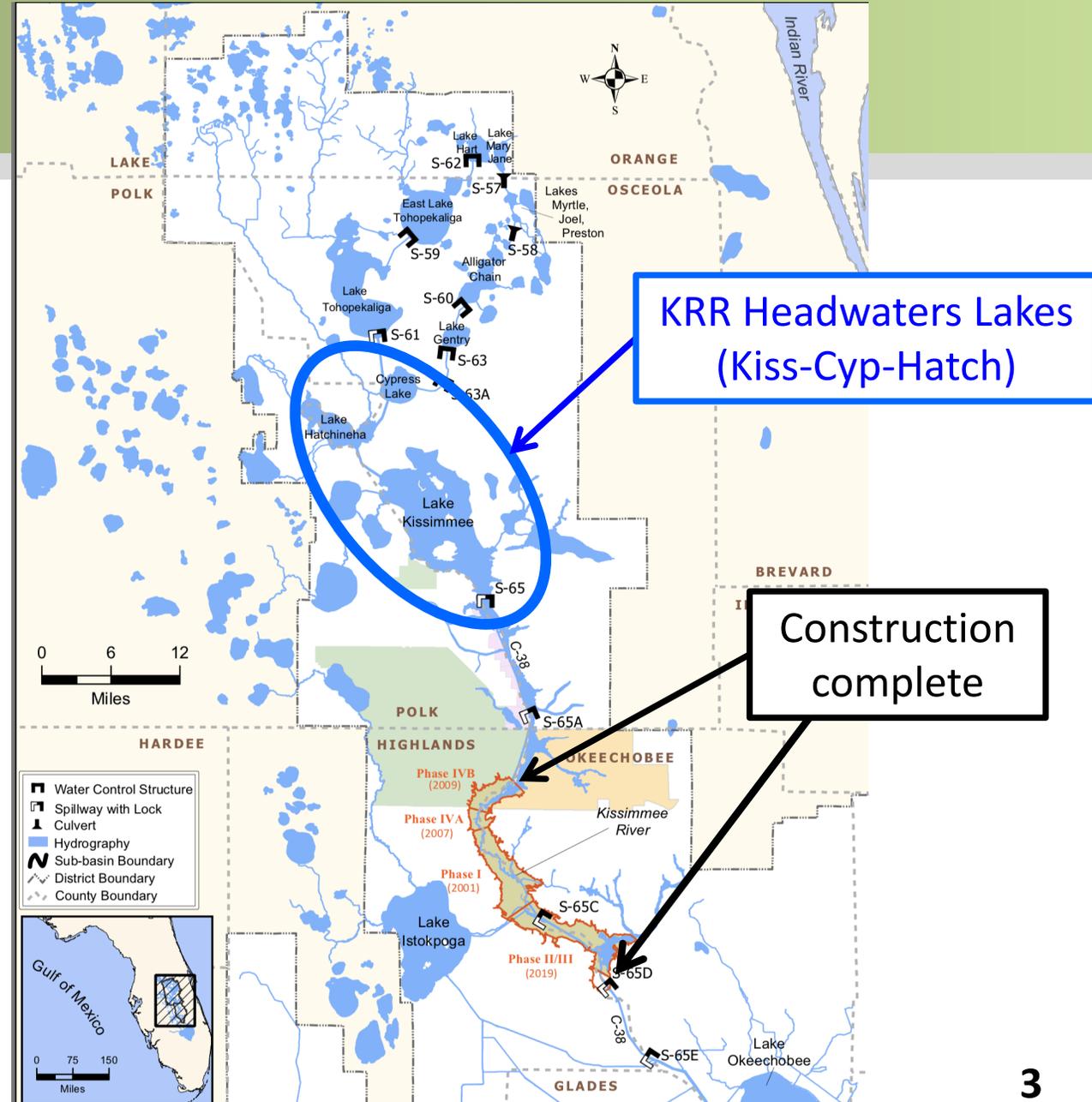
SFWMD Recreational Public Forum
September 19, 2022

RUNDOWN

- **Kissimmee River Restoration Status**
 - Reconstruction of physical form of river/floodplain *completed* in 2021
- **Ongoing restoration activities:**
 - US Hwy 98 culvert berm gapping
 - Hidden Acres Estates ditch plug and berm gapping
 - Kissimmee River navigation signage
 - Headwaters Revitalization Schedule (HRS)

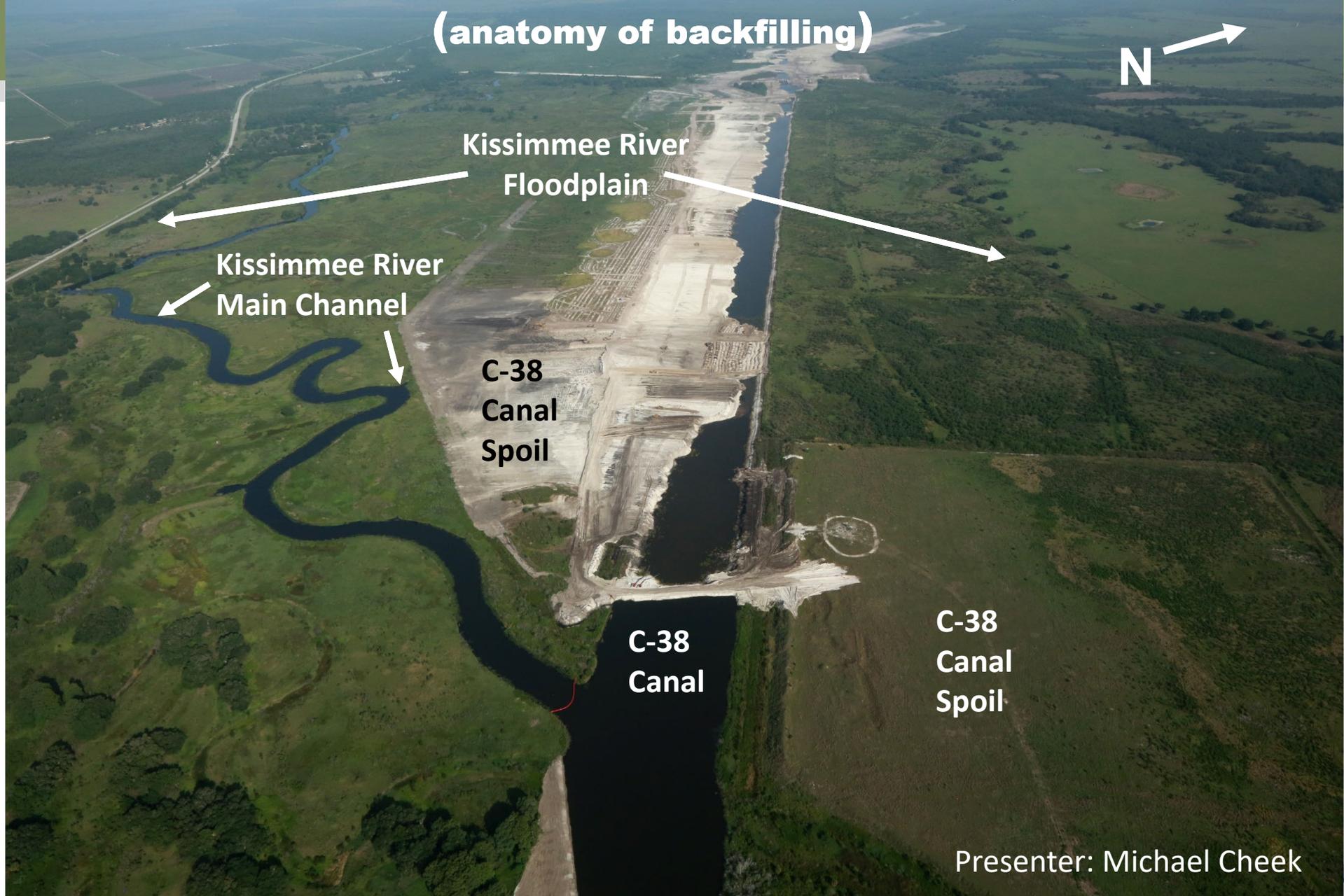
Kissimmee River Restoration Project

- Mimic historic inflows with Headwater Revitalization Schedule (HRS)
- Restoration Evaluation Program 5 years post-HRS
 - Evaluate project success



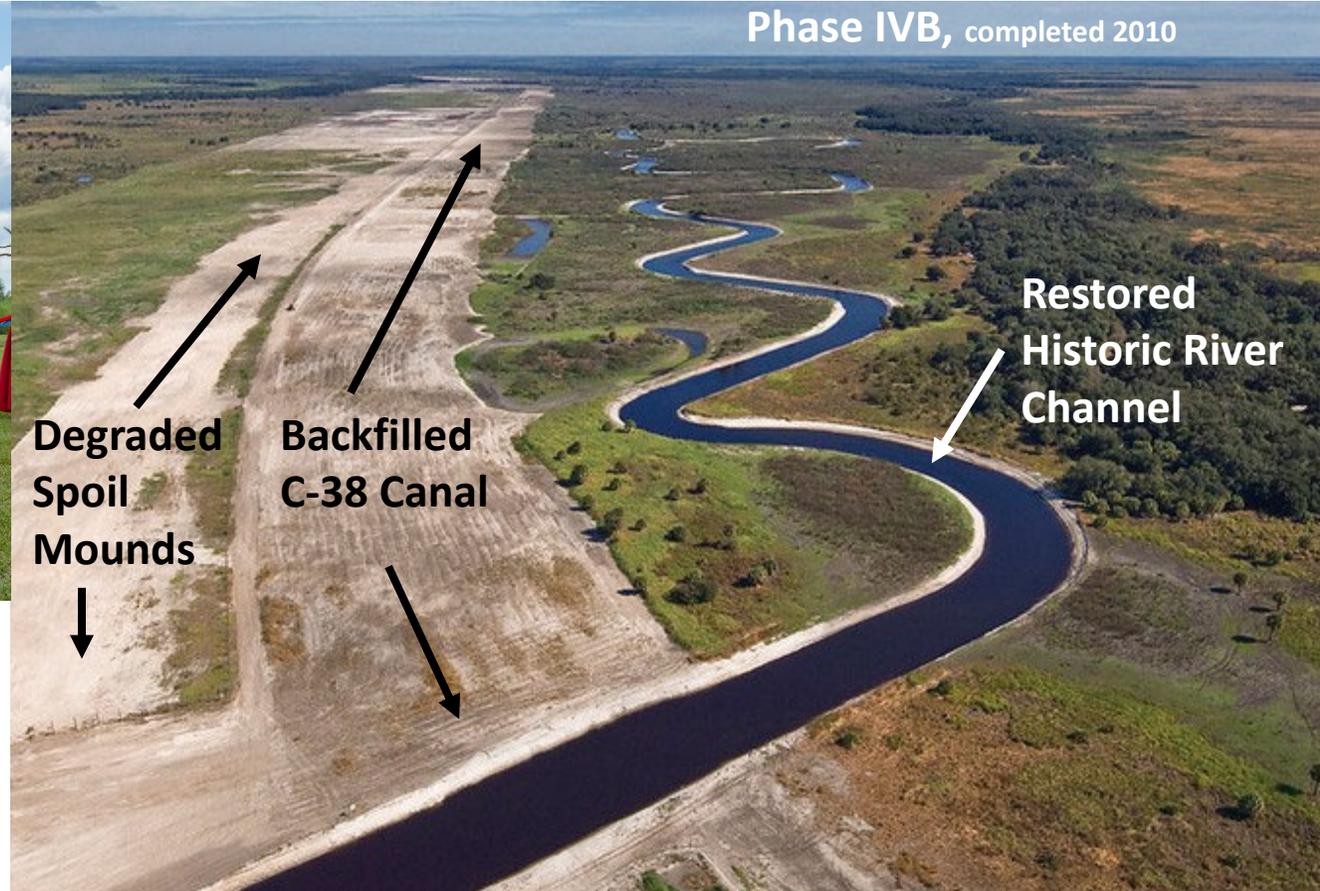
Presenter: Michael Cheek

Kissimmee River Restoration Project (anatomy of backfilling)



Kissimmee River Restoration Ribbon Cutting Ceremony

July 29, 2021, FAU's Riverwoods Field Lab



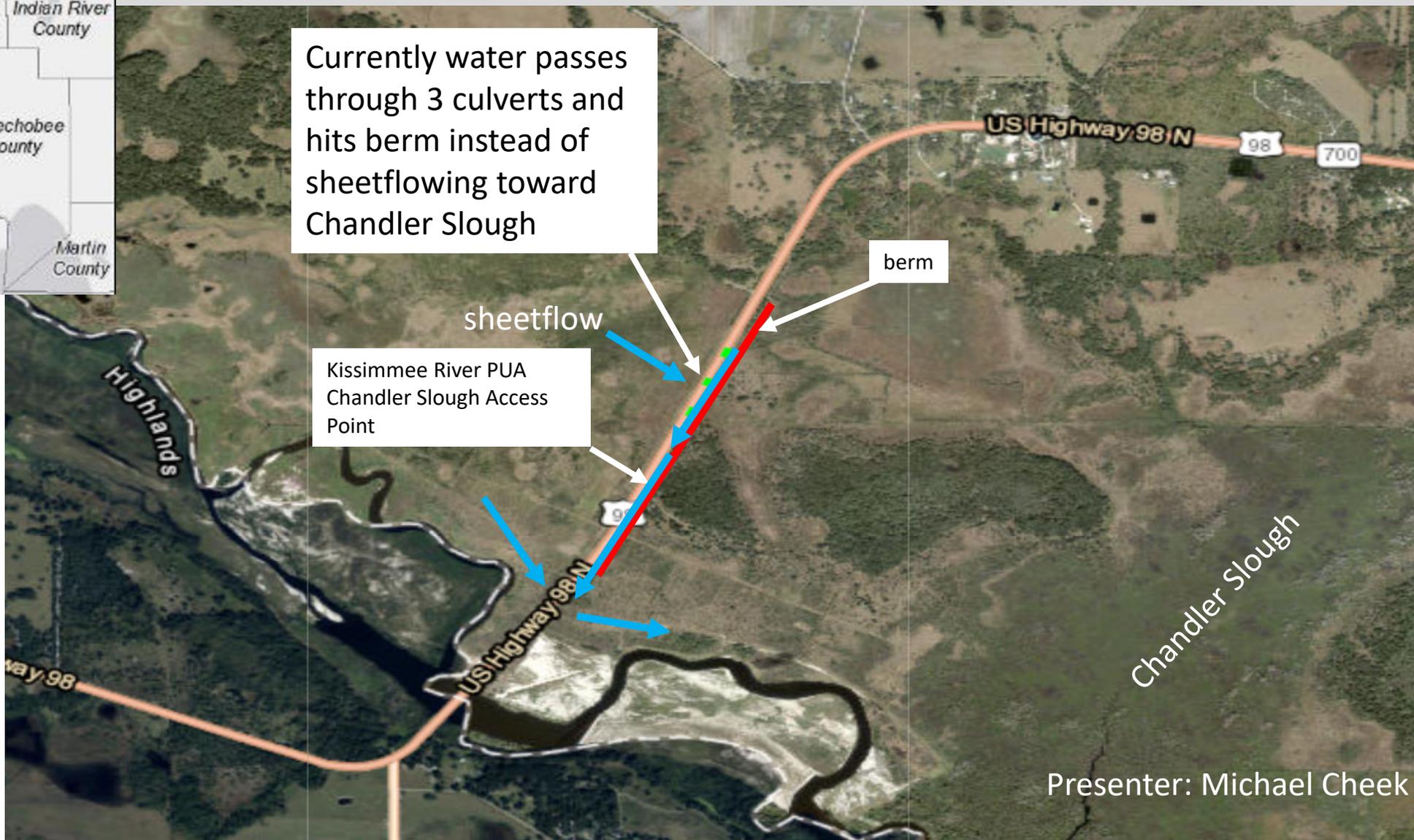
Celebrating USACE construction completion

- Backfilled 22 miles of C-38 canal
- Reconnected 40 miles of river channel
- Removed 2 water control structures

U.S. Hwy 98 Culvert Berm Gapping



Currently water passes through 3 culverts and hits berm instead of sheetflowing toward Chandler Slough



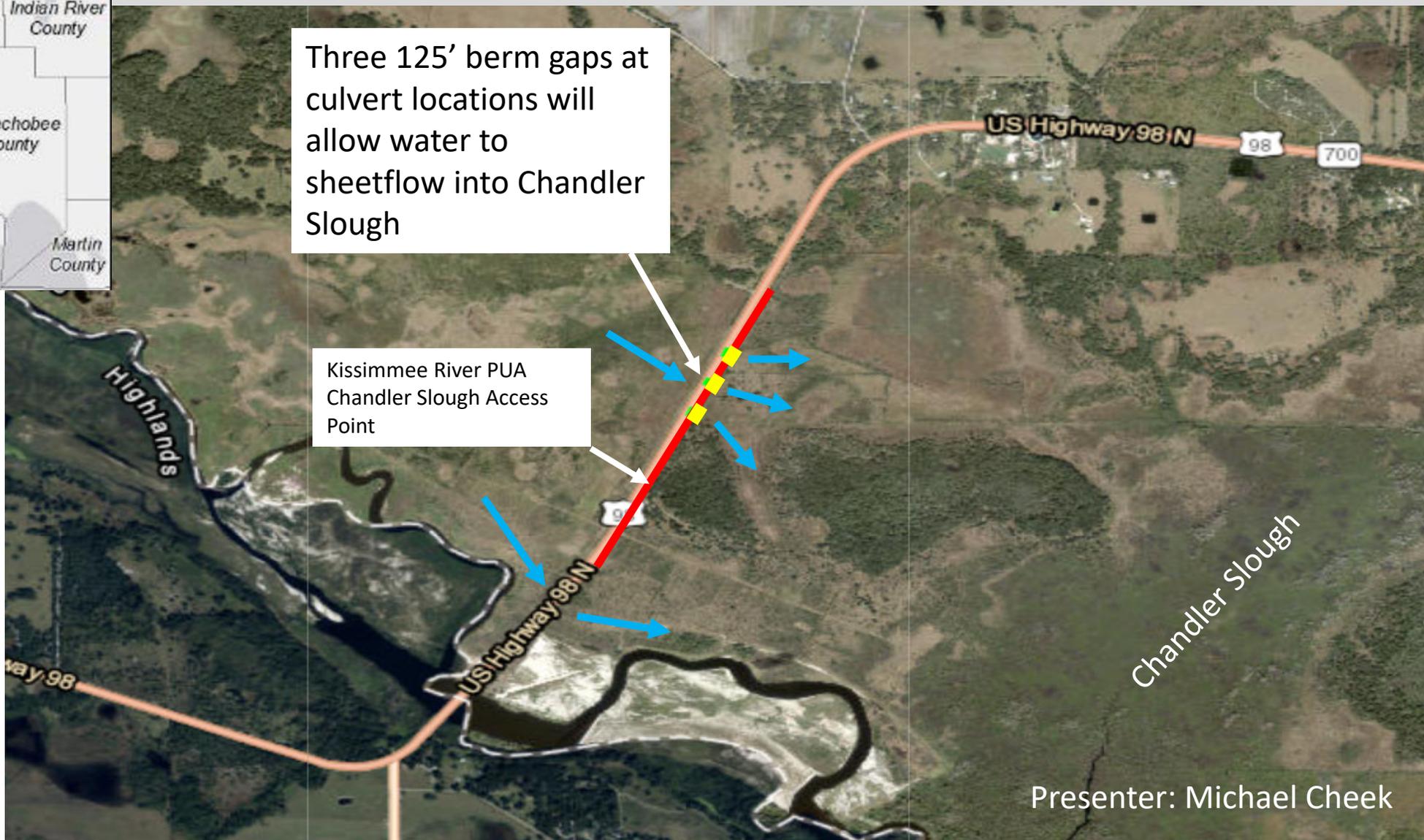
Presenter: Michael Cheek

U.S. Hwy 98 Culvert Berm Gapping

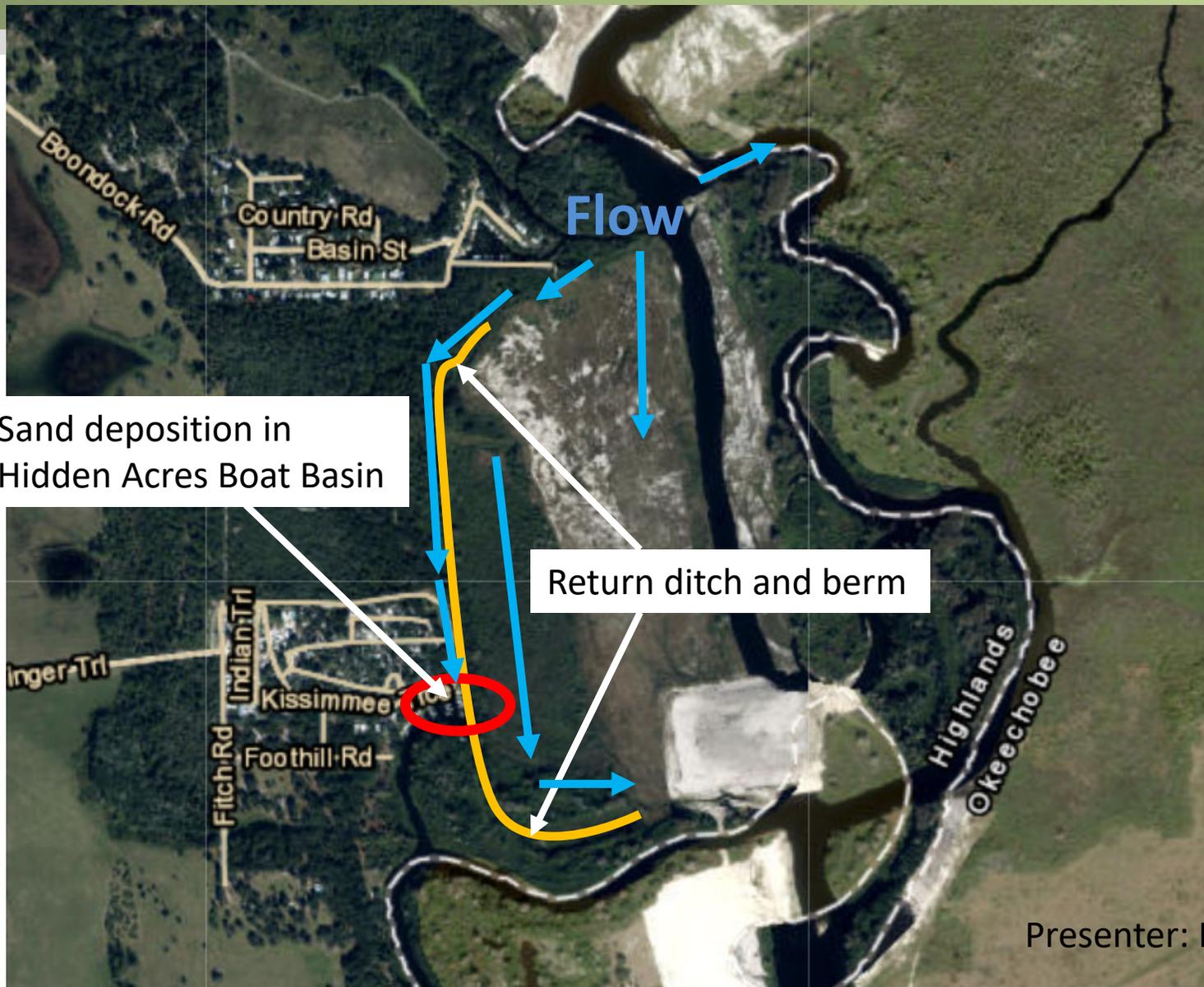


Three 125' berm gaps at culvert locations will allow water to sheetflow into Chandler Slough

Kissimmee River PUA
Chandler Slough Access Point



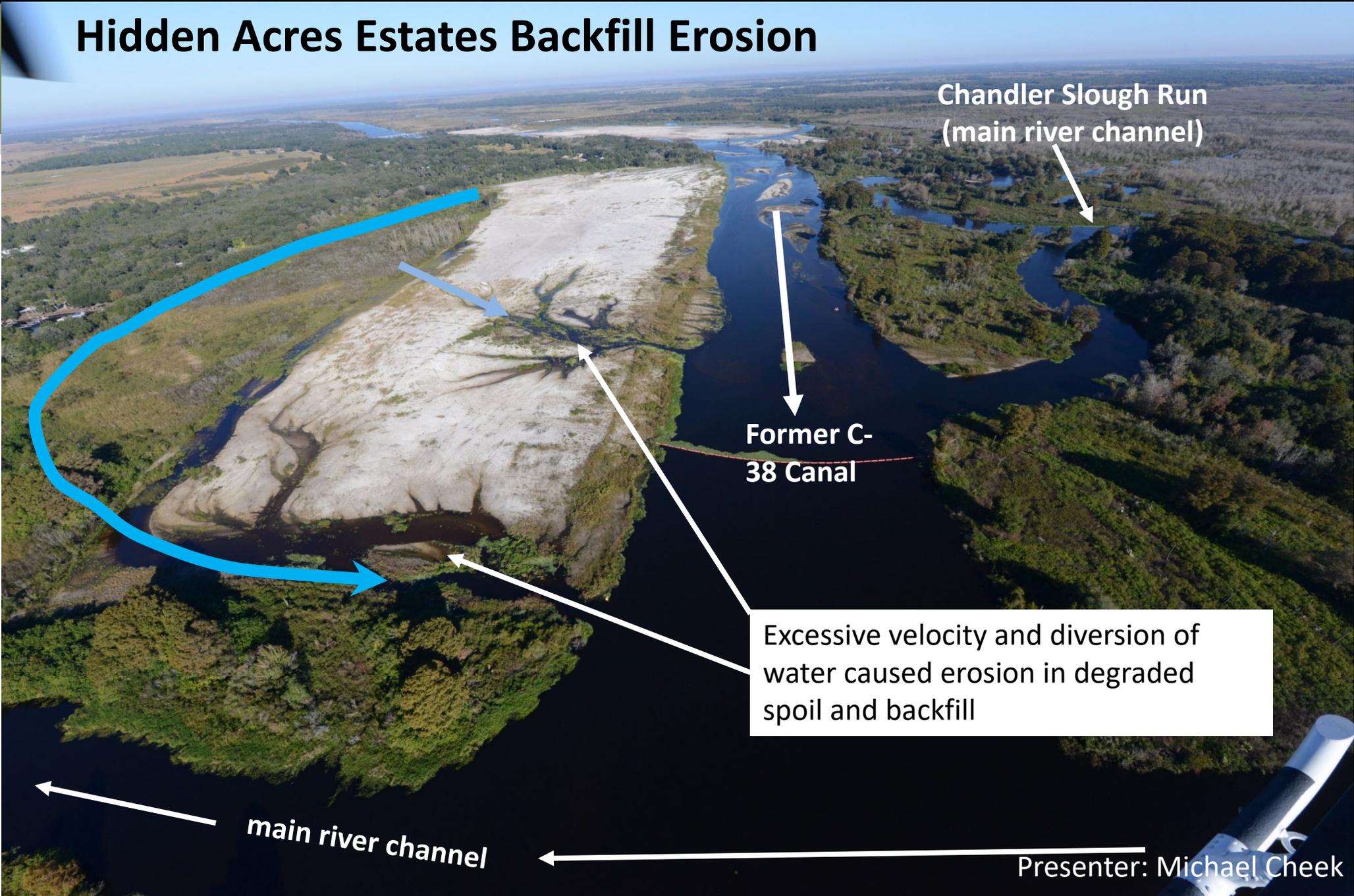
Hidden Acres Estates Ditch Plug and Berm Gapping

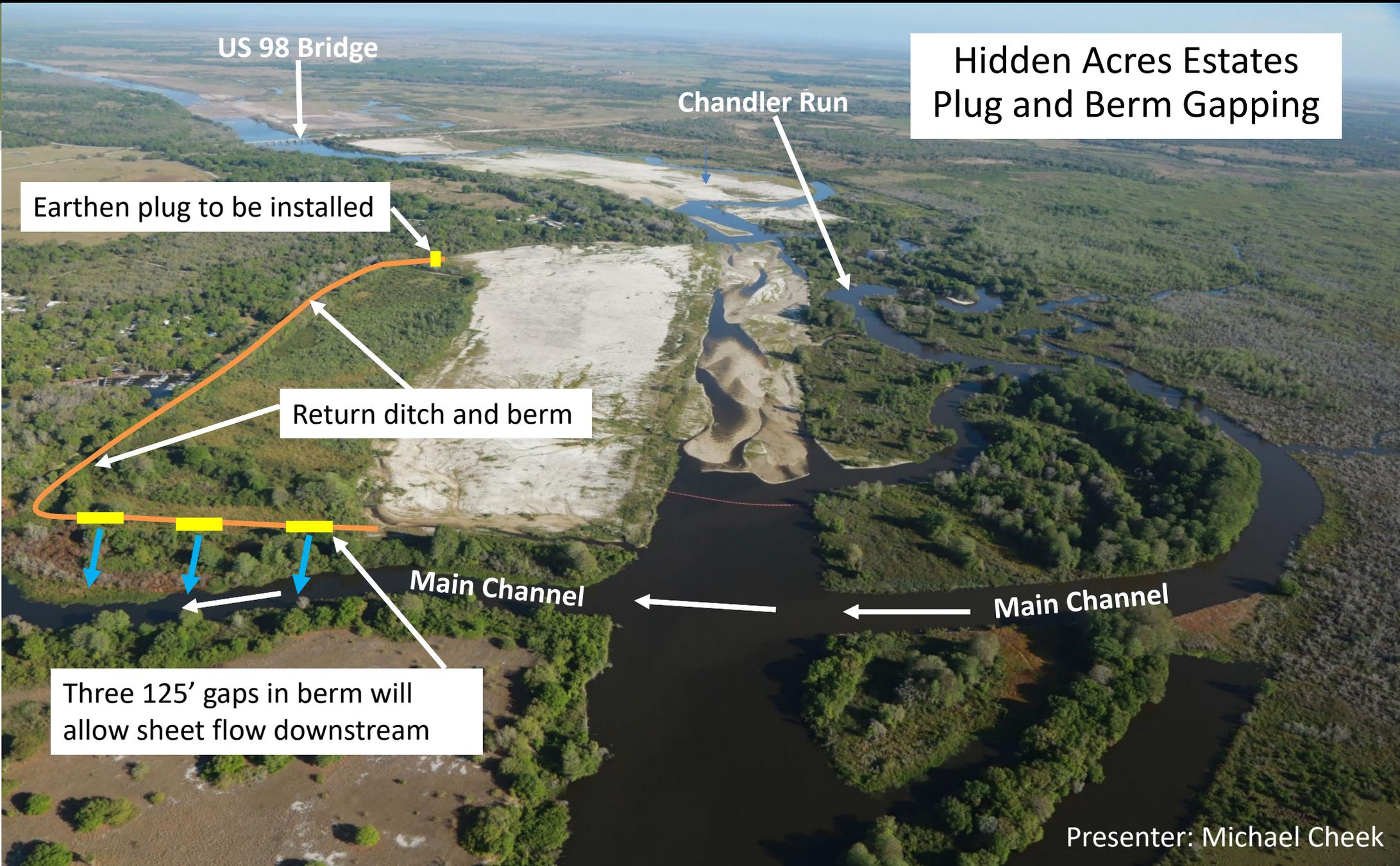


Sand deposition in Hidden Acres Boat Basin

Return ditch and berm

Hidden Acres Estates Backfill Erosion





Hidden Acres Estates
Plug and Berm Gapping

US 98 Bridge

Chandler Run

Earthen plug to be installed

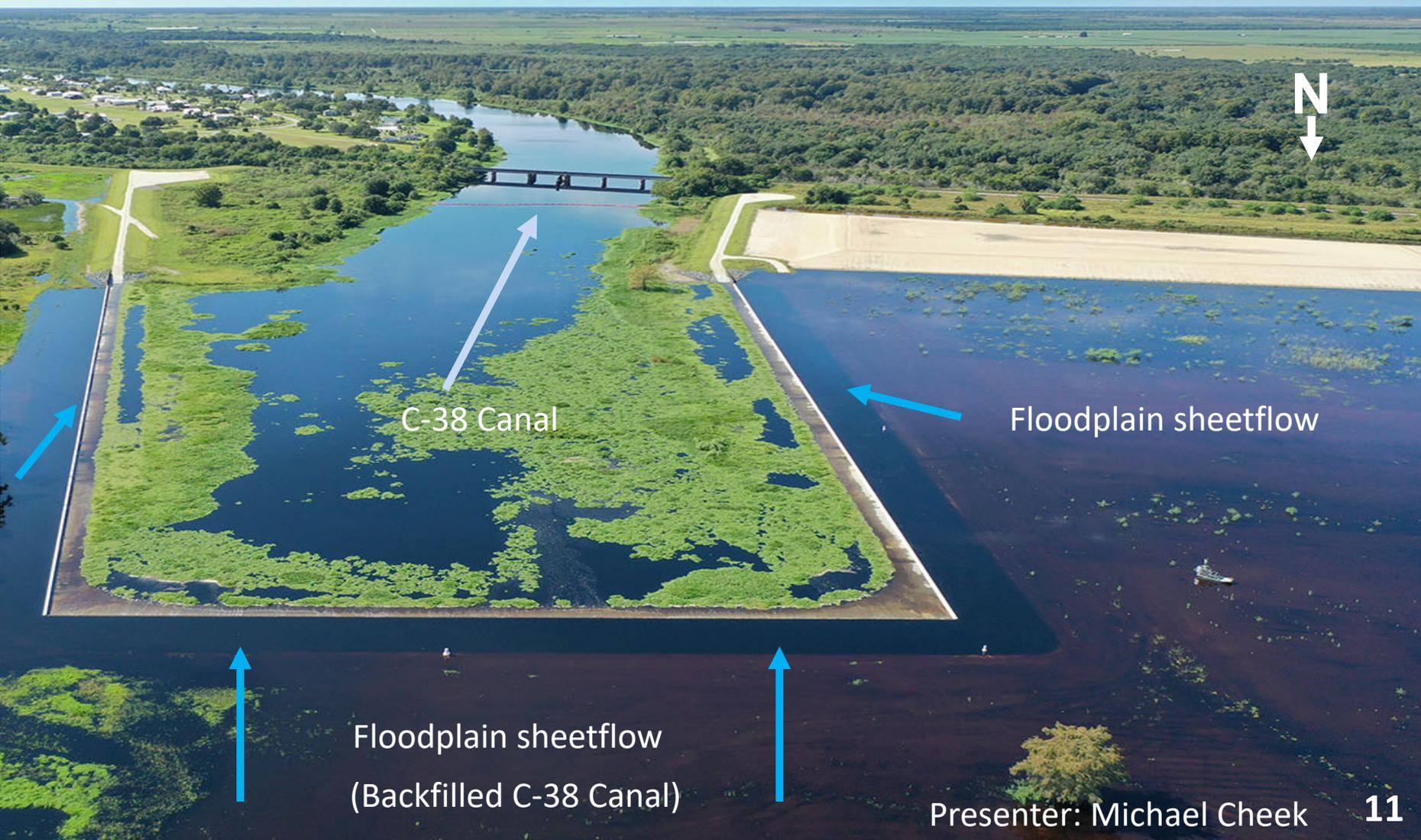
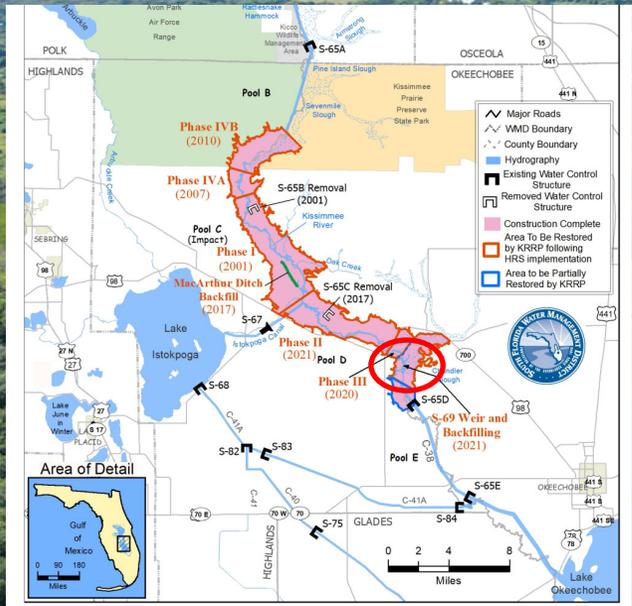
Return ditch and berm

Main Channel

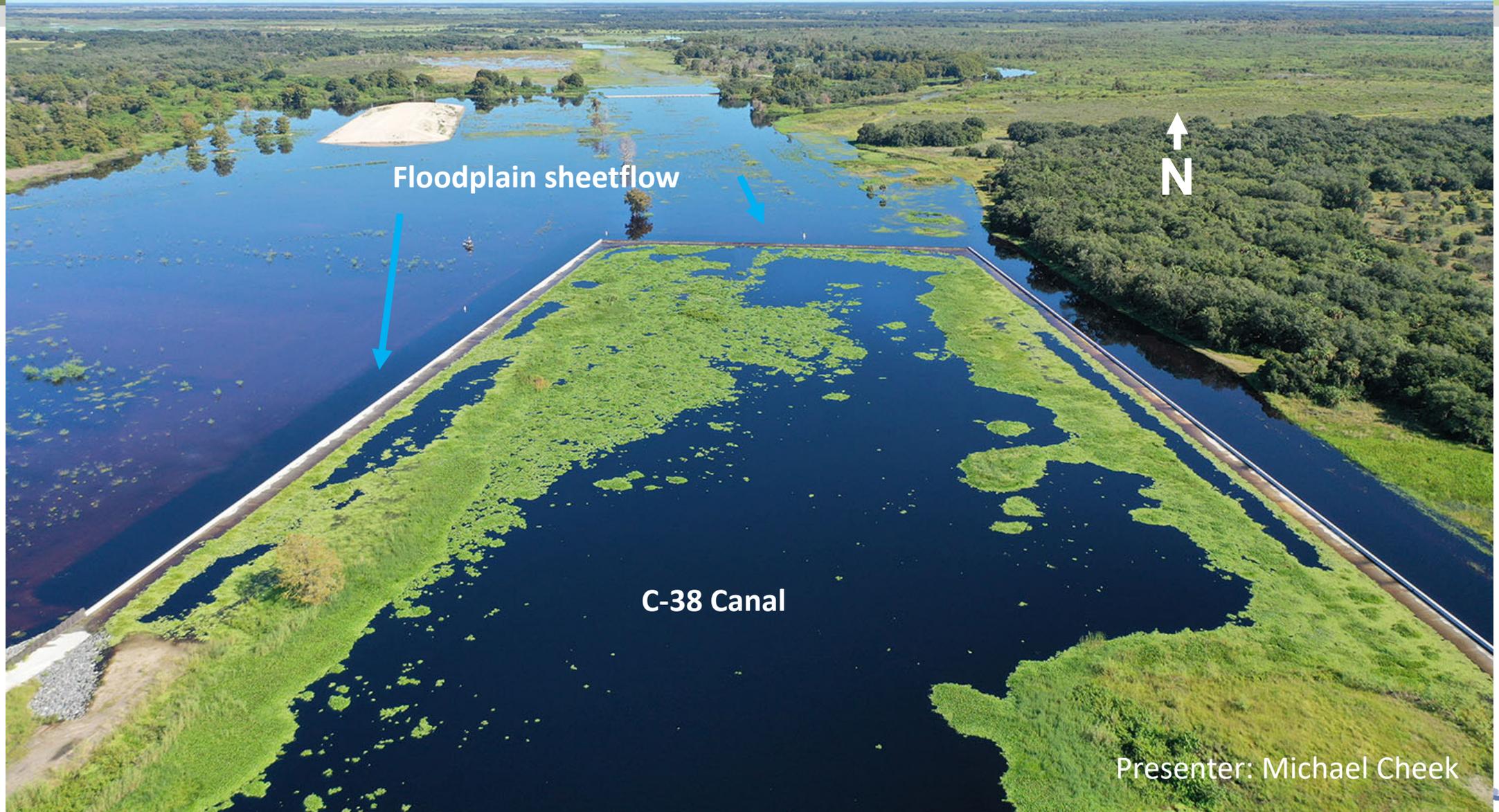
Main Channel

Three 125' gaps in berm will
allow sheet flow downstream

S-69 Weir: Downstream Terminus of C-38 Backfill



S-69 Weir: Downstream Terminus of C-38 Backfill

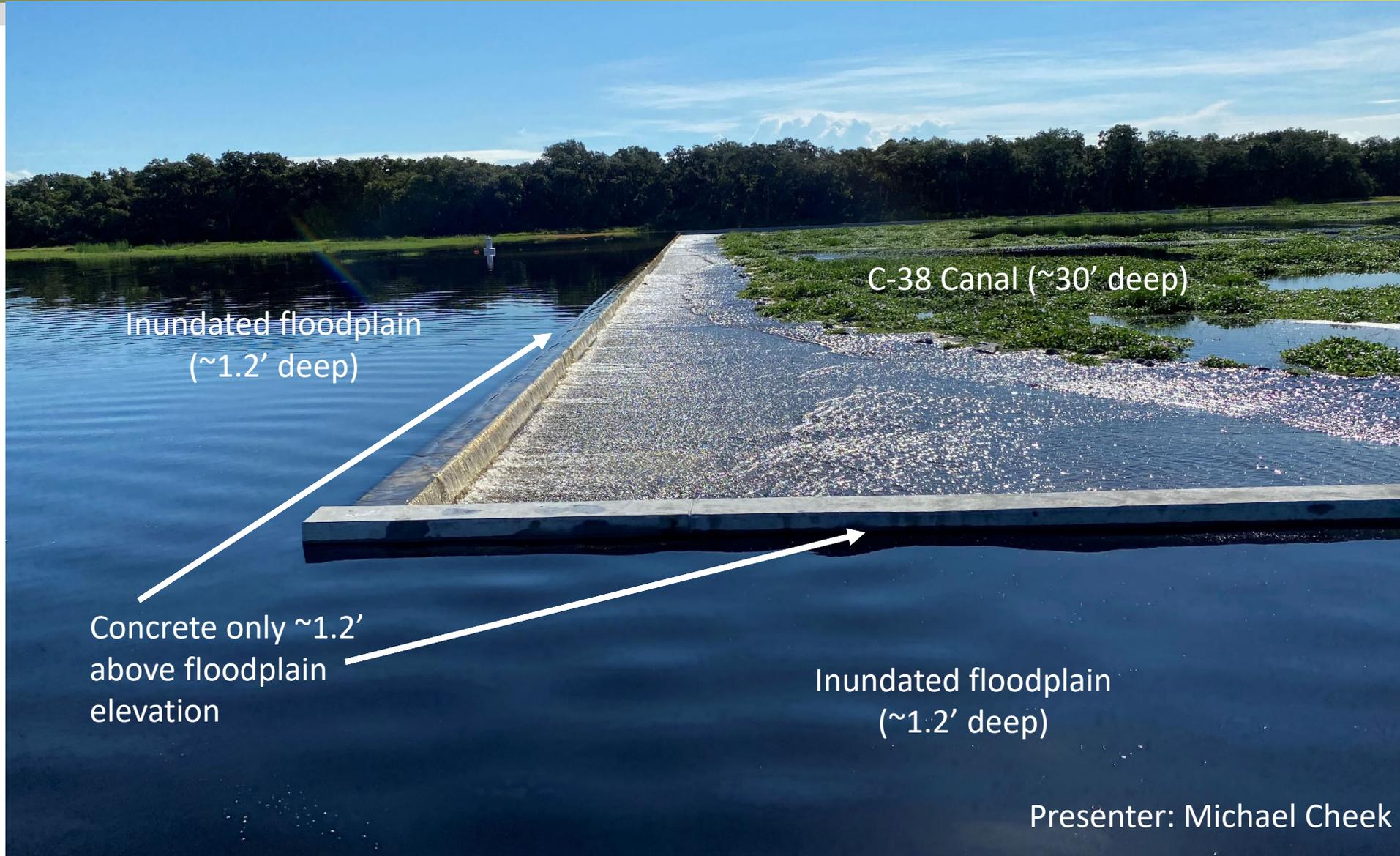


Floodplain sheetflow



C-38 Canal

S-69 Weir: Downstream Terminus of C-38 Backfill



S-69 Weir: Downstream Terminus of C-38 Backfill

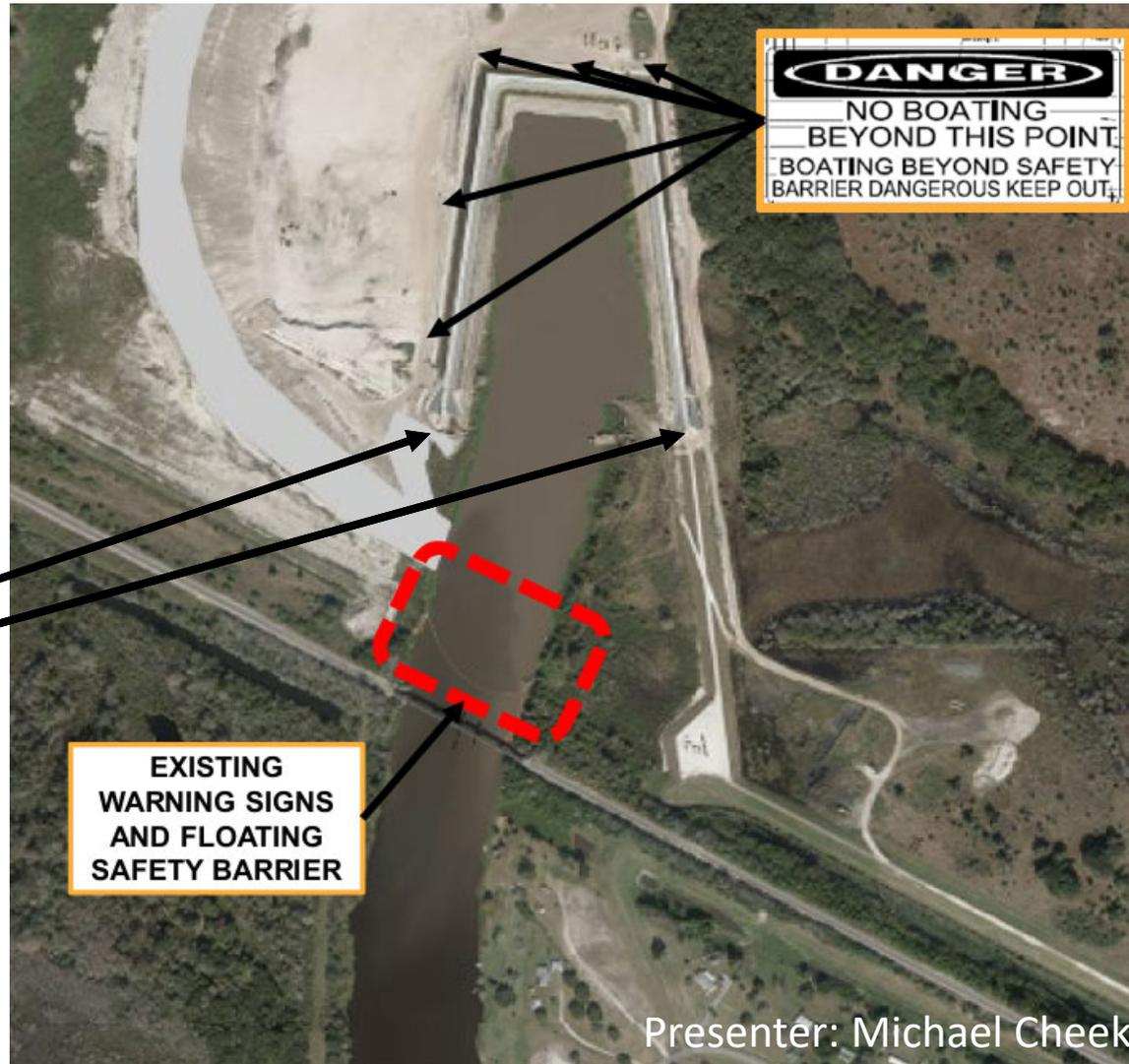


Presenter: Michael Cheek

S-69 Weir: USACE Navigation Signage Plan

- Install 5 navigation warning signs on 3 legs of the Weir

- Install 2 land-based warning signs on each end of the weir

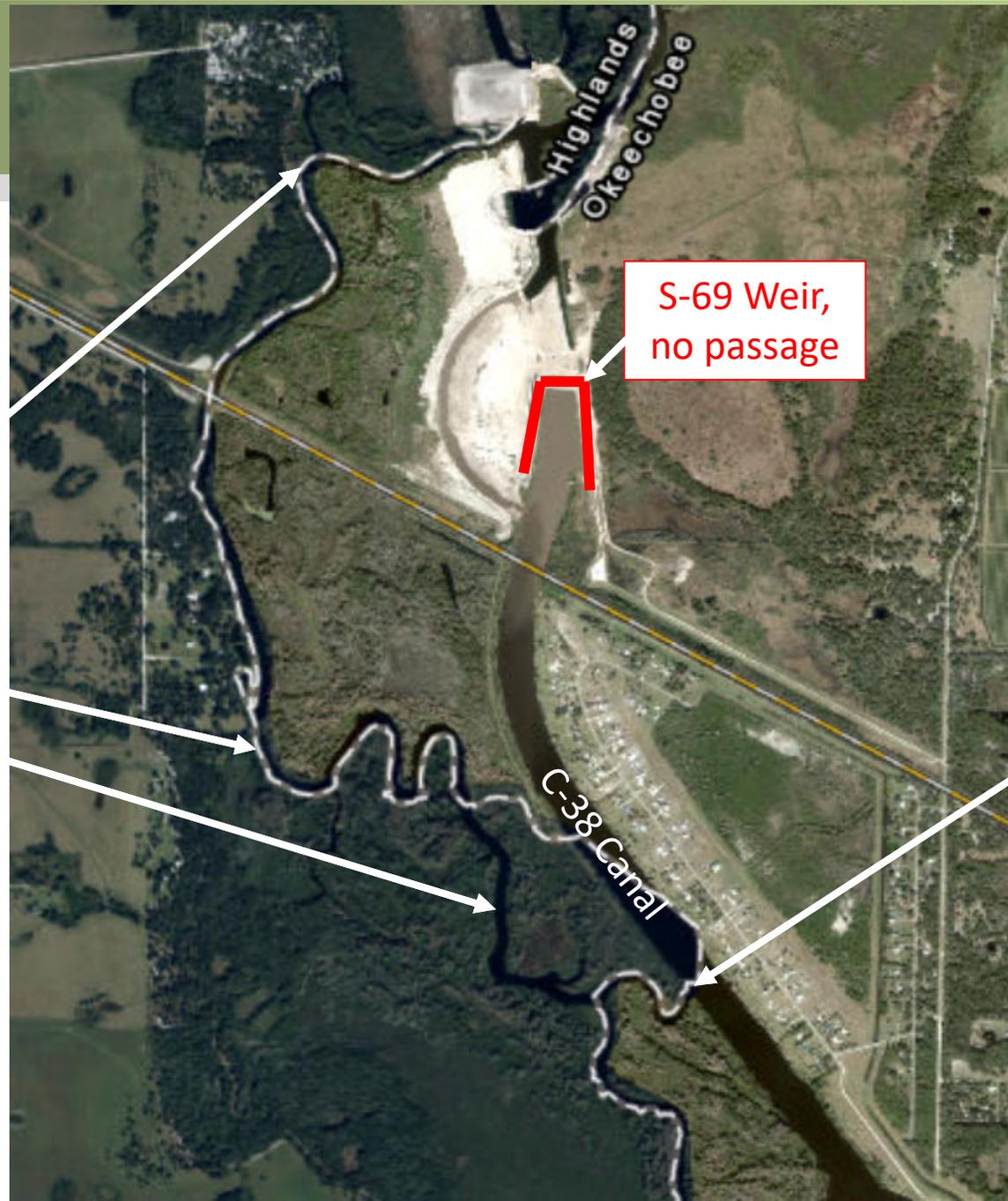


Presenter: Michael Cheek

S-69 Weir: Temporary Navigation Signage



S-69 Weir
Navigation
By-pass via
historic river
channel



S-69 Weir,
no passage

Main river
channel
entrance from
C-38 Canal

PHASE III HIGH WATER EVENT MAY 25, 2016, CAUSED SIGNIFICANT EROSION

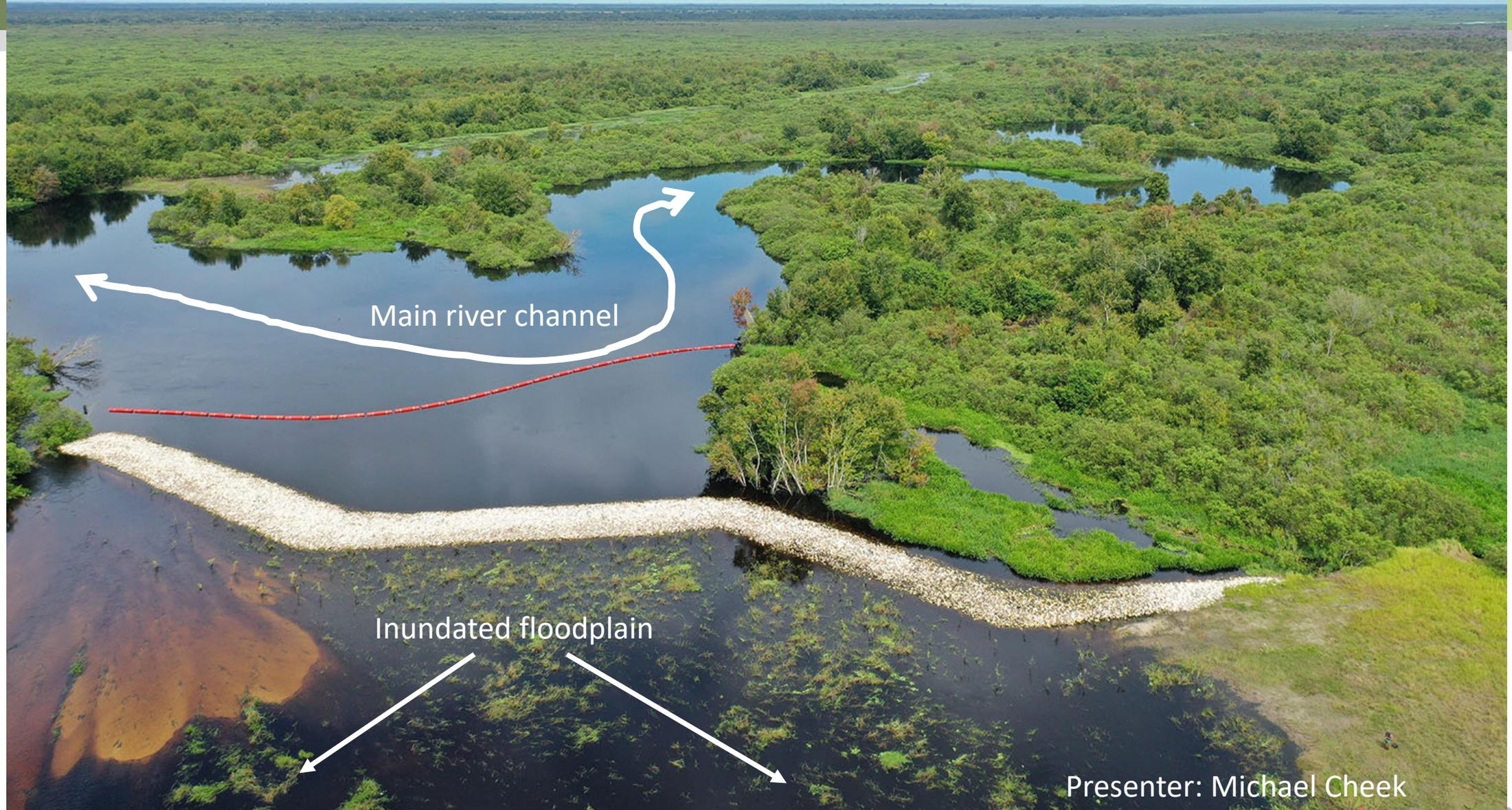
S-65C Discharge = 7,300 cfs



Backfill armoring with riprap (limestone rocks)



Backfill armoring with riprap (limestone rocks)

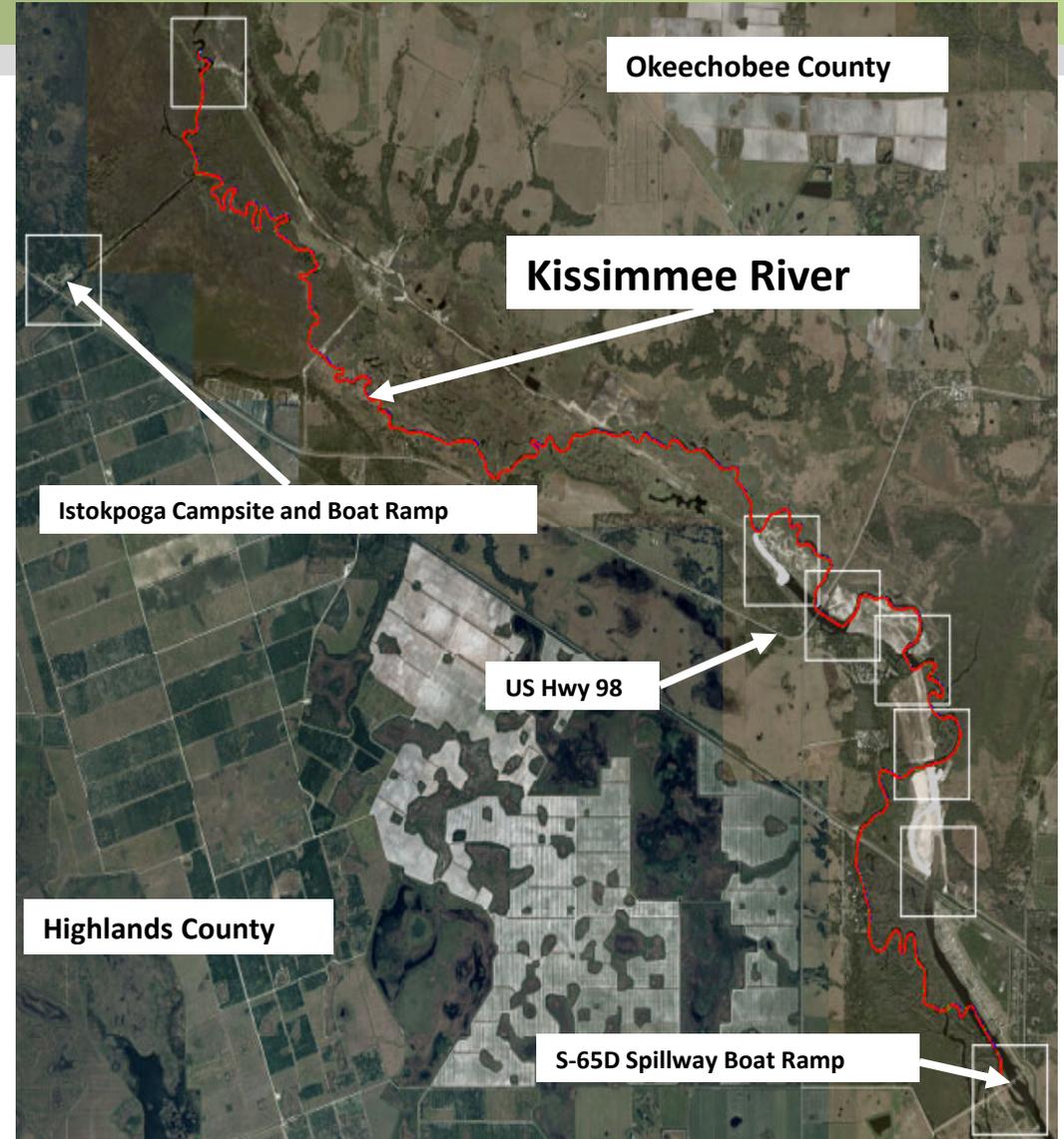
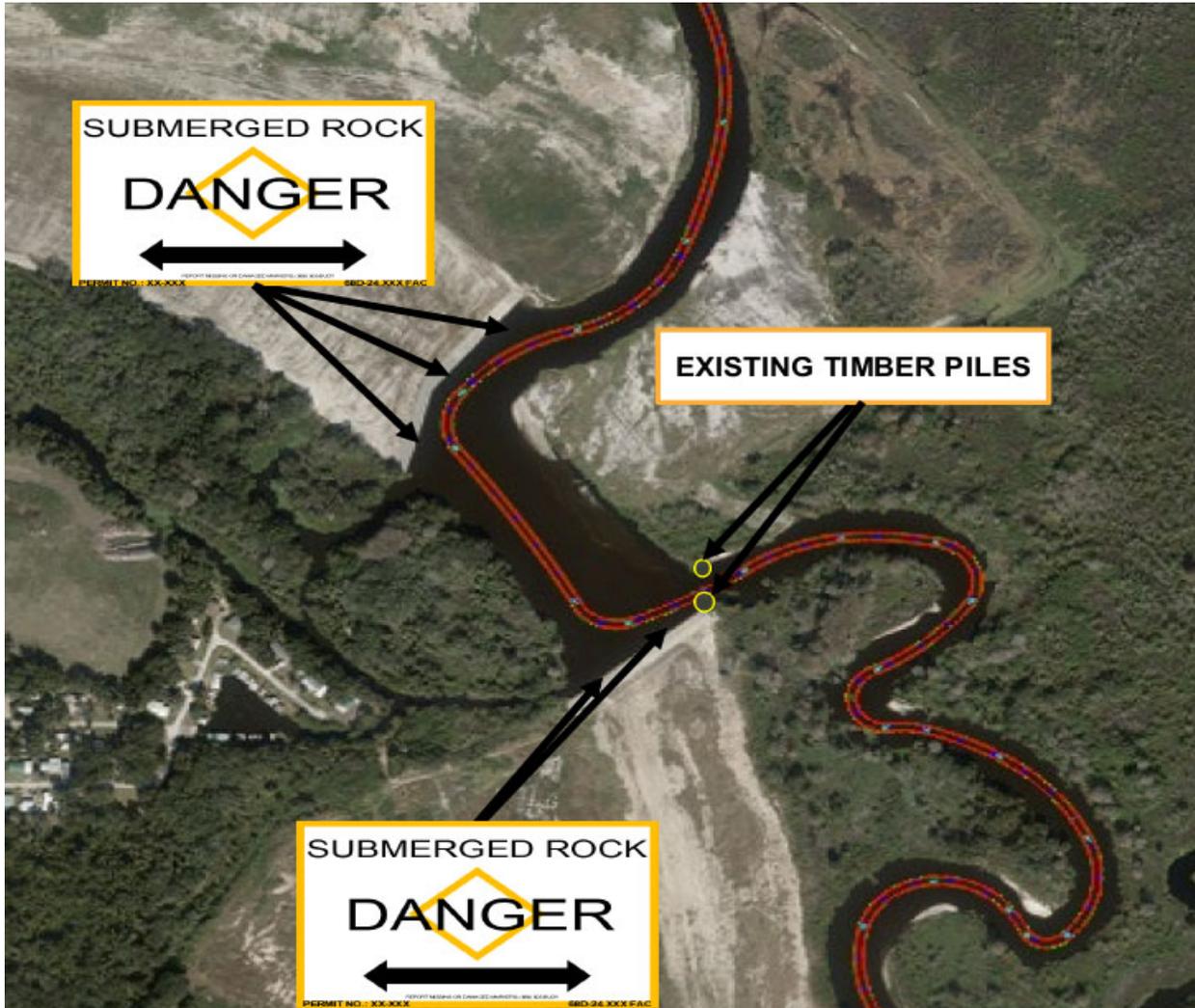


Main river channel

Inundated floodplain

Presenter: Michael Cheek

USACE Navigation Signage Plan at Riprap Crossovers



Kissimmee River Navigation Signage at Crossovers with Riprap (USACE Contractor)



APPROACH FOR THE KISSIMMEE RIVER RESTORATION PROJECT

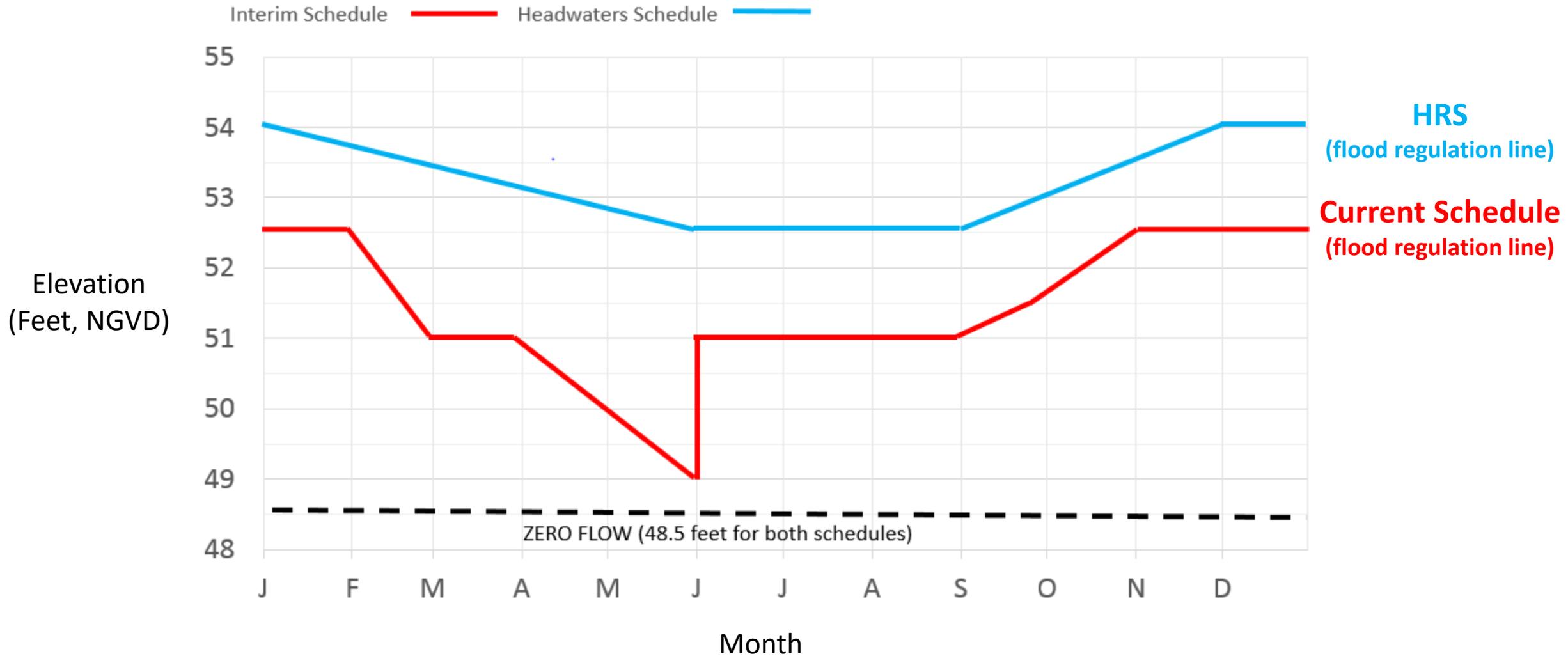
Reconnect, reconstruct physical form of the river (Backfilling C-38 canal and degrading) **COMPLETED 2021!**

Modify headwater inflows to mimic historical patterns (Headwaters Revitalization Schedule)

Restoration of ecological integrity to central region of the Kissimmee River

23

KISSIMMEE RIVER HYDROLOGICAL RESTORATION INTERIM VS. HEADWATERS REVITALIZATION SCHEDULE @ S65 (LAKES KISS-CYP-HATCH)

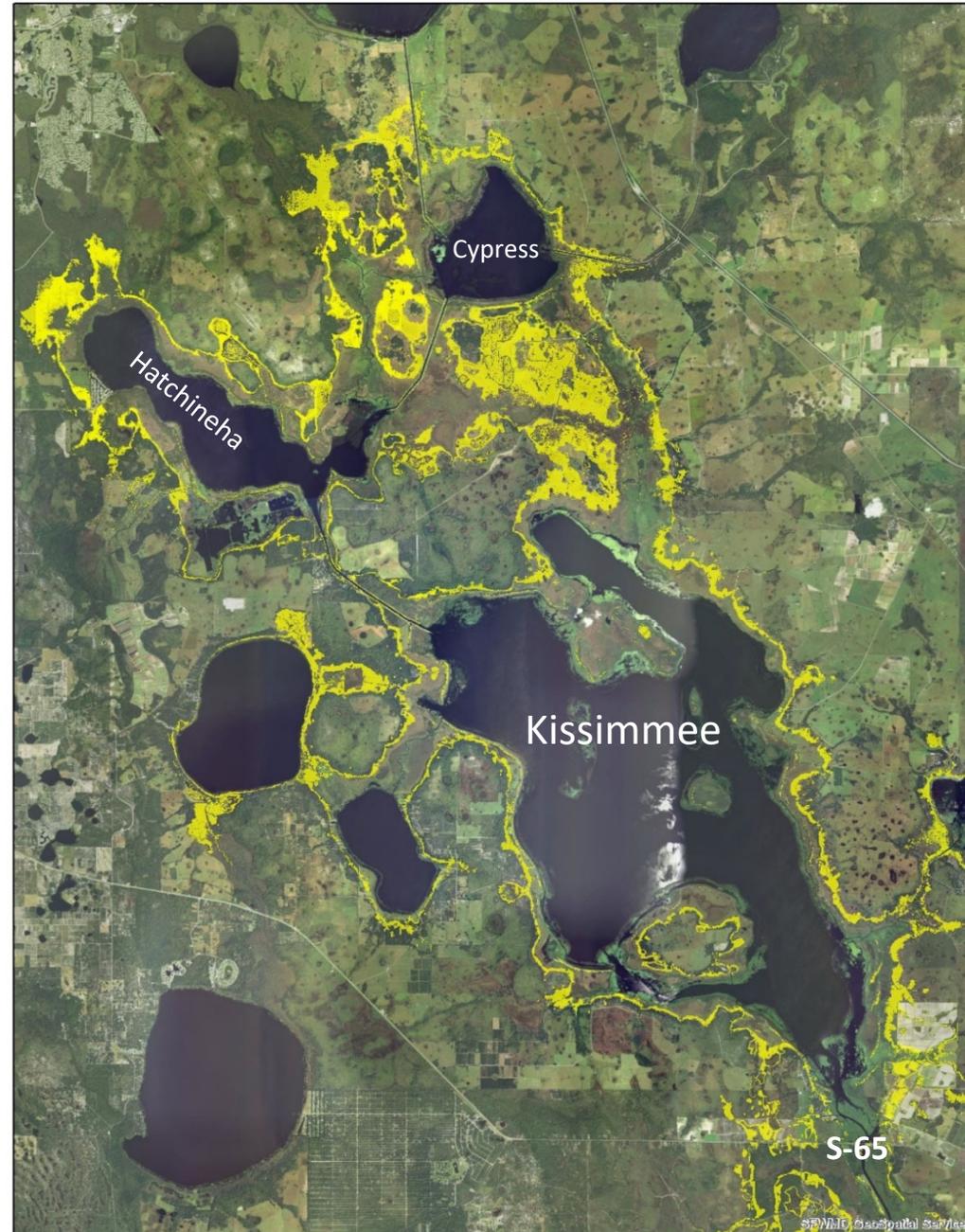


Headwaters Revitalization Schedule

(elevation of flood regulation line)

52.5' vs. 54.0'

(up to 100,000 acre
feet of additional
storage)

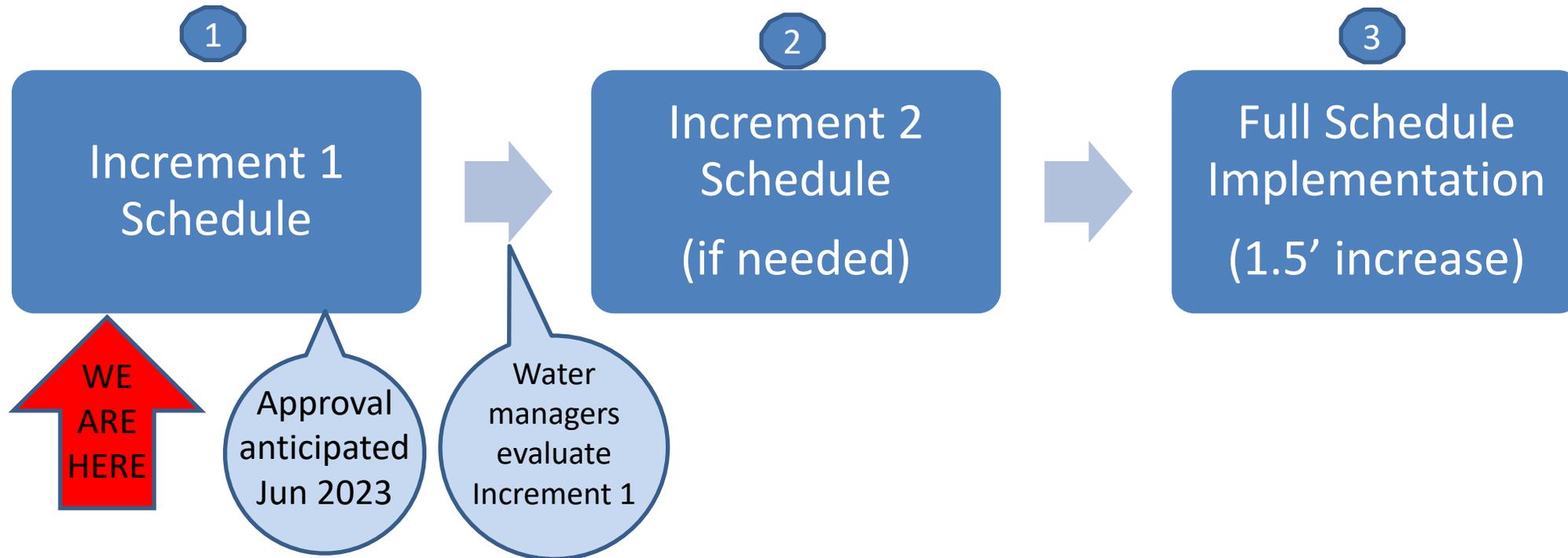


Presenter: Michael Cheek

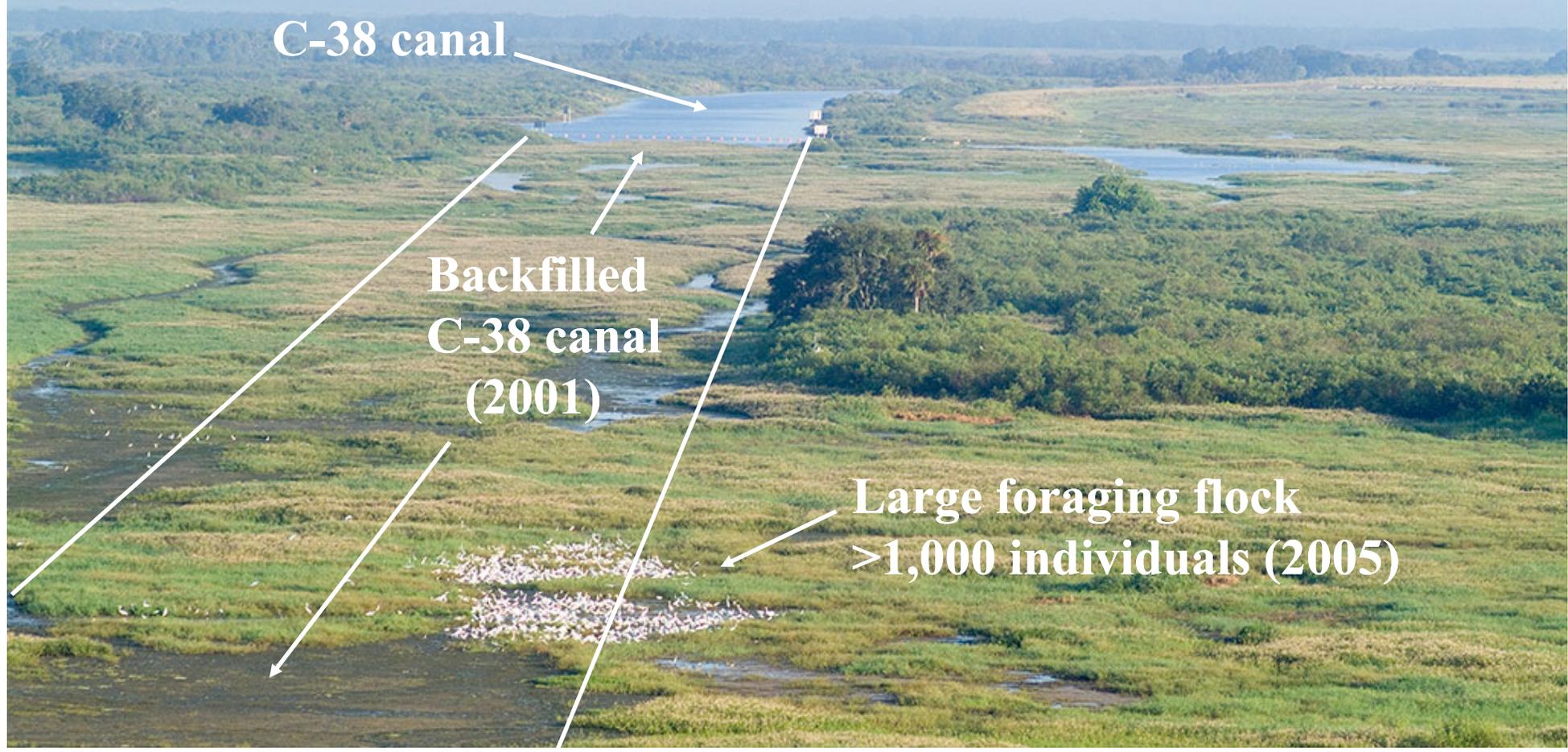
25

Headwater Revitalization Schedule (HRS): A Phased Approach

Overview of Phased Implementation of HRS



Kissimmee River Restoration Project (Phase I Area)



C-38 canal

Backfilled
C-38 canal
(2001)

Large foraging flock
>1,000 individuals (2005)

PRESCRIBED FIRE HAS BEEN REINTRODUCED TO THE FLOODPLAIN

MARCH 3, 2022 STARVATION SLOUGH, 1,200 ACS



PRESCRIBED FIRE HAS BEEN REINTRODUCED TO THE FLOODPLAIN

MARCH 3, 2022 STARVATION SLOUGH, 1,200 ACS



LONG-TERM GOAL IS TO INCREASE ACREAGE OF
BROADLEAF MARSH AND WET PRAIRIE “HEMI-MARSH”
(PHASE I BACKFILL 2002)



Long-term Ecological Response to Kissimmee River Restoration

Success still dependent upon:

- **Implementation of Headwaters Revitalization Schedule (HRS)**
- **Adaptive Management of Hydrology**
- **Land Management Practices (Prescribed Fire, nuisance and exotic vegetation treatments, roller-chopping, etc.)**

Public Scoping Comments on a Temporary Deviation from the Lake Kissimmee Interim Regulation Schedule

- **USACE Link:** <https://www.saj.usace.army.mil/Media/News-Releases/Article/3149453/corps-requests-public-scoping-comments-on-a-temporary-deviation-from-the-lake-k/>
- **Submit scoping comments on HRS deviation to:** Richard.A.Skinker@usace.army.mil , not later than October 7, 2022, and include “HRS Deviation Comments” in the subject line

QUESTIONS?

Zoom:

- If you're participating via Zoom – use the Raise Hand feature

Phone:

- If you're participating via Phone –
 - *9 Raises Hand
 - *6 Mutes/Unmutes

THANK YOU!

Presenter: Michael Cheek



Public Use Project Updates

Recreational Forum

September 19, 2022

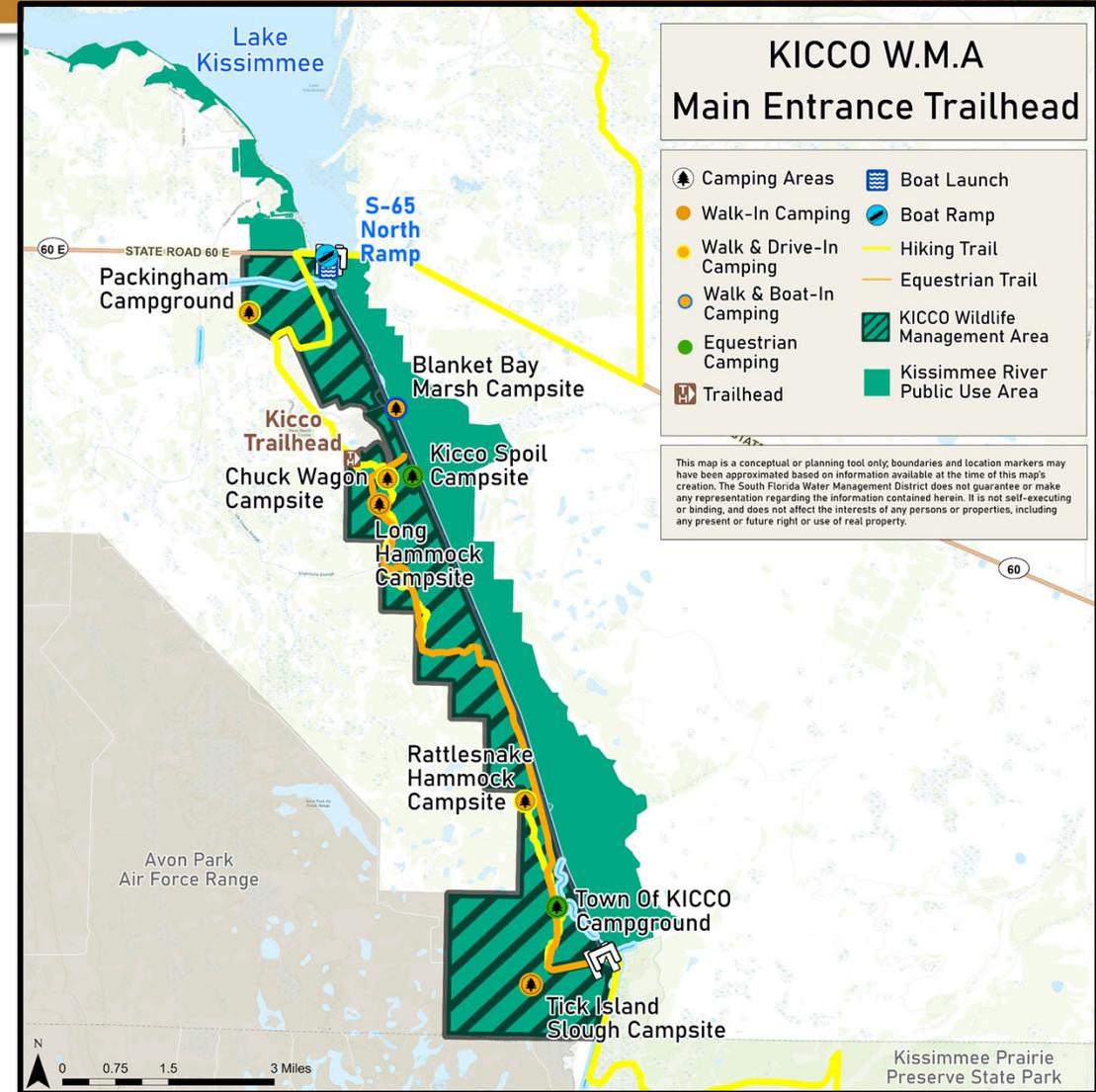
Dan Cotter
SFWMD, Land Stewardship Section





Horseback Riding & Camping Areas

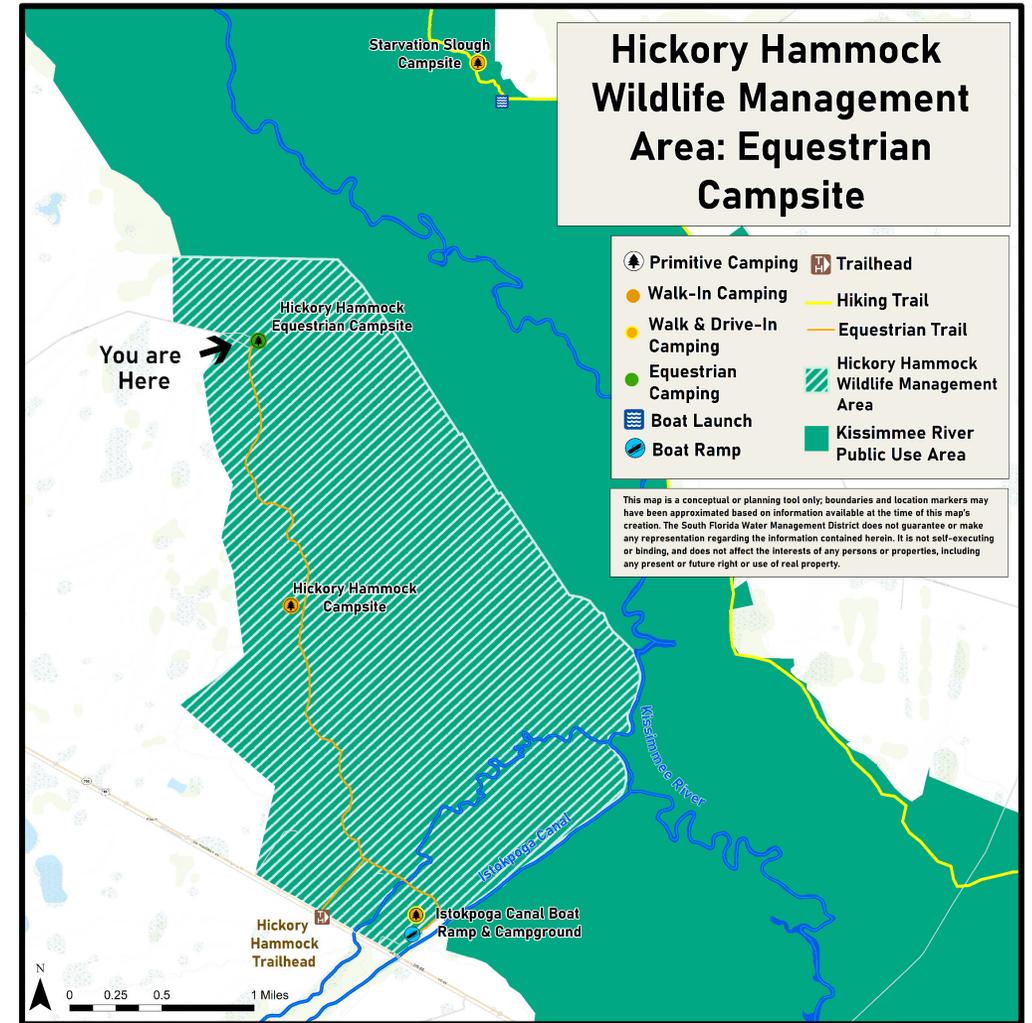
- KICCO Mgt. Area: 3,791 acres, located in Polk & Osceola Counties
 - 2 Primitive Equestrian Campground Areas
 - Picnic tables, fire rings, and over 12 miles of equestrian trails.





Horseback Riding & Camping Areas

- Hickory Hammock Mgt. Area: 3,791 acres, located in Highlands County
 - Equestrian Campground
 - Barn, campground amenities, and over 6 miles of equestrian trails.





Horseback Riding & Camping Areas

- DuPuis Mgt. Area: 21,935 acres, located in Martin and Palm Beach Counties
 - Equestrian Campground
 - Barns, paddocks, and campground amenities.

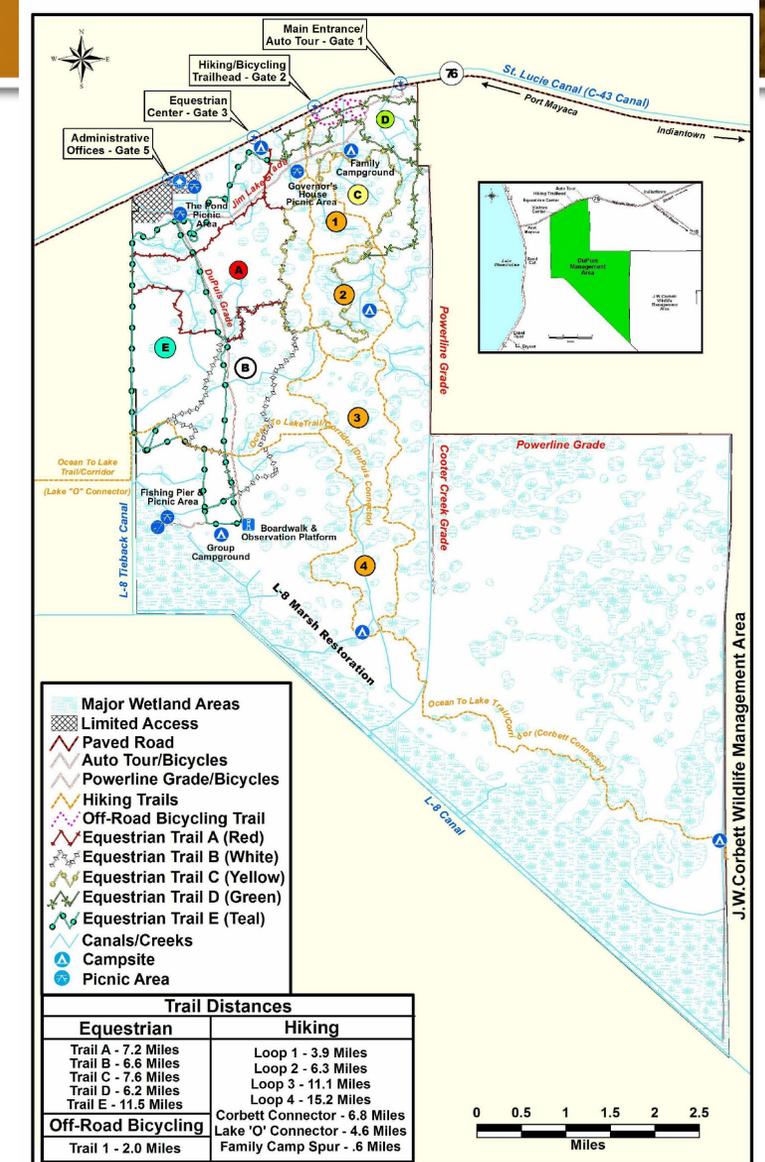




Horseback Riding & Camping Areas

➤ DuPuis Mgt. Area:

- Over 40 miles of equestrian trails.



Restroom/Shower Facility



Horseback Riding & Camping Areas

➤ The District's Equestrian Campgrounds:

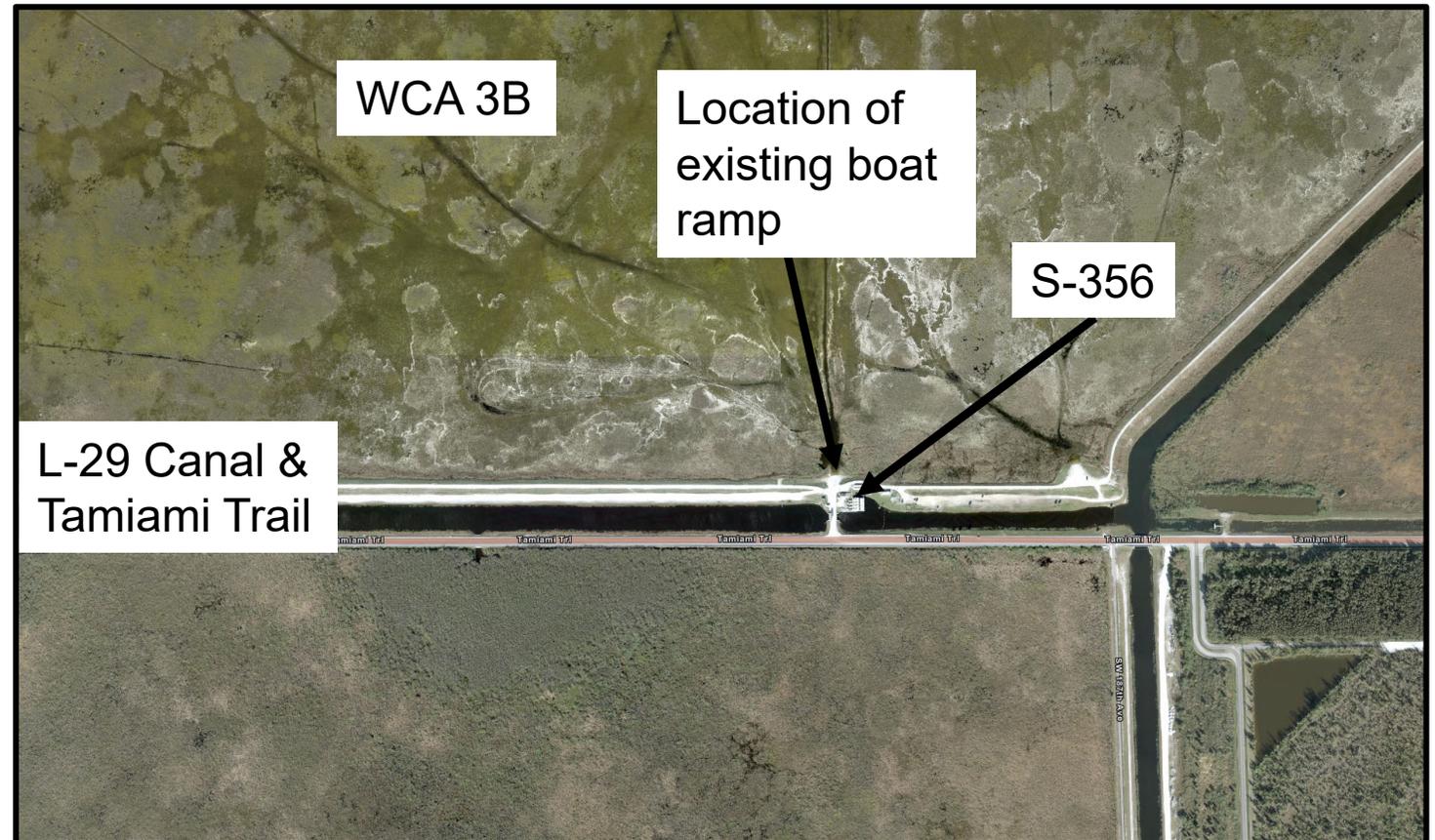
- Camping areas are available on a first-come first-serve basis.
- These areas also provide for day-use horseback riding.
- A no-cost Special Use License is required, this can be obtained on the District's website at:
www.sfwmd.gov/recreation





S-356 Airboat Ramp

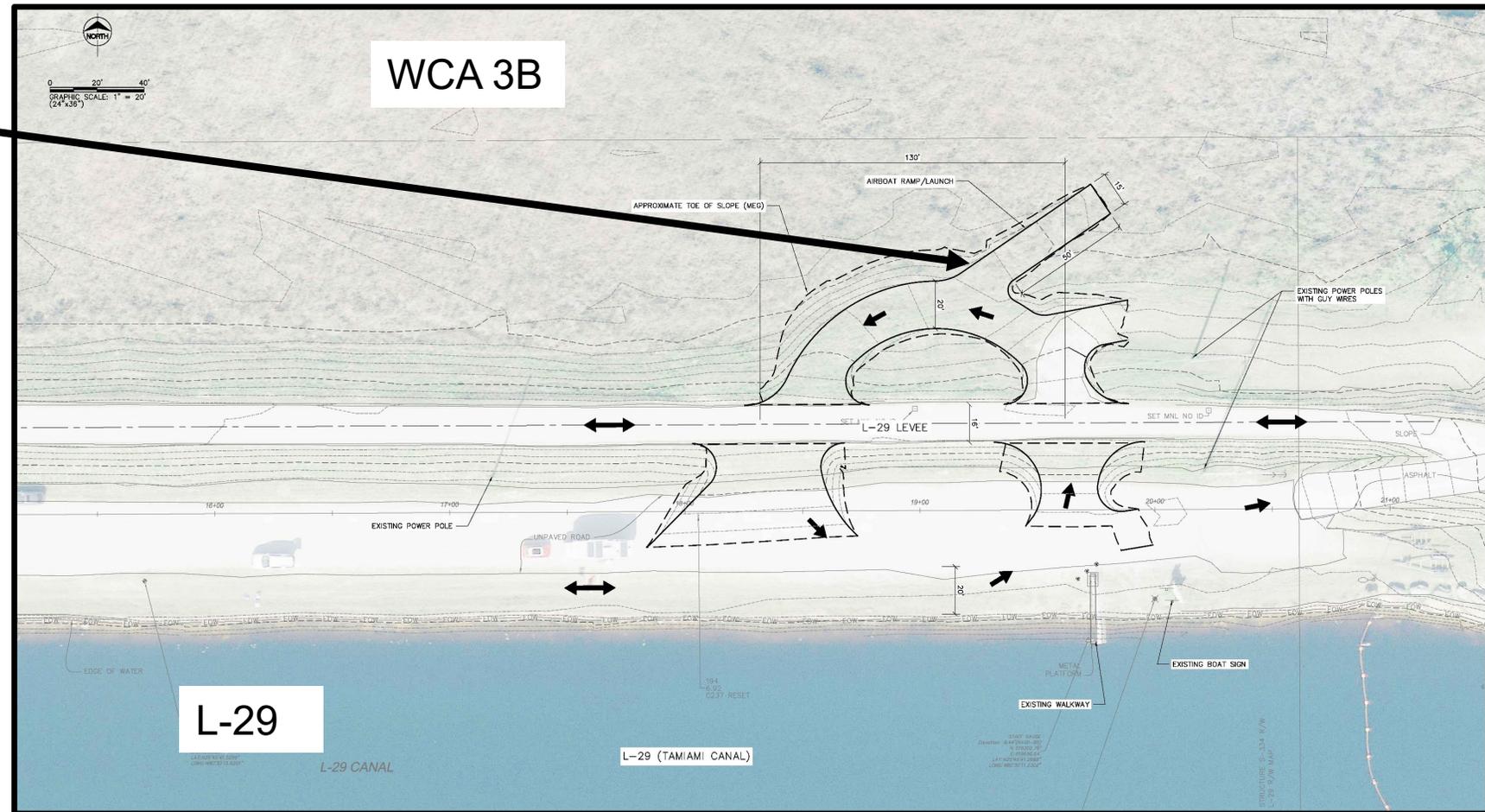
- S-356 located in Miami-Dade
 - Structure to be replaced and construction projected to begin in mid-2023.
 - During construction existing airboat ramp into WCA 3B will be temporarily closed.





S-356 Airboat Ramp

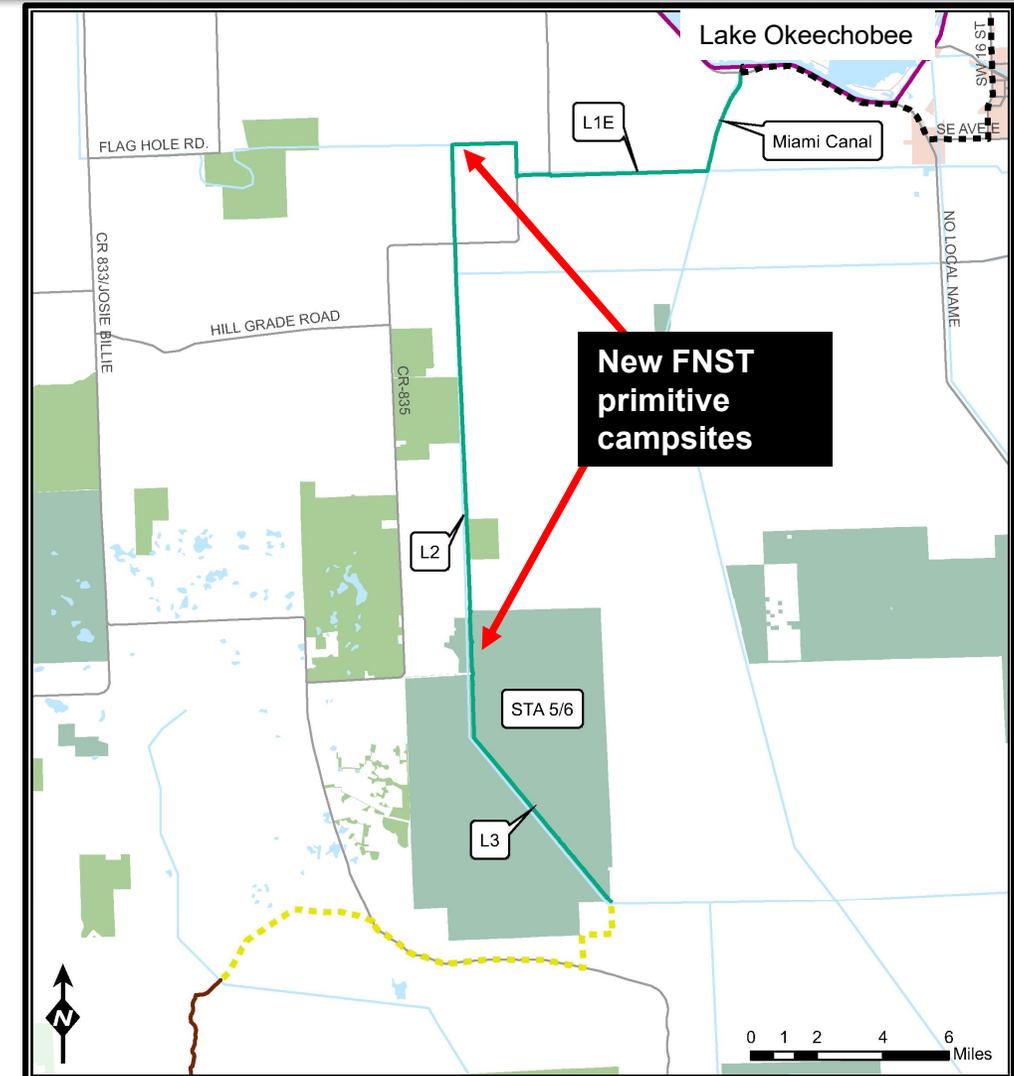
- New proposed airboat ramp to be constructed by the District
- Boat ramp tentatively projected to be completed and open to the public during construction of the new S-356.





Florida Trail Hiking Campsites

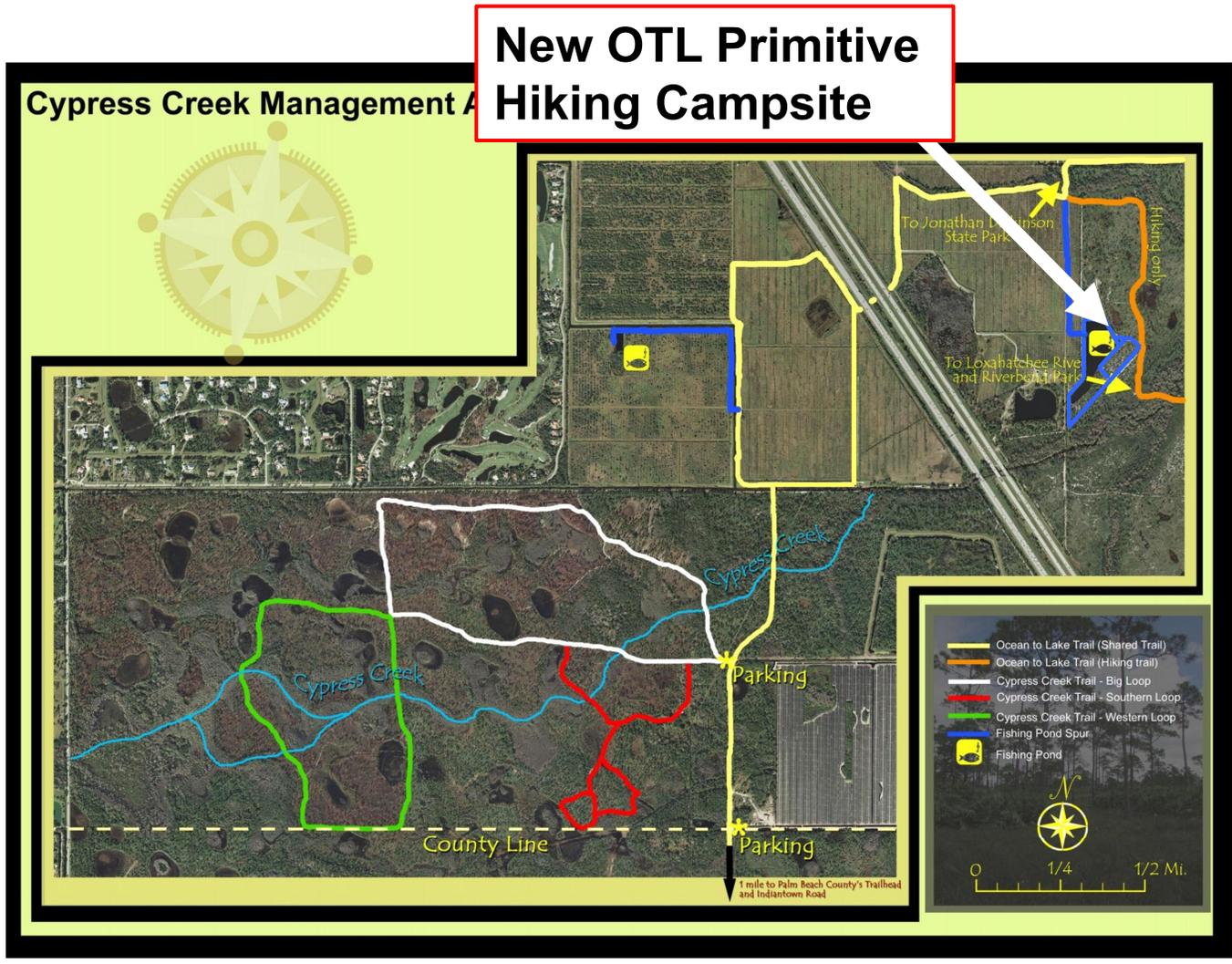
- Two new primitive campsites to be added to the Florida National Scenic Trail (FNST)
 - For the purpose of backpacking along the FNST.
 - Locations:
 - Adjacent to the L-1E levee.
 - Within public use area at STA 5/6 levee.





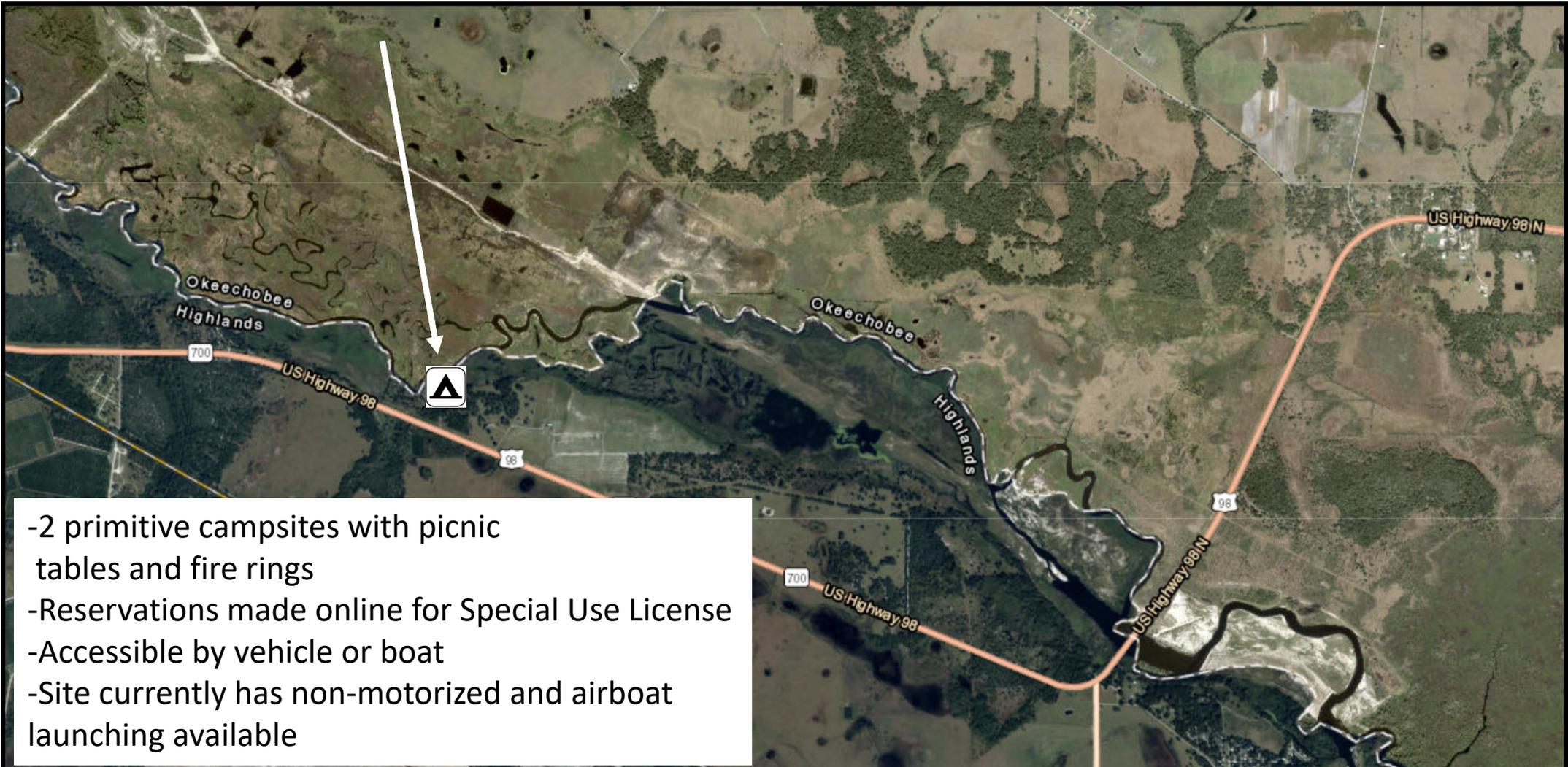
Ocean to Lake Trail Hiking Campsite

- New primitive campsite added to the Ocean to Lake trail located in the Cypress Creek Mgt. Area in Martin County
 - For the purpose of backpacking along the trail which extends from lake Okeechobee to Jonathan Dickson State Park.





Kissimmee River- Proposed 4E's Campsite

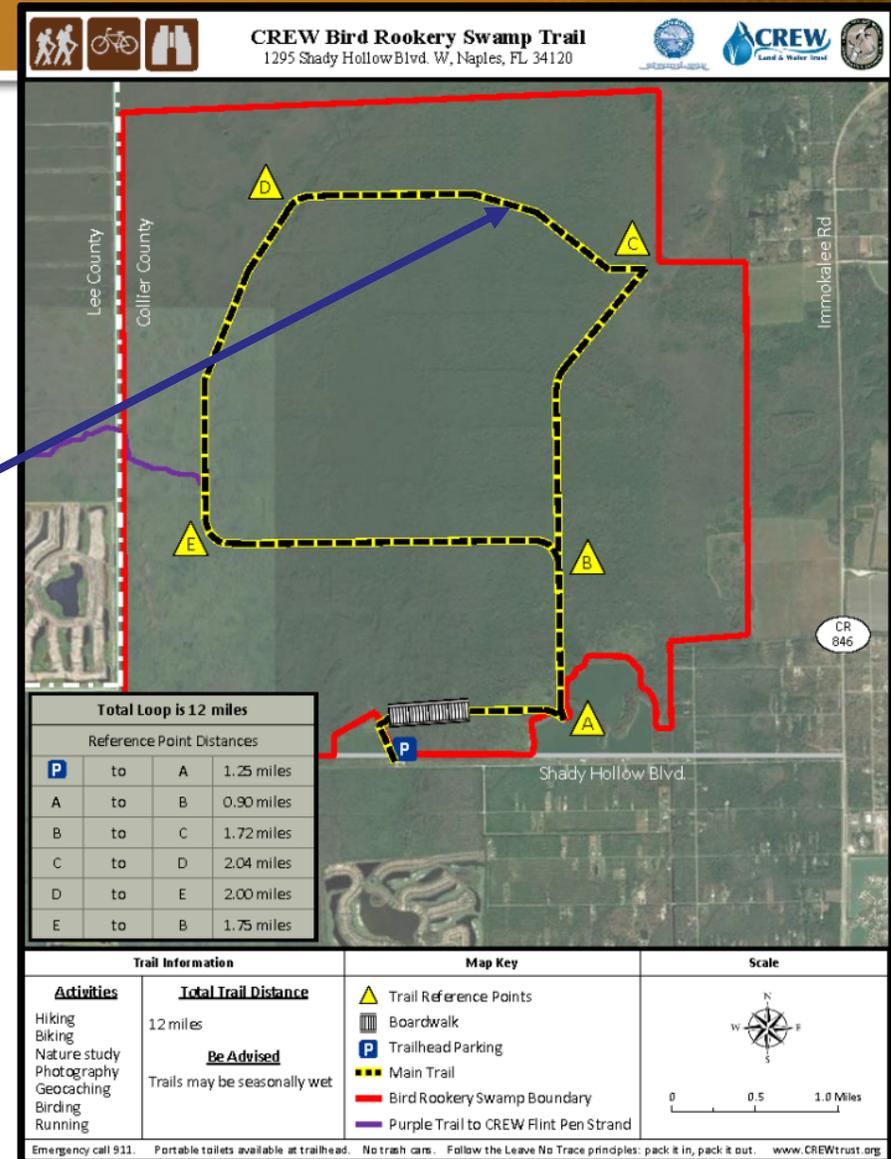


- 2 primitive campsites with picnic tables and fire rings
- Reservations made online for Special Use License
- Accessible by vehicle or boat
- Site currently has non-motorized and airboat launching available



CREW Bird Rookery Swamp Trail Crossing

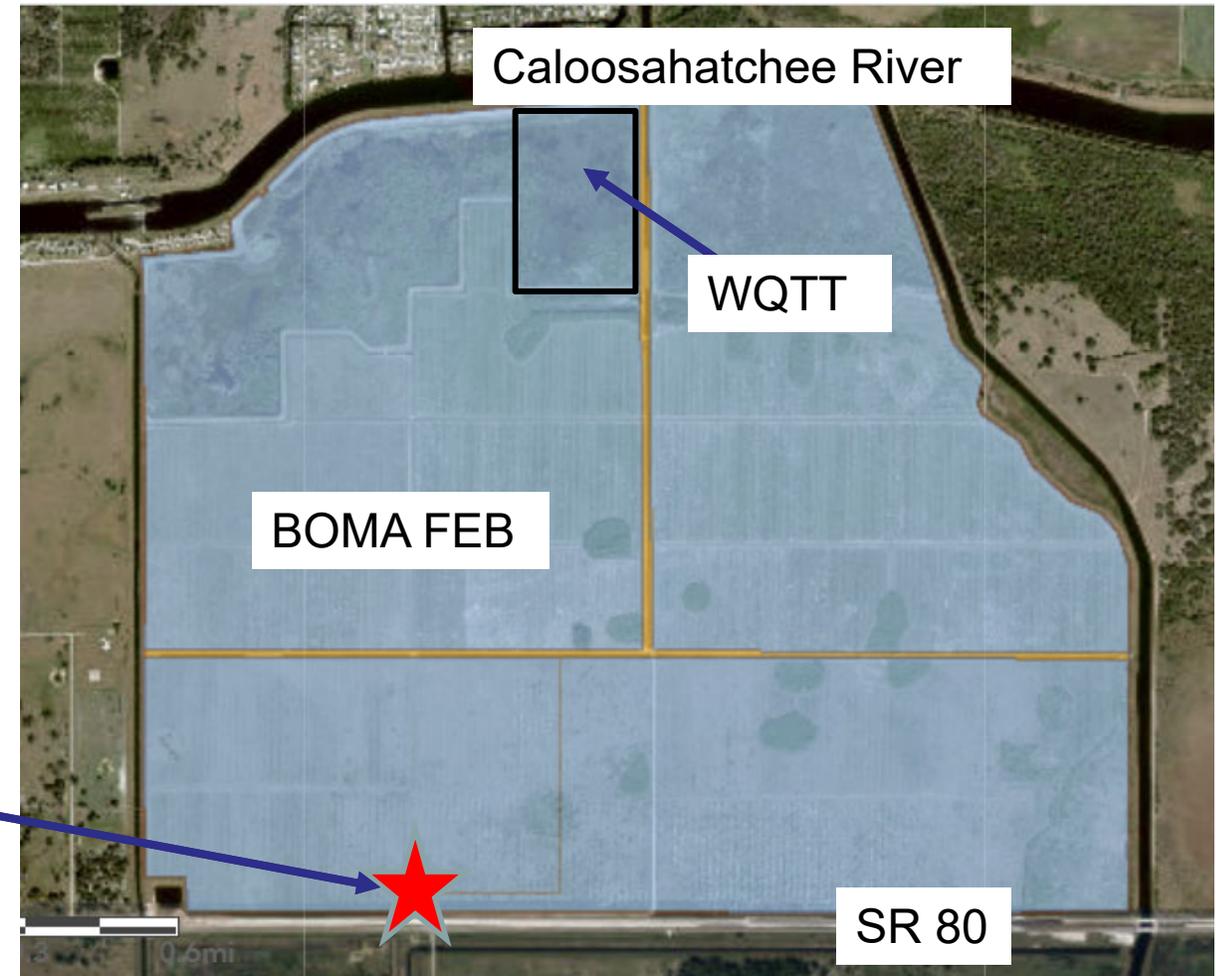
- New trail bridge constructed, located at CREW Bird Rookery in Collier County
 - New trail crossing provides hikers, bikers, and wildlife viewers with 12 miles of trail use.





BOMA FEB & WQTT

- BOMA Flow Equalization Basin (FEB) & Water Quality Testing & Treatment Facility (WQTT)
 - Project area is 1766 acres located in Glades County north of SR 80 adjacent to the Caloosahatchee River (C-43).
 - FEB is currently under design.
 - Public use access and recreation features being incorporated.





BOMA FEB & WQTT

➤ Flow Equalization Basin

- Purpose: attenuate high flows and store excess runoff to reduce harmful releases.
- Construction projected to be completed in Late 2026.

➤ Water Quality Treatment & Testing Facility

- Purpose: demonstrate and implement cost-effective, wetland-based strategies for reducing nutrient loading.
- Construction projected to be completed in Early 2024.

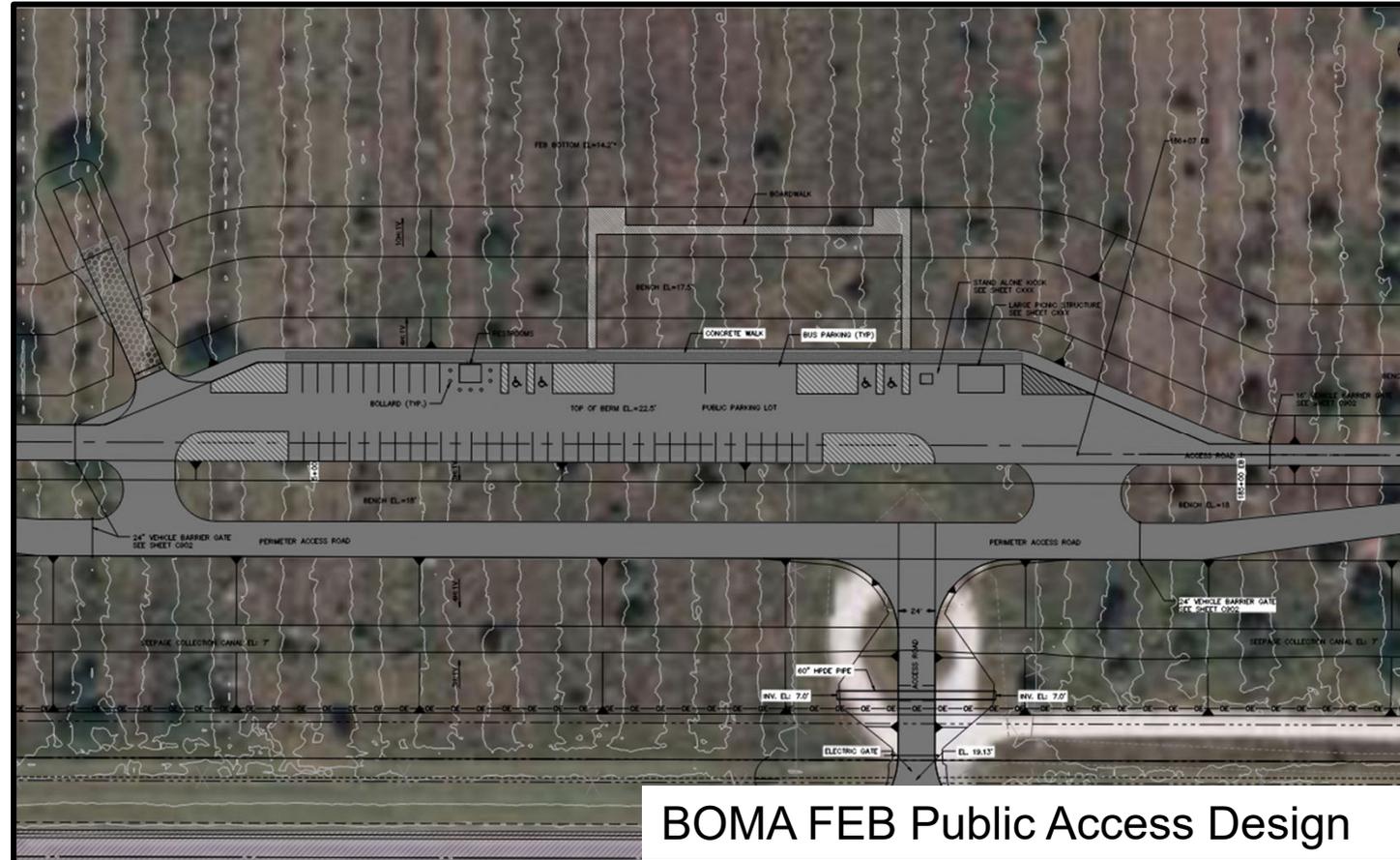




BOMA FEB

➤ BOMA Flow Equalization Basin (FEB)

- Project design currently includes public access:
 - Parking & School Bus Parking
 - Restrooms
 - Boardwalk & Interpretive Kiosk
 - Picnic Shelter
 - Non-Motorized Boat Ramp



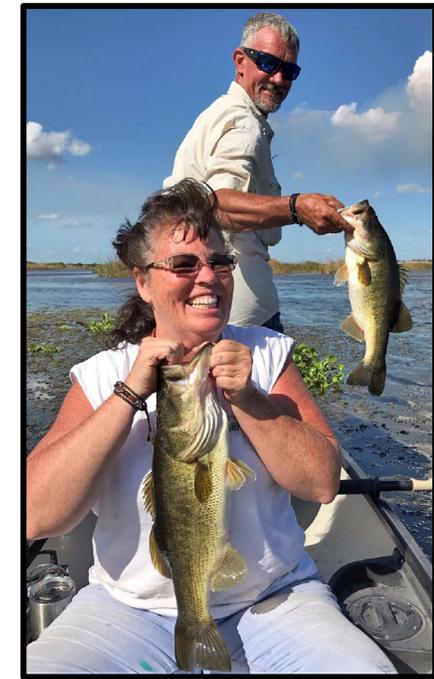
BOMA FEB Public Access Design



BOMA FEB

➤ BOMA Flow Equalization Basin (FEB)

- 4' deep impoundment will provide numerous compatible public recreational opportunities:
 - Hiking, biking, and wildlife viewing along the boardwalk and levee system.
 - Available for environmental education programs.
 - Non-motorized boating, fishing, and hunting.





Want to comment?

Zoom:

- If you're participating via Zoom – use the Raise Hand feature

Phone:

- If you're participating via Phone –
 - *9 Raises Hand
 - *6 Mutes/Unmutes