SFWMD Program & Project Update

Joint Working Group and Science Coordination Group Meeting July 7, 2022

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Restoration Planning Bureau
Ecosystem Restoration & Capital Projects

sfwmd.gov

SFWMD CERP & Restoration Strategies Projects

Planning

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

SFWARELGOV

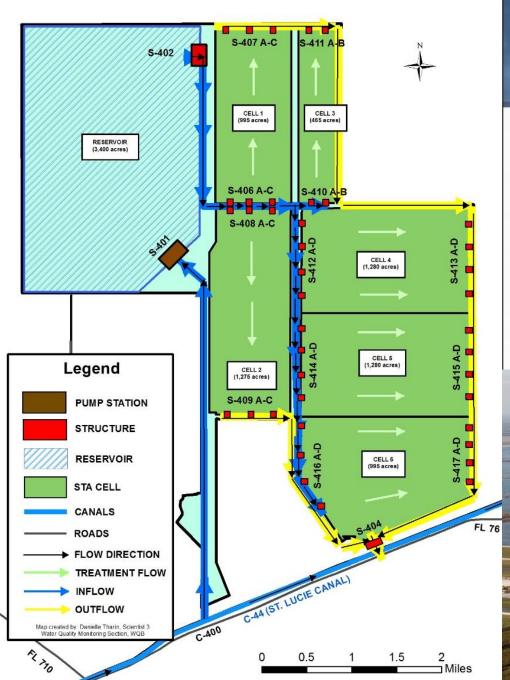
Design

- 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: S-620
- 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 2023

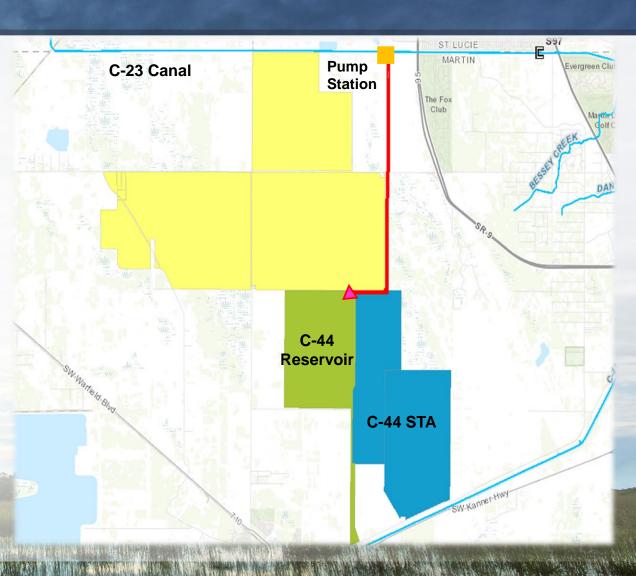


IRL-S C-23 to C-44 Interconnect

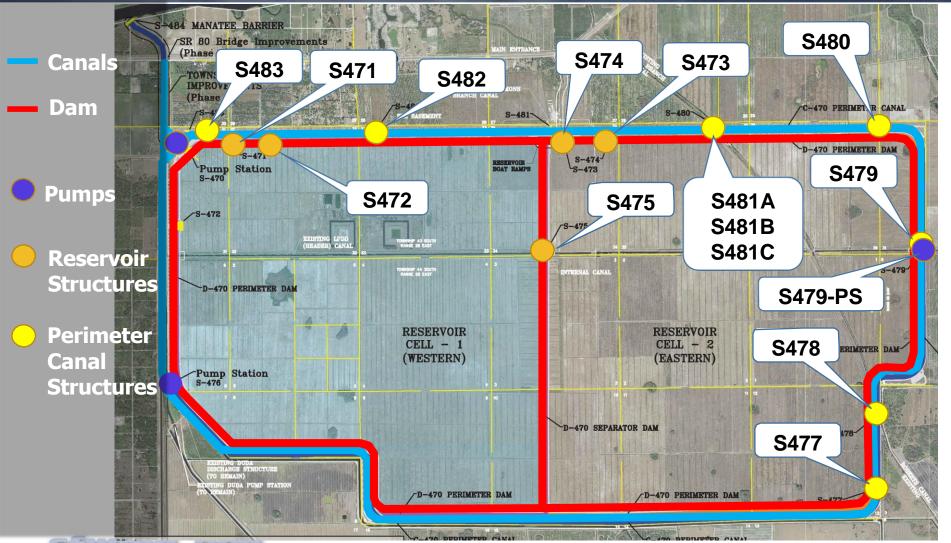
- Diverts harmful C-23 Canal discharges away from the middle St. Lucie Estuary to C-44 Reservoir and STA
- Brings flows to estuary closer to natural patterns
- Improves water quality in the estuary

Schedule:

- Final Design August 2022
- Construction Award November 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

C-43 West Basin Storage Reservoir



C-43 West Basin Storage Reservoir - Inflow Pump Station



S-470 Nearing Completion –2022



Caloosahatchee Reservoir Water Quality Component

Feasibility Study and Siting Evaluation December 2020:

In-reservoir alum treatment was the <u>most cost-effective</u> and could be applied at reservoir inflow pump station



- Design kicked-off April 2021
- Anticipate USACE 408 authorization and RTA Design Plans by the end of 2022
- Procurement and installation in 2023
- Obtain operations permit in 2024 concurrent with the C-43 reservoir operations permit
- Northern Everglades & Estuaries Projectseparate from CERP



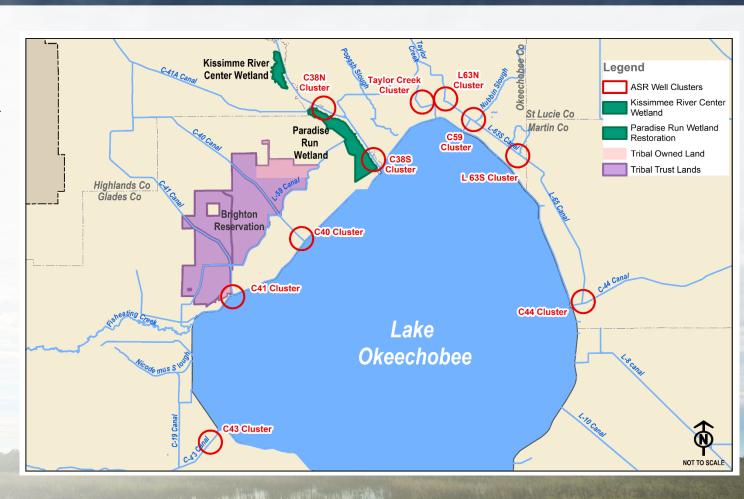




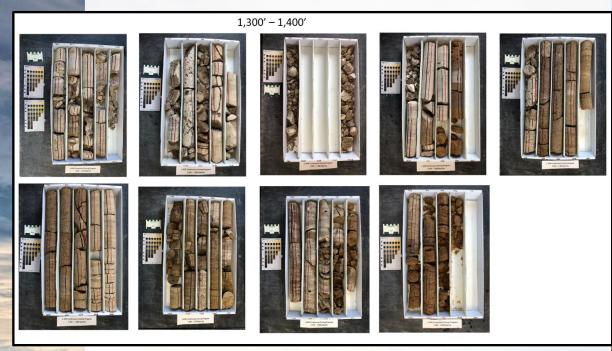
LOWRP - Aquifer Storage and Recovery

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

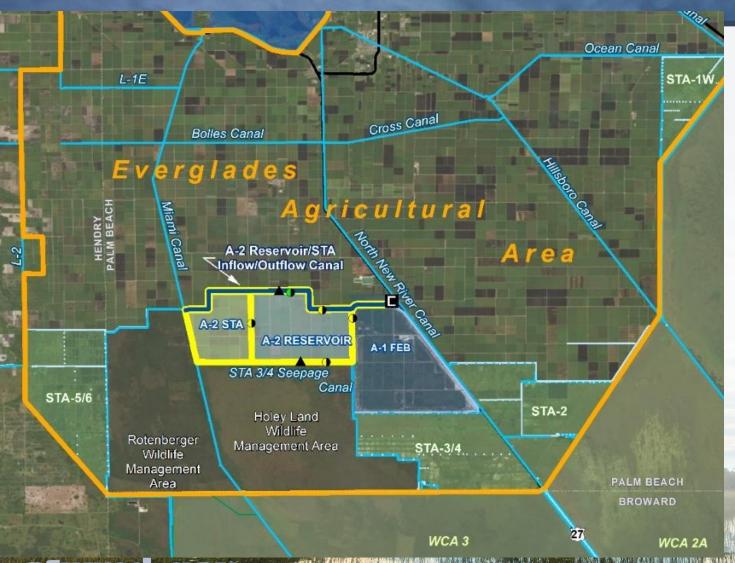
Test/Exploratory Wells at C38N and C38S



2022 ASR Science Plan

- ASR Peer Review Technical Panel Workshop held June 15, 2022
- Workshop materials and recording available at www.sfwmd.gov/asr
- Next Steps:
 - Peer Review Panel Report due July 15
 - Revised Draft Science Plan August 30
 - Reconvene with Peer Review Technical Panel
 - Science Plan Public Review in mid-September
 - Final 2022 ASR Science Plan expected in November

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

BEWYENG GOV

S647 Spillway Structure & S648 Seepage Pump Station

Presenter: Mindy Parrott

CEPP North

- Improves distribution of water to WCA 3A
- Features:
 - 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 Summer 2022

Next Phase- CEPP New Water Seepage Barrier

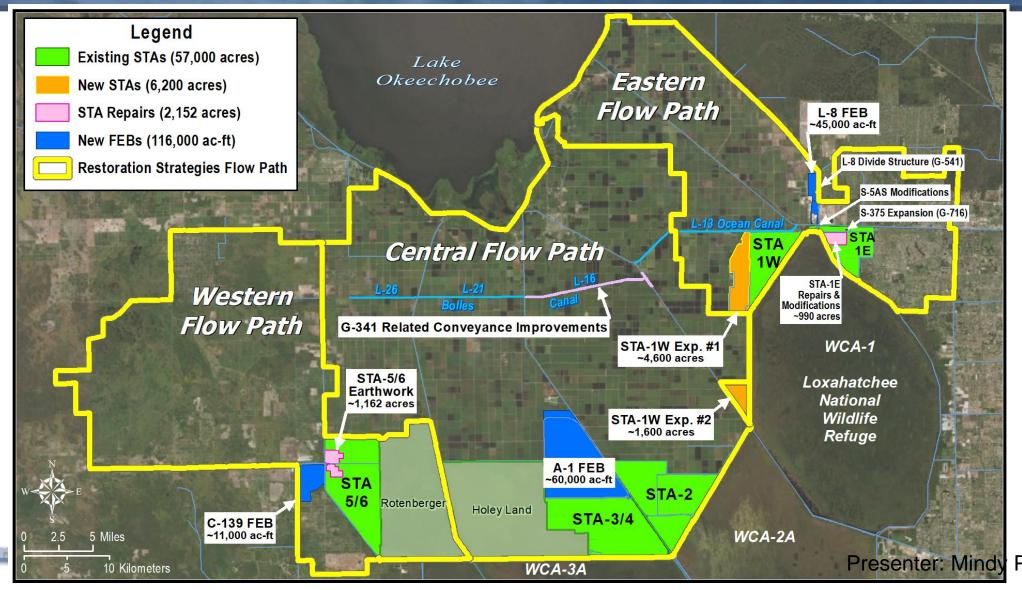
- 5 Miles
- 2022



Biscayne Bay Coastal Wetlands Phase I Cutler Wetlands



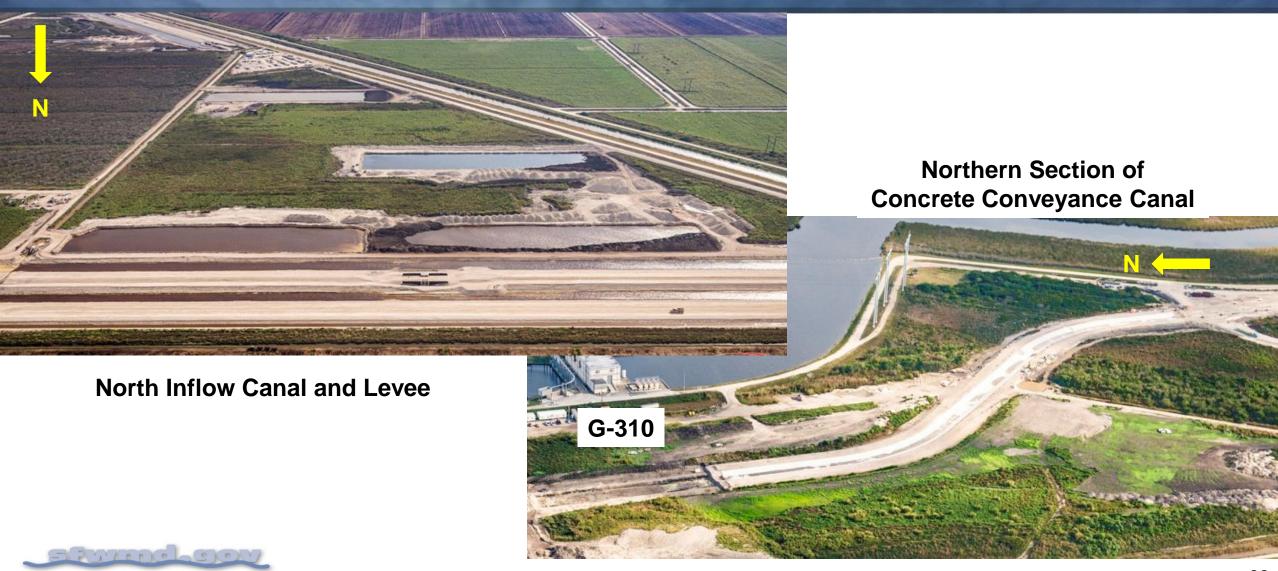
Restoration Strategies



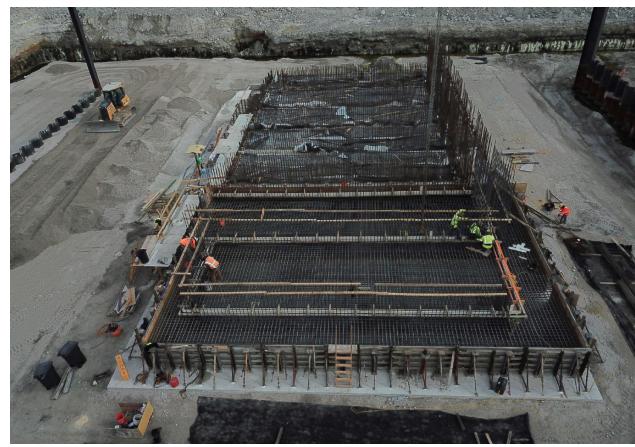
Restoration Strategies

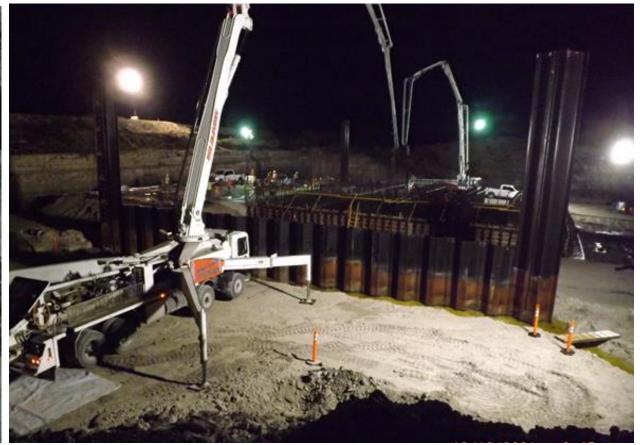
EASTERN FLOW PATH						CENTRAL FLOW PATH			
STA-1W Expansion #2 (100864)			G-341 Related Conveyance Improvements (10	0802)	Bloom	STA-2 Expansion: Compartment B			
Activity	Deadline		Activity	Deadline		Activity COMPLETE	Deadline		
Complete land acquisition	3/31/2018	✓	Initiate design	10/1/2020	✓	Initial flooding and optimization period complete	5/31/2014	✓	
Initiate design	10/1/2018	✓	Submit state and federal permit applications	8/1/2021	✓				
Submit state and federal permit applications	8/1/2019	✓	Complete land acquisition (if required)	9/30/2021	✓	A-1 FEB (100706)			
Complete design	7/31/2020	✓	Complete design	7/31/2022	✓	Activity	Deadline		
Initiate construction	11/30/2020	✓	Initiate construction	11/30/2022	✓	Initiate design	4/1/2012	✓	
Construction status report	3/1/2021	✓	Construction status report	3/1/2023	✓	Submit state and federal permit applications	12/1/2012	✓	
Construction status report	3/1/2022	✓	Construction status report	3/1/2024		Design status report	3/1/2013	✓	
Complete construction	12/31/2022		Complete construction	12/31/2024		Complete design	8/1/2013	✓	
Initial flooding and optimization period complete	12/31/2024					Initiate construction COMPLETE	6/30/2014	✓	
			L-8 Divide Structure (100817)			Construction status report	3/1/2015	✓	
STA-1W Expansion #1 (100818)			Activity	Deadline		Construction status report	3/1/2016	✓	
Activity	Deadline		Initiate design Complete design Complete design	10/1/2012	✓	Complete construction	7/30/2016	✓	
Complete land acquisition	9/30/2013	✓	Complete design	9/30/2014	✓	Operational monitoring and testing period complete	7/29/2018	✓	
Initiate design	9/30/2013	✓	Initiate construction	10/1/2016	✓				
Submit state and federal permit applications	7/30/2014	✓	Complete construction	9/30/2018	✓	WESTERN FLOW PATH			
Complete design	7/30/2015	✓				STA-5/6 Internal Improvements (100868)			
Complete design Initiate construction COMPLETE	1/31/2016	1	S-5AS Modifications (100822)			Activity	Deadline		
Construction status report	3/1/2017	✓	Activity	Deadline		Initiate design	10/31/2019	✓	
Construction status report	3/1/2018	✓	Initiate design	10/1/2012	✓	Submit state and federal permit applications	8/30/2020	✓	
Complete construction	12/31/2018	✓	Complete design COMPLETE	9/30/2014	✓	Complete design	10/31/2021	✓	
Initial flooding and optimization period complete	12/31/2020	✓	Initiate construction	10/1/2014	✓	Initiate construction	1/31/2022	✓	
			Complete construction	9/30/2016	✓	Construction status report	3/1/2023	✓	
STA-1E Repairs and Modifications						Construction status report	3/1/2024	✓	
Activity COMPLETE	Deadline		S-375 Expansion (100819)			Complete construction	12/31/2024	✓	
PSTA Decommissioning complete	12/31/2022	✓	Activity	Deadline		Initial flooding and optimization period complete	12/31/2025		
Culvert repairs complete	12/31/2022	✓	Initiate design	9/30/2013	✓				
Cell 5 and 7 improvements complete	12/31/2022	✓	Complete design COMPLETE	7/30/2015	✓	STA-5/6 Expansion: Compartment C			
			Initiate construction	1/31/2016	✓	Activity COMPLETE	Deadline		
L-8 FEB (100813)			Complete construction	12/31/2018	✓	Initial flooding and optimization period complete	5/31/2014	✓	
Activity	Deadline								
Submit state and federal permit applications	1/31/2014	✓	LEGEND			C-139 FEB (100867)			
Construction status report	3/1/2014	✓	Flow Equalization Basin			Activity	Deadline		
Construction status report	3/1/2015	✓	Stormwater Treatment Area			Initiate design	10/31/2018	✓	
Complete construction (begin multi-purpose ops)	12/31/2016	✓	Conveyance Improvement			Submit state and federal permit applications	8/30/2019	✓	
Long term operations commence	12/31/2022		✓ Complete			Complete design	10/31/2020	✓	
			Complete			Initiate construction	1/31/2021	✓	
Projects Complete = 8 of 13						Construction status report	3/1/2021	✓	
Activities Complete = 66 of 74						Construction status report	3/1/2022	✓	
% Activities Complete = 89 %						Construction status report	3/1/2023	✓	
%	Time Complete =	72 %				Complete construction	12/31/2023		
						Operational monitoring and testing period complete	12/31/2024		

STA-1W Expansion No. 2



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



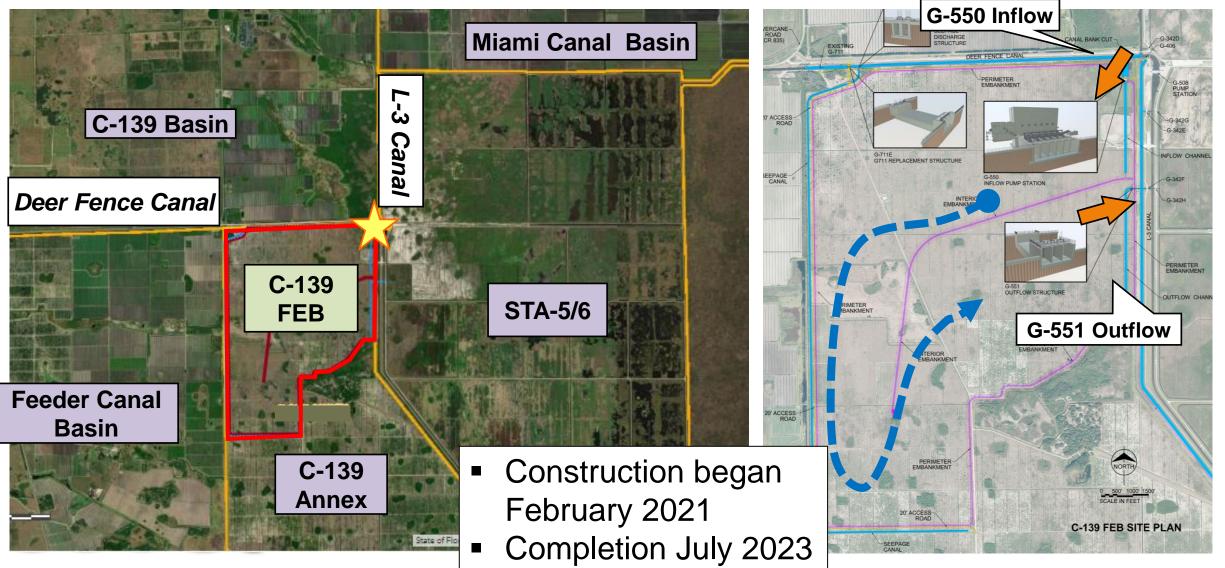
Slab Beam Installation

FWING GOV

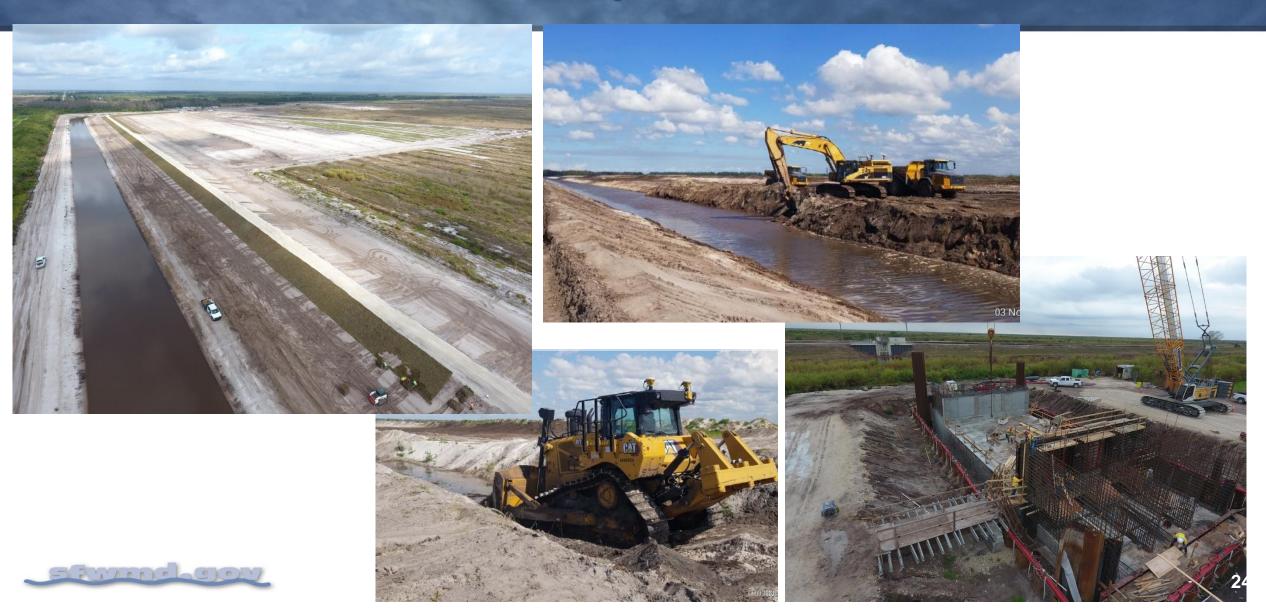


Completed Boca Chica Bridge and Canal

C-139 Flow Equalization Basin



C-139 Flow Equalization Basin





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