



# SFWMD Ecosystem Restoration Projects

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South Florida Water Management District**

**June 4, 2019**

# “Restoration Strategies” Progress

## 2012

- 57,000 ac of STA

## 2012-2016

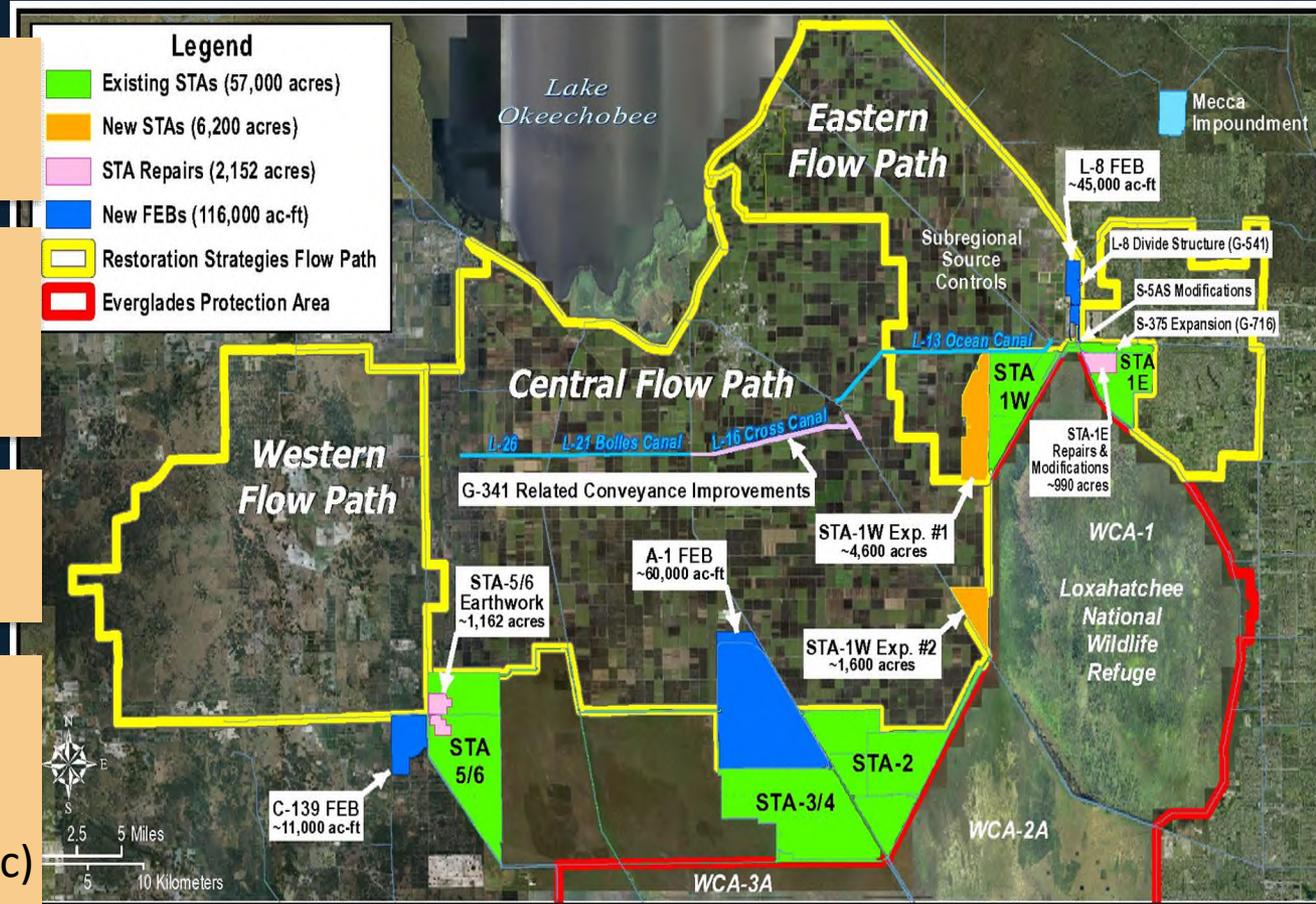
- L-8 FEB (45,000 ac-ft)
- A-1 FEB (60,000 ac-ft)

## 2013-2018

- STA-1W Exp1 (4,600 ac)

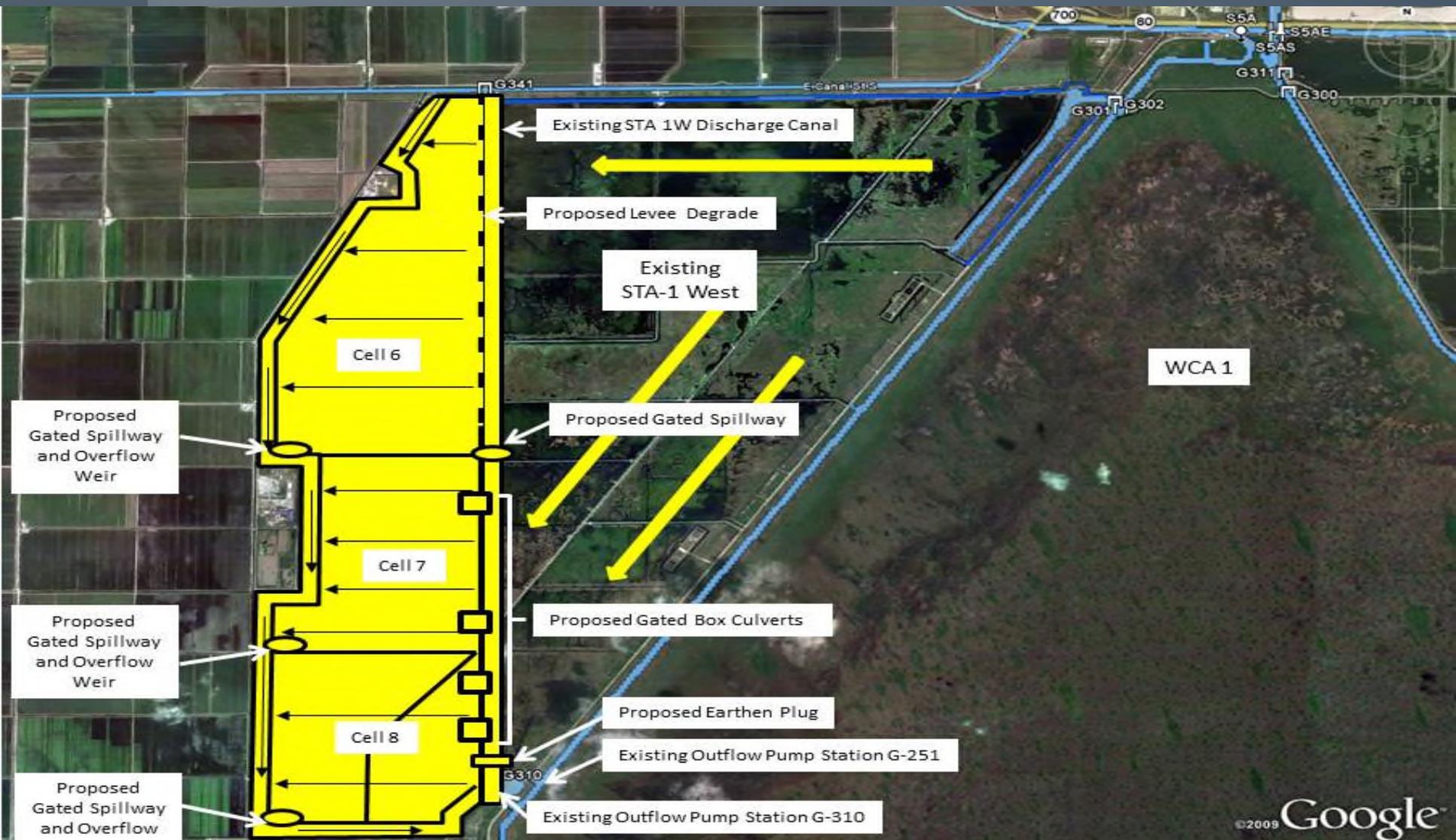
## 2018-2024

- STA-1W Exp2 (1,600 ac)
- C-139 FEB (11,000 ac-ft)
- STA-5/6 Earthwork (1,162 ac)



User Name: cmiessau Remedy Ticket: 87996 Map Produced: 1/16/2019 9:58:55 AM Doc Path: \\ad.sfwmd.gov\dfsroot\GIS\GISB\z\ENGCON\LongTermPlan\mxd\20190115\_LTP\_RestorationStrategiesRegional\WQPlan\_KeyProj\_cm1.mxd

# STA-1W Expansion #1



# STA-1W Expansion #1



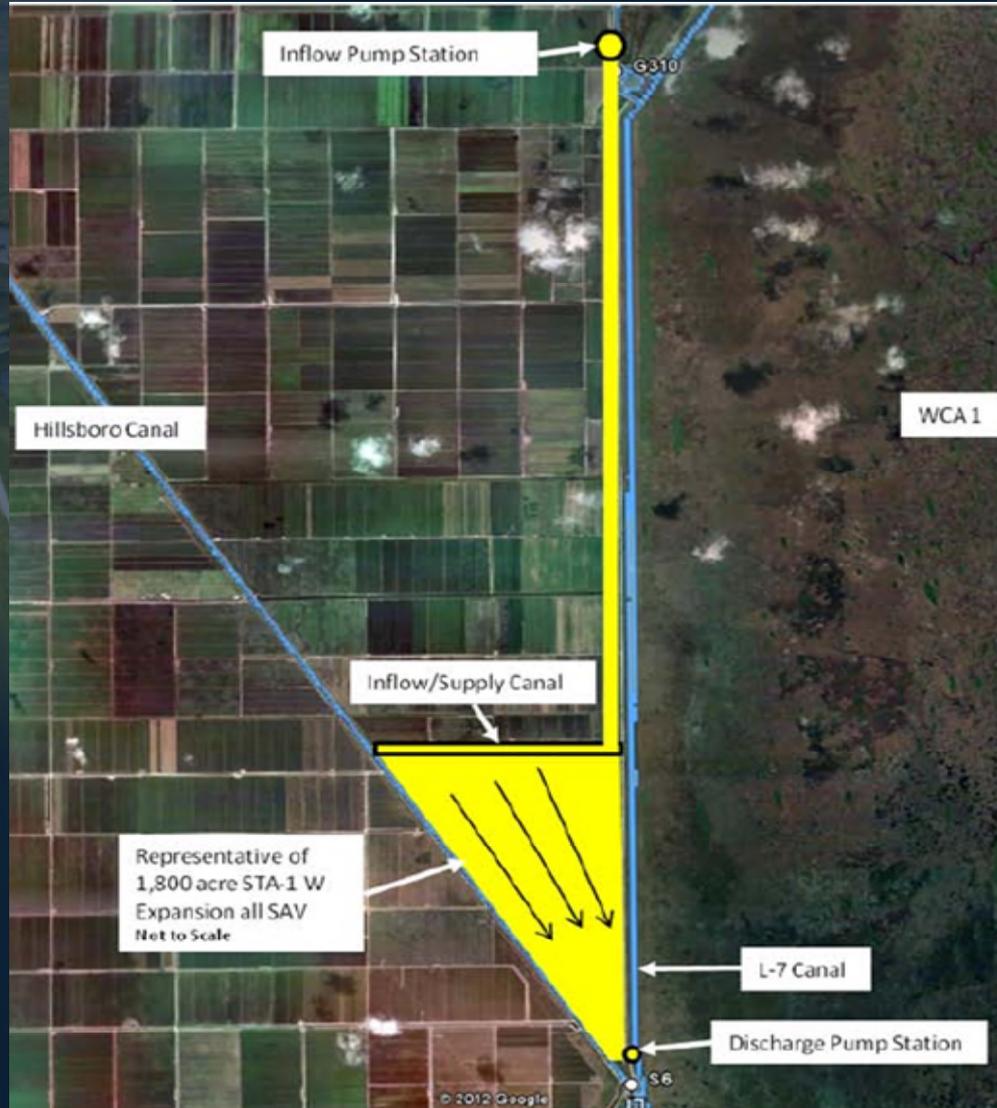
# STA-1W Expansion #1



# STA-1W Expansion #2

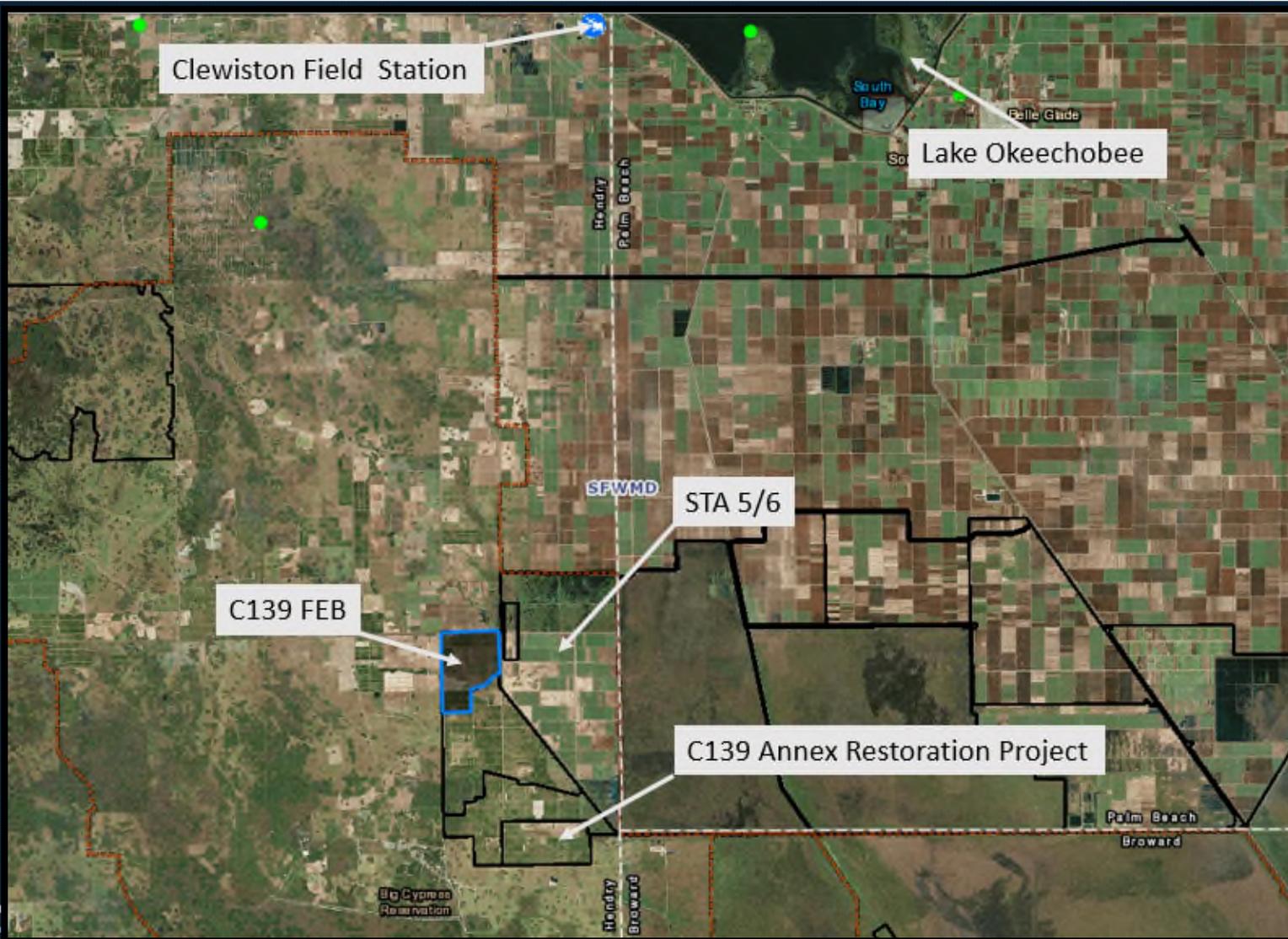


# STA-1W Expansion #2



Project	Acres	Acres of Effective Treatment
<b>Overall Expansion</b>	<b>6,767</b>	<b>5,900</b>
<b>Expansion #1</b>	<b>4,600</b>	<b>4,300</b>
<b>Expansion #2</b>	<b>2,127</b>	<b>1,600</b>

# C-139 Flow Equalization Basin

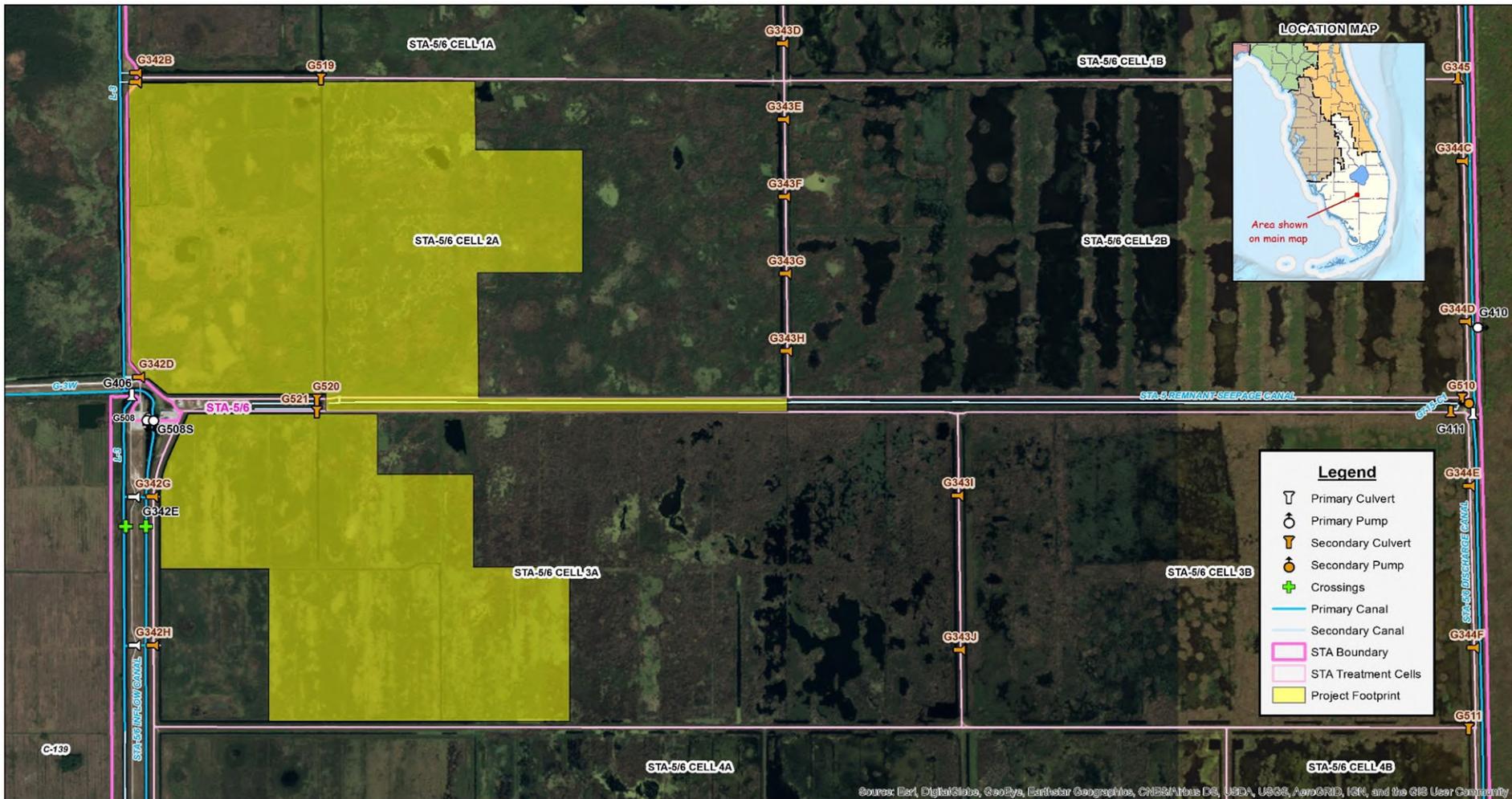


# C-139 Flow Equalization Basin



C-139 FEB/STA 5 Aerial View

# STA 5 EARTHWORK



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

# STA 5 EARTHWORK



Cell 3A – Degrading Operations Proceeding

# STA 5 EARTHWORK



Cell 3A - Hauling Spoil to C-139 Stockpile

# STA 5 EARTHWORK



Cell 3A – Grading Operation Proceeding

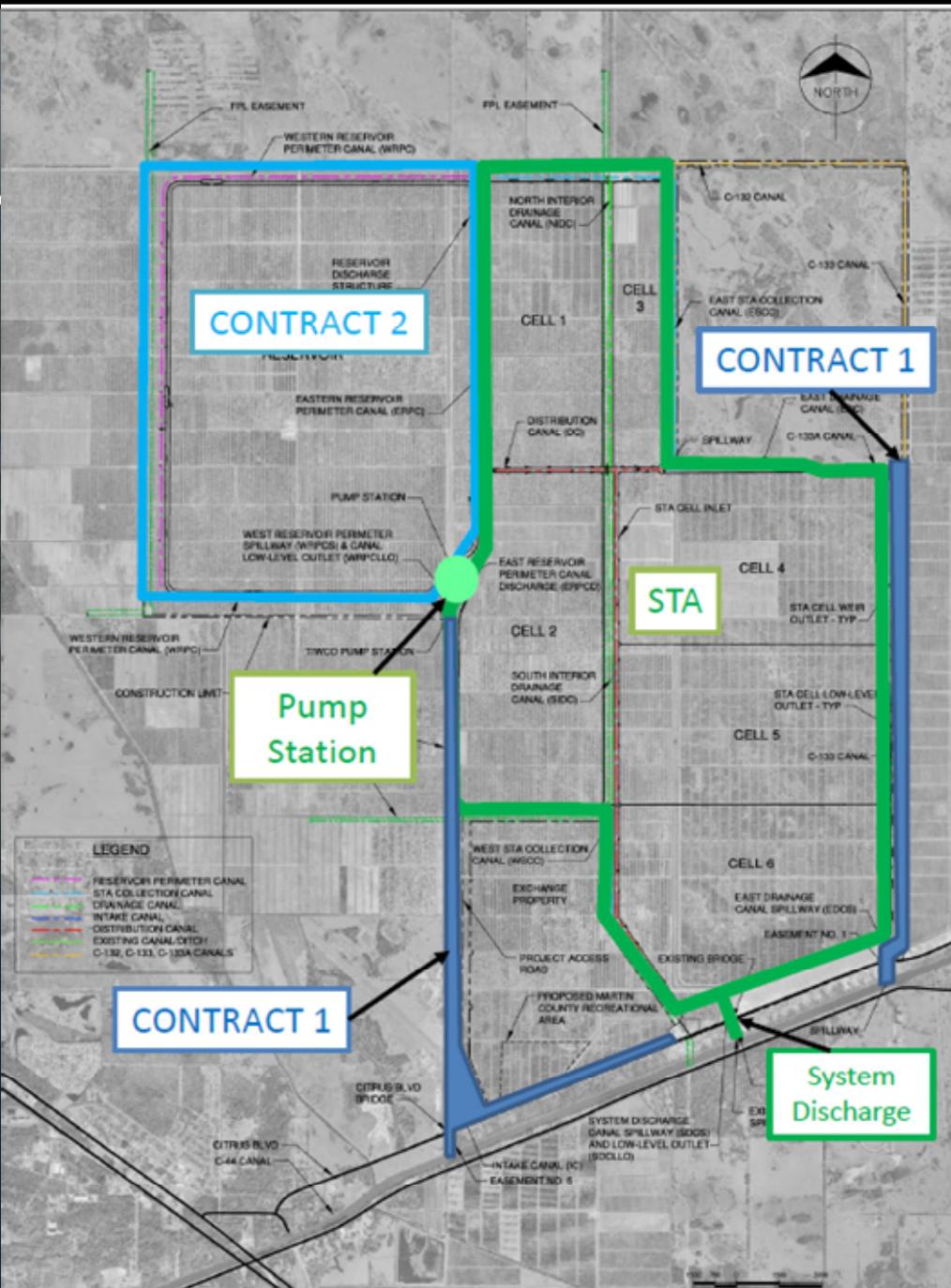
# STA 1E EARTHWORK



# STA 1E EARTHWORK

- Site Survey underway (February 2019)
- Geotechnical Investigation underway (February 2019)
- Design and Permitting Completion – February 2020
- Construction Contract Award – April 2020
- Restoration Strategies Completion Deadline - December 2022





# C-44 Reservoir/STA

- Contract 1 Completed by USACE
- System Discharge, Impacted Soils, and Pump Station contracts completed by SFWMD
- STA contract in progress by SFWMD
- Contract 2 Reservoir in progress by USACE

# C-44 Construction Progress

## S-406A Gated Inlet Structure & Distribution Canal



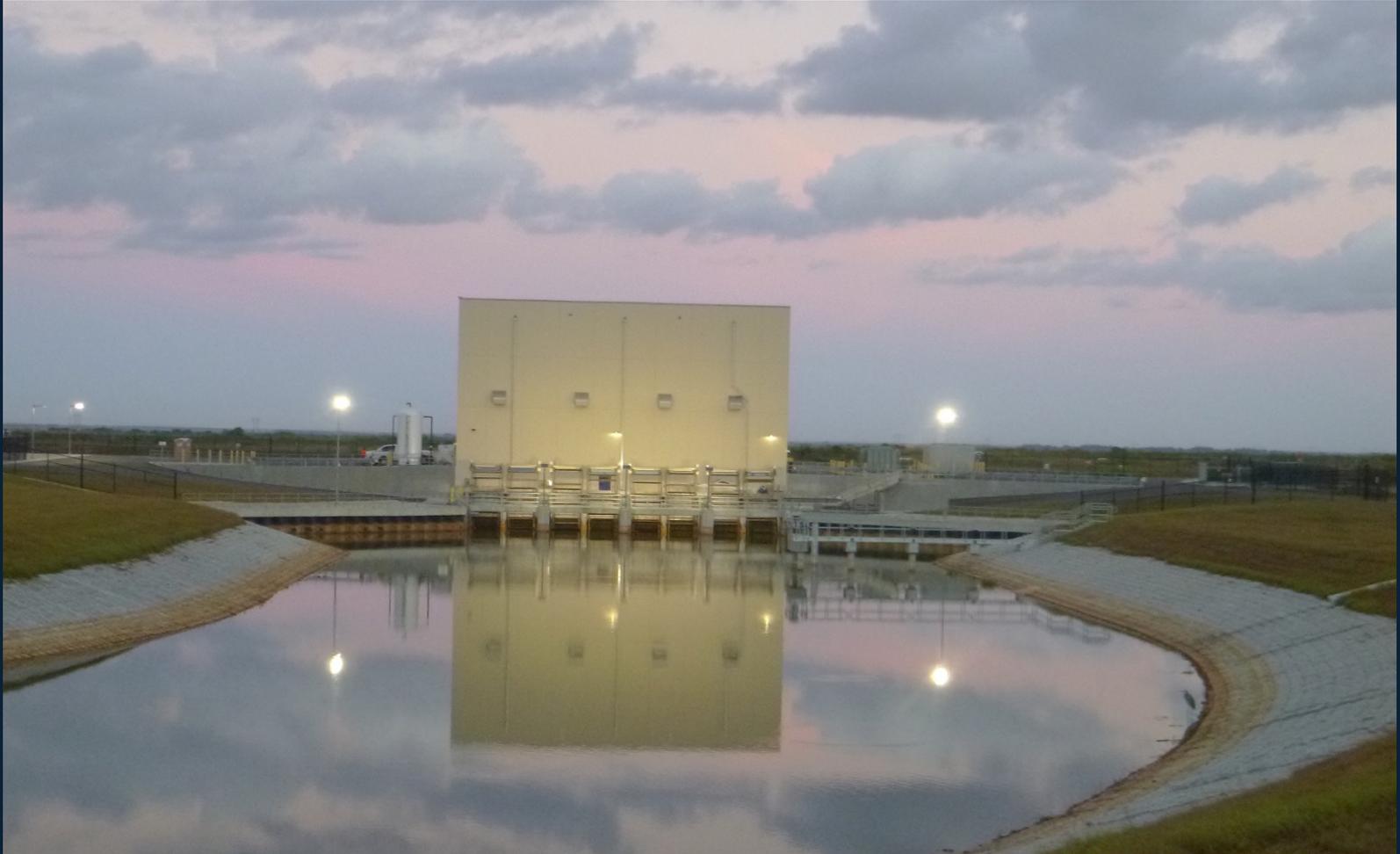
Feb 2019



S-405  
Spillway

Dec 2018

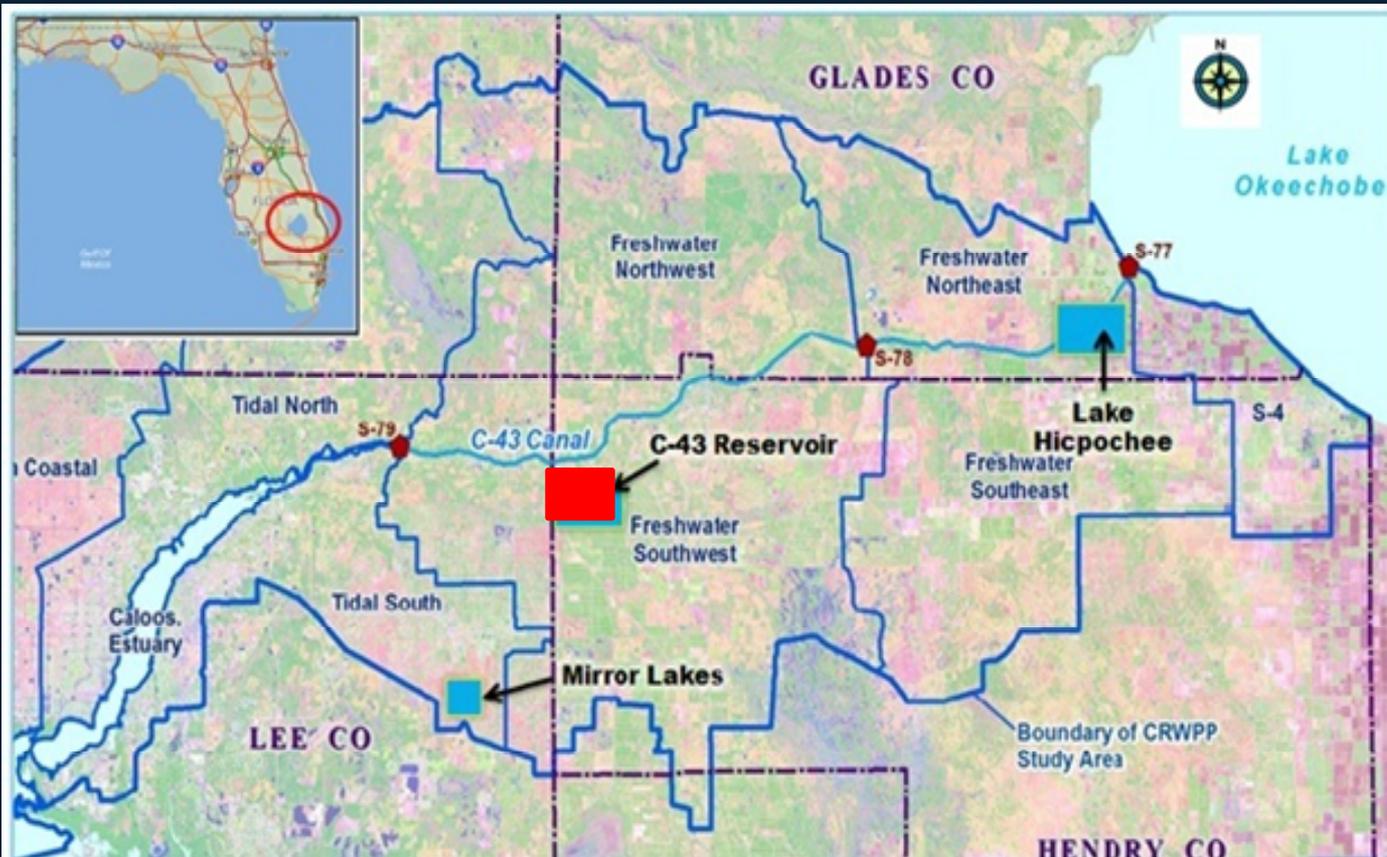
# C-44 Construction Progress



C-44 Pump Station

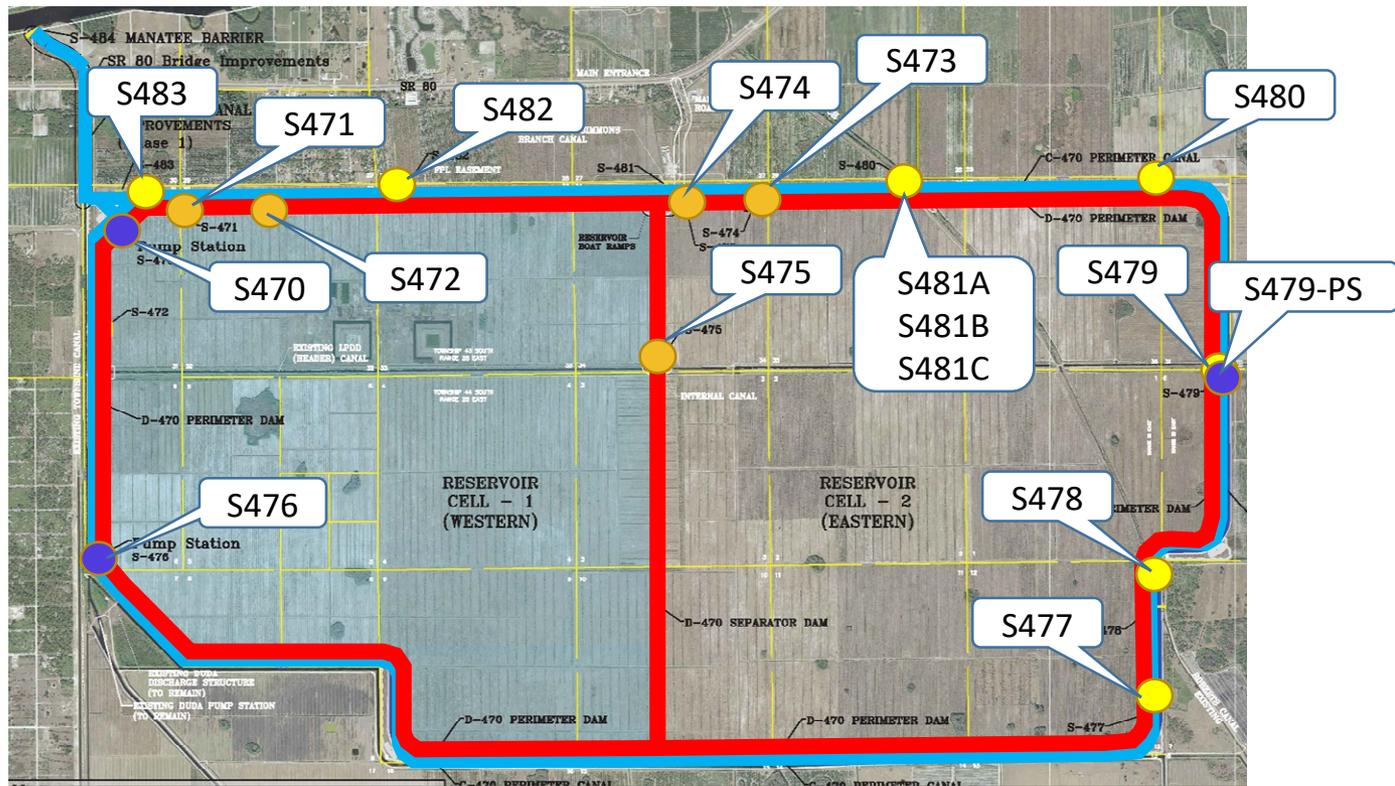
# C-43 West Basin Storage Reservoir

- Construction started in November 2015
- Project to store 170,000 acre-feet of water

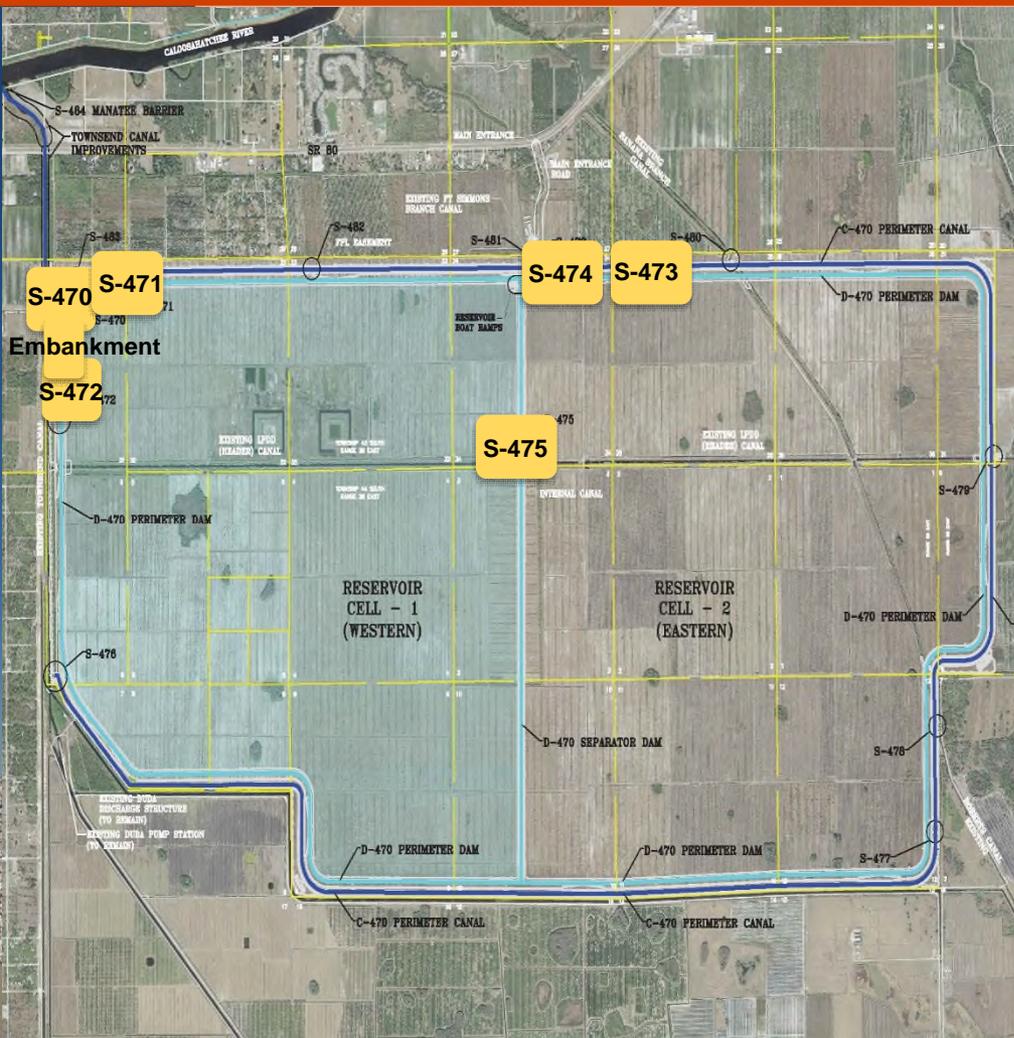


# C43 Reservoir Major Features

-  Canals
-  Dam
-  Pumps
-  Reservoir Structures
-  Perimeter Canal Structures



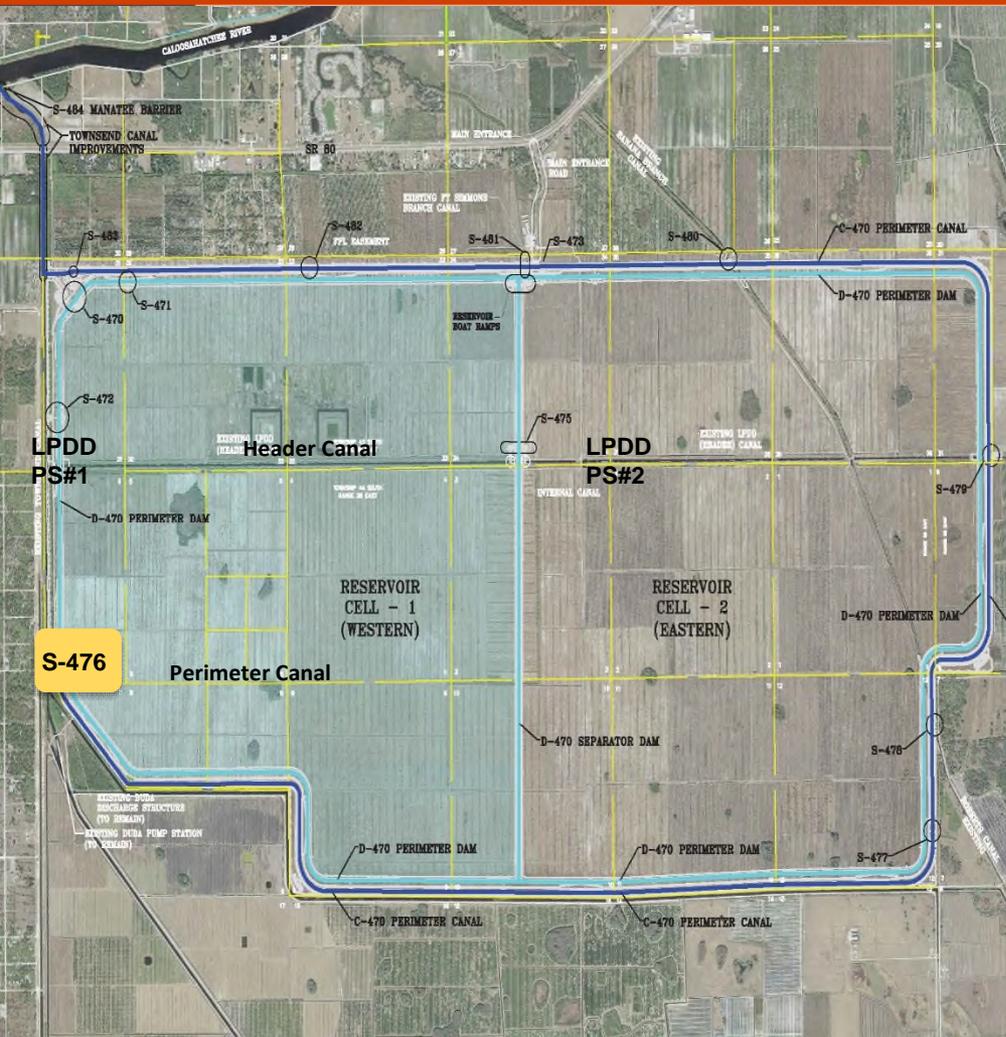
# Package 1 – Preload & Demolition



S-473 Preload Mound Looking West

- **Constructed earthen Preload Mounds at 7 locations.**
  - **~285,000 CY each (2M CY Total)**
- **Demolition of all agricultural facilities including small irrigation pump stations**
- **\$11 M**
- **NTP – Nov 2015**
- **COMPLETED - June 2018**

# Package 2 – Irrigation PS S-476



S-476 Looking East

- (3) 65 CFS Vertical Electric Pumps (195 CFS Total)
- Replaces the need for Header Canal to provide irrigation water to the east.
- \$13M
- NTP - June 2016
- Final Completion – April 2019
- 100% Complete



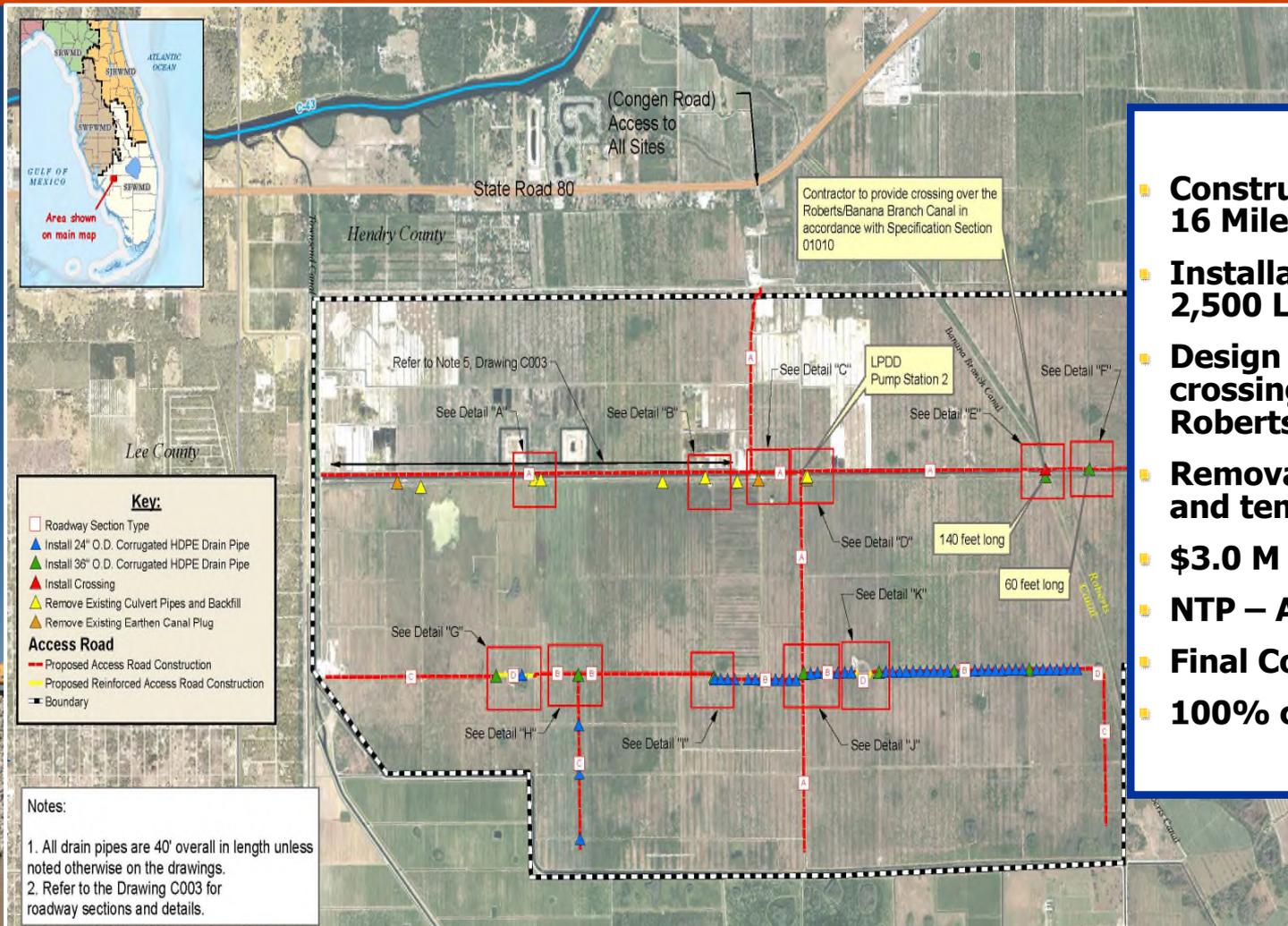
# Site Preparation Tree Clearing Progress



- **10,000 acres**
- **\$3.7M**
- **NTP – November 2017**
- **Final Completion – May 2019**
- **100% complete**

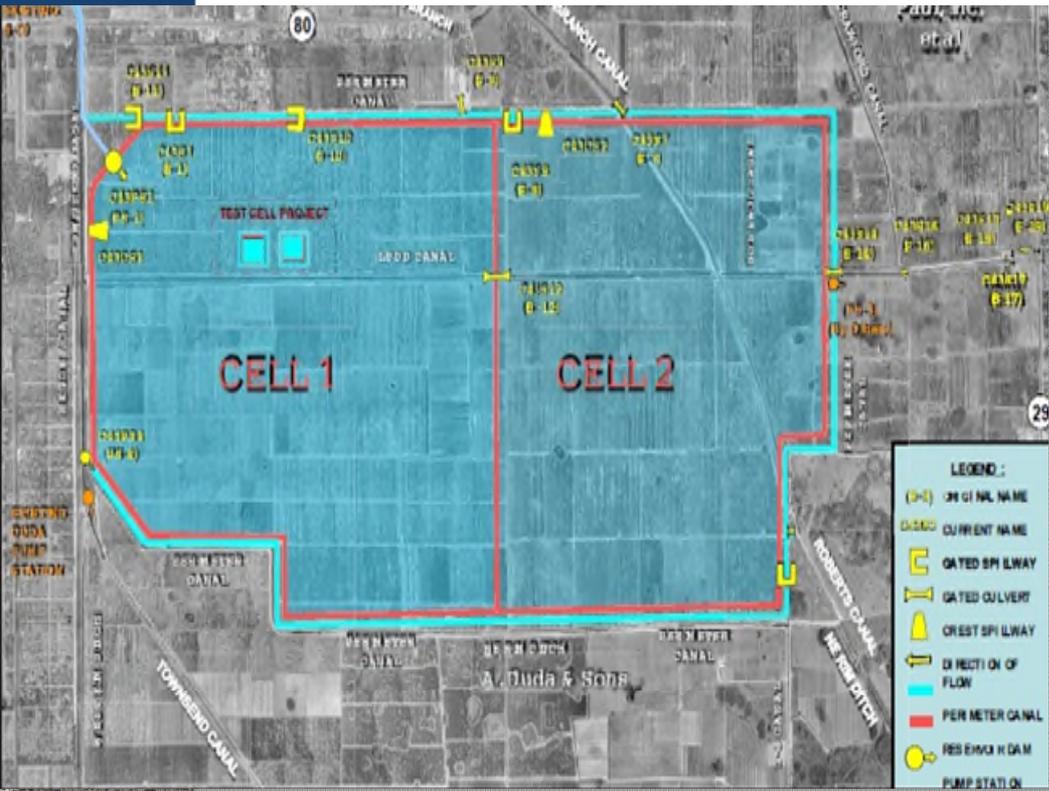


# Site Preparation Access Roads



- Construction of approximately 16 Miles of Shell Rock Rd.
- Installation of approximately 2,500 LF of culverts
- Design and installation of road crossing over the Roberts/Banana Branch Canal
- Removal of existing culverts and temporary canal plugs
- \$3.0 M
- NTP – April 2018
- Final Completion – March 2019
- 100% complete

# Package 4 – Civil Works

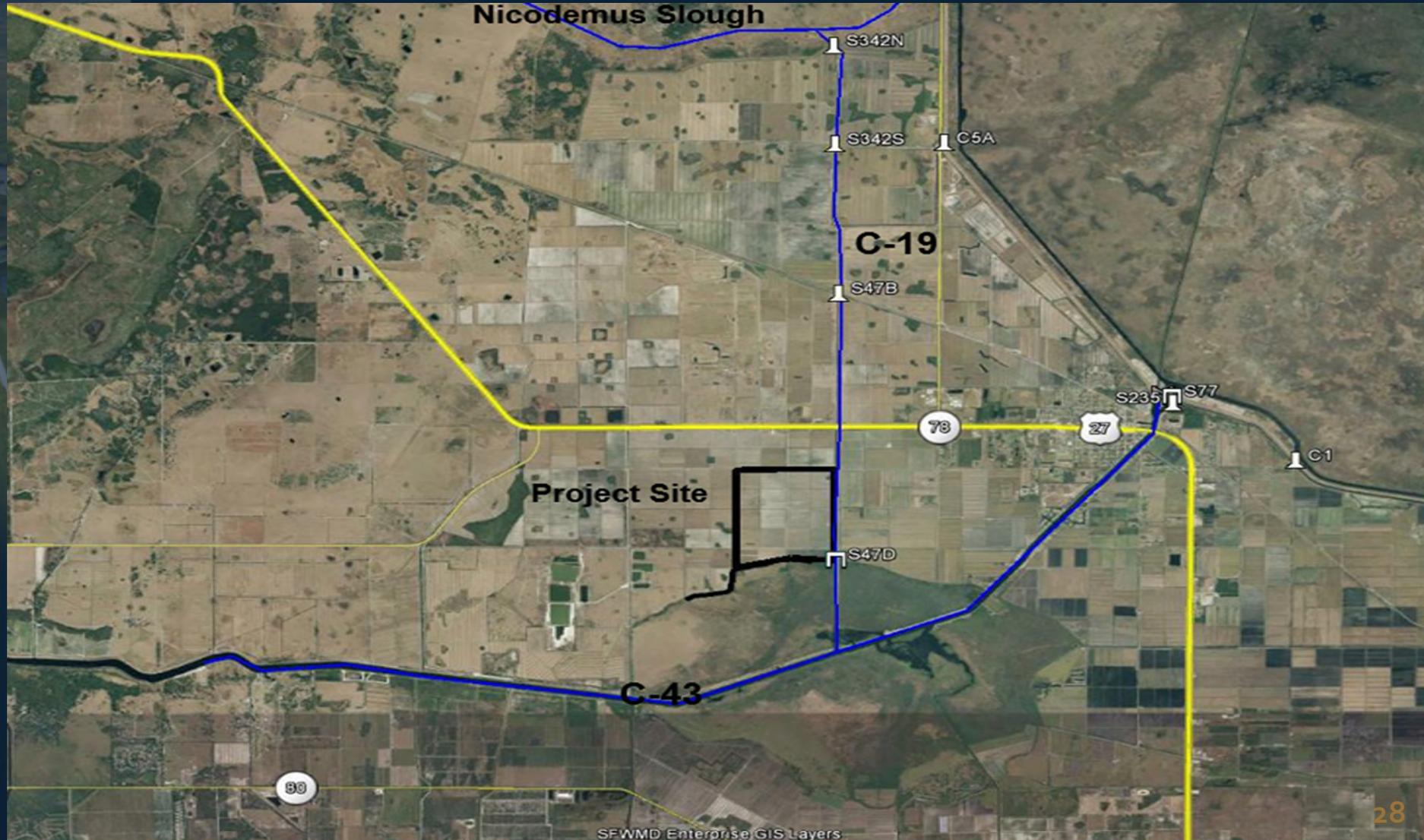


- 2-Cell Reservoir
  - 10,500 Acres
  - 170,000 ac-ft of storage
  - Depth ranging from 15' – 25'
- 19 Miles of Dam Embankment
- 15 Miles of Perimeter Canal
- 14 Major Water Control Structures
- Recreation Features
- Townsend Canal Improvements
- Local & Site Access Bridges

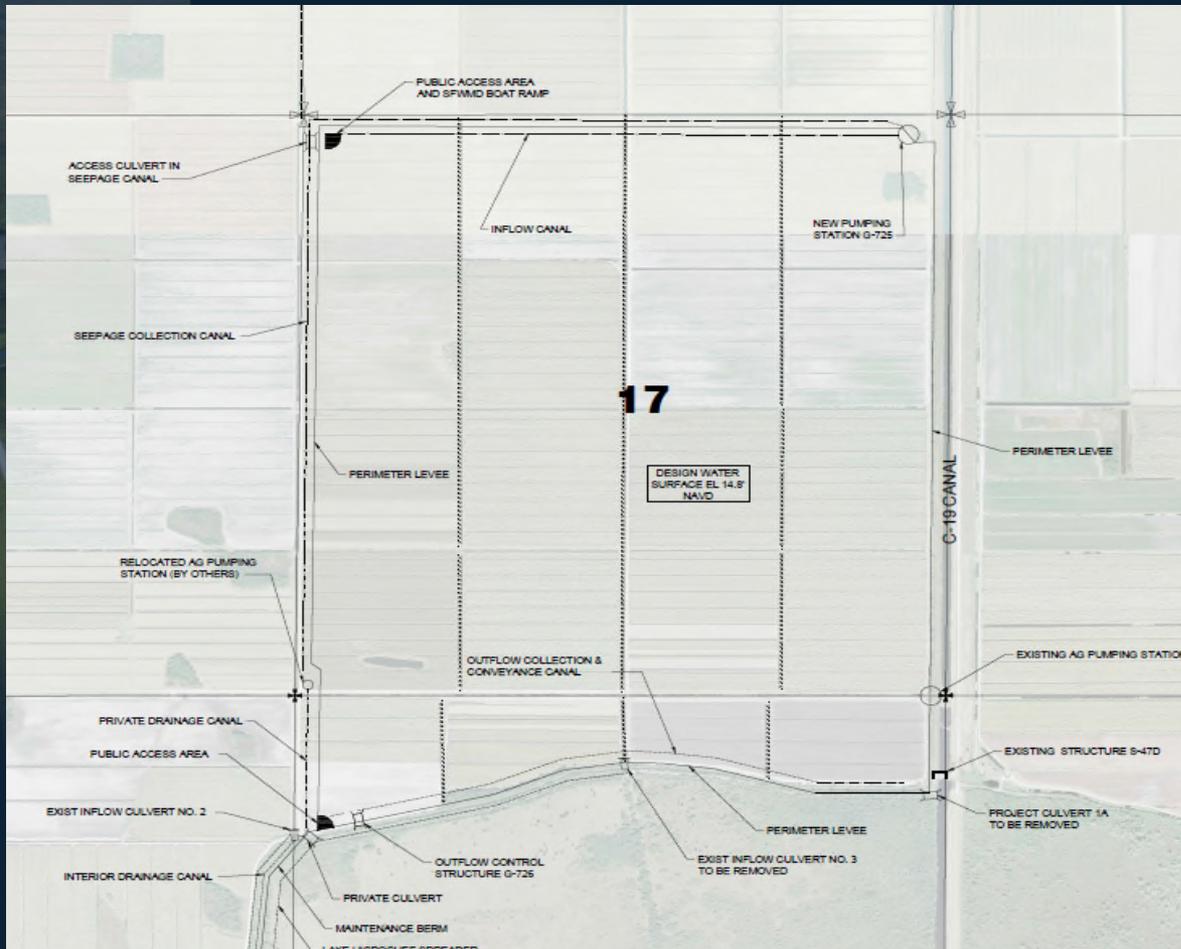
# C-43 Construction Progress



# Lake Hicpochee FEB

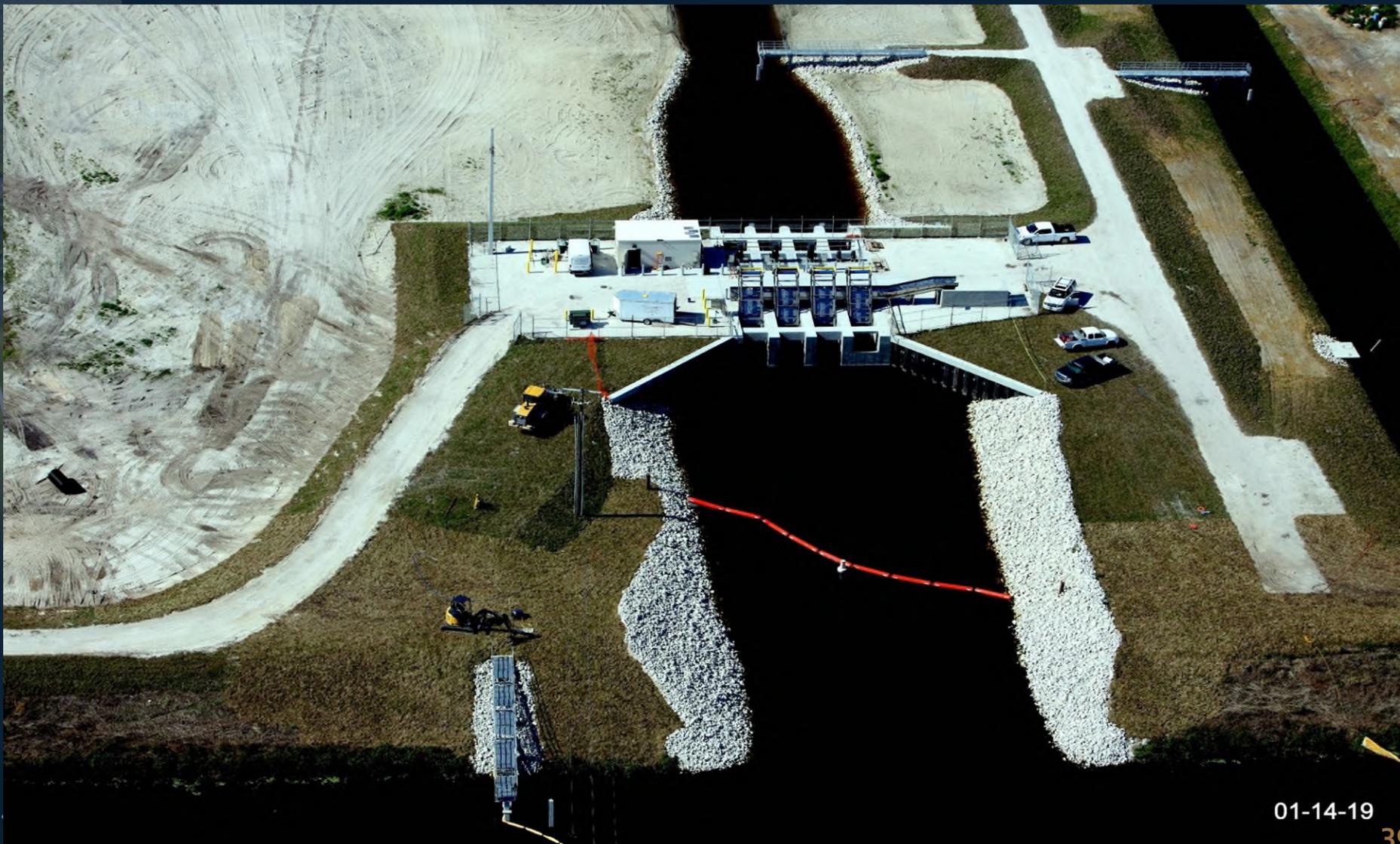


# Lake Hicpochee FEB Project Components



- Pumping Station G-725: 150 CFS Inflow Capacity
- 670 acre Flow Equalization Basin
- G-726: Fixed-Crest Weir Outflow Control Structure
- 6600' Spreader Canal in Lake Hicpochee
- Private Drainage Culvert to Accommodate private Discharges to Spreader Canal – 71 CFS

# Lake Hicpochee Flow Equalization Basin

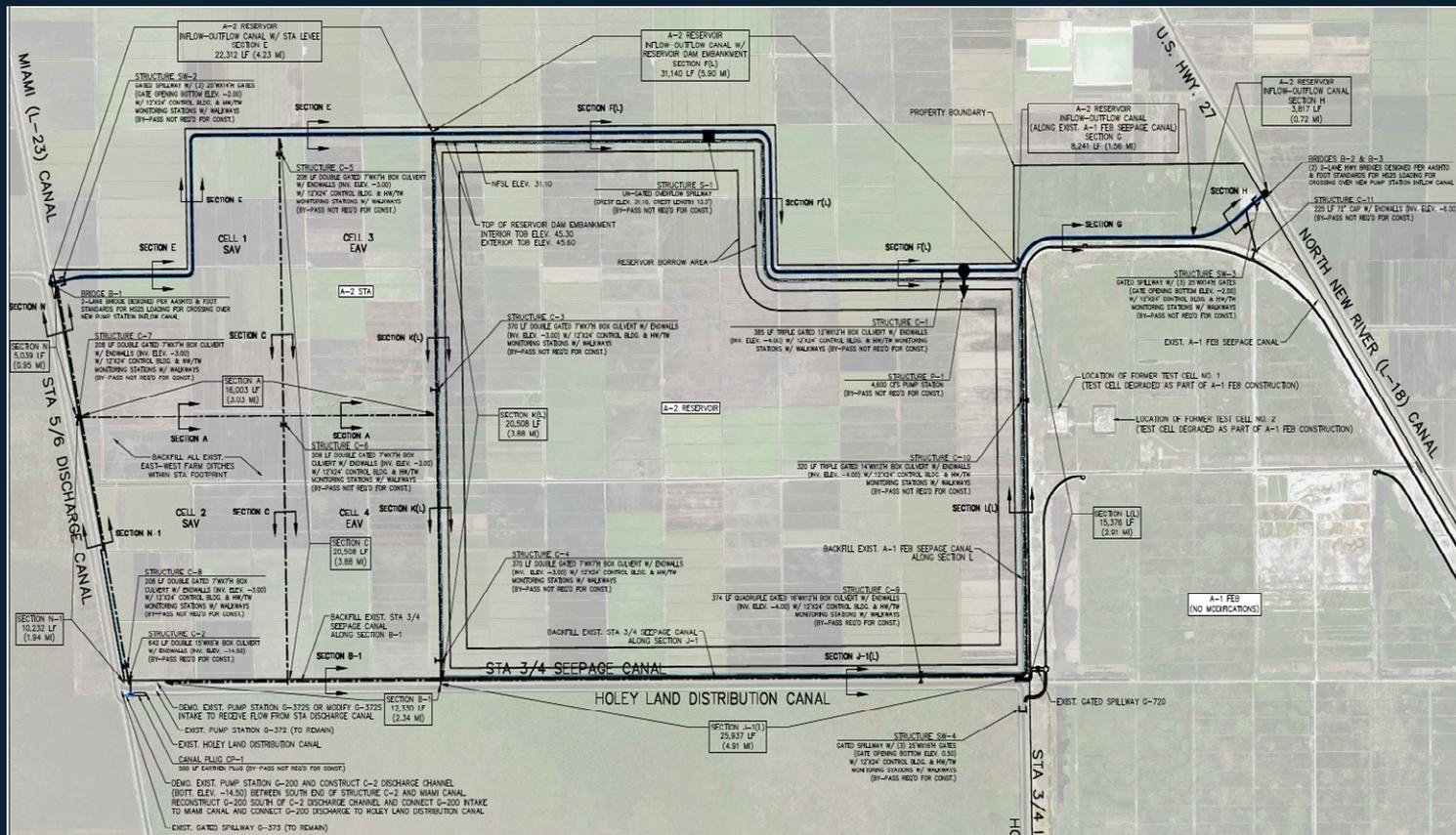


# Lake Hicpochee FEB G-726 Outflow Weir



# EAA Reservoir and Stormwater Treatment Area

- 240,000 acre-foot Reservoir, ~10,500 acres and ~23 feet deep
- Stormwater Treatment Area ~6,500 acres



# EAA Stormwater Treatment Area



- Initiated alternatives design for A-2 STA in January 2019
- Modeling Stormwater Treatment Area configuration (underway)
- Coordinating with USACE for site investigations

## New Storage and STA Acreage Tabulation

- 57,000 ac existing STA
- New RS STA – 6,200 ac
- Rehab STA under RS – 2,152 ac
- New RS storage – 116,000 ac-ft
- C-44 storage – 50,600 ac-ft, 6,300 ac STA
- C-43 storage – 170,000 ac-ft
- L. Hicpochee storage – 1,300 ac-ft
- EAA Reservoir – 240,000 ac-ft storage, 6,500 acres of STA

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**Total = 577,900 ac-ft and 78,152 acres of STA**

# Discussion



[sfwmd.gov](http://sfwmd.gov)

# C-44 Construction Progress



Feb 2019

C-44 STA Cells 4/5 Berm Construction and Distribution Canal