

SFWMD Program & Project Update

South Florida Ecosystem Restoration Task Force

May 3, 2022

Mindy Parrott

Principal Federal Policy Analyst
Restoration Planning Bureau
Ecosystem Restoration & Capital Projects

2021 Highlights



- Completed **removal of the Old Tamiami Trail roadbed**
- Began using the **Faka Union Pump Station**, an important part of the Picayune Strand Restoration Project
- Completion of the **C-44 Reservoir and Stormwater Treatment Area**
- Began construction of:
 - **8.5 Sq. Mile Area Limited Curtain Wall**
 - **Restoration Strategies: C-139 Flow Equalization Basin**



Current SFWMD Restoration Projects

Planning

- **Lake Okeechobee Watershed Restoration Project (LOWRP)**
- **Western Everglades Restoration Project (WERP)**
- **Biscayne Bay & Southeastern Everglades Ecosystem Restoration (BBSEER)**

Design

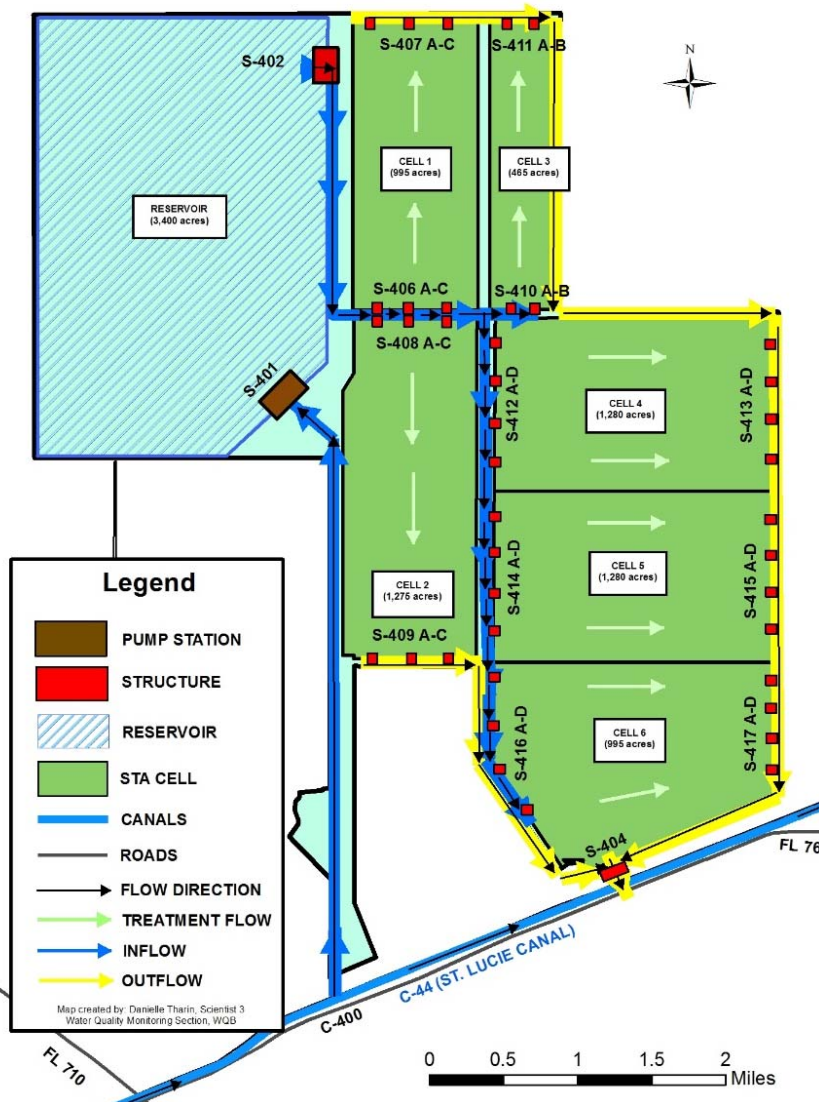
- **IRL-S C-23 to C-44 Interconnect**
- IRL-S C-25 Reservoir and STA
- LOWRP ASR Wells and Treatment
- **BBCW Phase 1 Cutler Flowway**
- LRWRP Loxahatchee River – Flowway 3
- CEPP EAA Conveyance Improvements
- **CEPP North Features**
- **CEPP New Water Seepage Cutoff Wall**
- **RS Bolles East Canal Conveyance Segment 5**
- WERP L-28S Culverts & Conveyance

Construction

- **C-44 Reservoir & STA- OTMP**
- C-43 Reservoir
- EAA A2 STA & I/O Canal
- STA-1W Expansion #2
- C-139 FEB
- STA-1W Refurbishments
- STA-2 Refurbishments
- **8.5 SMA Cutoff Wall**

IRL-S C-44 Reservoir and STA

- Operational Testing & Monitoring Phase
 - STA complete – January 2021
 - Reservoir complete – September 2021
 - Start reservoir filling – January 2022
 - Operational Testing Start – May 2022
 - Reservoir turnover to SFWMD – **November 2022**



C-44 STA

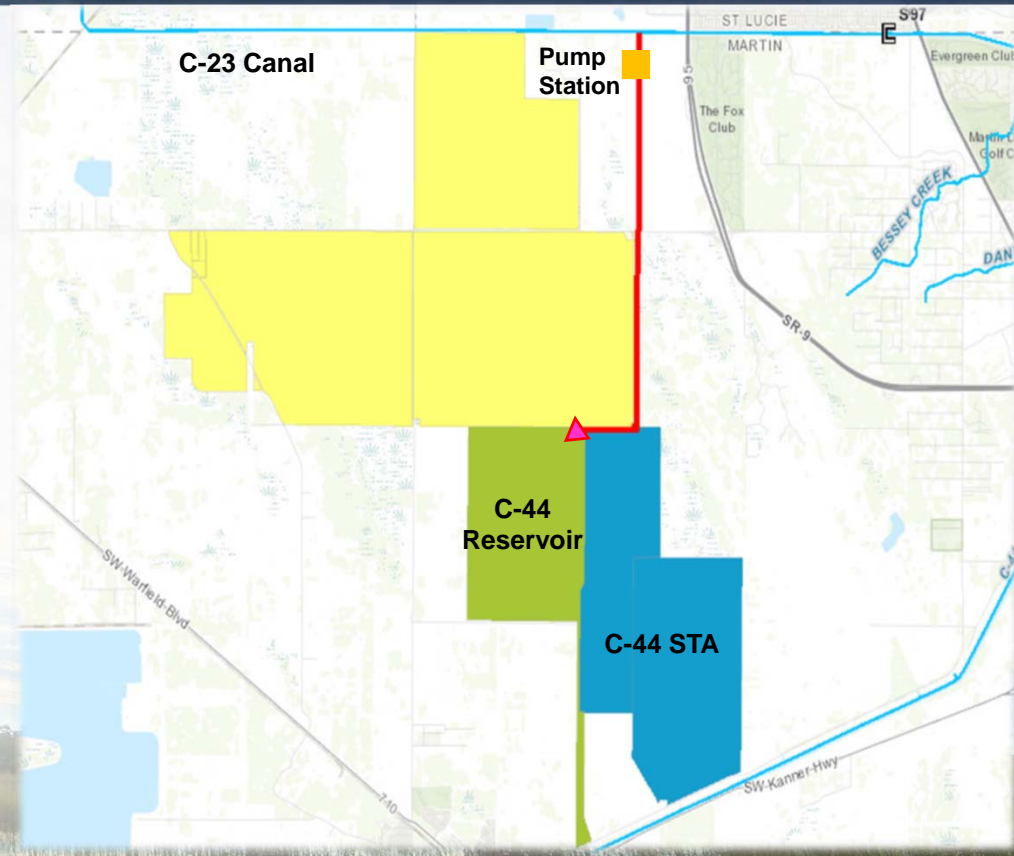


IRL-S C-23 to C-44 Interconnect

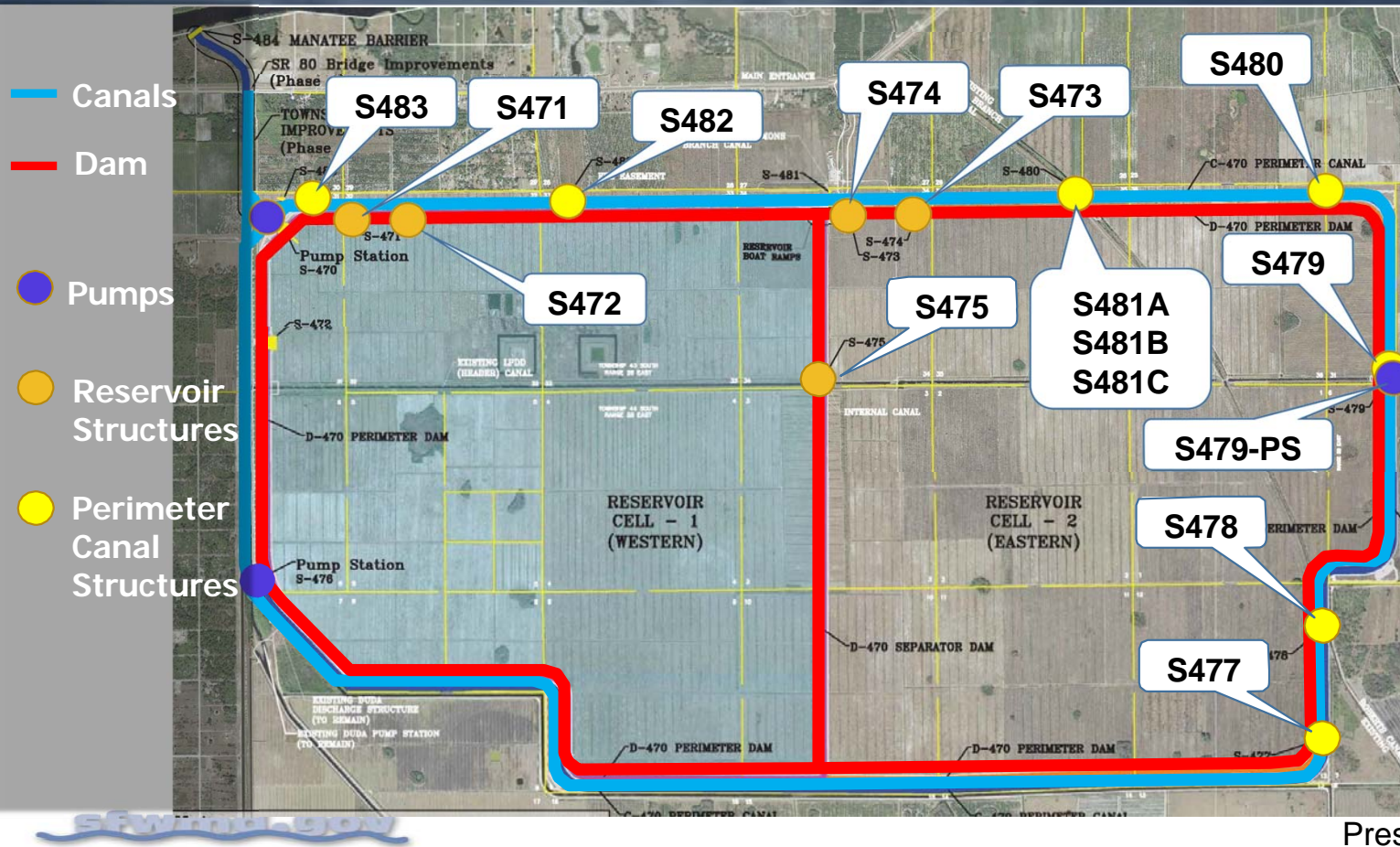
- Diverts harmful C-23 Canal discharges away from the middle St. Lucie Estuary to C-44 Reservoir and STA
- Brings flows to estuary closer to natural patterns
- Improves water quality in the estuary

Schedule:

- Final Design - July 2022
- Construction – **December 2022**



C-43 West Basin Storage Reservoir



Features

- 2-Cell Reservoir
 - 10,500 Acres
 - 170,000 ac-ft of storage
 - Depth ranging from 15' – 25'

- 40% Complete
- Completion- September 2024

Presenter: Mindy Parrott

C-43 West Basin Storage Reservoir



Dam embankment up to elevation 47 feet



Presenter: Mindy Parrott

C-43 West Basin Storage Reservoir

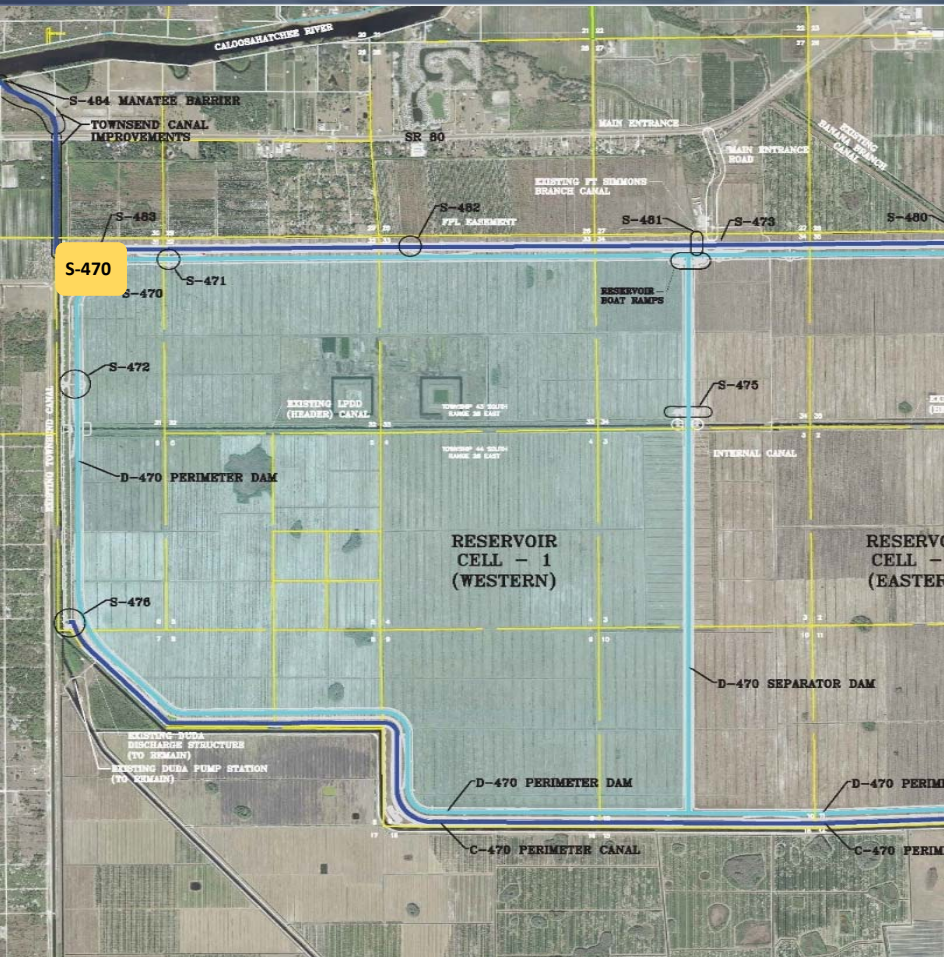


S-477 Western Perimeter Canal Structure



S-475 Cell Divide Structure

C-43 West Basin Storage Reservoir - Inflow Pump Station



S-470 Nearing Completion – 2022

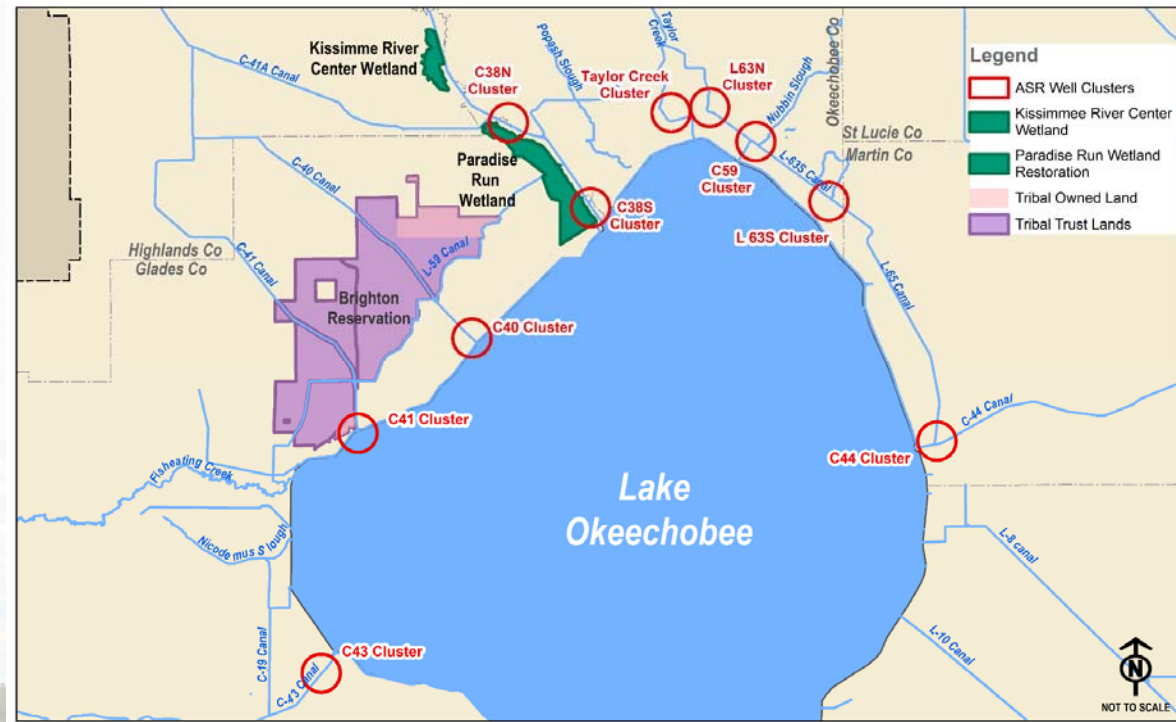


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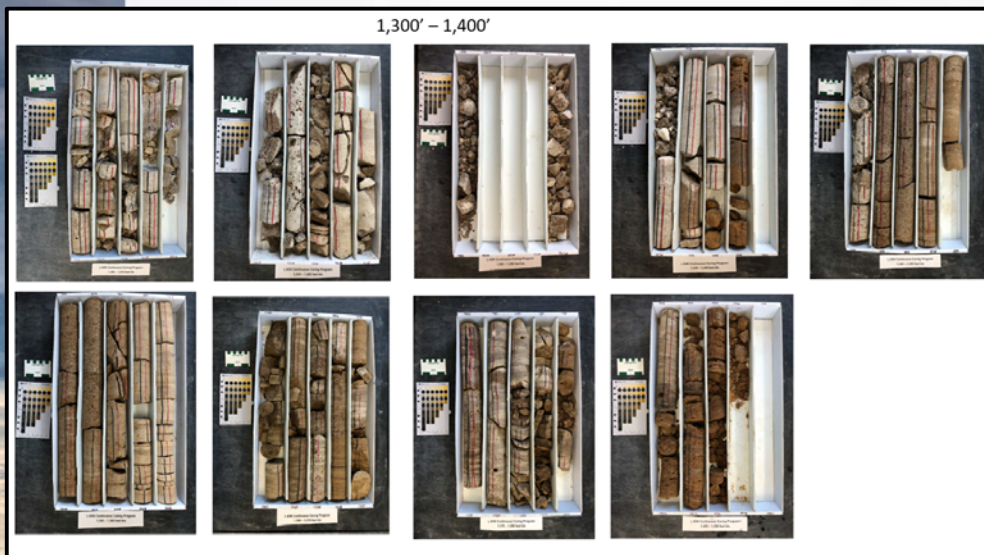
LOWRP - Aquifer Storage and Recovery

Phased implementation and Science Plan to address ASR uncertainties:

- Reactivate existing wells
- Exploratory and test wells
- Treatment technology evaluation and design
- Build out of well clusters and treatment facilities



LOWRP - Aquifer Storage and Recovery



Continuous Cores



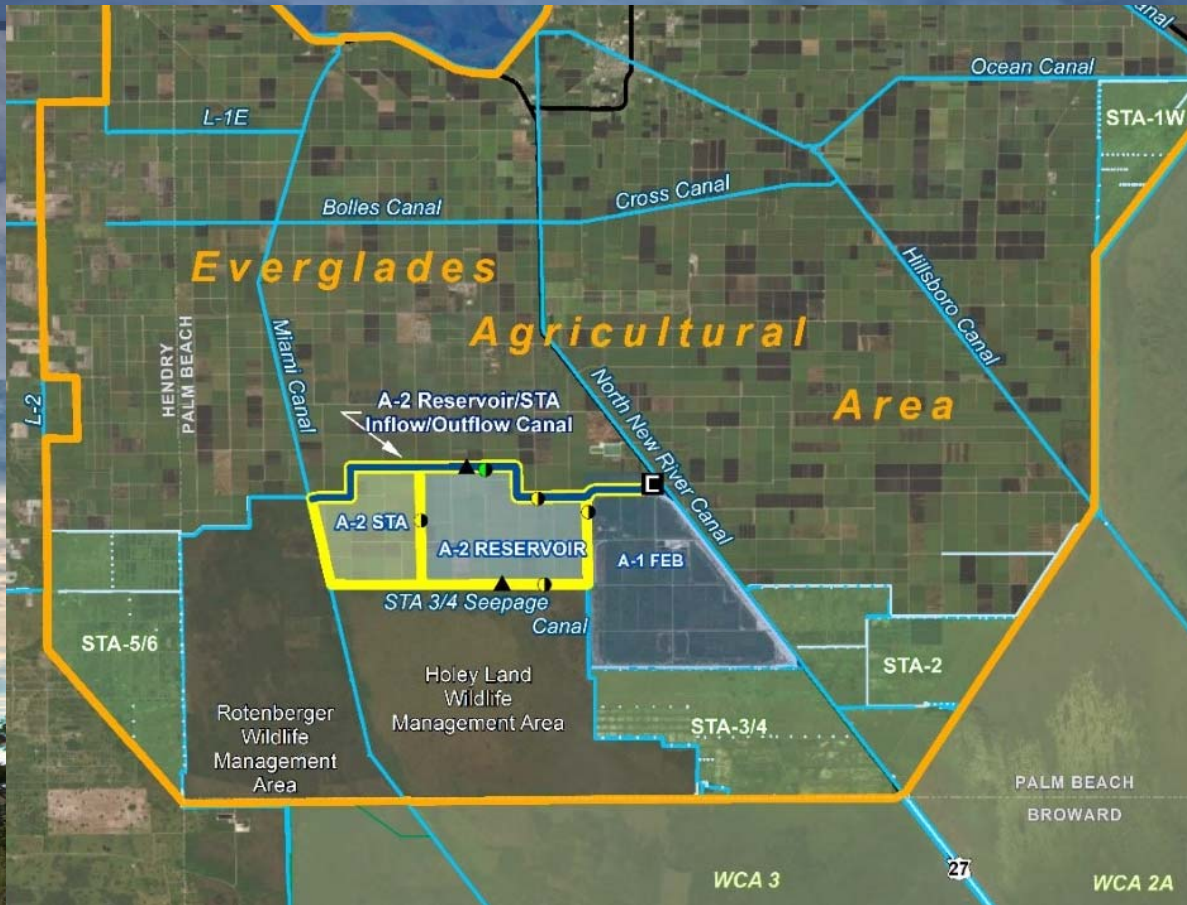
Treatment Technology- Proof of Concept Testing

SOUTH FLORIDA WATER MANAGEMENT DISTRICT

Test/Exploratory Wells at C38N and C38S



CEPP EAA: A-2 Reservoir & STA



- Construction Began April 2020
- Stormwater Treatment Area (STA) Inflow/Outflow Canal -55% Complete
- STA Construction
 - Completion December 2023
- Canal Conveyance Improvements
 - Design Advancing
- Reservoir (USACE Lead)
 - Design Advancing

CEPP EAA: A-2 Reservoir & STA



Inflow/Outflow Canal and Levee Construction

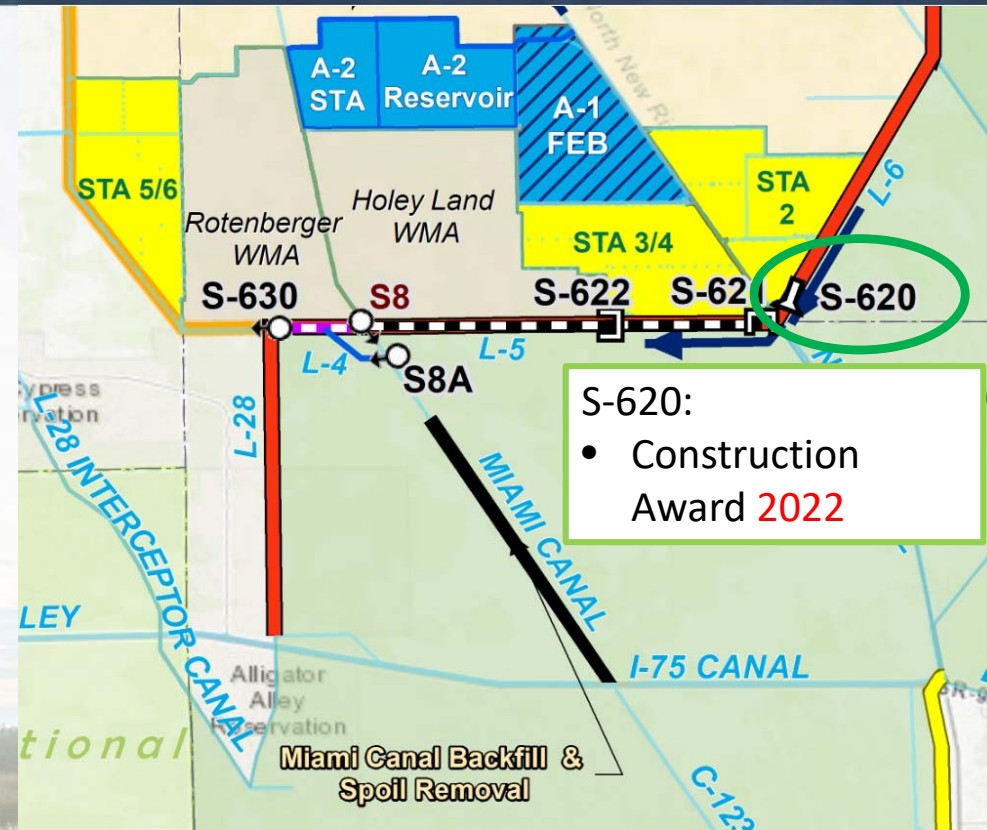


**S647 Spillway Structure &
S648 Seepage Pump Station**

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CEPP North

- Improves distribution of water to WCA 3A
 - **S-620 500 cfs gated culvert**
 - S-621 2500 cfs gated spillway
 - S-622 500 cfs gated spillway
 - S-8A gated culvert and canal
 - S-630 360 cfs pump station
 - L-4 Levee Removal
 - Miami Canal Backfill with Tree Island Mounds
 - L-5 Remnant Canal
 - L-5 Canal

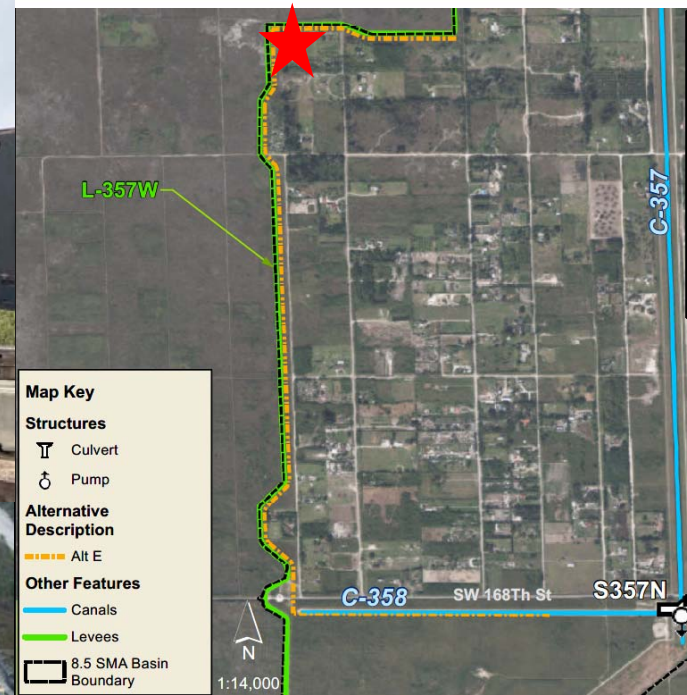
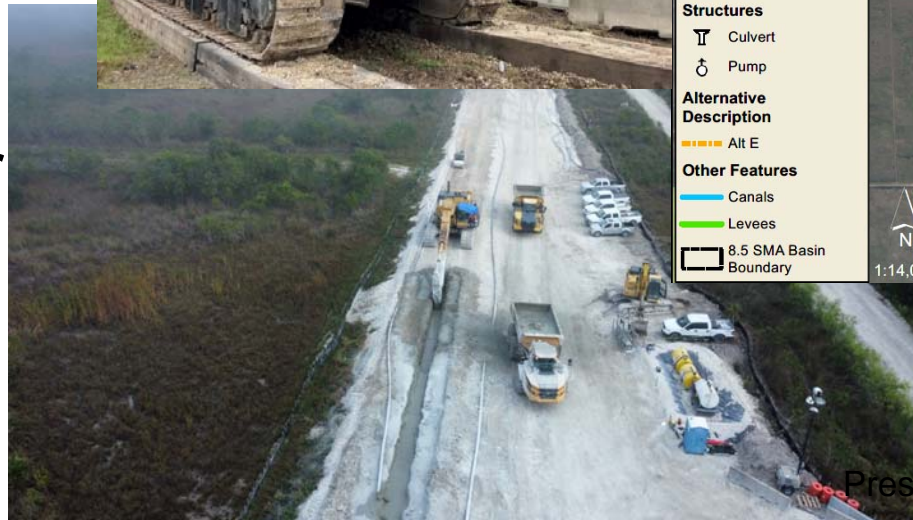


8.5 SMA Limited Curtain Wall

- Reduces seepage to 8.5 Square Area (SMA)
- Same or Increased stages in Everglades National Park
- 2.3 miles
- Construction April 2021
- Complete **Spring 2022**

Next Phase- CEPP New Water Seepage Barrier

- 5 Miles
- **2022**

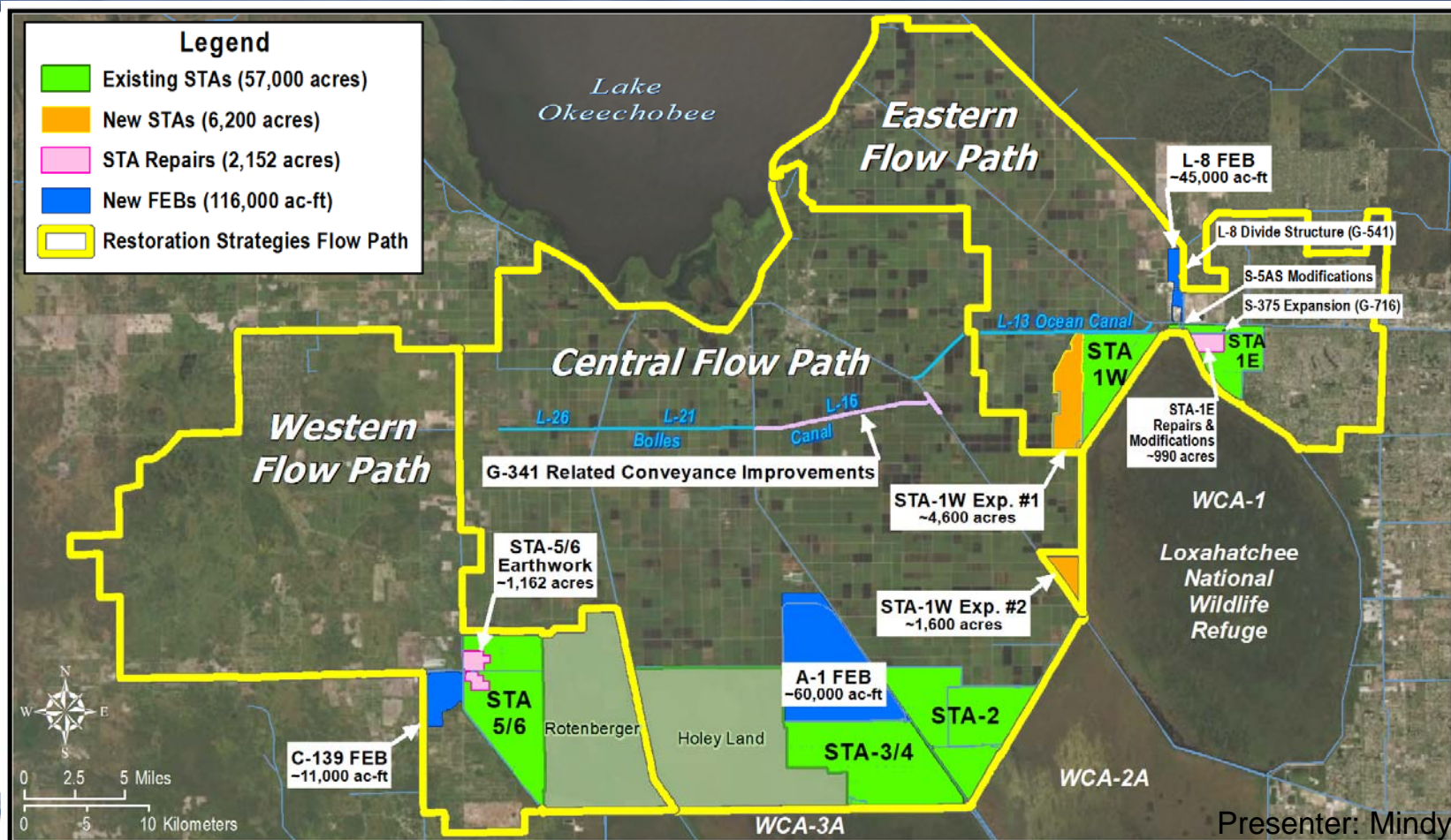


Biscayne Bay Coastal Wetlands Phase I Cutler Wetlands



- Design underway
- Contract 6A
 - S-701: 400 CFS Pump Station
 - Construction begins **September 2022**
- Contract 6B
 - C-701: At-grade, concrete lined channel
 - S-701A: Culvert under SW 97th Ave
 - S-701B: Microtunnel under SW 87th Ave
 - C-702: Spreader canal
 - Berm breaches
 - Drainage ditch blocks
 - Recreation features
 - Construction begins FY23

Restoration Strategies



Presenter: Mindy Parrott

Restoration Strategies

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<p>LEGEND</p> <ul style="list-style-type: none"> ■ Flow Equalization Basin ■ Stormwater Treatment Area ■ Conveyance Improvement ✓ Complete 			C-139 FEB (100867) <table border="1"> <thead> <tr> <th>Activity</th> <th>Deadline</th> <th></th> </tr> </thead> <tbody> <tr><td>Initiate design</td><td>10/31/2018</td><td>✓</td></tr> <tr><td>Submit state and federal permit applications</td><td>8/30/2019</td><td>✓</td></tr> <tr><td>Complete design</td><td>10/31/2020</td><td>✓</td></tr> <tr><td>Initiate construction</td><td>1/31/2021</td><td>✓</td></tr> <tr><td>Construction status report</td><td>3/1/2021</td><td>✓</td></tr> <tr><td>Construction status report</td><td>3/1/2022</td><td>✓</td></tr> <tr><td>Construction status report</td><td>3/1/2023</td><td>✓</td></tr> <tr><td>Complete construction</td><td>12/31/2023</td><td></td></tr> <tr><td>Operational monitoring and testing period complete</td><td>12/31/2024</td><td></td></tr> </tbody> </table>			Activity	Deadline		Initiate design	10/31/2018	✓	Submit state and federal permit applications	8/30/2019	✓	Complete design	10/31/2020	✓	Initiate construction	1/31/2021	✓	Construction status report	3/1/2021	✓	Construction status report	3/1/2022	✓	Construction status report	3/1/2023	✓	Complete construction	12/31/2023		Operational monitoring and testing period complete	12/31/2024																																																	
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Projects Complete = 8 of 13
 Activities Complete = 66 of 74
 % Activities Complete = 89 %
 % Time Complete = 72 %

STA-1W Expansion No. 2



North Inflow Canal and Levee

Northern Section of Concrete Conveyance Canal



STA-1W Expansion No. 2 - Inflow Pump Stations

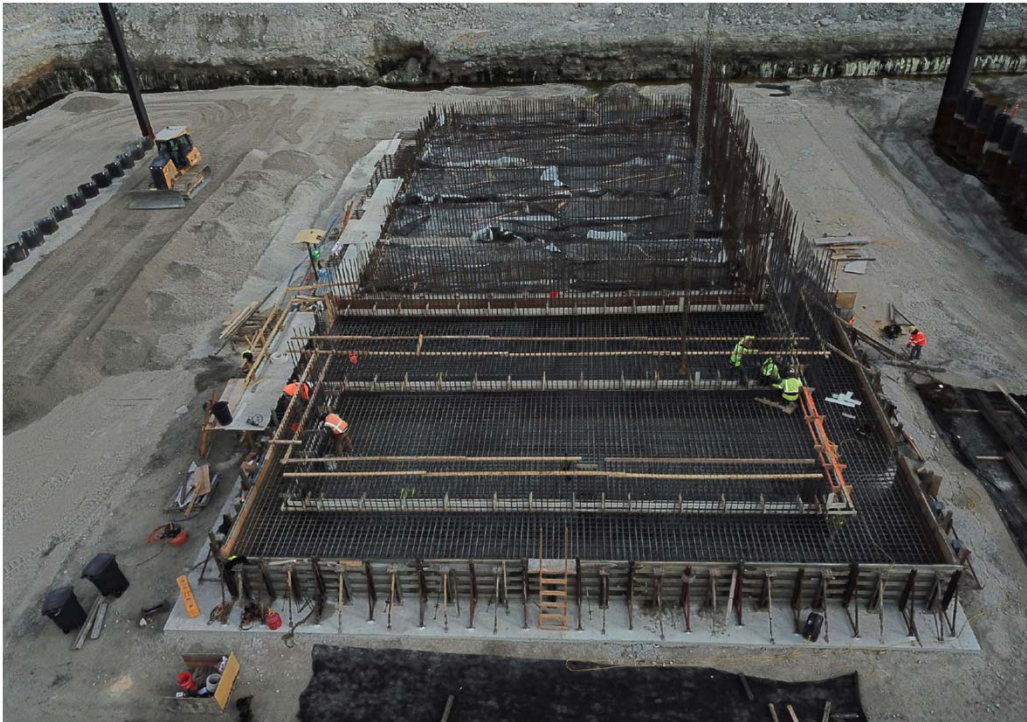


G-781 Building Pier Walls for Intake Bays



G-780 Building Pier Walls for Intake Bays

STA-1W Expansion No. 2 - Outflow Pump Station



G-782 Base Slab Rebar Placement



G-782 Base Slab Concrete Placement

Bolles East Canal - Segment 4

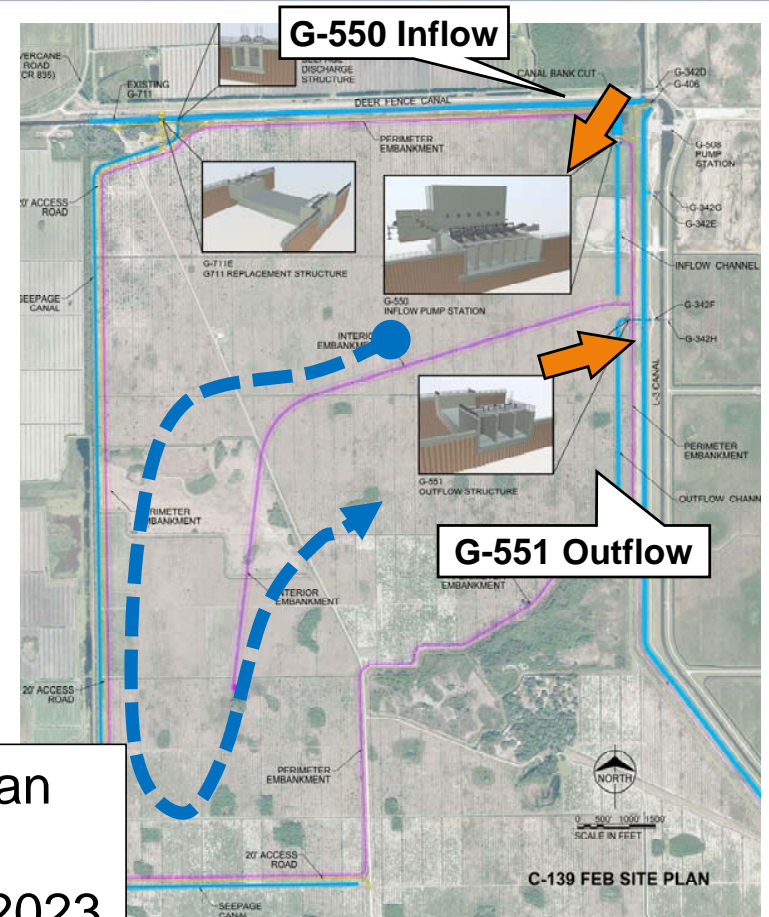
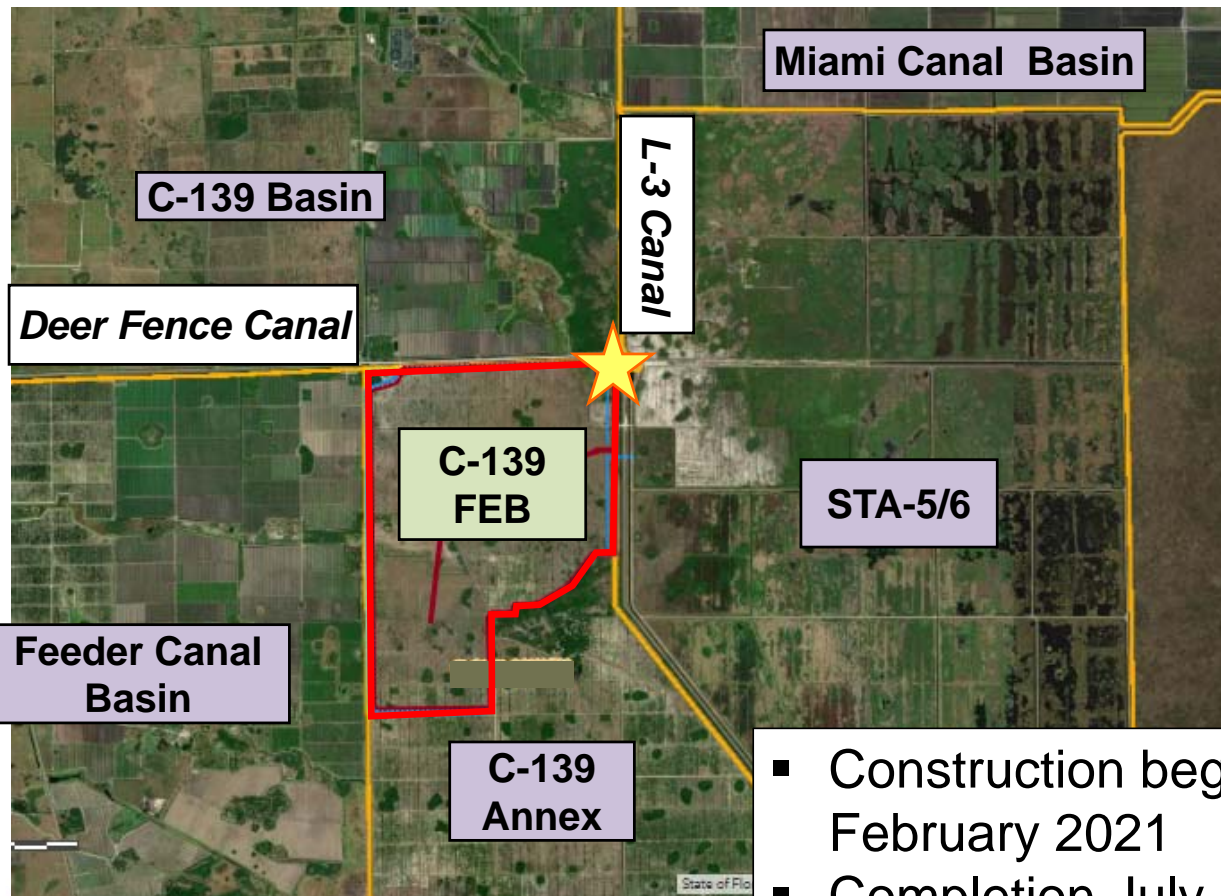


Slab Beam Installation



Completed Boca Chica Bridge and Canal

C-139 Flow Equalization Basin



- Construction began February 2021
- Completion July 2023

C-139 Flow Equalization Basin



Discussion