South Miami-Dade Issues Coordination Meeting

C-111 Spreader Canal Western Project Project Implementation Report and Construction Update

May 4, 2010

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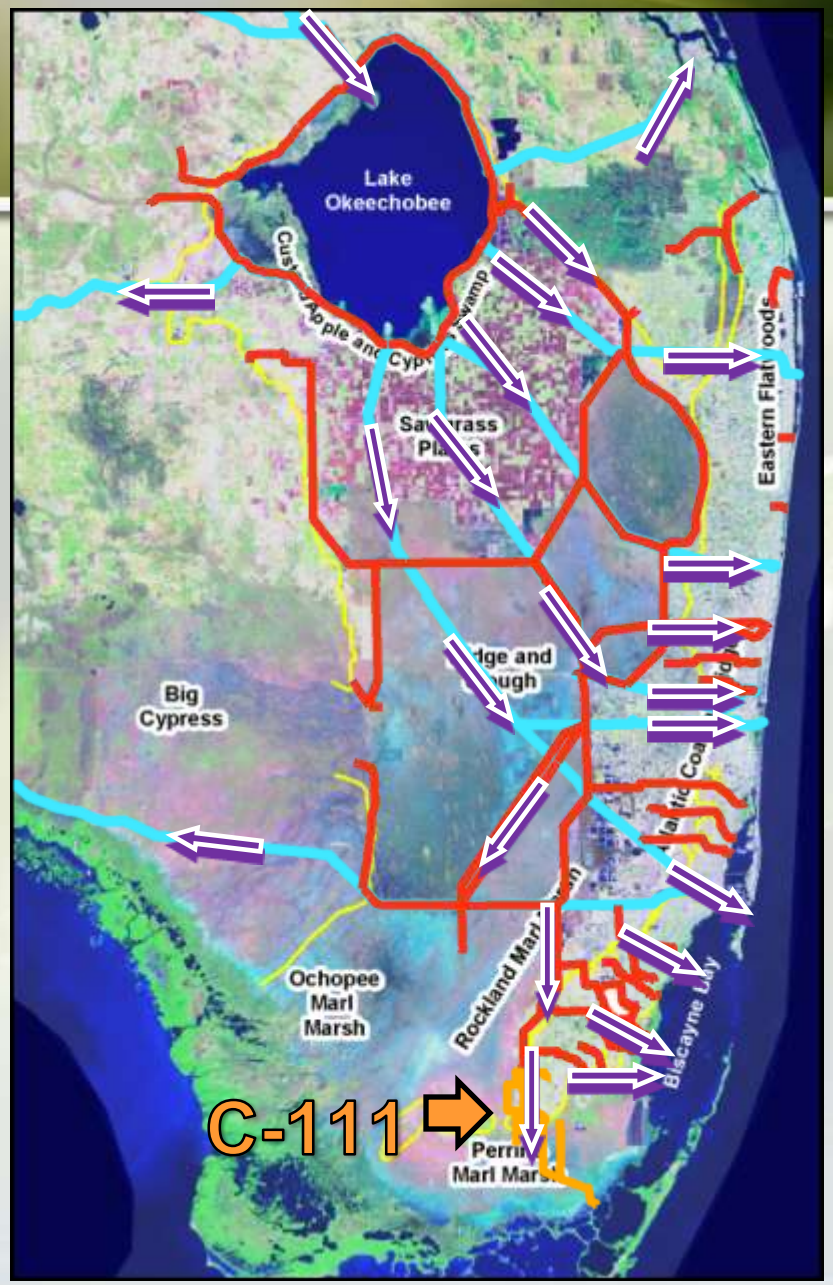
Background

- 1962 Flood Control Act authorized construction of C-111 Canal (and12 other primary canals) for purposes of flood damage reduction in South Miami Dade
- 1963 General Design Memorandum was intended to reduce depth and duration of floods, prevent over-drainage, prevent saltwater intrusion and convey flows to Everglades National Park
- As a result of environmental concerns, construction of some of the features recommended in the 1963 GDM were discontinued
- In 1970, Congress enacted Public Law 91-282, which prescribed a schedule of minimum monthly deliveries to Everglades National Park (ENP)

Background (cont.)

- In 1988, Amendment II of the 1963 GDM was authorized to prevent large damaging discharges to Barnes Sound via S-197 and increase flows to Florida Bay via Taylor Slough
- In 1989, Congress authorized the ENP Protection and Expansion Act. Under the Act, Secretary of the Army was required to "take all measures which are feasible and consistent with the purposes of the [C-111] project to protect natural values associated with ENP." As a result of this direction, the USACE drafted a 1994 General Reevaluation Report
- In December of 2000, Congress passed the 2000 Water Resources Development Act, which authorized the C-111 Spreader Canal Project

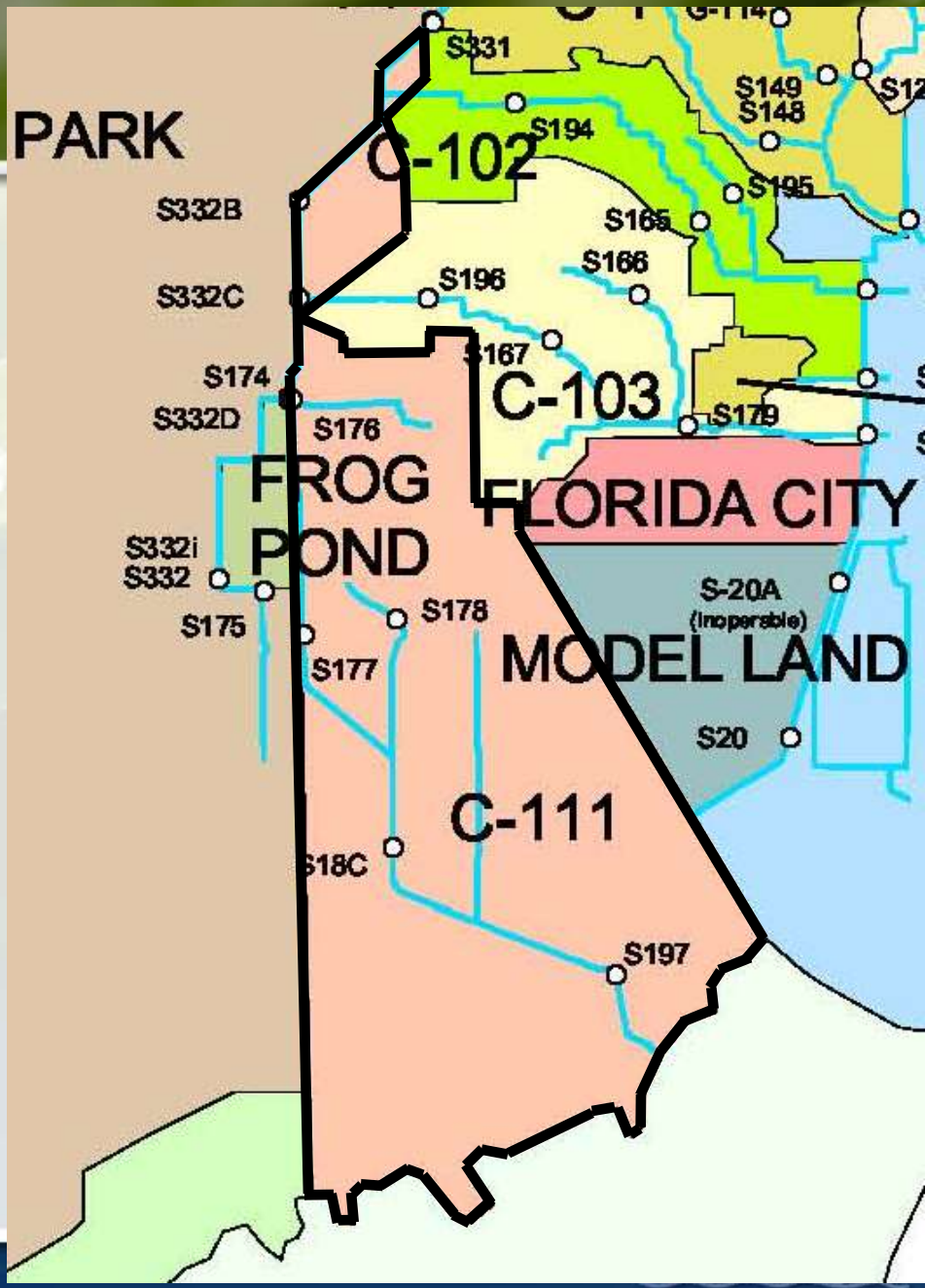


Drainage of the System and Water Flow Alterations

- Pre-Central and South Florida Projects
- Central and South Florida Projects initiated in 1948
- C-111 Canal Constructed as a result of 1962 Flood Control Act

C-111 Basin Map

The C-111 Basin serves an area in excess of 100 square miles, and includes Homestead and portions of Florida City



Problems

- Loss of areal extent of freshwater wetlands
- Alteration of historical flow patterns
- Colonization of natural areas by invasive exotic species
- Reduction in surface and groundwater flow to estuaries
- Adverse impacts to juvenile fish, as a result of hypersalinity
- Degradation of water quality
- Declining estuary health
- A total of 45 fish species, 14 amphibian species, 46 reptilian species, 14 mammalian species, and 178 avian species have been documented to occur within the South Dade Wetlands, including at least 36 state or federally listed animal species (endangered, threatened or species of special concern)

Opportunities / Objectives

- Restore the quantity, timing and distribution of water delivered to Florida Bay via Taylor Slough to pre-drainage levels
- Improve hydroperiods and hydropatterns in the Southern Glades and Model Lands
- Restore predrainage coastal zone salinities

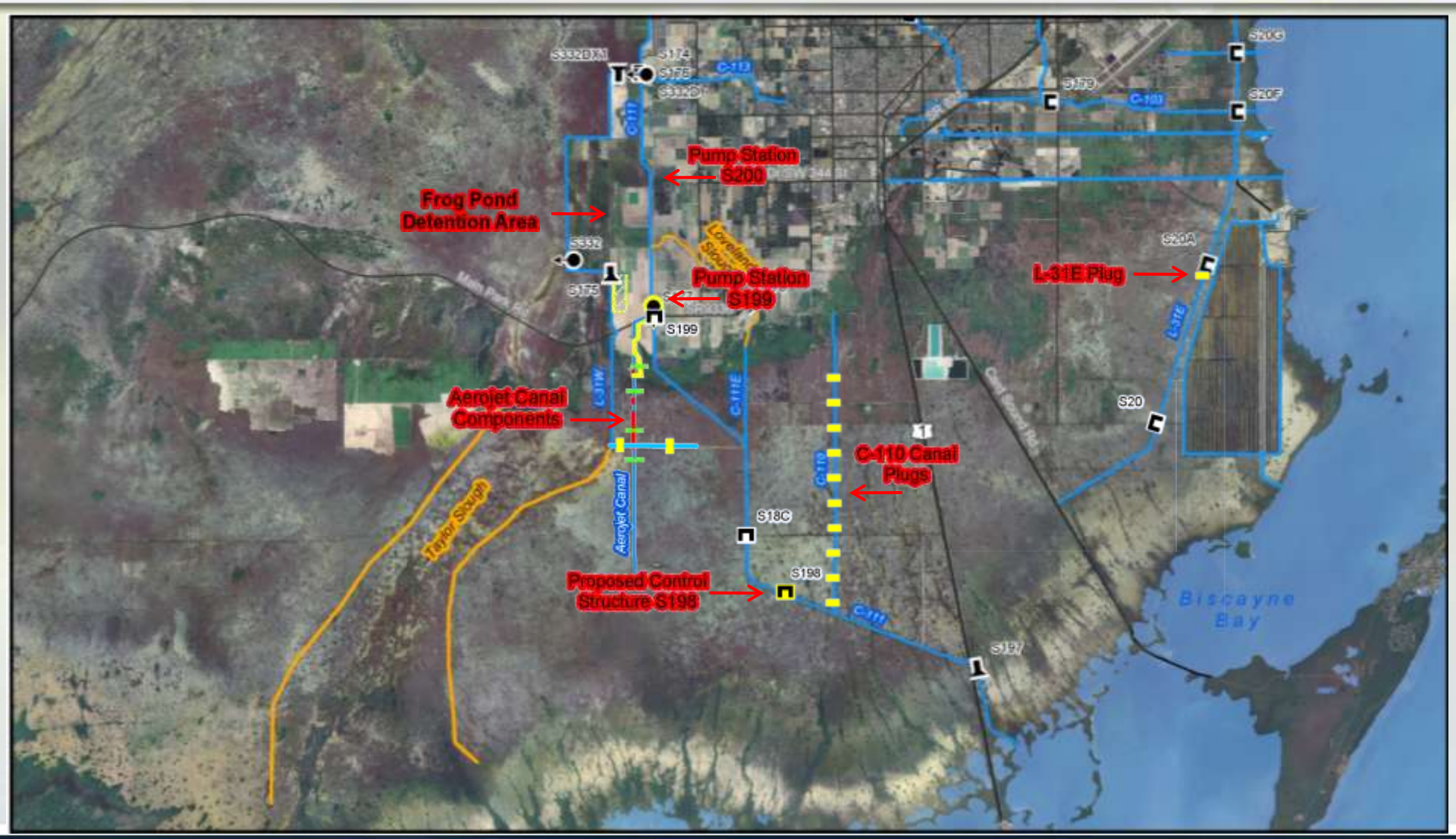
Constraints

- Maintain existing levels of flood damage reduction and not adversely affect existing legal users of water
- Avoid adverse impacts to protected species (e.g. Endangered Cape Sable Seaside Sparrow)
- Maintain operational flexibility

Project Level Monitoring

- Hydrometeorological monitoring is necessary to ensure project benefits, guide adaptive management decisions, protect existing levels of flood damage reduction and ensure no adverse impacts to protected species or ENP Panhandle
- Ecological monitoring is necessary to ensure project benefits and guide adaptive management decisions
- Water quality monitoring is necessary to remain compliant with State law

Project Features
C-111 Spreader Canal Phase 1



Expedited Construction

On October 14, 2004, in the presence of the USACE, DOI, CEQ and other state, local and federal partners, SFWMD entered into an agreement to expedite the implementation of eight critical CERP projects

Important Dates

- September 2009 – Governing Board authorized staff to award three contracts totaling $24.9 million to complete construction of expedited features
- December 15, 2009 - Civil Works Review Board
- July 8, 2009 – Published Draft PIR/EIS in Federal Register
- Jan 26, 2010 – Official Groundbreaking
- September 2010 – Chief's Report signing
- Feb 2011 – Record of Decision

C-111 Spreader Canal, Phase 1
Summary of Construction Components

Construction Contracts

- **Frog Pond Detention Area:**
  - Notice to Proceed issued 1/4/2010
  - Construction completion 6/28/2011

27% complete

- **Aeroject, C-110 and L-31E Canal Modifications:**
  - Notice to Proceed issued 1/4/2010
  - Construction completion 6/28/2011

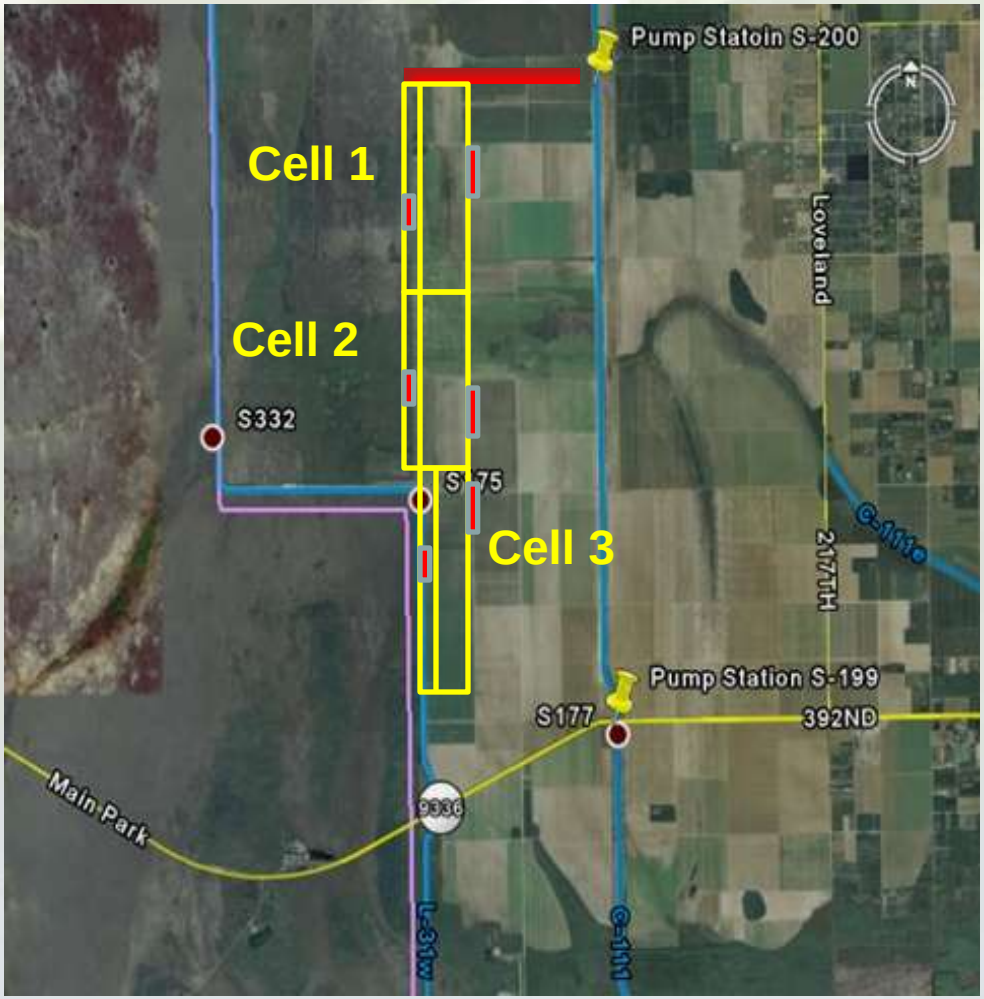
21% complete

- **S-199 and S-200 Pump Stations:**
  - Notice to Proceed issued 1/11/2010
  - Construction completion 7/5/2011

10% complete

Summary of Project Components – Frog Pond Detention Area

- **Pump Station S-200:**
  - 225 CFS
- **Inlet Channel:**
  - Above Grade Concrete Lined
  - 4,300 LF
- **Detention Area:**
  - 590 Acres – 3 Cells
  - 3 Inflow Weirs
  - 3 Emergency Overflow Weirs
- **Header Channel:**
  - Unlined
  - 100 ft wide x 15,000 LF



FPDA Progress Photos

FPDA Progress Photos

FPDA Progress Photos

Summary of Project Components – Aerojet

- **Pump Station S-199:**
  - **225 CFS (3x75 CFS)**
- **Discharge Channel:**
  - **Above Grade Concrete Lined 4,000 LF**
  - **Above Grade Unlined 1,700 LF**
- **AJ-1 Weir/Road Culvert Crossing and Aerojet Canal Plugs**

Summary of Project Components – Aerojet

- **C-110:**
  - **10 Canal Plugs**
  - **Construction 90% Complete**

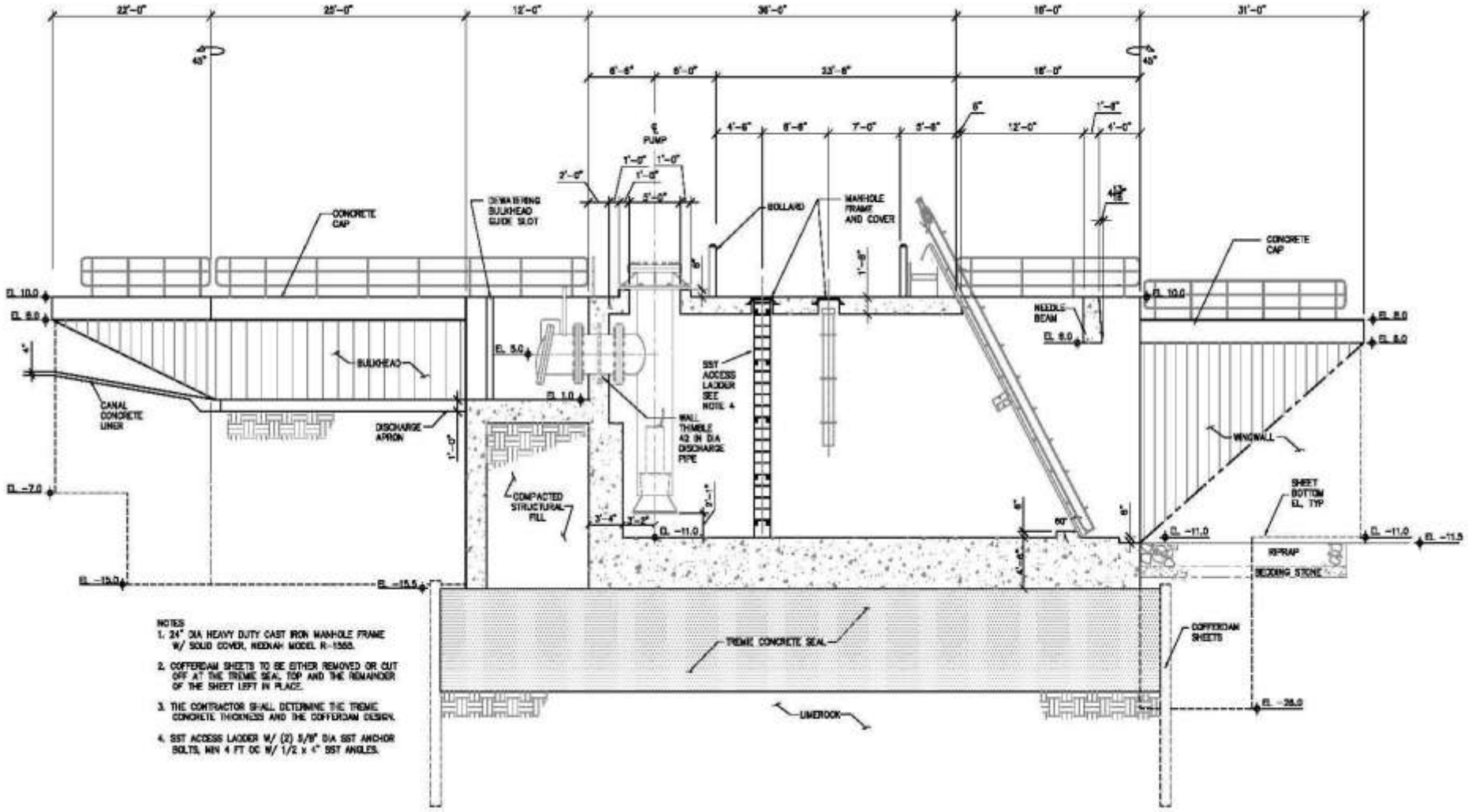
Summary of Project Components – Aerojet

- **L-31E:**
  - **1 Canal Plug**
  - **Construction Started April 26**

Aerojet Discharge Canal Progress Photos

Aerojet Discharge Canal Progress Photos

S-199 & S-200 Pump Stations



Questions?