



C43 WEST BASIN STORAGE RESERVOIR

**PACKAGE 4 - CIVIL WORKS
INDUSTRY DAY
MAY 7 2018**



SFWMD – Who We Are

- Oldest and largest of the state's five regional water management districts

16 counties; 7.9 million residents

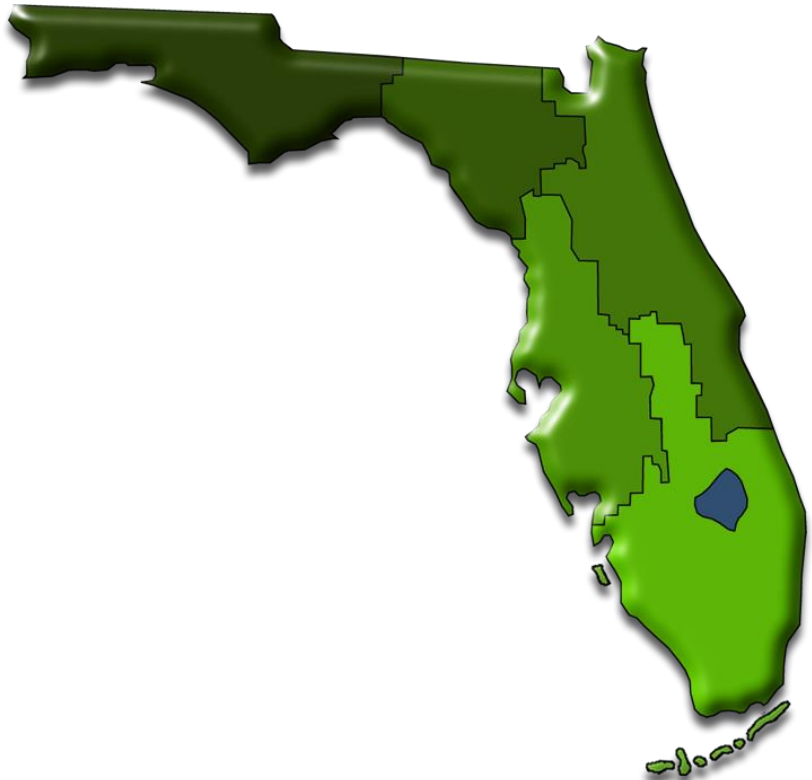
Regional responsibilities

Water Quality

Flood Control

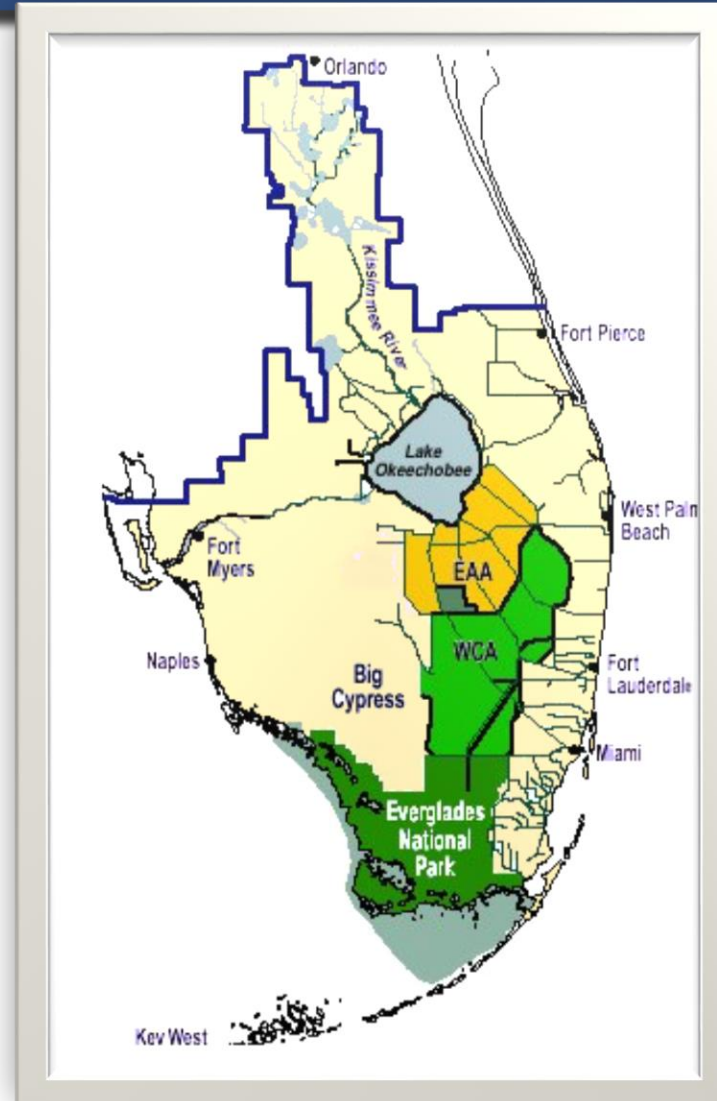
Natural Systems

Water Supply



SFWMD – Who We Are

- Created in 1949 as local sponsor for Federal C&SF System
- Expanded responsibilities in 1972
- Today's system consists of 2,100 miles of canals and 2,000 miles of levees/berms and more than 600 water control structures, 625 culverts and 71 pump stations
- Currently engaged in restoration of Everglades ecosystem



Project Team



- Janet Starnes – Project Manager
- Joe Albers, P.E. – Engineering PM
- Tom McKernan – Construction Manager
- Bonnie Cantrell – Procurement
- Partner – US Army Corps of Engineers

Solicitation Process

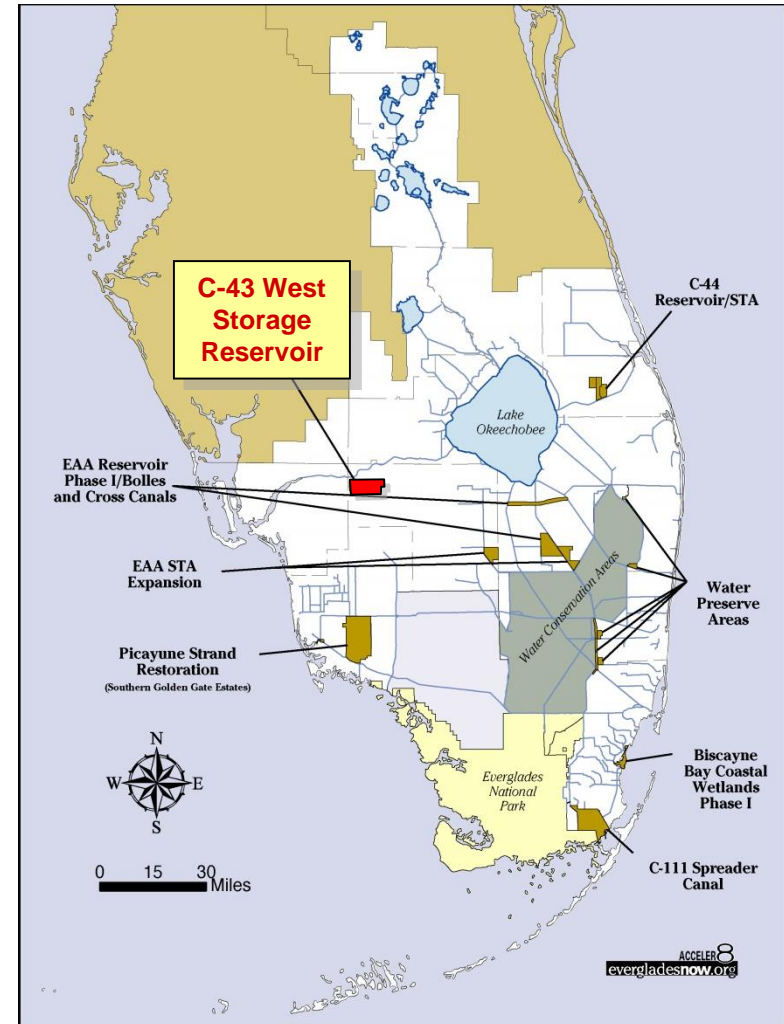


- Two Step Process
 - Request for Statement of Qualifications (SOQ)
 - Request For Bids
 - Requirements will be listed in SOQ
 - Must use District Forms that are included
- Site Visits
- Questions must be submitted to Bonnie Cantrell in writing, bcantrel@sfwmd.gov or fax (561) 682-5319

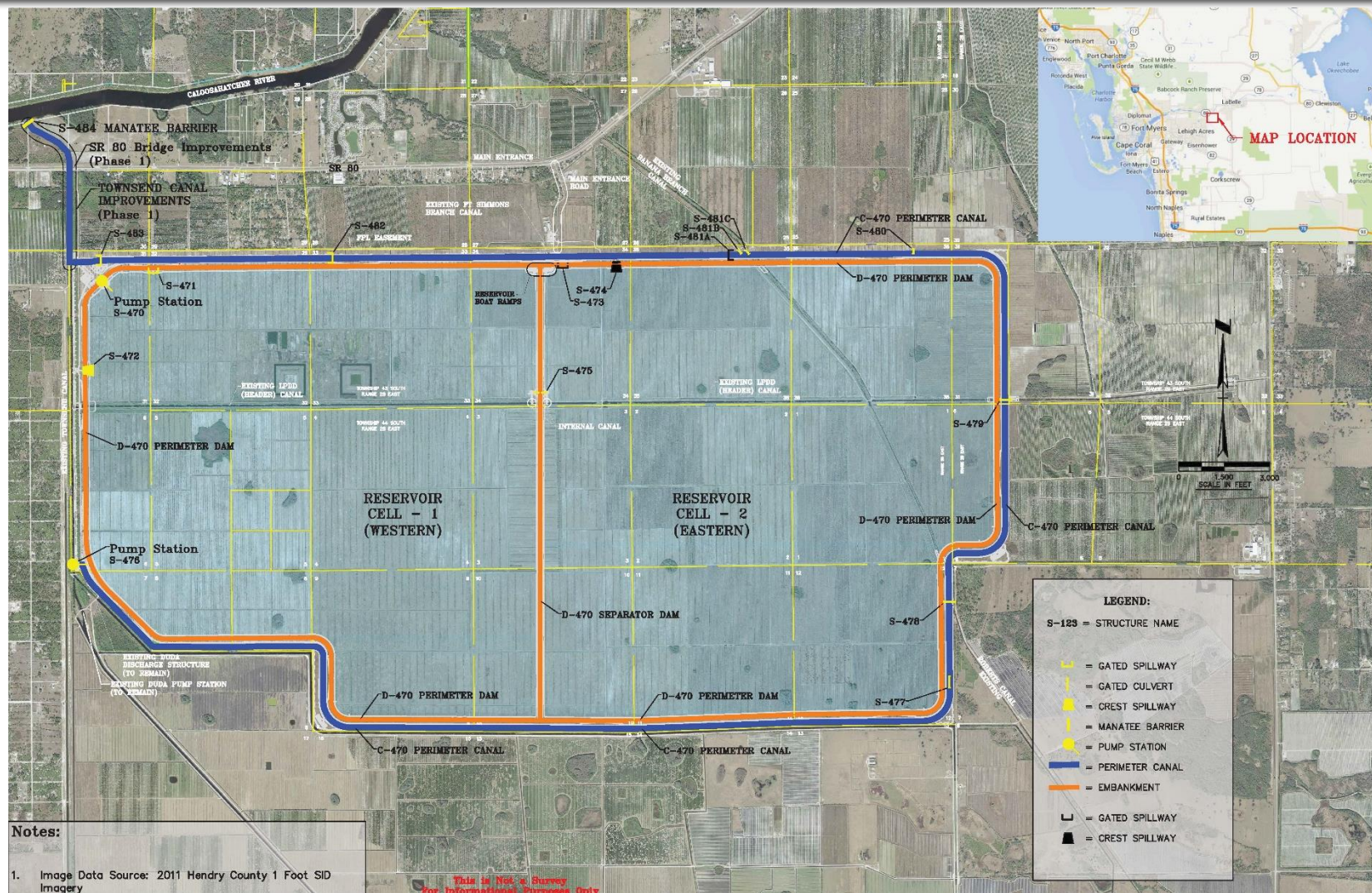
C43 Reservoir



- Purpose
 - Project will improve timing, quality and quantity of water deliveries to the Caloosahatchee Estuary
 - Capture excess basin runoff and Lake Okeechobee releases
 - Provide dry season flows to restore salinity levels
 - Reduce wet season flows



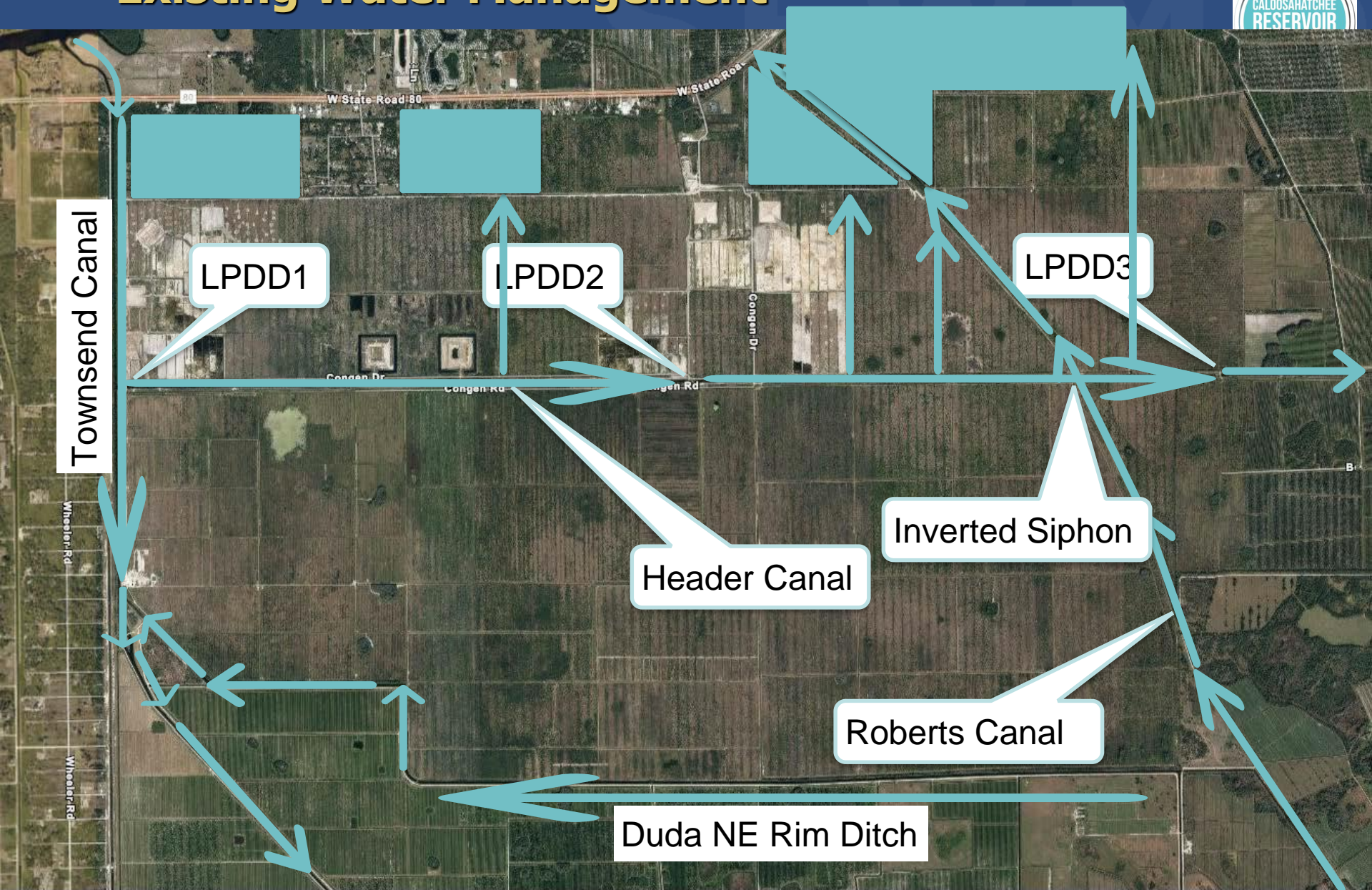
Project Site



C-43
CALOOSAHATCHEE
RESERVOIR

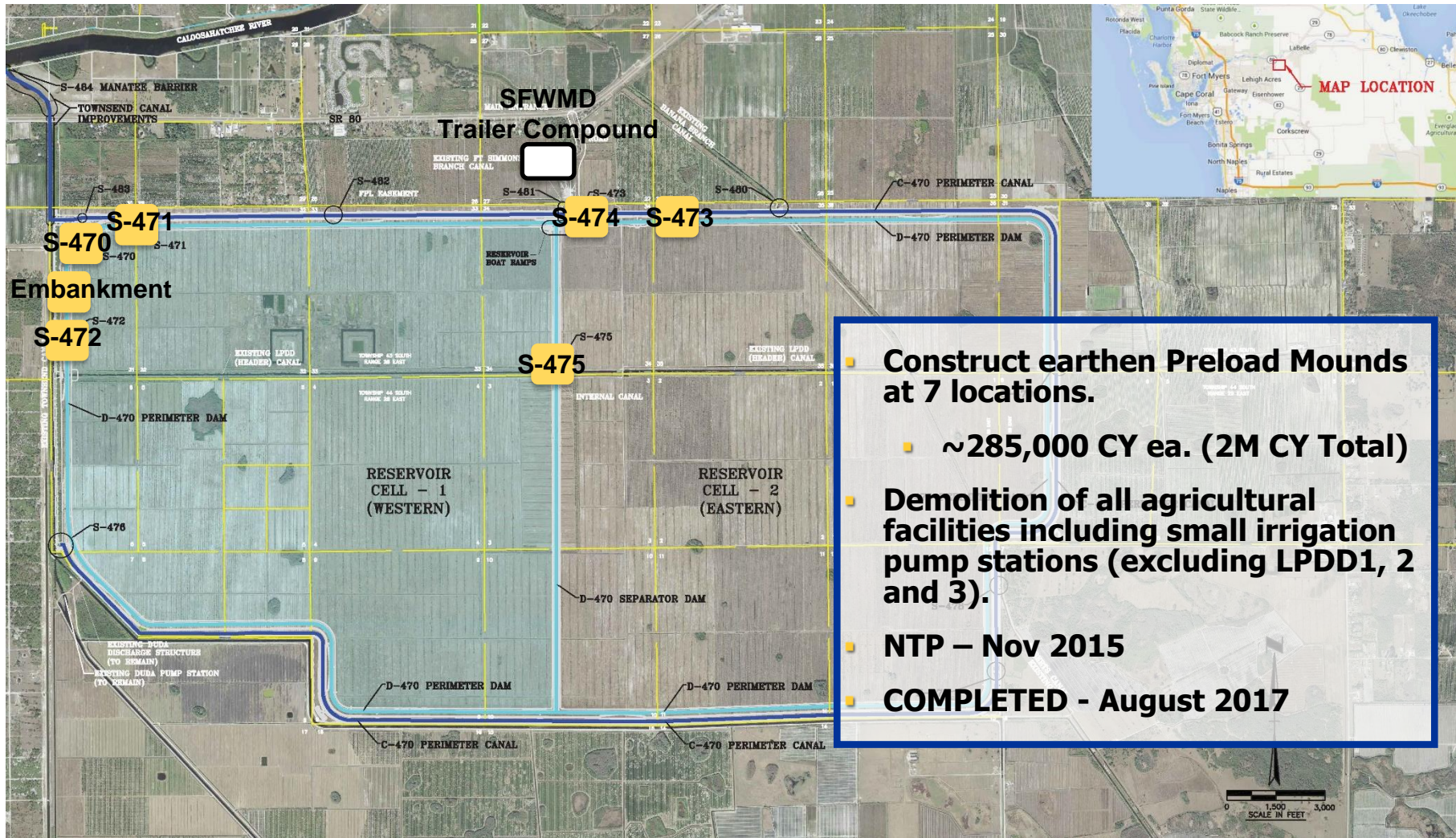
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- The map illustrates the Berry Farm Irrigation System, showing a network of canals and ditches. Key features include:
- State Road 80** running horizontally across the top.
 - Northern Ditch West** and **Local Access Road** in the upper left.
 - Berry Farm Ditch 1**, **Banana Branch Canal**, and **Berry Farm Ditch 2** running diagonally from the top right.
 - Bob Paul Canal** running vertically on the right side.
 - Townsend Canal** running vertically on the left side.
 - LPDD PS 1**, **LPDD PS 2**, and **LPDD PS 3** (Low Pressure Distribution Pump Stations) located along the horizontal canals.
 - S-470** and **S-476** (Sanitary Sewer lines) running vertically on the left.
 - Duda PS** (Distribution Pump Station) located near the bottom left.
 - NE Rim Ditch** running horizontally along the bottom.
 - Roberts Canal** running diagonally along the bottom right.
 - Various numbered callouts (001-034) pointing to specific infrastructure, structures, and areas.
 - Labels for **Berry Irr. Ditch 1**, **Berry Irr. Ditch 2**, and **Berry Irr. Ditch 3**.
 - Labels for **Berry Farm Ditch 2 PS** and **Berry Farm Ditch 2**.
 - Labels for **023 (Typ)** and **025 (Typ of 6)**.
 - Labels for **003 (Typ)** and **009**.
 - Labels for **001**, **002**, **008**, **010**, **011**, **012**, **013**, **014**, **015**, **016**, **017**, **018**, **019**, **020**, **021**, **022**, **024**, **026**, **027**, **028**, **029**, **030**, **031**, **032**, **033**, and **034**.

Existing Water Management





Package 1 – Preload & Demolition



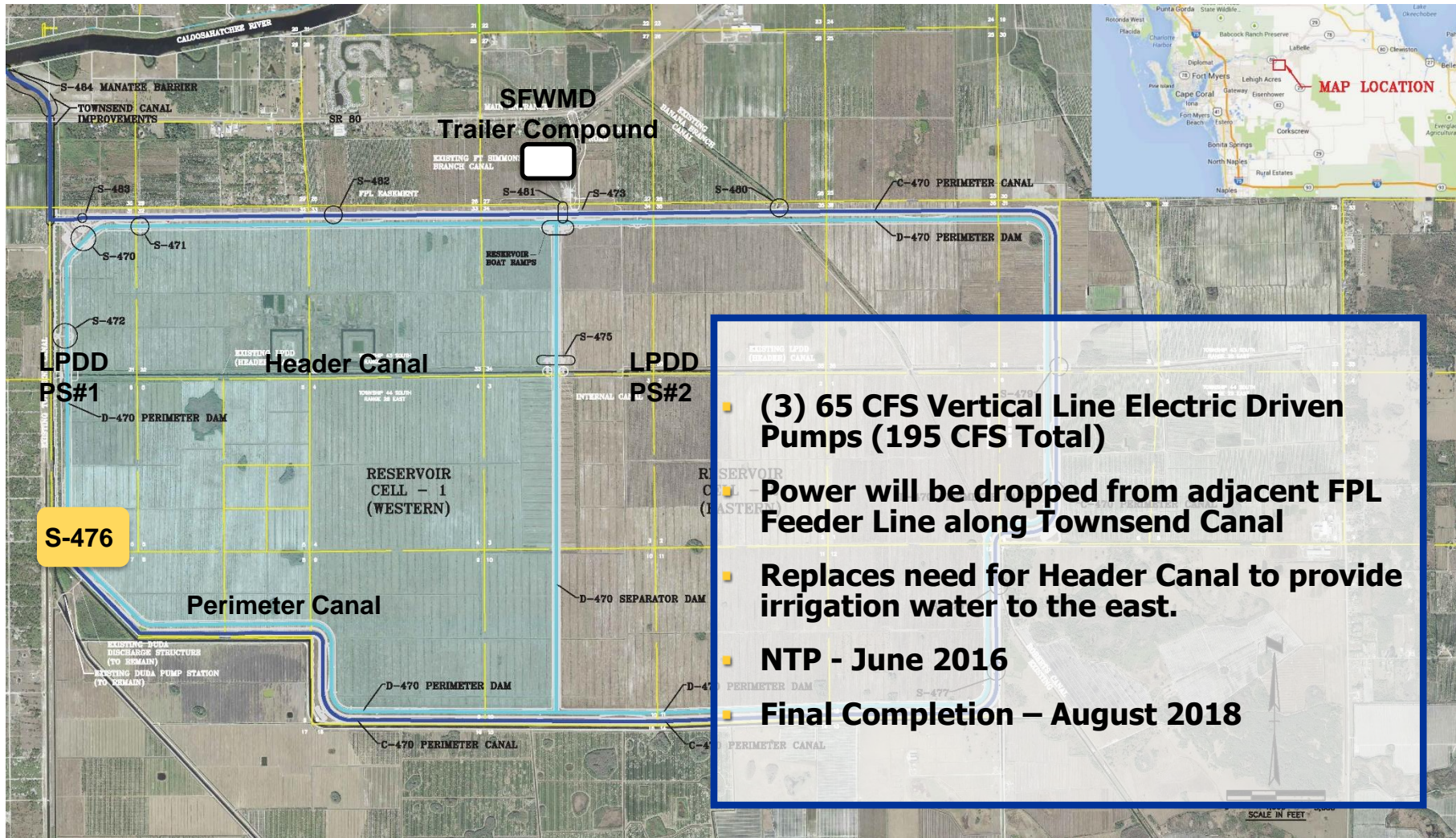
Package 1 – Preload & Demolition



S-473 Preload Mound Looking West



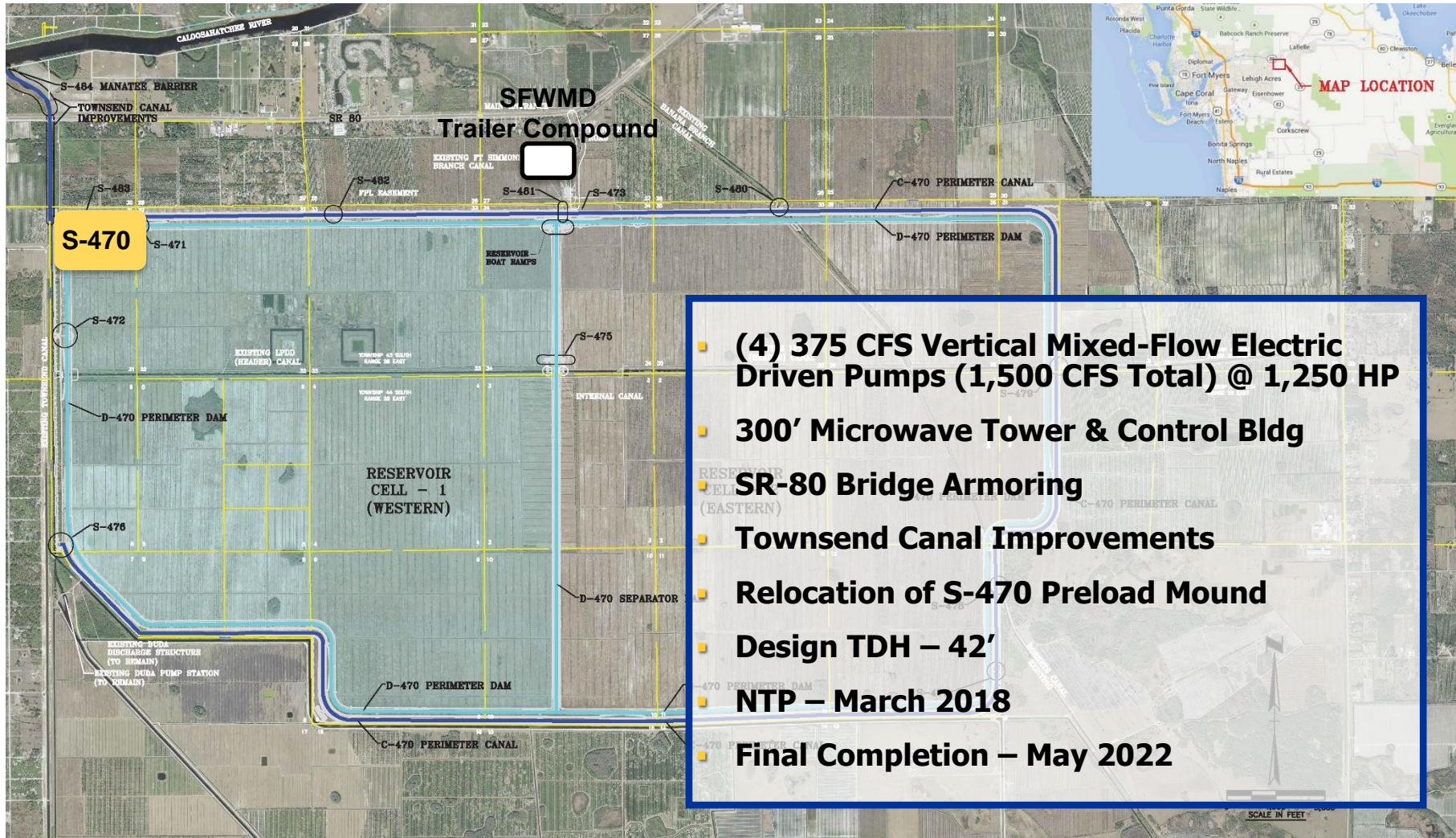
Package 2 – Irrigation PS S-476



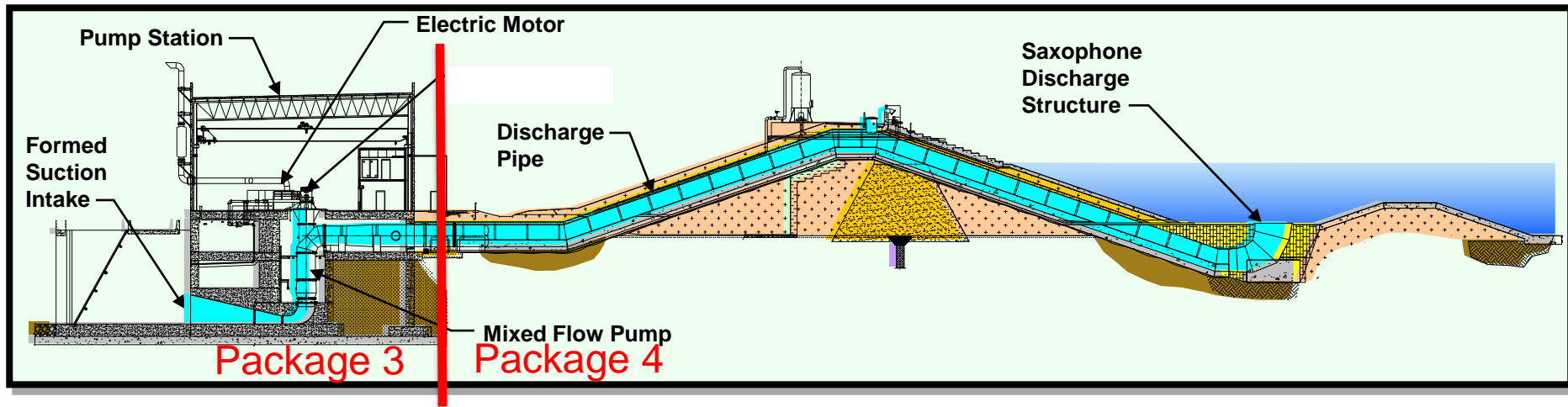
Package 2 – Irrigation PS S-476



Setting Pumps



Package 3 – Inflow Pump Sta S-470



Pump Station and Discharge

Site Clearing

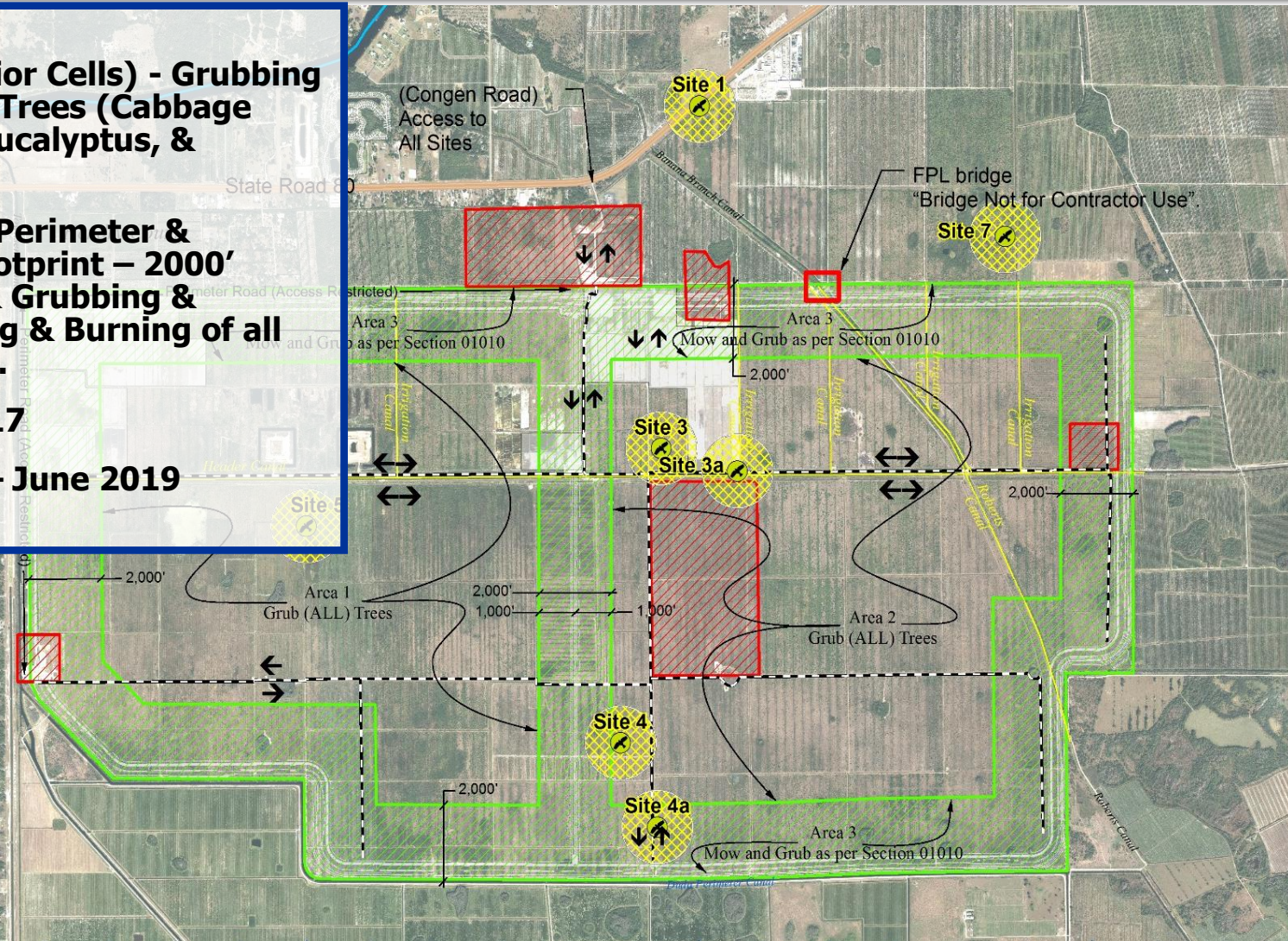


- Areas 1 & 2 (Interior Cells) - Grubbing and Burning of all Trees (Cabbage Palm, Oak, Pine, Eucalyptus, & Cypress).

- Area 3 (Reservoir Perimeter & Separator Dam Footprint – 2000' wide) – Clearing & Grubbing & Mechanical Mowing & Burning of all Woody Vegetation.

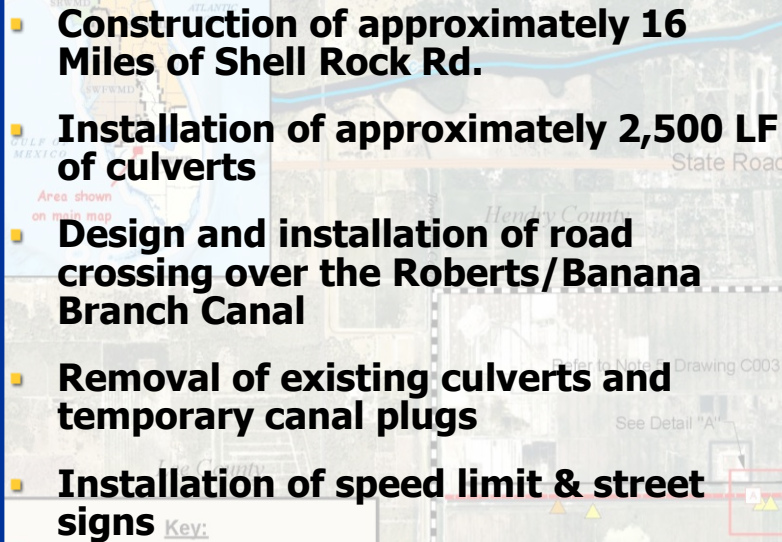
- NTP – October 2017

- Final Completion – June 2019






Site Clearing





NTP – April 2018

Final Completion – February 2019

Access Road
 Proposed Access Road Construction
 Proposed Reinforced Access Road Construction
 Boundary

1. All drain pipes are 40' overall in length unless noted otherwise on the drawings.
2. Refer to the Drawing C003 for roadway sections and details.



Threatened and Endangered Species

- Multiple T&E Species on project site
- Training required for all workers
- Protection strongly enforced
- Strict reporting requirements





Package 4 – Civil Works

- **2-Cell Reservoir**
 - **~ 10,000 Acres**
 - **170,000 ac-ft of storage**
 - **Dam height 27 ft – 38 ft**
- **~19 Miles of Dam Embankment**
- **~14.7 Miles of Perimeter Canal**
- **Soil Bentonite Seepage Barrier**
- **Soil Cement Lining**
- **Seepage Management System**
- **Pressure Relief System**

Package 4 – Civil Works (cont.)



- **14 Water Control Structures**
- **Discharge Piping for S-470 Pump Station**
- **Recreation Features**
- **Townsend Canal Improvements**
- **Local & Site Access Bridges**
- **Currently at Intermediate Design Review Stage**
- **NTP – March 2019**

Package 4 - Dam and Canal Typical Section

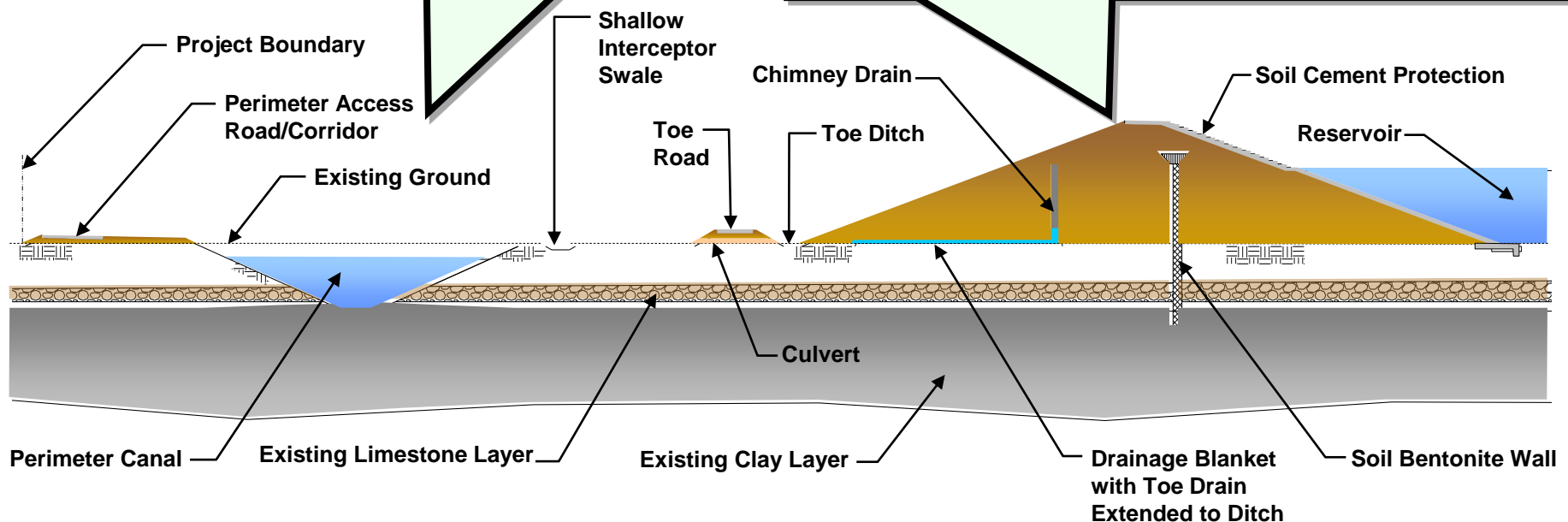


Perimeter Canal

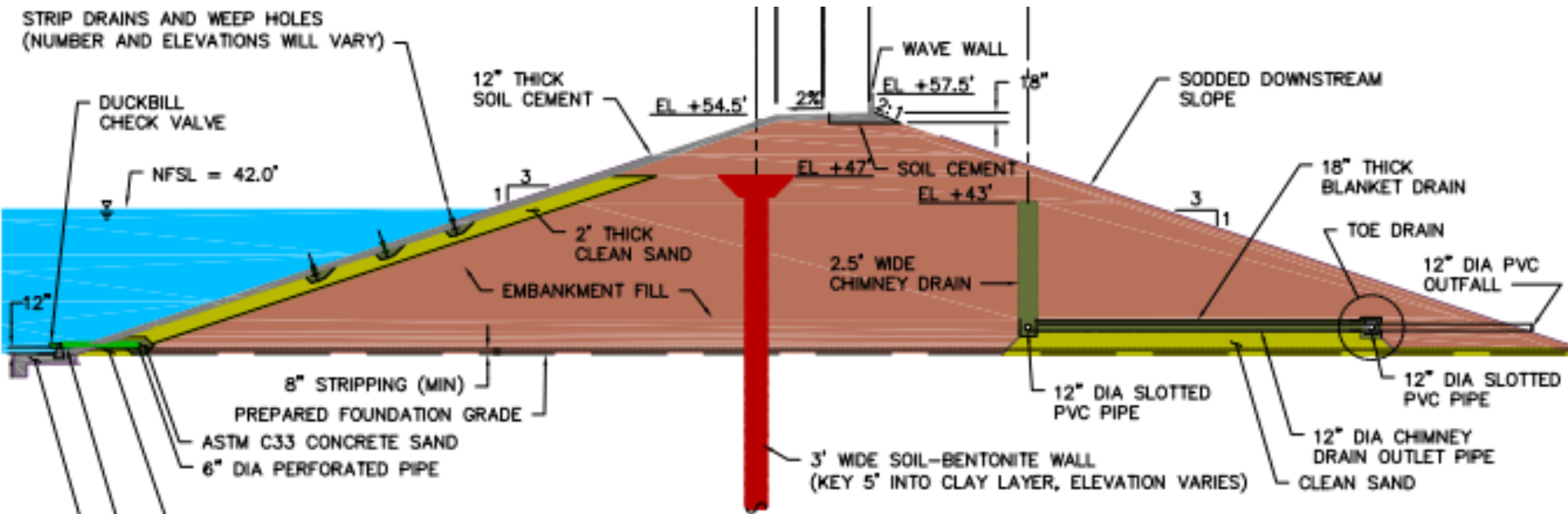
- Varies 50' to 140' top width
- Varying bottom width
- Varying bottom elevation
- Length: 14.7 Miles
- Excavation Volume: 2.8 M CY

Earth Dam

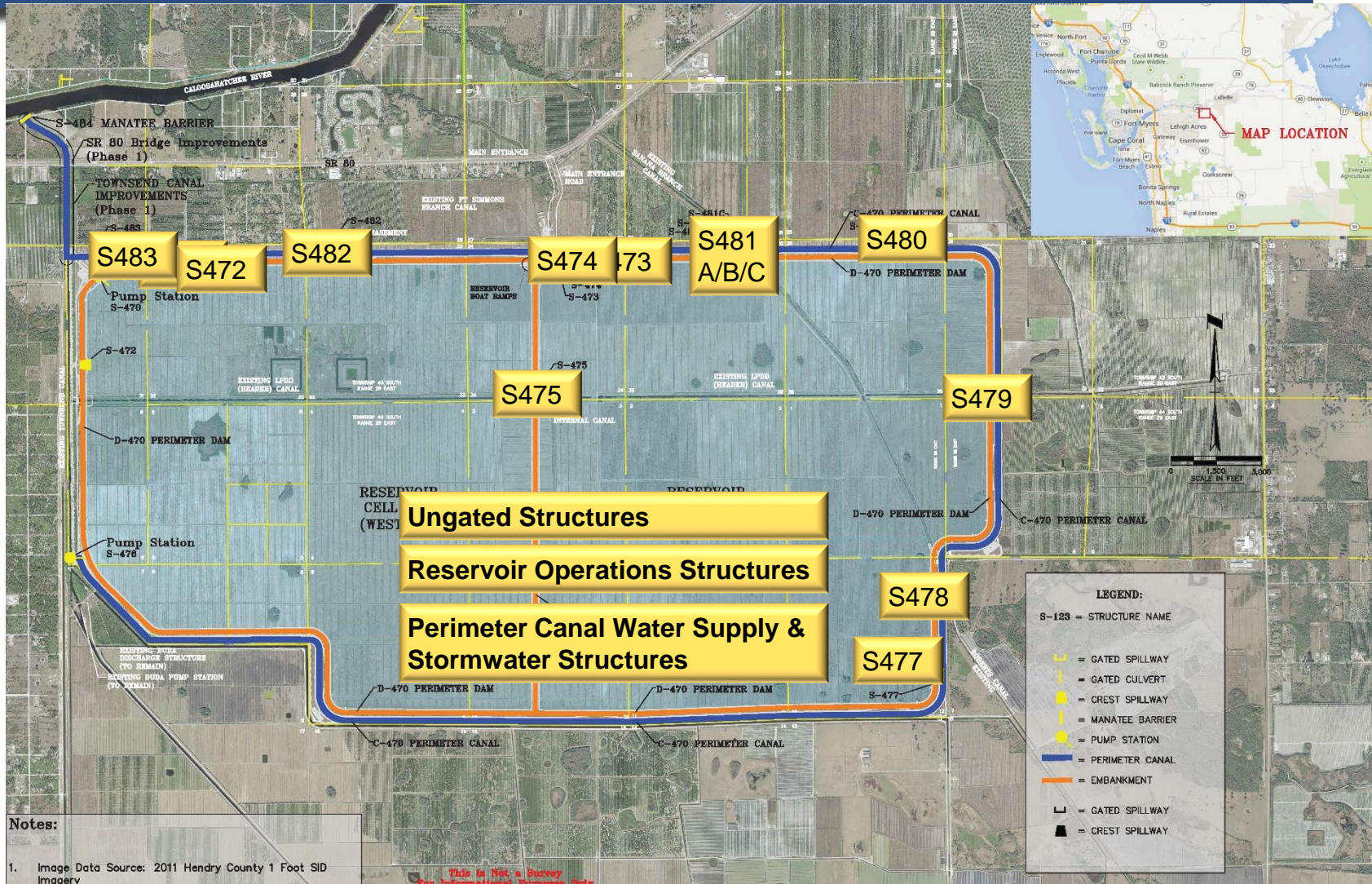
- Dam Height: 27 - 37.5 Feet
- Length: 16.3 Miles (excludes Separator Dam)
- Crest Width: 14 feet
- Water Depth: 15 - 25 Feet
- Embankment Volume: 14.5 M CY
- Soil Bentonite Wall: 4.8 M SF
- Seeding: 590 AC
- Soil Cement: 582 K CY



Typical Dam Sectional Details



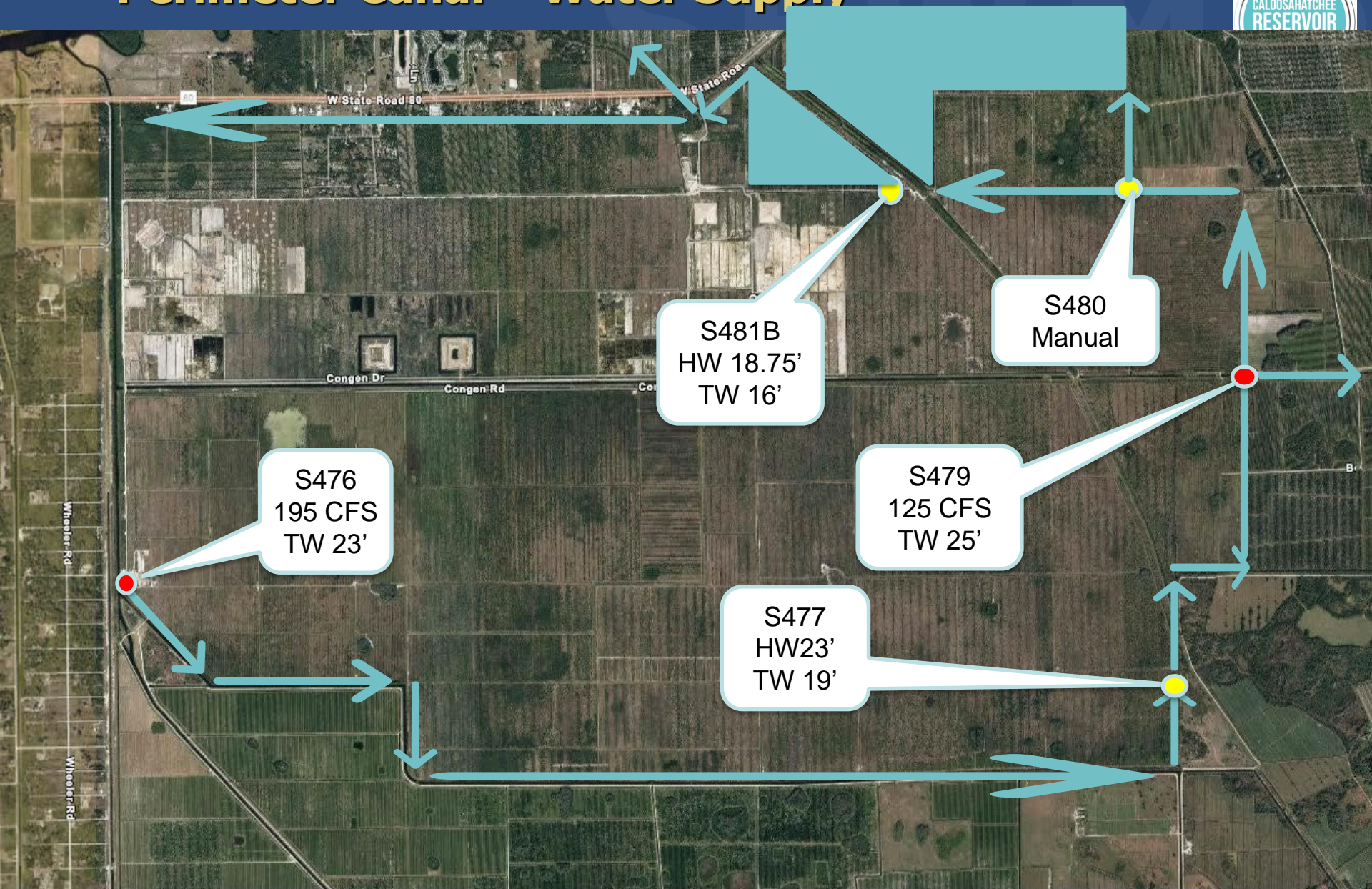
Water Control Structures



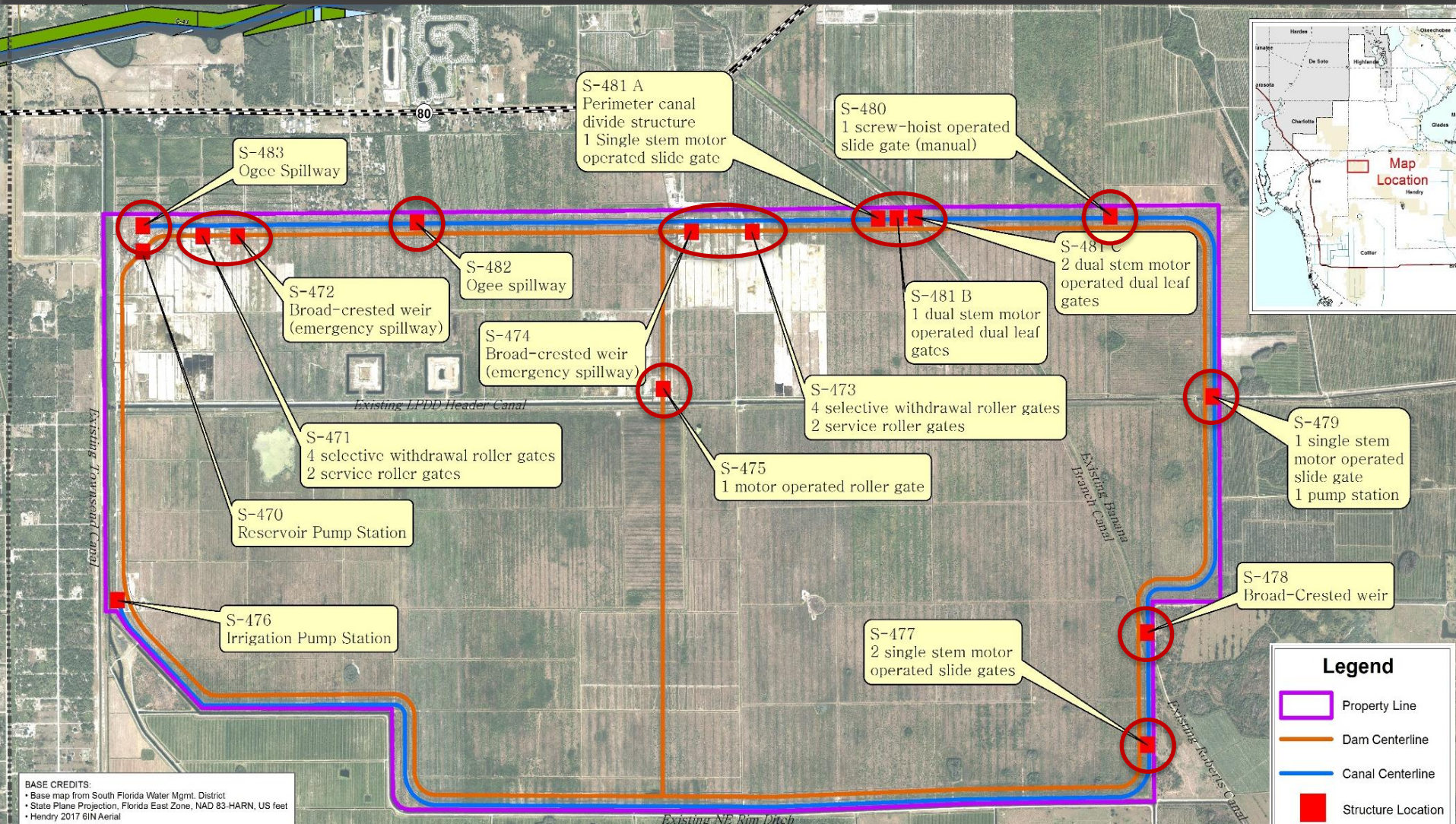
Perimeter Canal – Stormwater



Perimeter Canal – Water Supply



Completed Project Components



Funding



- Project will be funded by annual State of Florida legislative appropriations
- Corps will credit up to 50% of cost to District applicable to other projects.

What's Next



- Site Visit – May 8, 2018
- Issue RFQ – target mid-May 2018
- RFQ Responses due – target early July 2018
- Approval of Prequalified list – target tentative August 2018

Questions

