

# Compartment B Buildout and Compartment C Buildout Stormwater Treatment Areas Update

**Quarterly Communications Meeting on the  
Long-Term Plan for Achieving Water Quality Goals for  
Everglades Protection Area Tributary Basins**

September 29, 2009

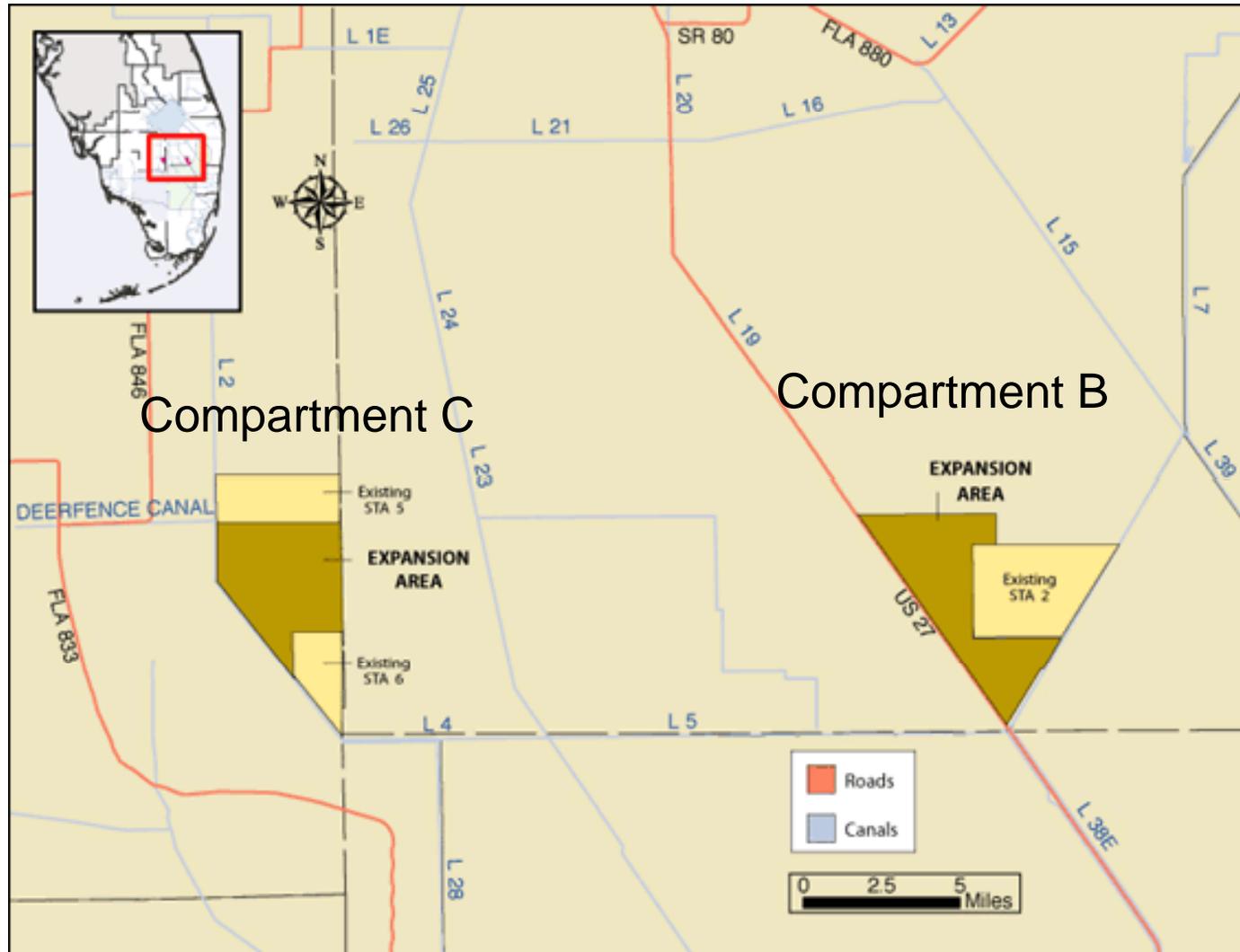
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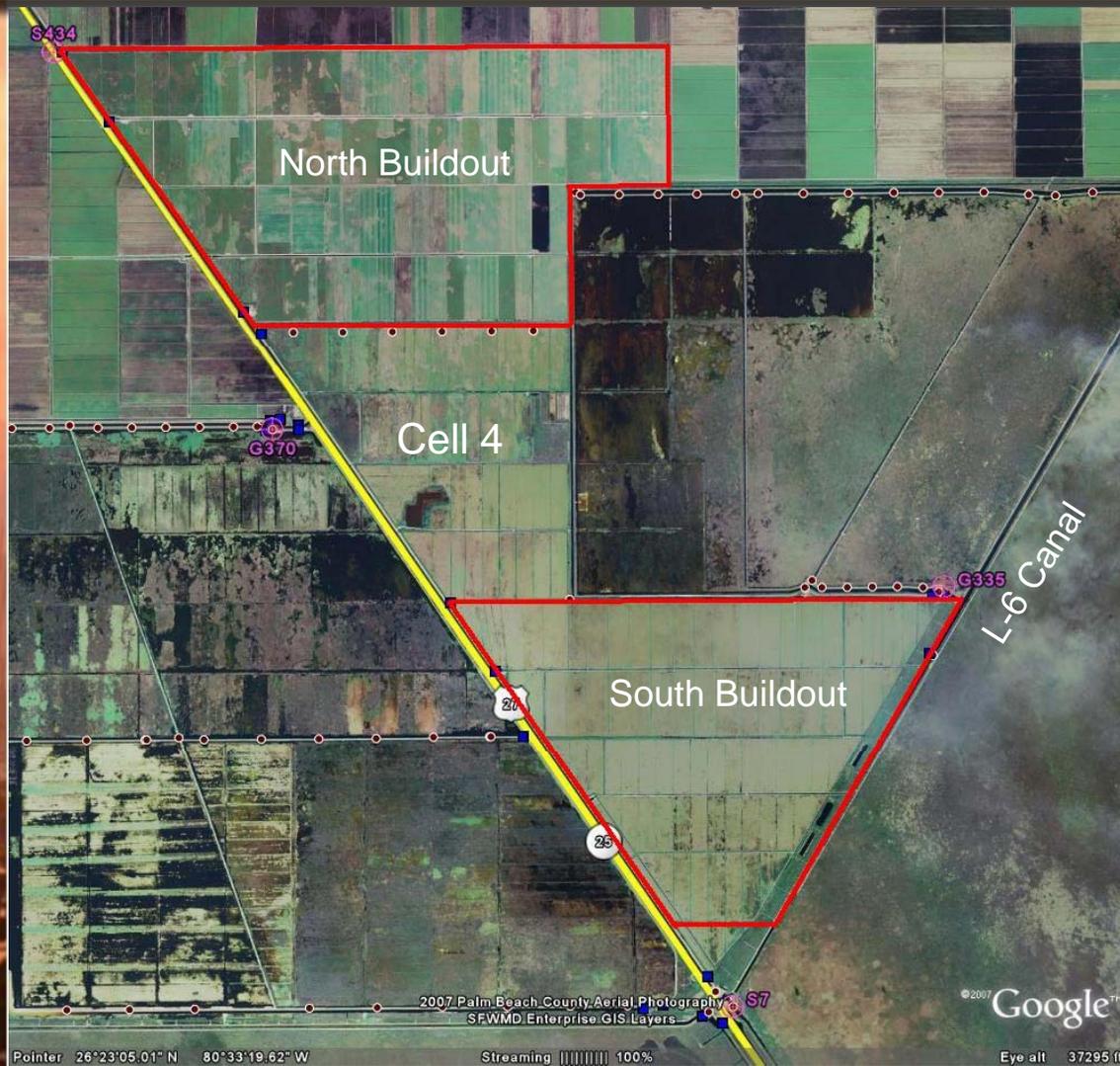
# Locations of Compartments B and C



## Basis and Purpose

- **Component of the Everglades Construction Project and the Everglades Protection Area Tributary Basins Long-Term Plan for Achieving Water Quality Goals (Long-Term Plan)**
- **Included in the 10-Year Strategic Plan and the current Annual Plan**
- **Assist with Redistribution of Flows and Loads in the Stormwater Treatment Area System to achieve optimal performance**

# Compartment B Buildout



# Compartment B Buildout

- **Accomplishments to date:**
  - **Completed Final Design-Civil Works**
  - **Completed Final Design-Pump Stations**
  - **Completed Pump Equipment Procurement Contract**
  - **FDEP Permit received on March 17, 2009 with condition to re-design project discharge to Water Conservation Area 2A**
  - **USACE Permit Decision received May 2009**
  - **Started Construction – Civil Works**
    - **Issued NTP June 1, 2009 for North and South Buildouts**
  - **Start Construction – G-434, G-435 and G-436 Pump Stations**
    - **Issued NTP September 14 & 17, 2009**

## Compartment B Buildout

- **What's next:**
  - **Re-Design of project discharge at L-6 Canal to Water Conservation Area 2A**
  - **Pump Equipment Procurement Delivery**
  - **Continue construction of Civil Works**
  - **Continue construction of G-434, G-435, and G-436 pump stations**
  - **Design of Inflow Canal Bridges at G-434 and G-435**
- **Construction Completion**
  - **Flow Capable Civil Works – December 31, 2010**
  - **Permanent Pump Stations January, 2012**

L-6 Canal Modification



Modify STA-2 Discharge

STA-2

EAA Compartment B

Widening of L-6 Canal

Delete 10,000 ft levee degrade from Design

2004-05 SFWMD Aerial Photography

Existing STA-2 Discharge Gap

©2011 Google™

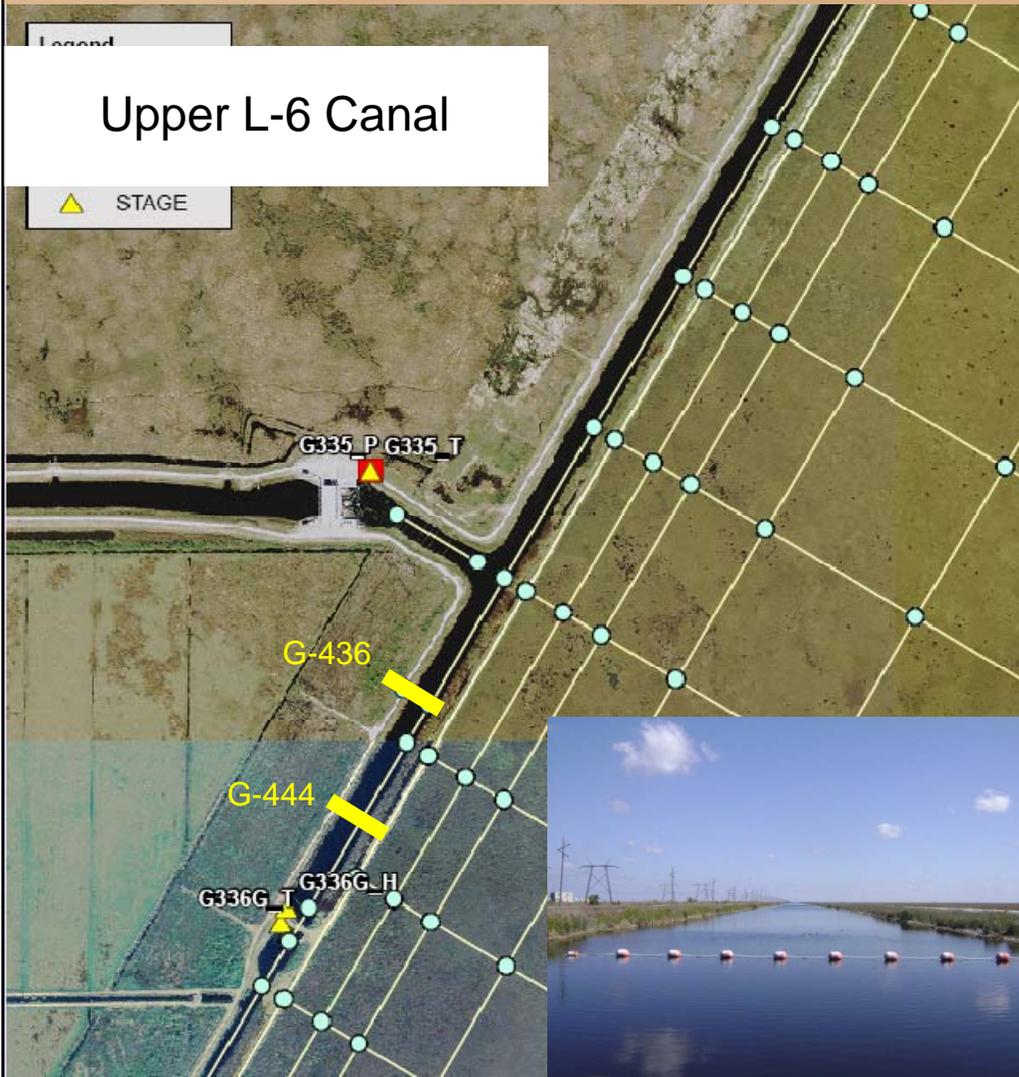
Pointer 26°24'01.15" N 80°31'01.13" W Streaming ||||| 100%

Eye alt 10.68 mi

## L-6 Canal Modification

- **Conceptual Design received July 2, 2009**
- **Draft Geotechnical Report received August 31, 2009**
- **60% Design received September 18, 2009**
- **Pre-Final Design due November 20, 2009**
- **Final Design due January 19, 2010**
- **Bid Opening April 2010**
- **Contract Award May 2010 and NTP June 2010**

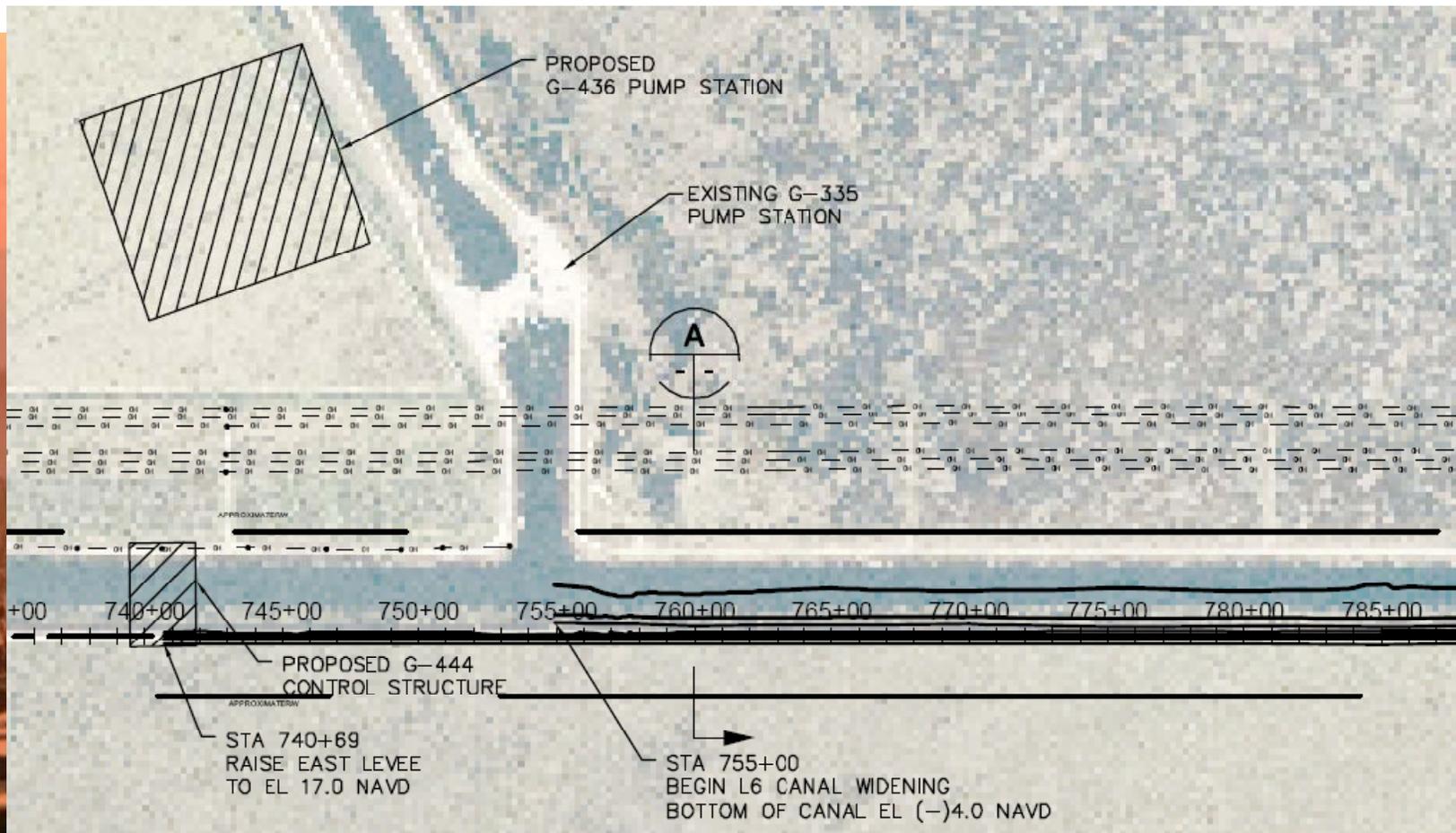
# Conceptual Design



- **Widening of upper L-6 flow channel from G-335 to G-339 between existing levees**
  - Excavate a portion of the east bench
- **Increase elevation of L-6 east levee**
- **Relocate proposed gate structure G-444 south of G-436 PS**
  - Allows both PS to deliver water north

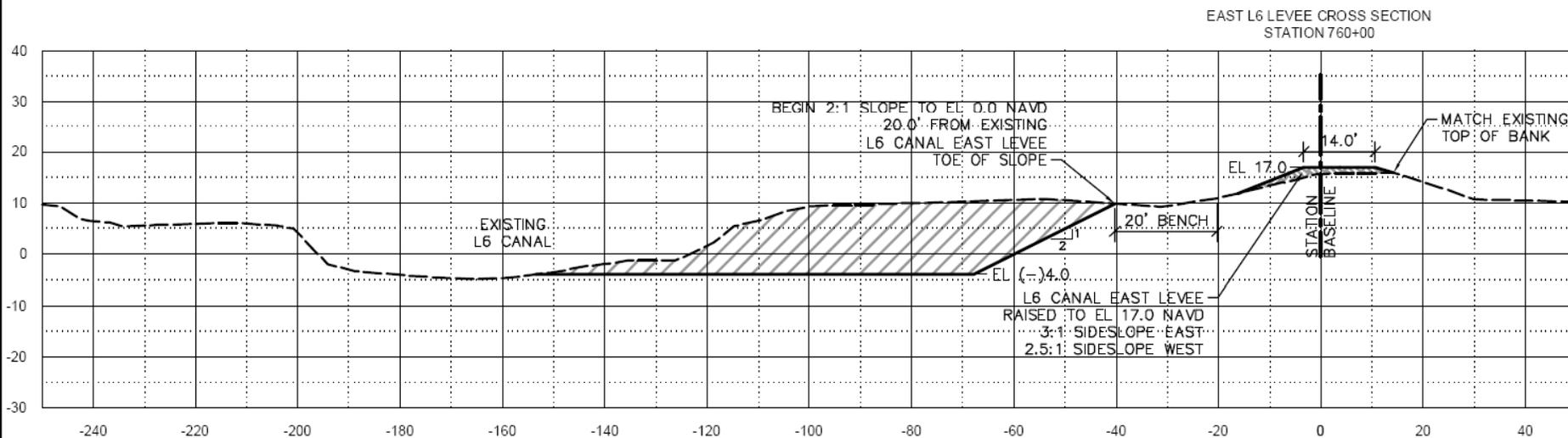
# Conceptual Design

## Upper L-6 Canal



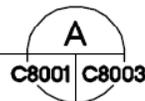
# Conceptual Design

## Upper L-6 Canal



TYPICAL SECTION

SCALE: 1" = 20'

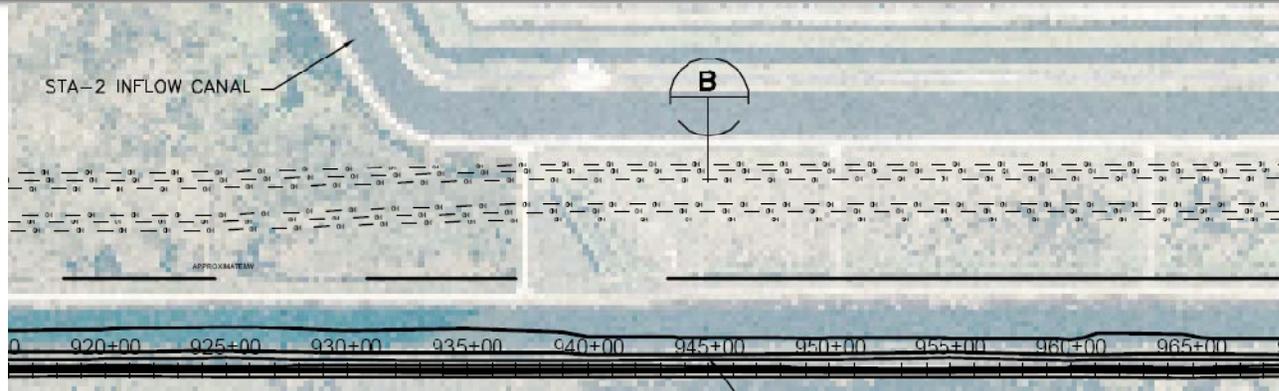


STA 755+00 TO STA 940+00

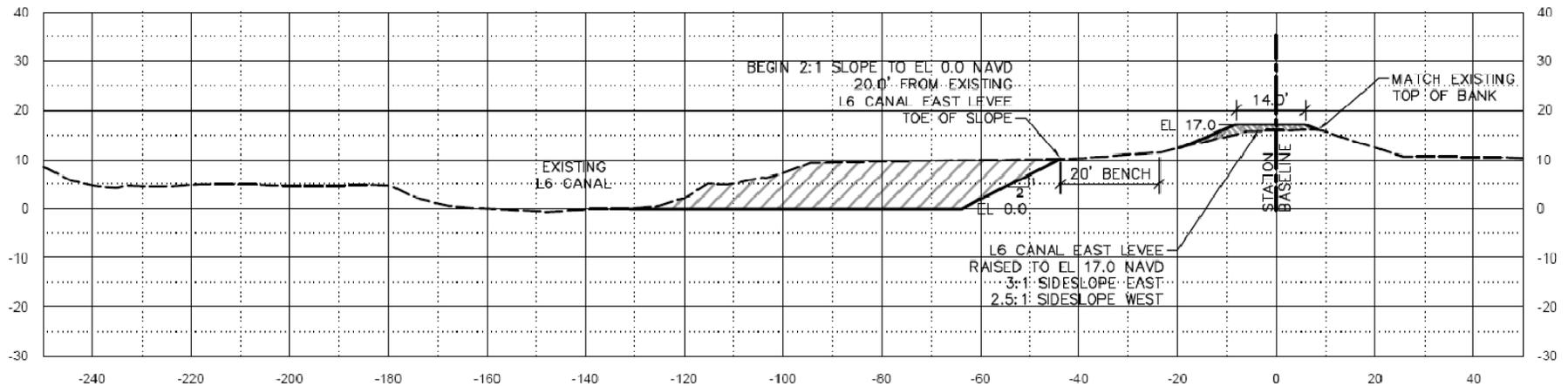


# Conceptual Design

## Upper L-6 Canal

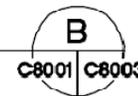


EAST L6 LEVEE CROSS SECTION  
STATION 945+00



TYPICAL SECTION

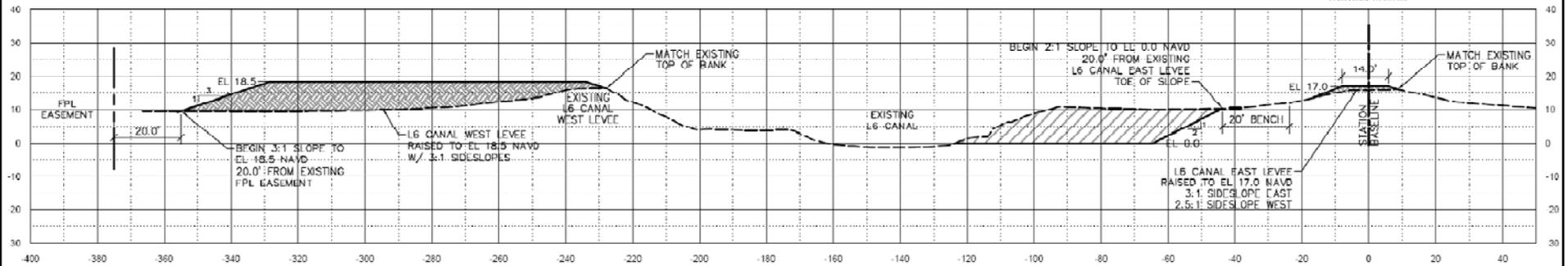
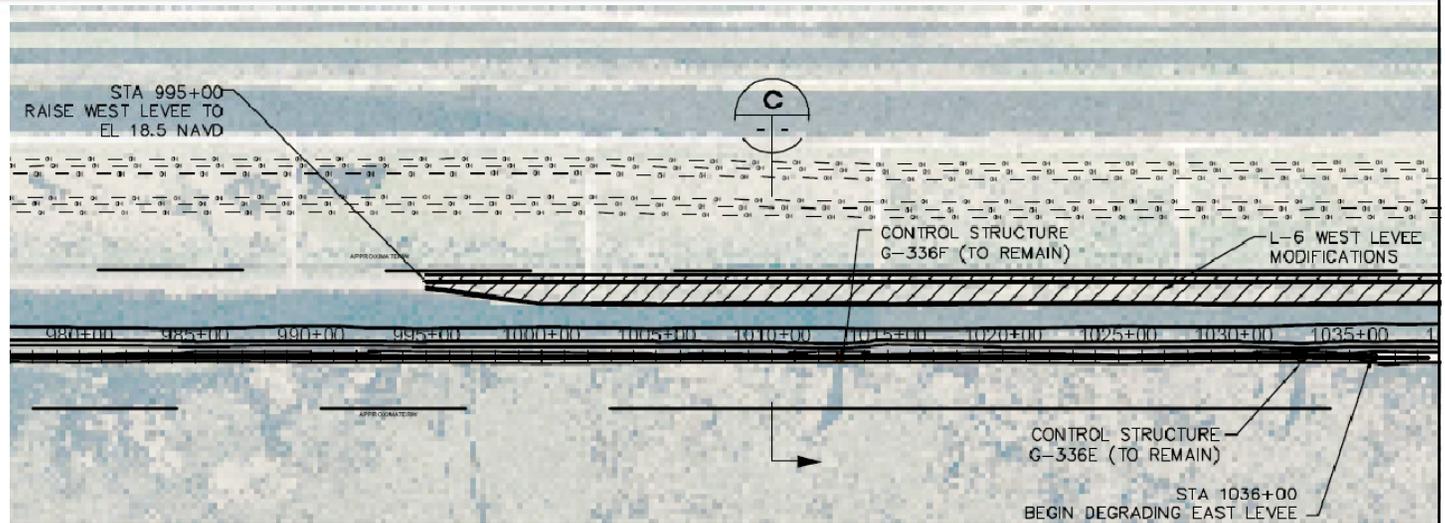
SCALE: 1" = 20'



STA 940+00 TO STA 995+00

# Conceptual Design

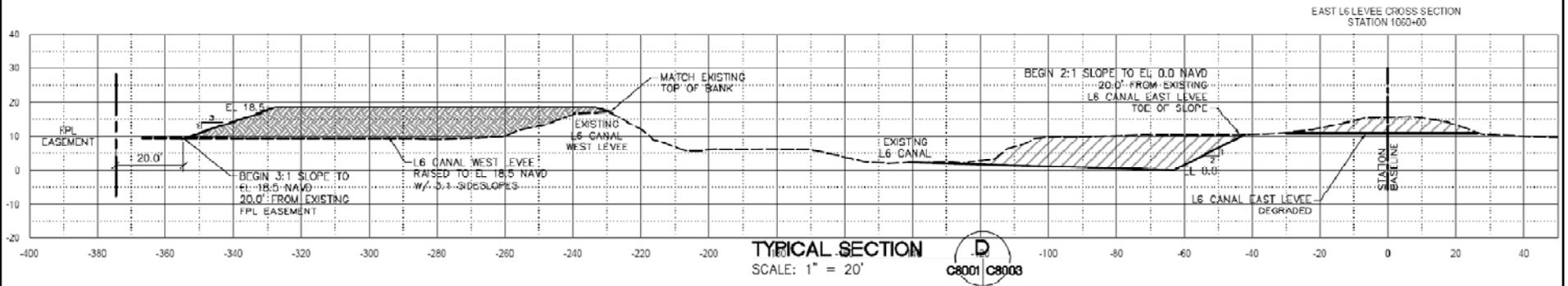
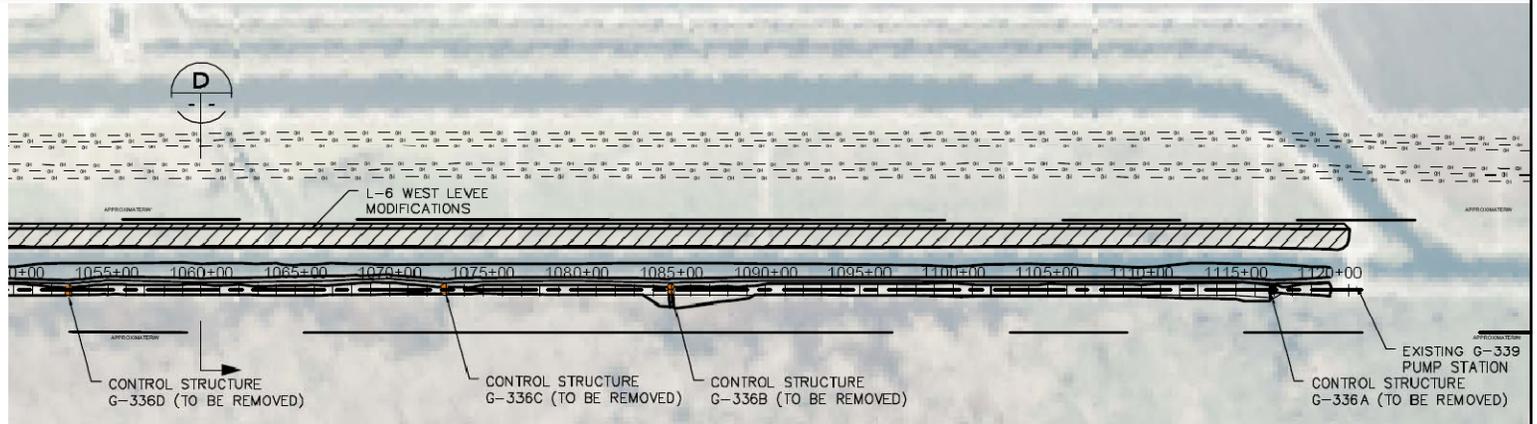
## Upper L-6 Canal



TYPICAL SECTION  
 SCALE: 1" = 20'  
 C8001 C8003  
 STA 995+00 TO STA 1036+00

# Conceptual Design

## Upper L-6 Canal

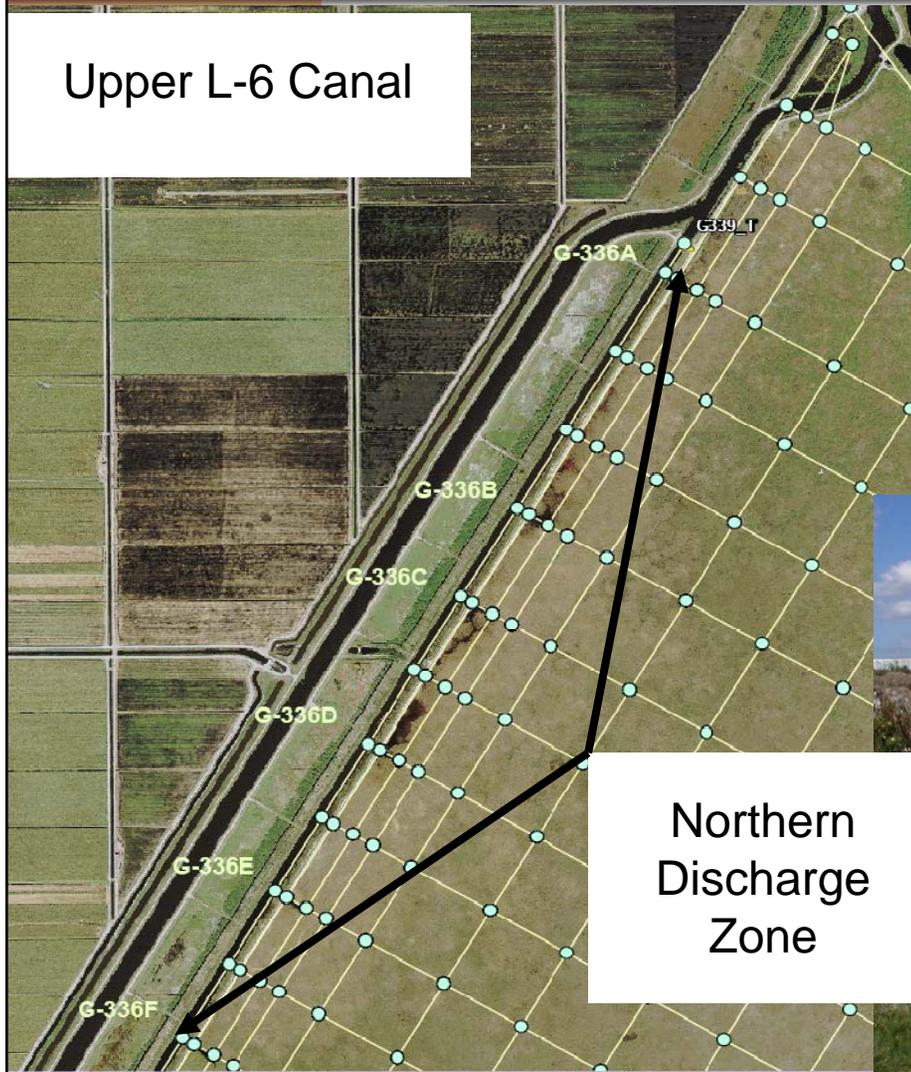


STA 1036+00 TO STA 1120+00



## Conceptual Design

Upper L-6 Canal



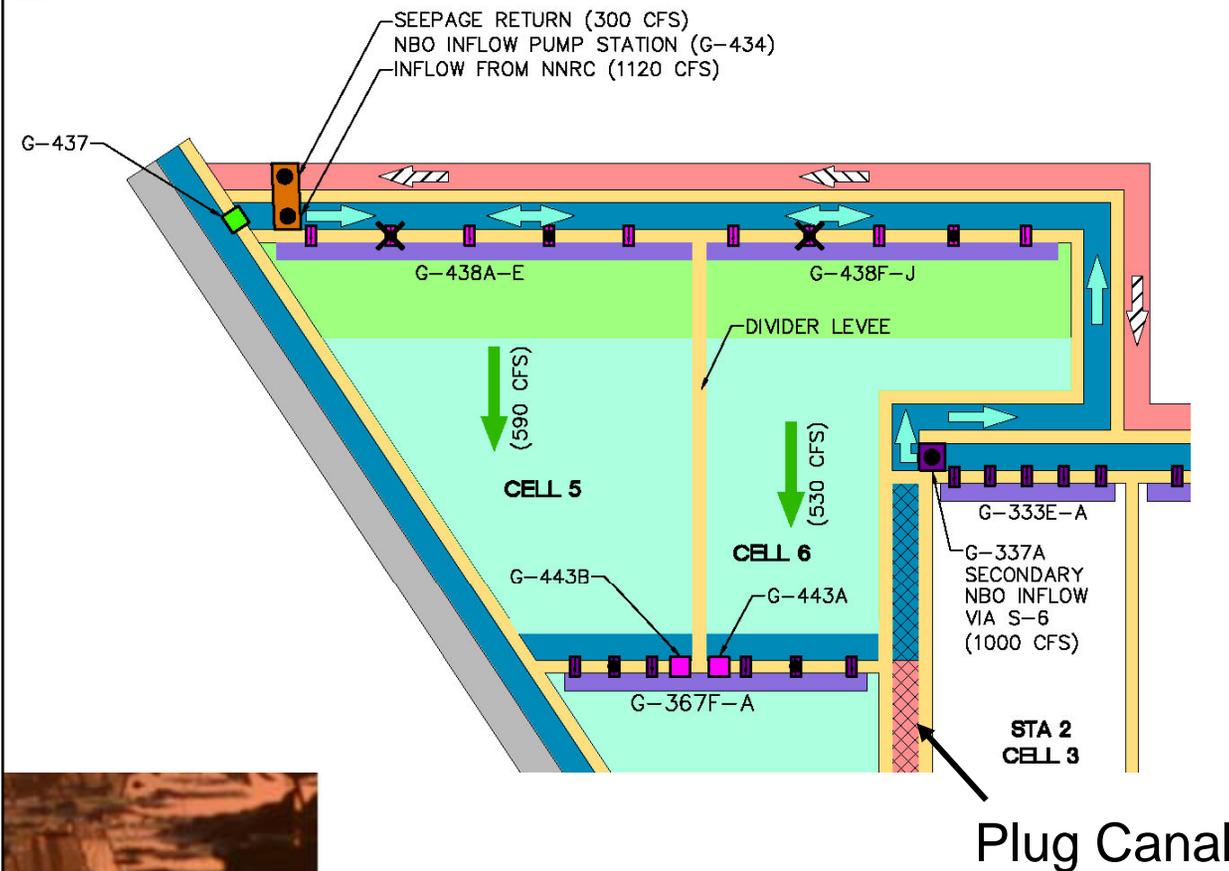
Northern  
Discharge  
Zone

### ■ Improve discharge zone in area of G-336 A-F

- Remove all 6 culverts
- Degrade east L-6 levee starting 300 ft north of culvert E to just north of A
- Replace/rebuild east levee south of newly degraded section to culvert F



# North Buildout Stormwater Treatment Area Features



- **G-434 Pump Station (1,120 cfs)**
- **Site 4,300 acres (3,882 acres of treatment)**
- **15 miles of levee**
- **15 miles of canal**
- **12 control structures**
- **West L-6 Levee Repair**



## North Buildout Cell 6 – looking east



## Blasting of limestone for excavation



## Excavation of Inflow Canal



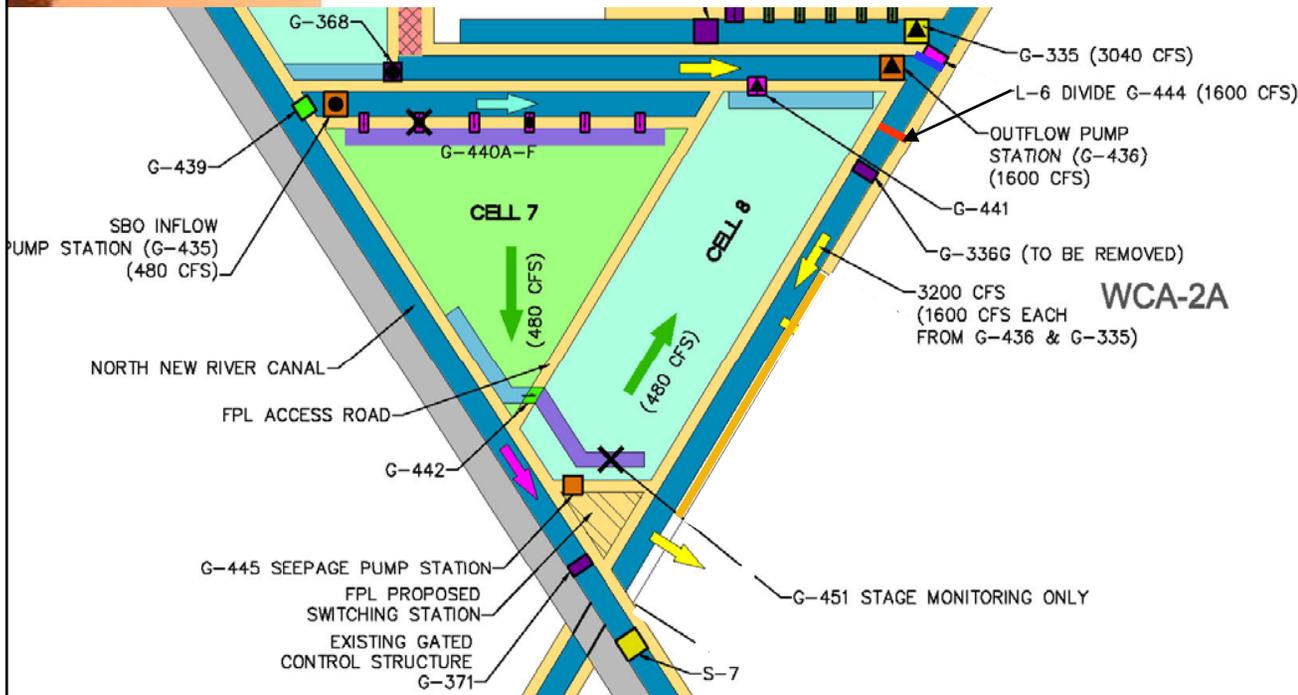
## North Buildout Inflow Canal Cell 6 – looking west



## North Buildout Divider Levee – looking south



# South Buildout Stormwater Treatment Area Features



- **G-435 Pump Station (480 cfs)**
- **G-436 Pump Station (1,600 cfs)**
- **Site 3,275 acres (2,935 acres of treatment)**
- **8 miles of canal**
- **9 miles of levee**
- **8 control structures**
- **G-445 Seepage Pump Station**



## South Buildout Spreader Canal, Cell 7, looking north

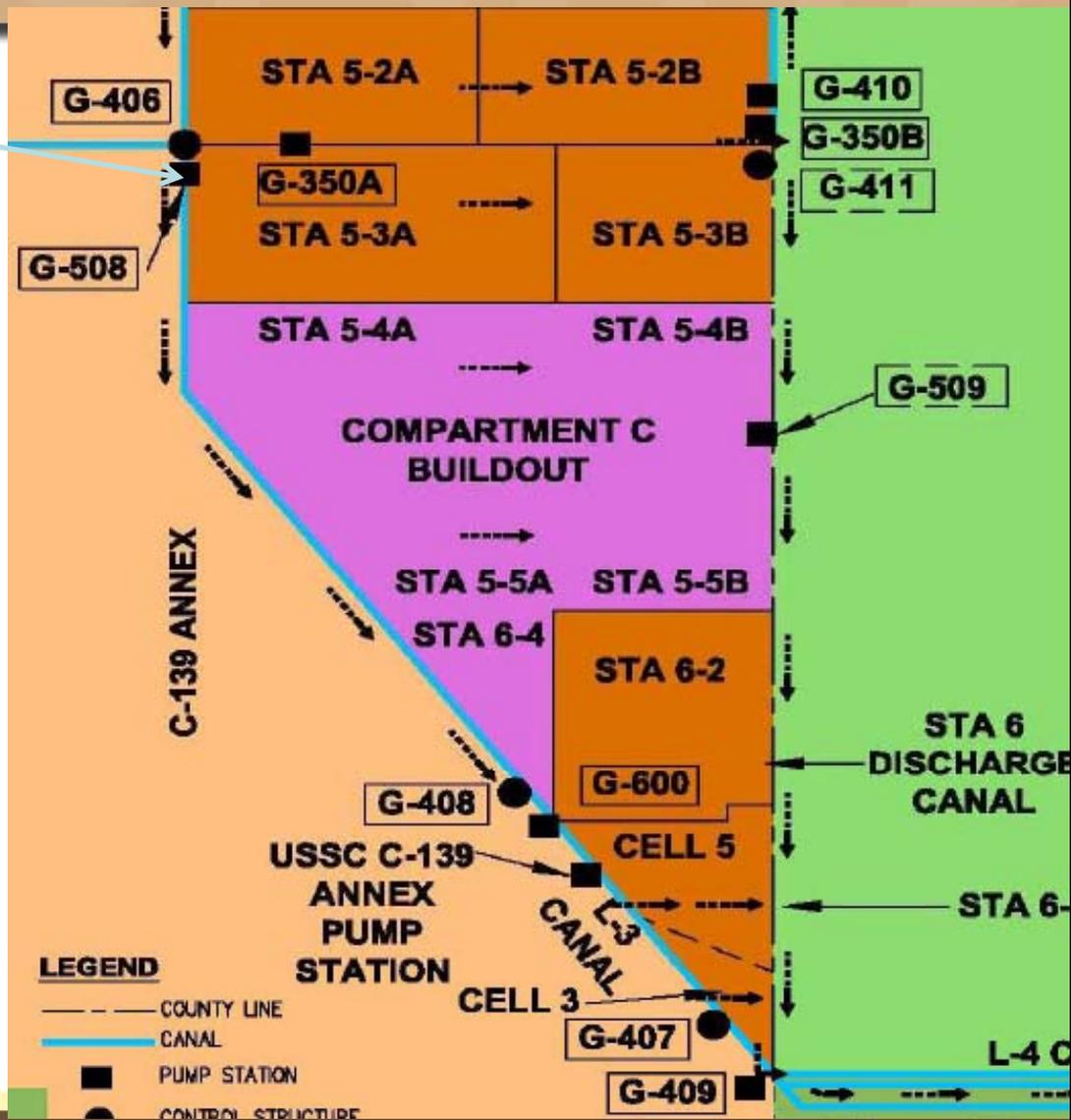


## Excavation of Spreader Canal



# Compartment C Buildout

Future G-508 Pump Station



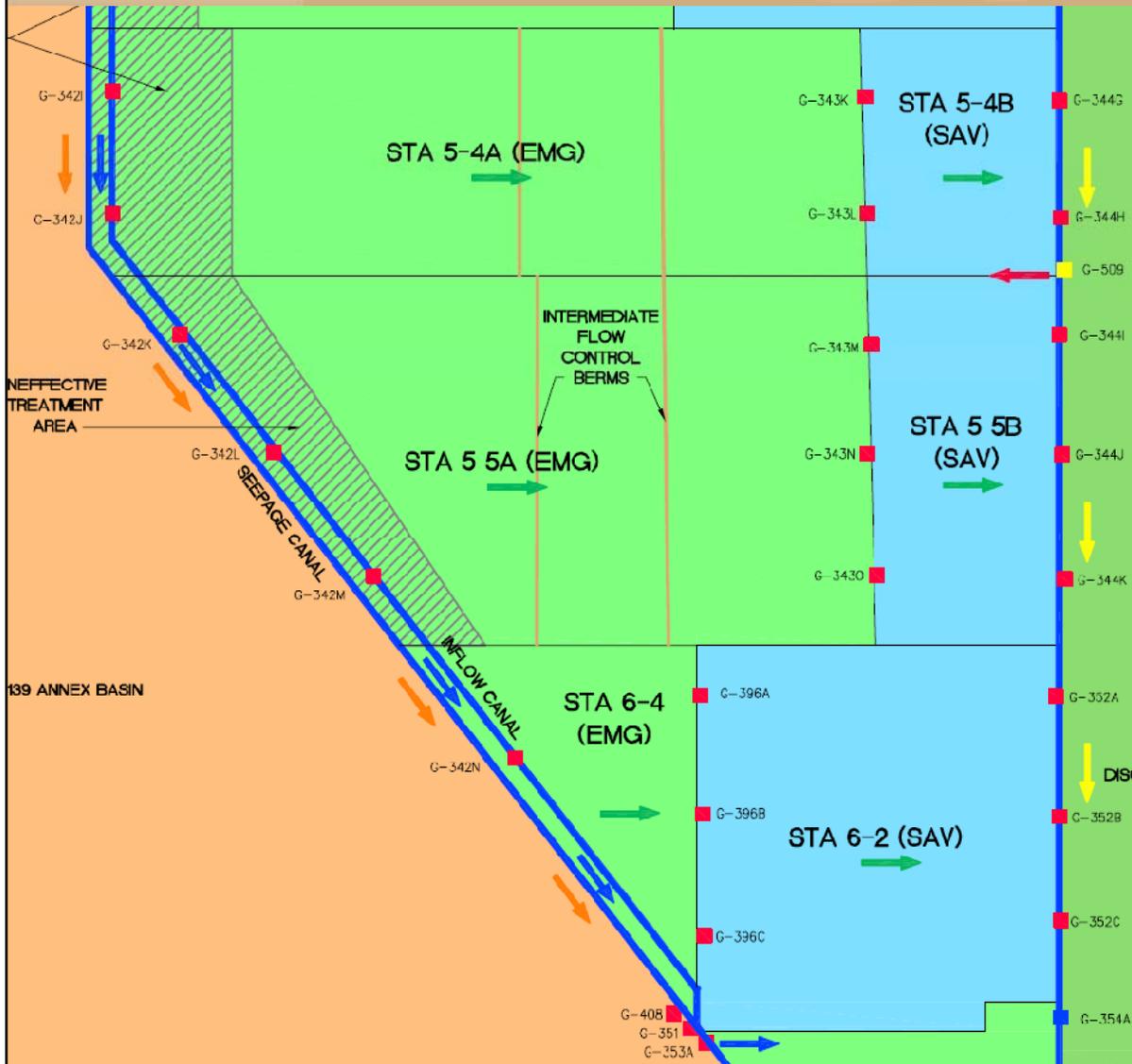
## Compartment C Buildout

- **Accomplishments to date:**
  - **Completed Final Design-Civil Works**
  - **Completed Final Design-Pump Station**
  - **Completed Pump Equipment Procurement Contract**
  - **USACE completed Record of Decision and Compartment C 404 permit prior to March 2009 Governing Board**
  - **U.S Department of Interior Land Use Change received**
  - **Started Construction of Civil Works**
    - **Issued NTP April 6, 2009**
  - **Started construction of G-508 pump station**
    - **Issued NTP September 1, 2009**

## Compartment C Buildout

- **What's Next:**
  - **Pump Equipment Procurement Delivery**
  - **Continue construction of Civil Works**
  - **Continue construction of G-508 pump station**
- **Construction Completion**
  - **Flow Capable Civil Works December 31, 2010**
  - **G-508 Pump Station December 2011**

# Compartment C Buildout Features



- **G-508 Pump Station (1,630 cfs)**
- **Site 6,395 acres(4,850 acres of treatment)**
- **Levees 32 miles**
- **Canals 27 miles**
- **Hydration Pump Station (1) 100 cfs**
- **18 Inflow/Outflow Control Structures**
- **9 Hydration Culverts**
- **20 Overflow Weirs**
- **Diversion Structures (G-408 & G-411)**
- **Modify G-351**
- **Underground Power Lines 18 miles**

# Compartment C G-508 Pump Station



**Contract Awarded  
August 13, 2009  
NTP September 1, 2009**

Future  
G-508 Pump  
Station  
location

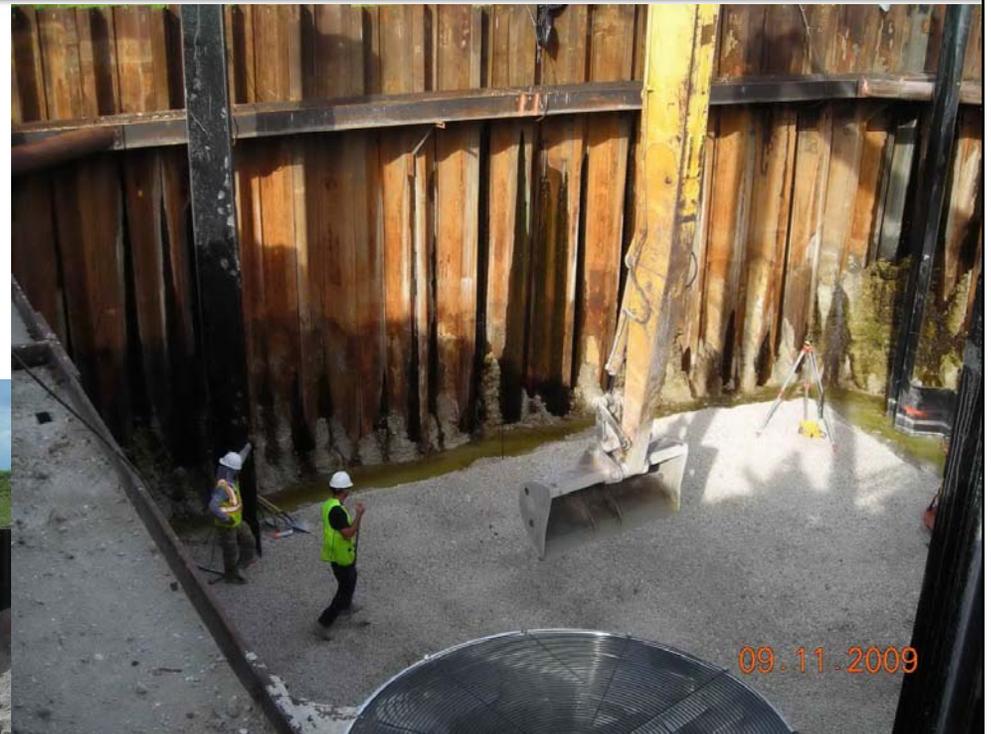
# Cell 6-4 inflow structure G-342N



# Cell 6-4 inflow structure G-342N



# G-408 and G-342M



## Discharge Canal at northeast corner of Cell 5-4B – looking south



## Intermediate Spreader and Collection Canals at Cells 5-4A/B



# Inflow Canal

SFWMD



**Thank you**