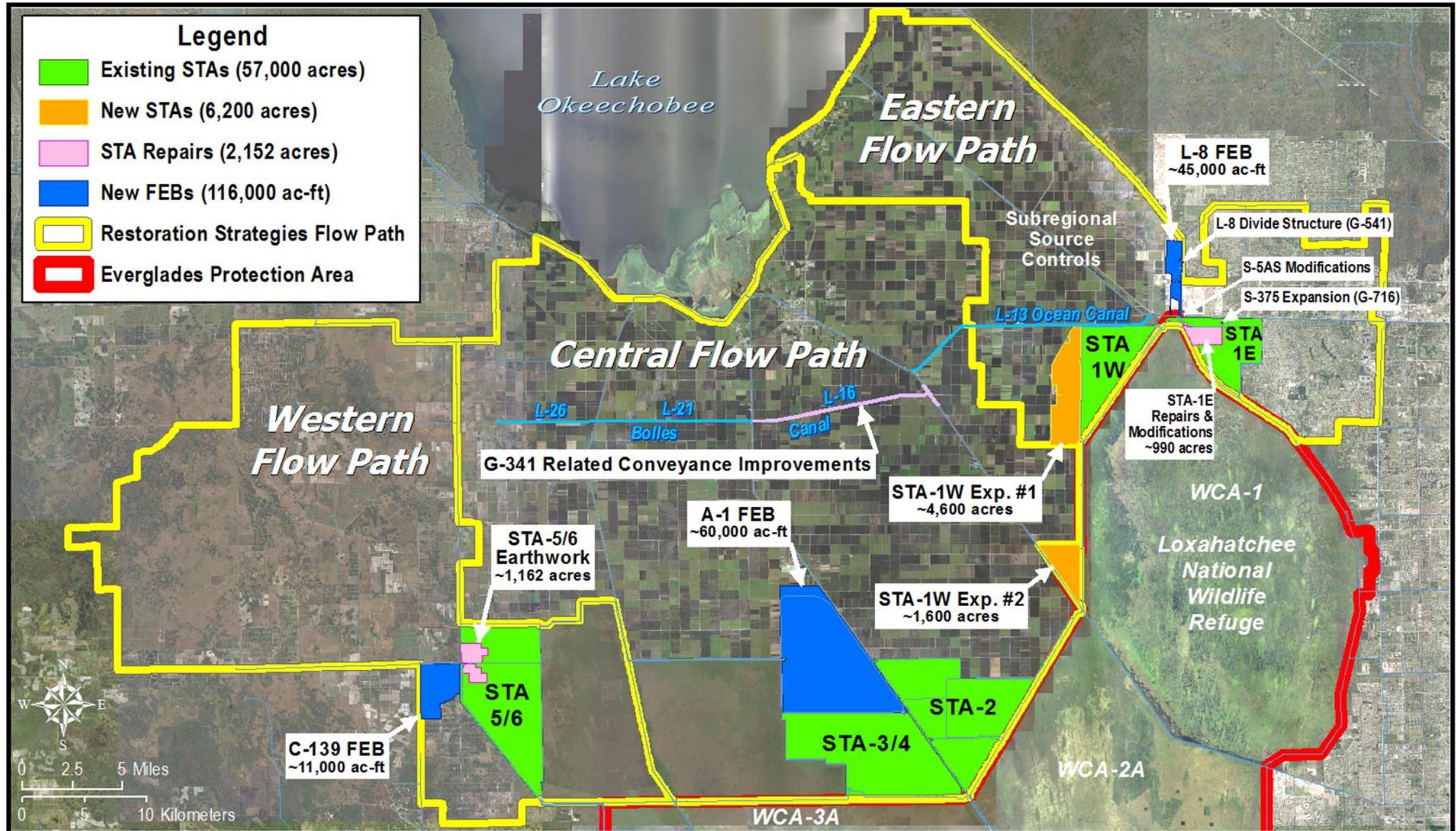


Restoration Strategies: Design and Construction Update

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Section Administrator
Operations, Engineering and Construction Division

16th Annual Public Meeting on the Long-Term Plan
for Achieving Water Quality Goals for Everglades
Protection Area Tributary Basins
February 25, 2019



A-1 Flow Equalization Basin



- Purpose
 - Attenuate high flows to STA-3/4 and STA-2
- Cost \$63M
- Features
 - 15,000 acres of effective treatment
 - 60,000 acre-ft storage capacity
- Inflows
 - North New River Canal – East Inflow
 - Miami Canal – West Inflow
- Outflows
 - STA-3/4
 - STA-2
- Completed in 2015

L-8 Flow Equalization Basin



- Purpose
 - Attenuate high flows to STA-1W and STA-1E
- Cost \$64M
- Features
 - Former 950-acre rock mine
 - Geology allows below ground storage
 - 45,000 ac-ft of storage
- Inflows
 - S-5A & C-51 West Basins
- Completed in 2017

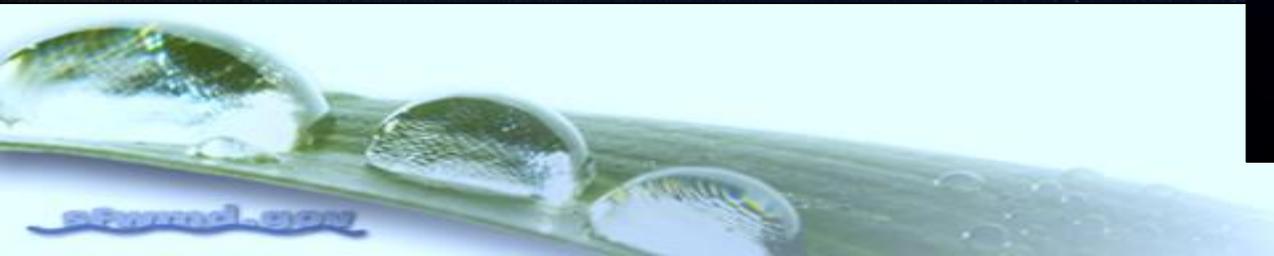
L-8 Flow Equalization Basin



G-539 Pump Station



G-538 Inflow Structure



S-375 Expansion (Construction of G-716)



- Purpose
 - Expand flow capacity of connection between STA-1E east and west distribution cells
- Cost \$5.7M
- Features
 - Three-gated spillway
 - 2,600 cfs
- Completed in 2017

G-716 Looking North

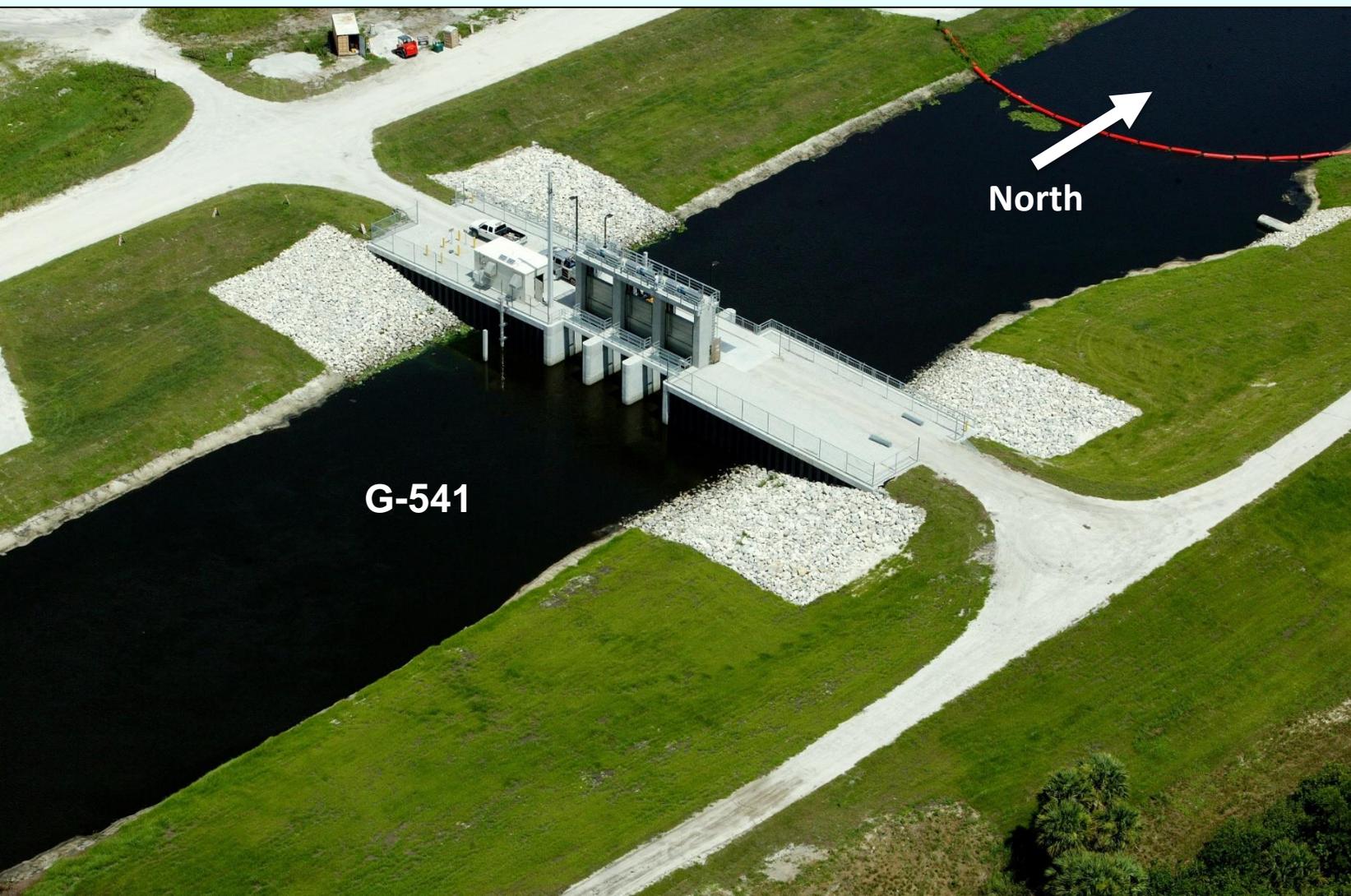
S-5AS Structure Modifications



S-5AS Looking South

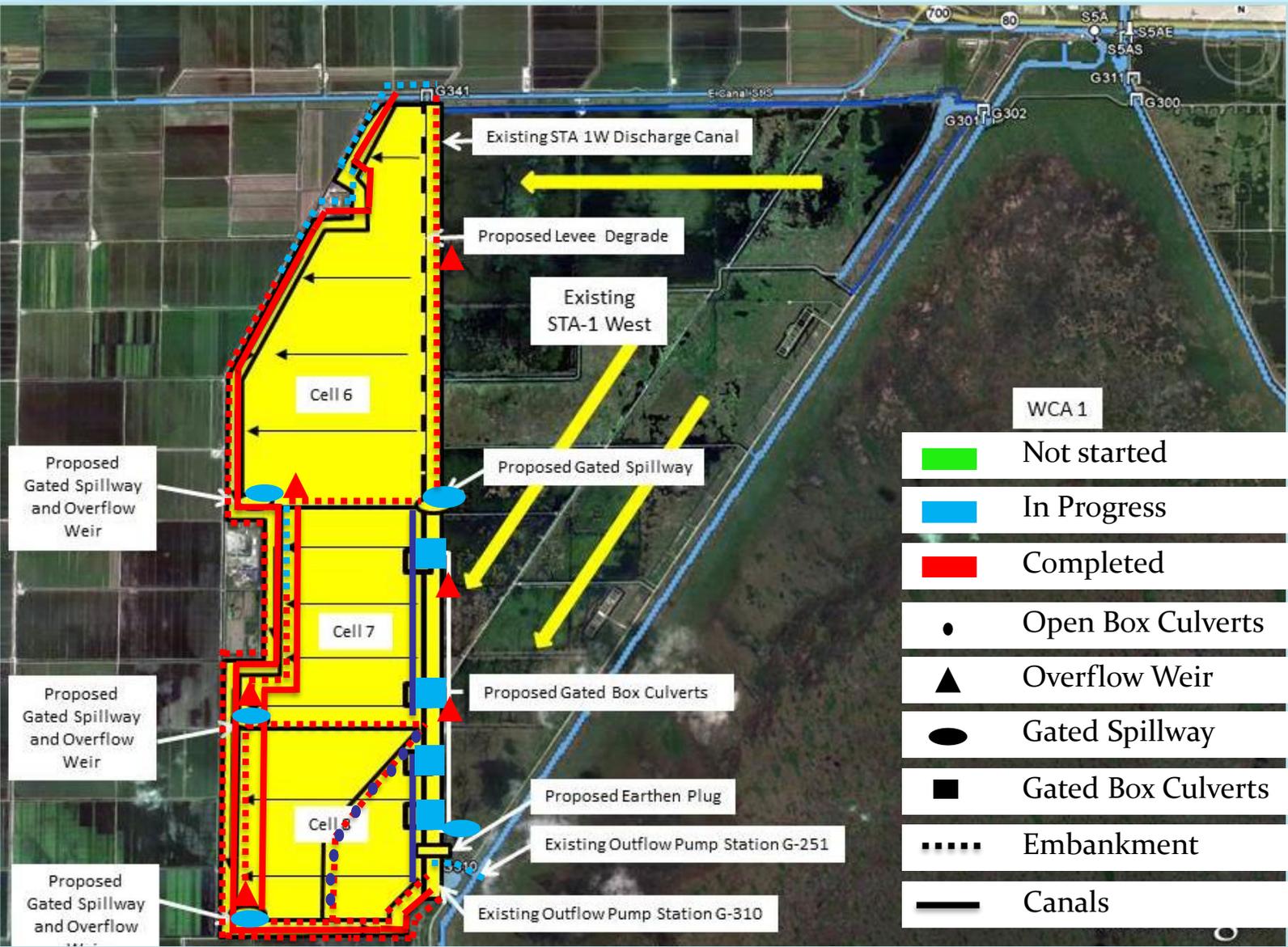
- Purpose
 - Improvements for south to north flow
- Cost \$2.4M
- Features
 - Two-gated Spillway
 - 3,000 cfs
- Structure Mods
 - Energy dissipation
 - New gauges and improve electrical
 - Dredging of discharge basin
 - Riprap basin and canal banks
- Completed in 2016

L-8 Divide Structure (G-541)



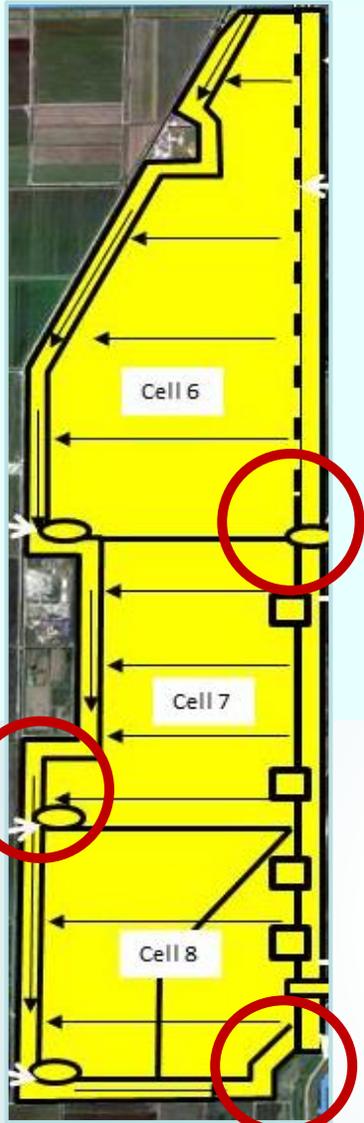
- Purpose
 - Raise southern L-8 Canal reach to allow filling into L-8 FEB
- Cost \$4.6M
- Features
 - Three-gated Spillway
 - 2,000 cfs
- Completed in 2016

STA-1W Expansion #1

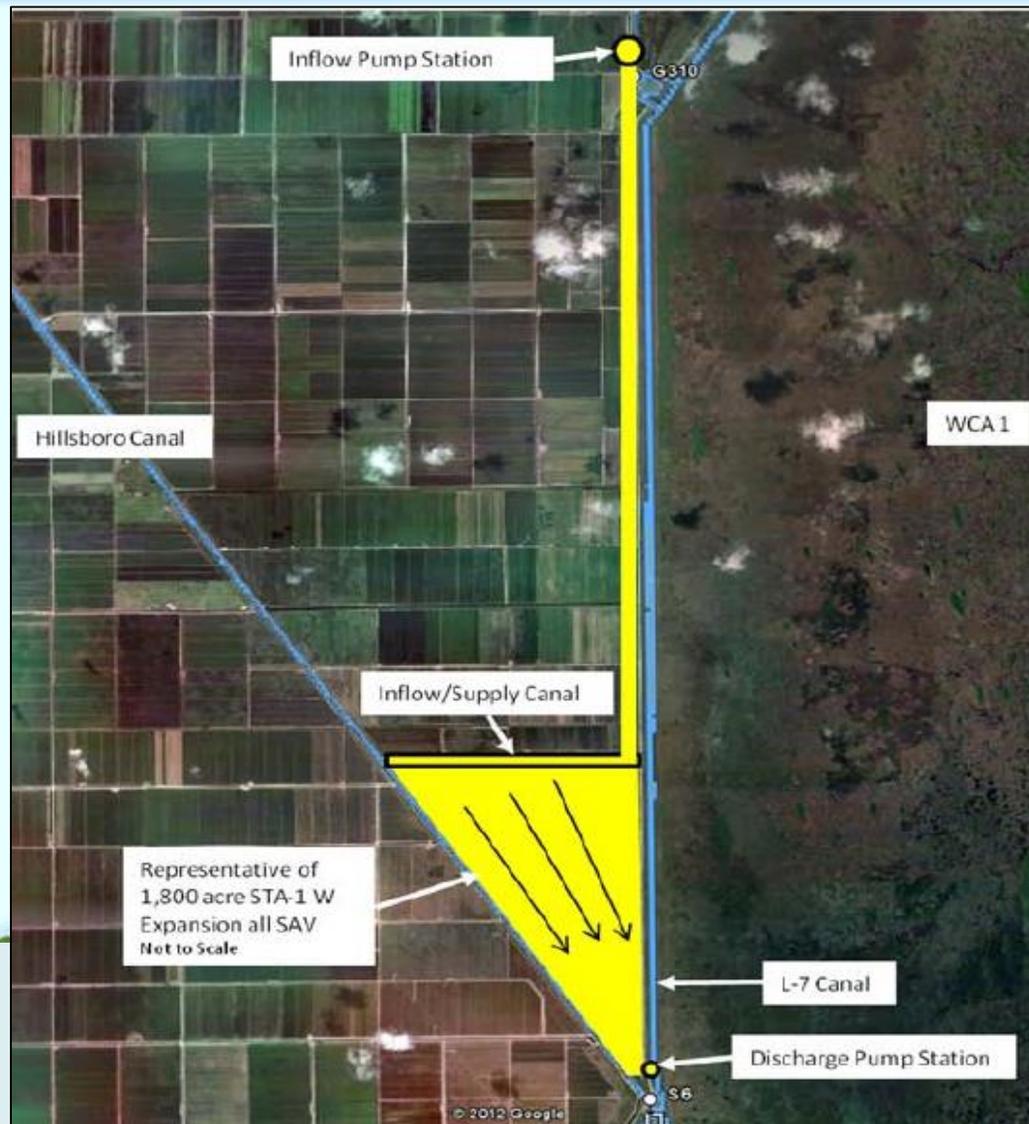


- Purpose
 - Extend length of STA-1W flow ways to improve performance
- Cost \$80M
- Features
 - 4,300 acres additional treatment area
 - Inflows
 - S-5A and C-51 West Basins
 - Outflows
 - Water Conservation Area 1
- Initial flooding and optimization began January 2019

STA-1W Expansion #1

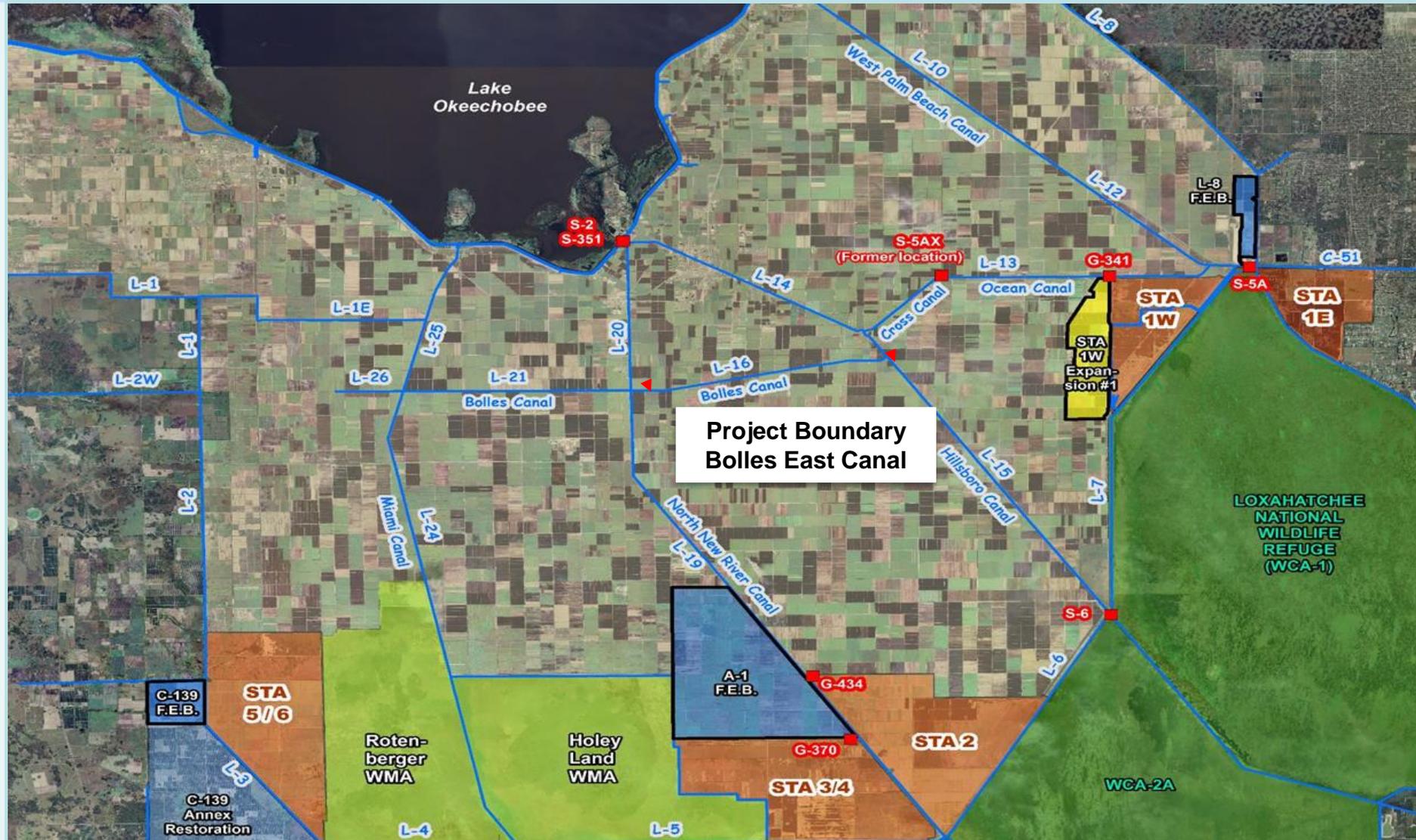


STA-1W Expansion #2



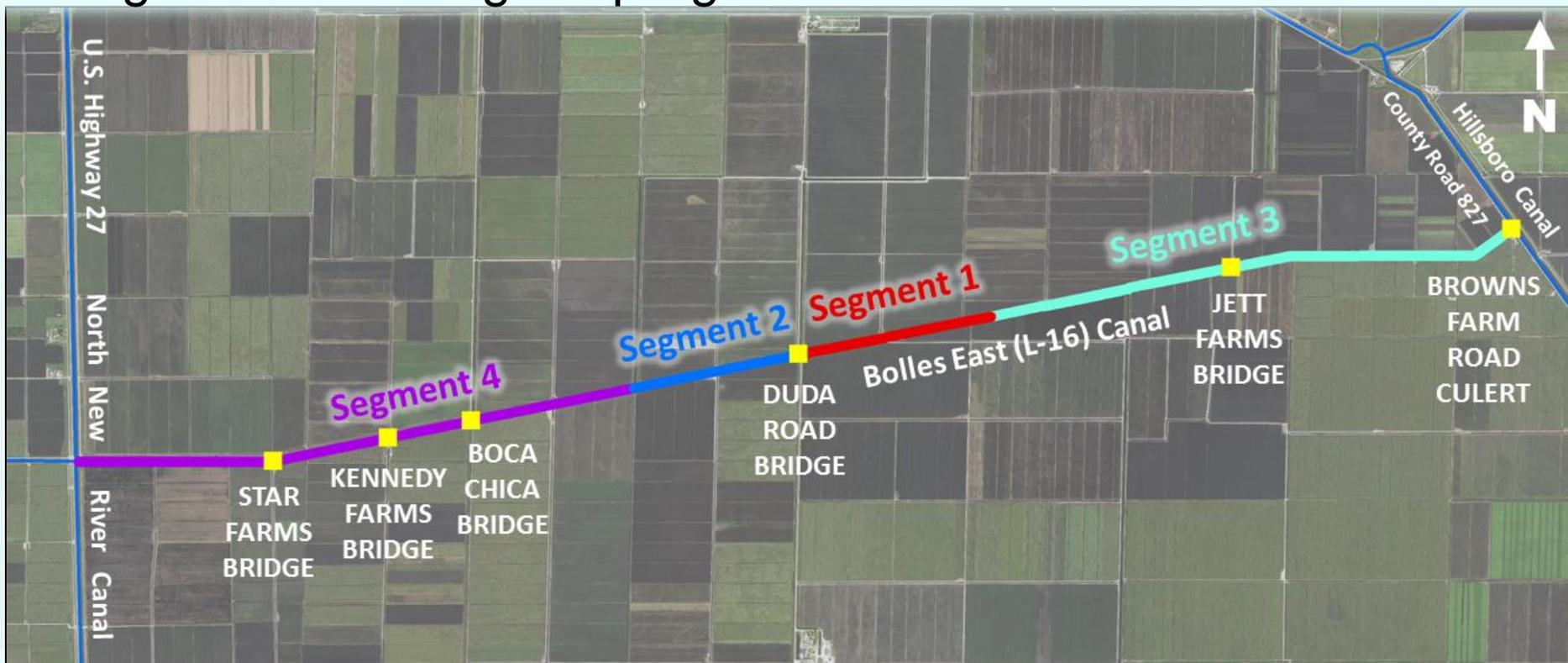
- Purpose
 - Extend treatment flow ways for STA-1W
- Cost \$180M
- Features
 - 1,600 acres of additional treatment area
- Inflows
 - S-5A and C-51 West Basins via STA-1W
- Outflow
 - Water Conservation Area 1
- Design phase in progress

G-341 Related Conveyance Improvements Bolles East Canal



G-341 Related Conveyance Improvements Bolles East Canal

- Purpose
 - Improve conveyance of Bolles East and add system operational flexibility
- Segments 1 and 2 - Completed
- Segment 3 - Construction on-going (97% complete)
- Segment 4 – Design in progress



Final Section of Segments 1 and 2



After Construction



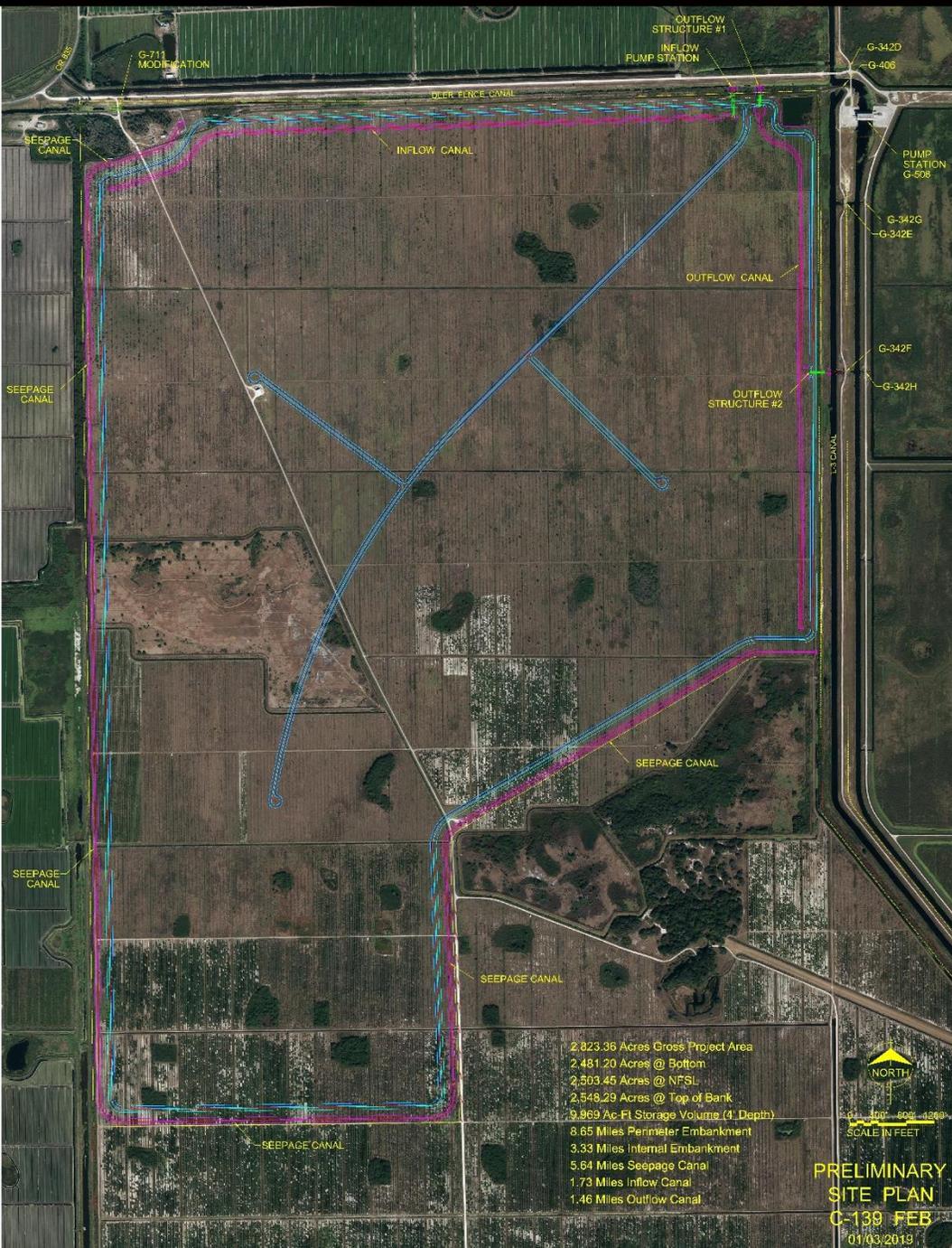
Before Construction

Excavation of Segment 3

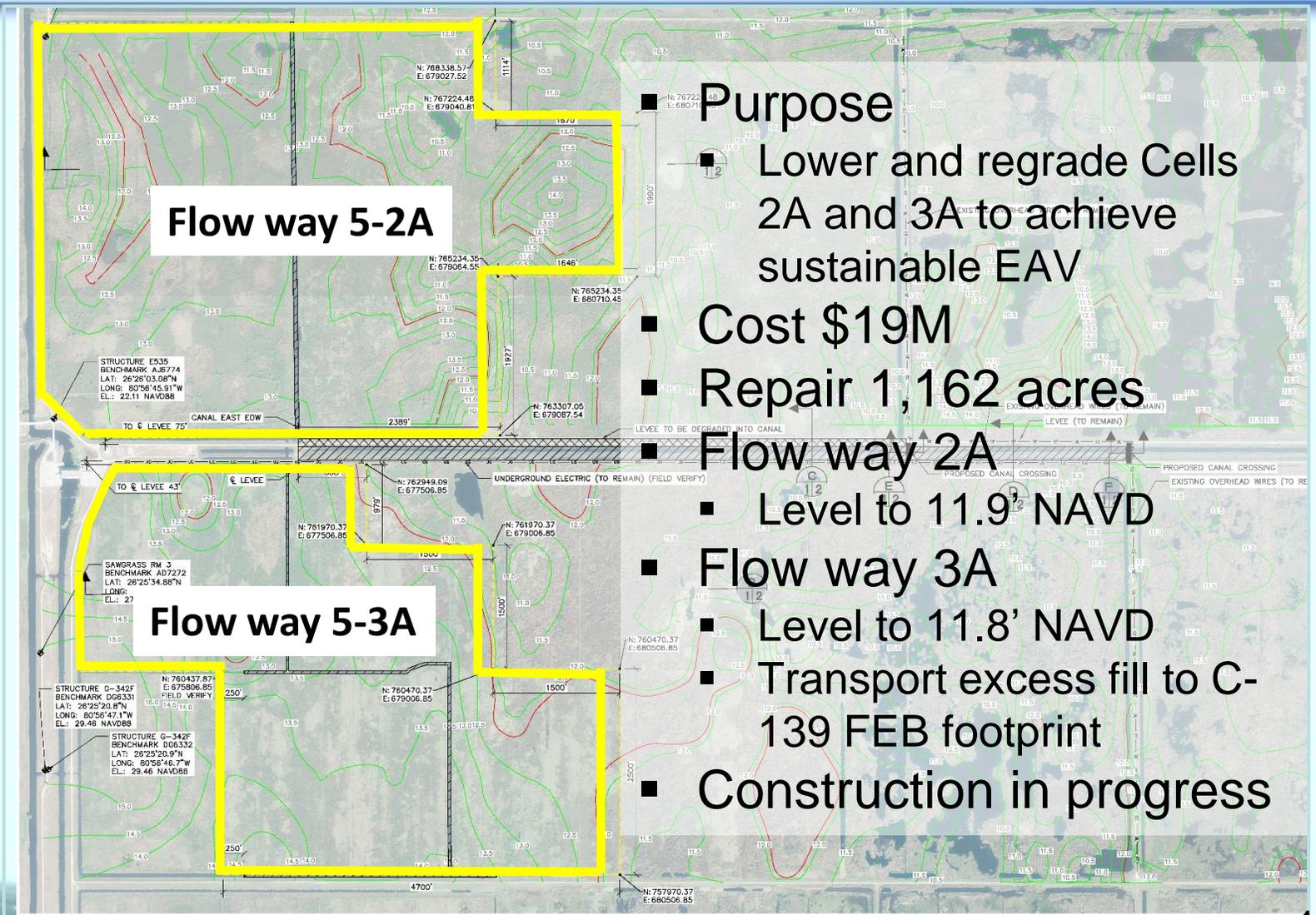
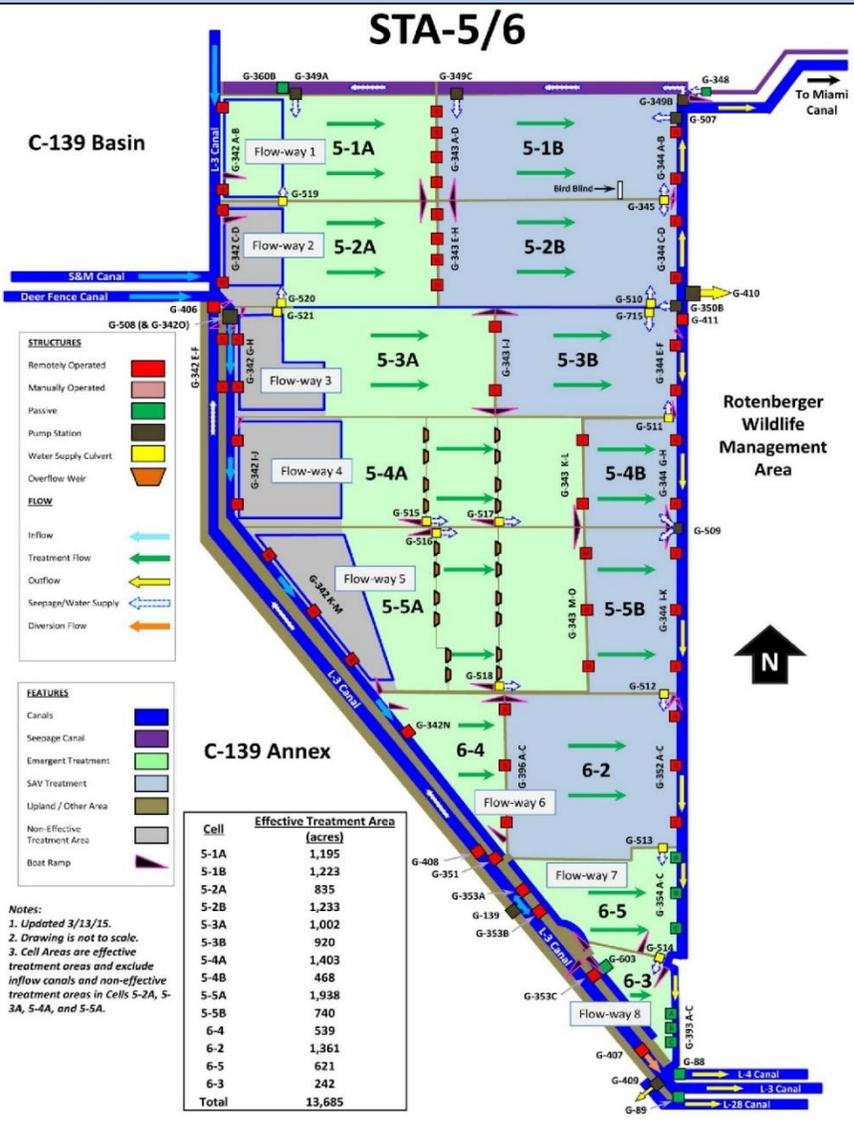


C-139 Flow Equalization Basin

- Purpose
 - Attenuate high flows into STA-5/6
- Features
 - 2,800 acres located south of Deer Fence Canal and west of STA-5/6 Flow way 3
 - 11,000 acre-ft shallow impoundment
- Inflows
 - C-139 Basin Runoff
- Outflows
 - STA-5/6
- Design in progress



STA-5/6 Earthwork Improvements



- **Purpose**
 - Lower and regrade Cells 2A and 3A to achieve sustainable EAV
- **Cost \$19M**
- **Repair 1,162 acres**
- **Flow way 2A**
 - Level to 11.9' NAVD
- **Flow way 3A**
 - Level to 11.8' NAVD
 - Transport excess fill to C-139 FEB footprint
- **Construction in progress**

STA-5/6 Earthwork Improvements

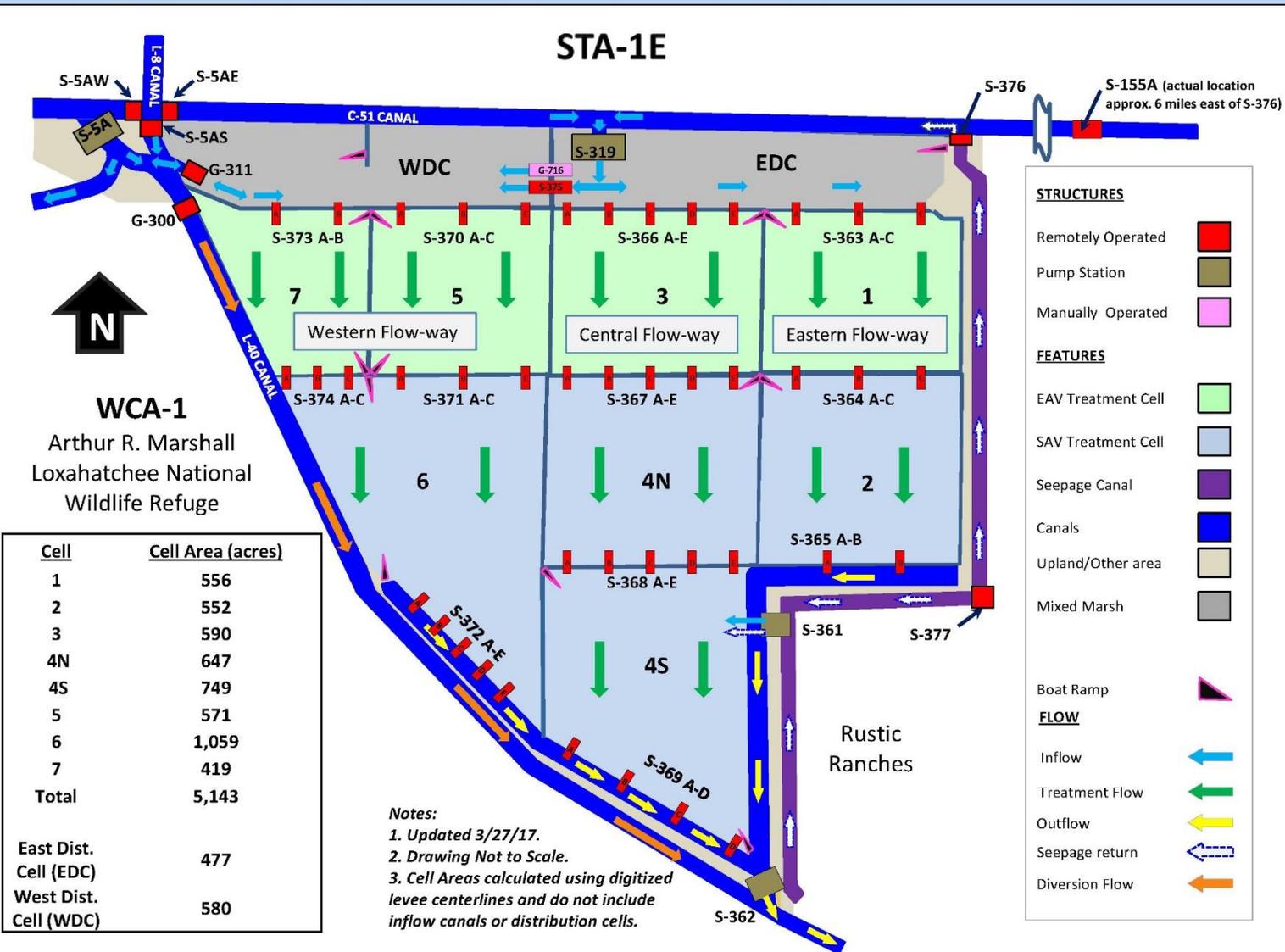
STA-5/6 Cell 2A



STA-5/6 Cell 3A



STA-1E Repairs & Modifications



- Purpose
 - Raise and regrade ~990 acres in Cells 5 and 7 to achieve sustainable EAV
- Haul fill from near by sources
- Design in progress

Questions