

A satellite image of a large hurricane with a distinct eye, positioned over the Gulf of Mexico. The storm's clouds are dense and white, contrasting with the darker blue of the ocean and the green and brown of the surrounding landmasses.

# **100 Year Hurricane Protection Projects Lake Pontchartrain and Vicinity West Bank and Vicinity**

**Project Status Meeting**

**Environmental Compliance**

**Project Management**

**June 7, 2007 - 7:00 – 9:00 pm**

**Jefferson Parish Library, Jefferson Parish East Bank**

**4747 W. Napoleon Avenue**

**Metairie, Louisiana**



**US Army Corps  
of Engineers**



PROJECTS

MEETINGS

LIBRARY

DATA VIEWER

TECH AREA

GET INVOLVED

RELATED LINKS



## Environmental Processes and NEPA Compliance

What is NEPA?

### FEATURED PROJECT



USACE-MVN Emergency Alternative Arrangements  
West Bank & Vicinity & Lake Pontchartrain & Vicinity  
Hurricane Protection Projects

Welcome to NOLA Environmental! This site has been set up to share with the public the efforts being made by the U.S. Army Corps of Engineers and other Federal and state agencies in south Louisiana regarding the environmental compliance for proposed Federal and state Hurricane Protection Projects. Additional information pertaining to other Federal and state agencies' hurricane recovery efforts in southeast Louisiana will also be posted on the site as it becomes available.

The U.S. Army Corps of Engineers implemented alternative arrangements on March 13, 2007 as authorized by the **National Environmental Policy Act**. These arrangements were implemented to expedite the completion of environmental compliance for the proposed 100-year Hurricane Protection Project authorized by the Administration and Congress for the New Orleans Metropolitan area. ([Learn More](#))

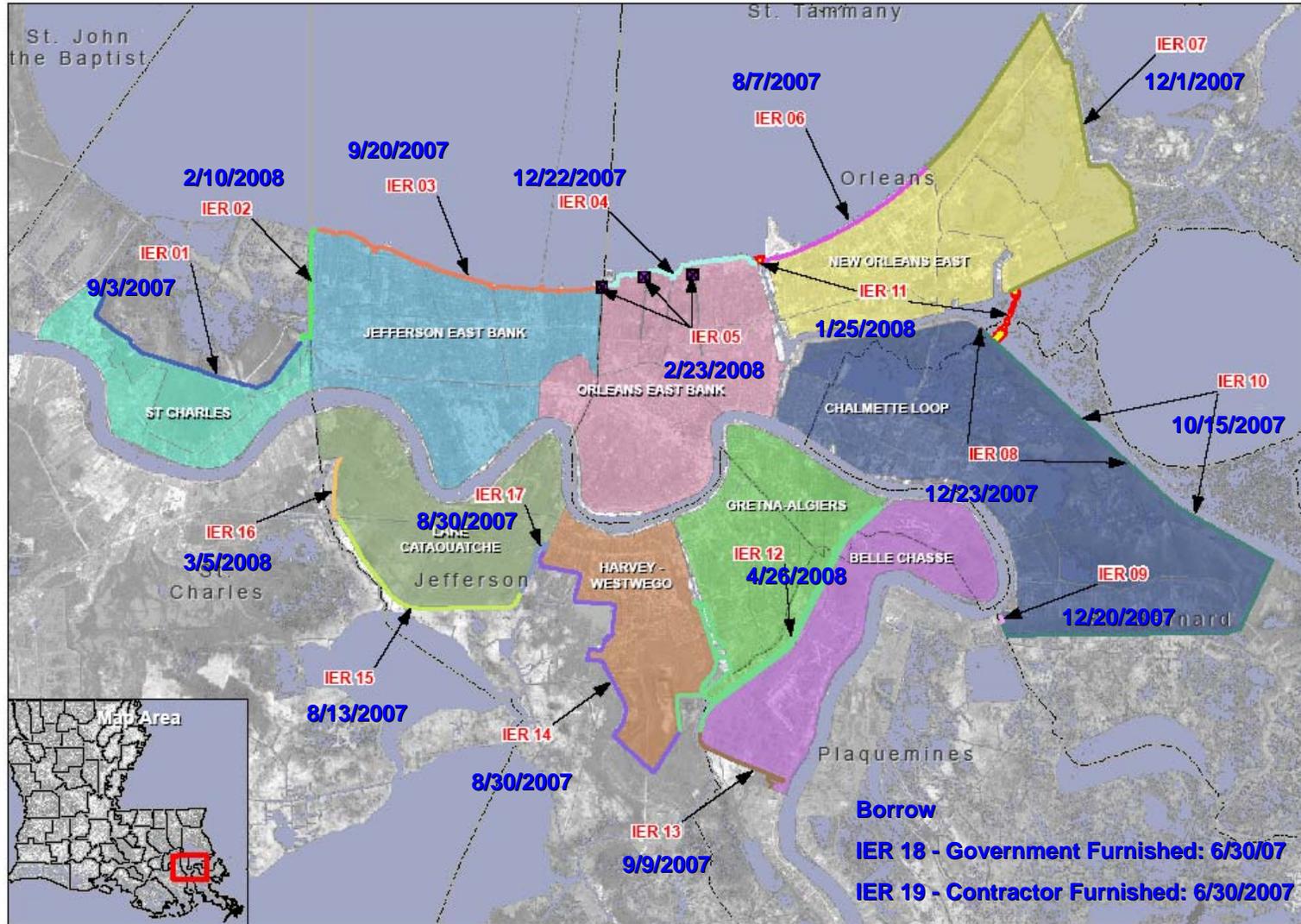
[USACE Alternative Arrangements NEPA Process](#)

[USACE Alternative Arrangements NEPA Process Appendix](#)

- **Prepare Individual Environmental Reports (IER) in support of National Environmental Policy Act, (NEPA), Clean Water Act, Endangered Species Act, and other environmental laws.**
- **Monthly Interagency Meetings: U.S. Fish and Wildlife Service, National Marine Fisheries Service, Environmental Protection Agency, National Park Service, La Department of Wildlife and Fisheries, La Department of Natural Resources, and La Department of Environmental Quality.**
- **Monthly Stakeholders Meetings.**
- **Conduct cultural resources surveys to locate, identify, and assess historic standing structures, shipwrecks, prehistoric and historic archeological sites along the project corridors.**
- **Conduct HTRW Phase I Environmental Site Assessments in accordance with ASTM standards along the project corridors.**
- **Provide for a New Orleans Area Hurricane Protection System Environmental Justice program with community involvement, education, and conducting socioeconomic research in compliance with Executive**

# Tentative Start of Public Review Period for Draft IERs

## Sub Basins and Representative Project Groups



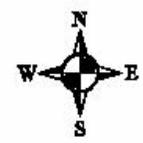
**Map Legend**

**IER PROJECT GROUP**

IER 01	IER 10
IER 02	IER 11
IER 03	IER 12
IER 04	IER 13
IER 05	IER 14
IER 06	IER 15
IER 07	IER 16
IER 08	IER 17
IER 09	

**SUB BASIN**

Belle Chasse
Gretna-Algiers
Harvey-Westwego
Jefferson East Bank
Lake Cataouatche
Orleans East Bank
New Orleans East
St. Bernard
St. Charles



**US Army Corps of Engineers®**

# BORROW TEAM ACQUISITION PLAN



**Estimated Borrow Needs: 142 Million Cubic Yards**



U.S. ARMY CORPS  
OF ENGINEERS,  
NEW ORLEANS DISTRICT  
HPO, PRO and Borrows Offices

### LEGEND

- Borrows (Property Polygons)**
  - Government Furnished All
  - Contractor Furnished All
- Borrows (Point Locations)**
  - Government Furnished All
  - Contractor Furnished All
- Parish Boundary



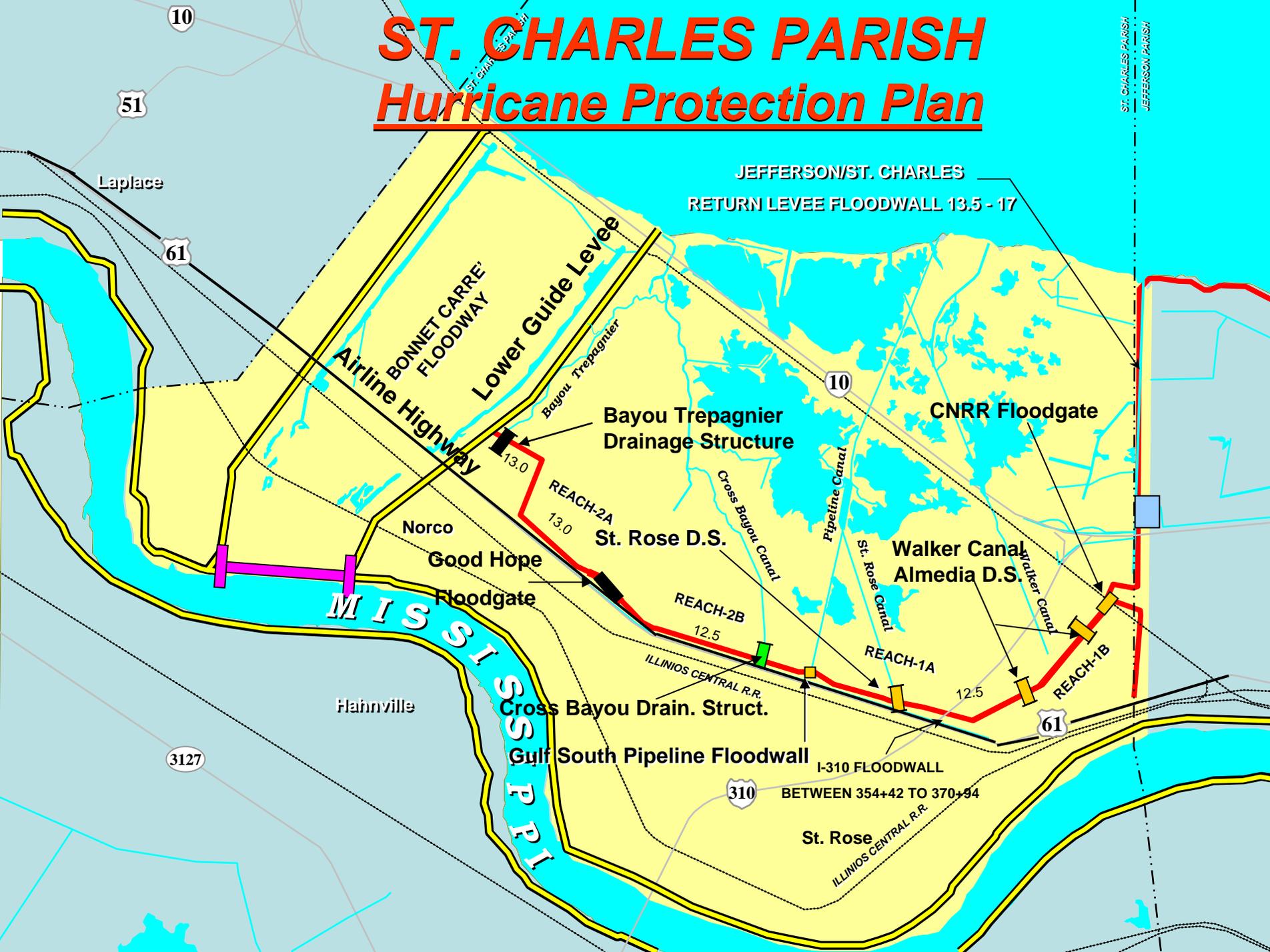
IMAGERY  
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Original coordinate system name: GCS\_North\_American\_1983  
Resolution: 1.000000 meter

3/28/09/07

**Borrow Site Extents**

# ST. CHARLES PARISH

## Hurricane Protection Plan



REACH 1

REACH 2

REACH 3

Lake De Cade

Reach #3 – Levee Work  
Construction started Oct 2006  
Complete June 2007

Reach #1 – Levee Work  
Construction started Oct 2006  
Complete June 2007

Pump Station #3 – Floodwall Tie-ins  
Construction started Oct 2006  
Complete June 2007

I-10 Floodwall – Floodwall Enhancement  
Construction started May 2007  
Complete June 2007

Floodwall Tie-ins  
Construction started Oct 2006  
Complete May 2007

Williams Blvd and Pump Station #1  
Floodwall Tie-ins  
Construction started June 2007  
Complete Aug 2007

Williams Blvd, and Causeway  
– Floodwall Tie-ins  
Construction started June 2007  
Complete Aug 2007

Parish Line P.S.

P.S. #4

P.S. #3

P.S. #2

P.S. #1

Duncan Canal

Elm

St. Charles Parish

Mississippi

Parish

# JEFFERSON PARISH Hurricane Protection Plan

	Levee
	Floodwall
	Pumping Stations
	Breakwater



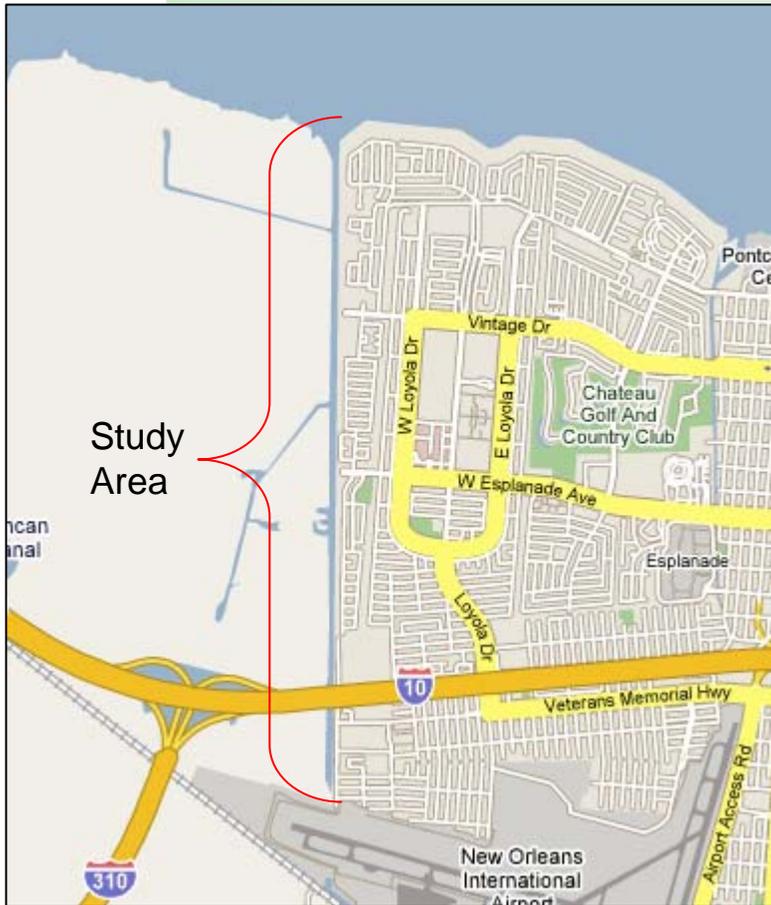
## Pump Station #3 - Lakeside



# Reach 4 Looking East



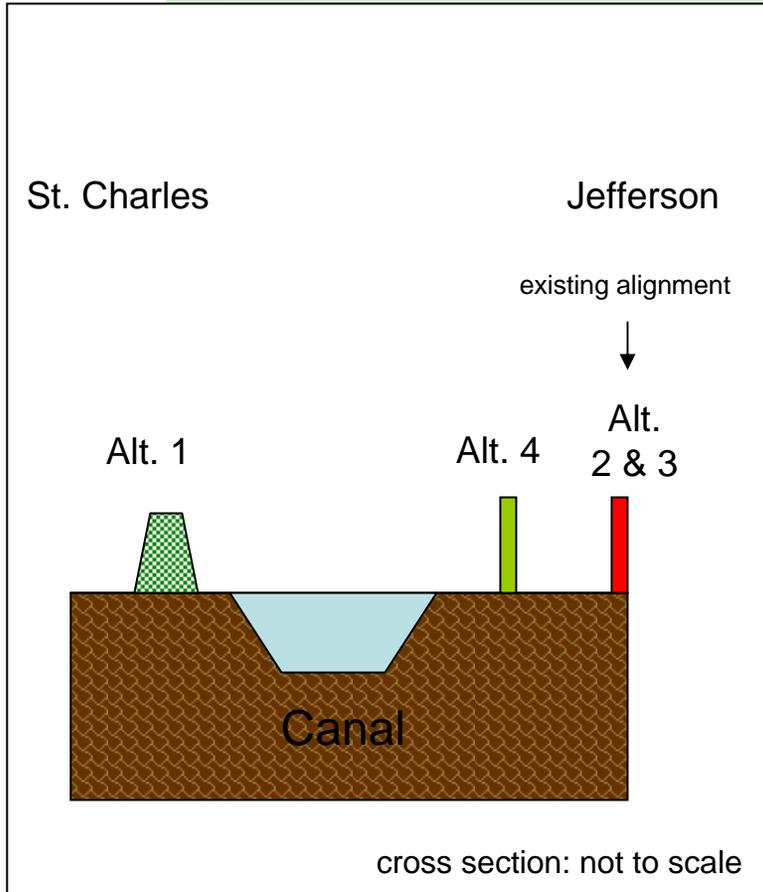
# West Return Floodwall Alternatives Evaluation



Study Area: Station 0+00 W/L at the New Orleans International Airport to the Jefferson Lakefront Levee at Station 180+91.62 W/L

- Draft Analysis submitted by consultant in October of 2006
- 95% Submittal received in December of 2006
- Final Analysis expected **July of 2007**

# West Return Floodwall Alternatives Evaluation



Alternative 1: Earthen Levee (ST. Charles side of existing alignment)

Alternative 2: Modification of Existing Floodwalls by Adding Additional Wall Height (current alignment)

Alternative 3: Remove Existing Wall and Replace with New Wall (current alignment)

Alternative 4: New Wall Parallel to Existing Wall (canal side of existing alignment)

Alternative 5: Remove Existing Wall but reuse pile foundation for New Wall (current alignment)

# Overall Project Map

- LPV 101 – Lakefront Levee OEB - 17<sup>th</sup> St Canal to Topaz St
- LPV 102 – Lakefront Levee OEB - Topaz to Orleans Canal
- LPV 103 – Lakefront Levee OEB - Orleans Canal to London Ave
- LPV 104 – Lakefront Levee OEB - London Avenue Canal to IHNC



**Alternatives being considered, include:**

**LPV 101.02**

- 1) Replace earthen levees and existing floodwall with T-wall along existing alignment;**
- Replace vehicle access gates;**
- Realign floodwall to cross Pontchartrain Blvd near its intersection with Lake Marina Ave**



U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
MISSISSIPPI VALLEY DIVISION

**Map Legend**

- Channel Floodgate
- Inlet Floodgate
- R/Rose Floodgate
- Rose Floodgate
- ⊗ Pump/Gate
- Orange Federal Interim Flood-wall
- Purple Federal Interim Flood-wall
- Yellow Federal Interim Levee
- Magenta Federal Interim Levee and Flood-wall
- Blue Interim Floodwall Levee
- Green Federal Interim Levee and Flood-wall
- Red Federal Interim Levee and Flood-wall
- Brown Federal Interim Levee and Flood-wall
- Light Blue Federal IT Flood-wall
- Pink Local Bridge Levee and Local Interim Levee
- Light Green Local Interim Levee and Flood-wall
- Dark Green Local Levee Floodwall
- Red Rose St Levee
- White Partial Encasement

**PROJECT STATISTICS**

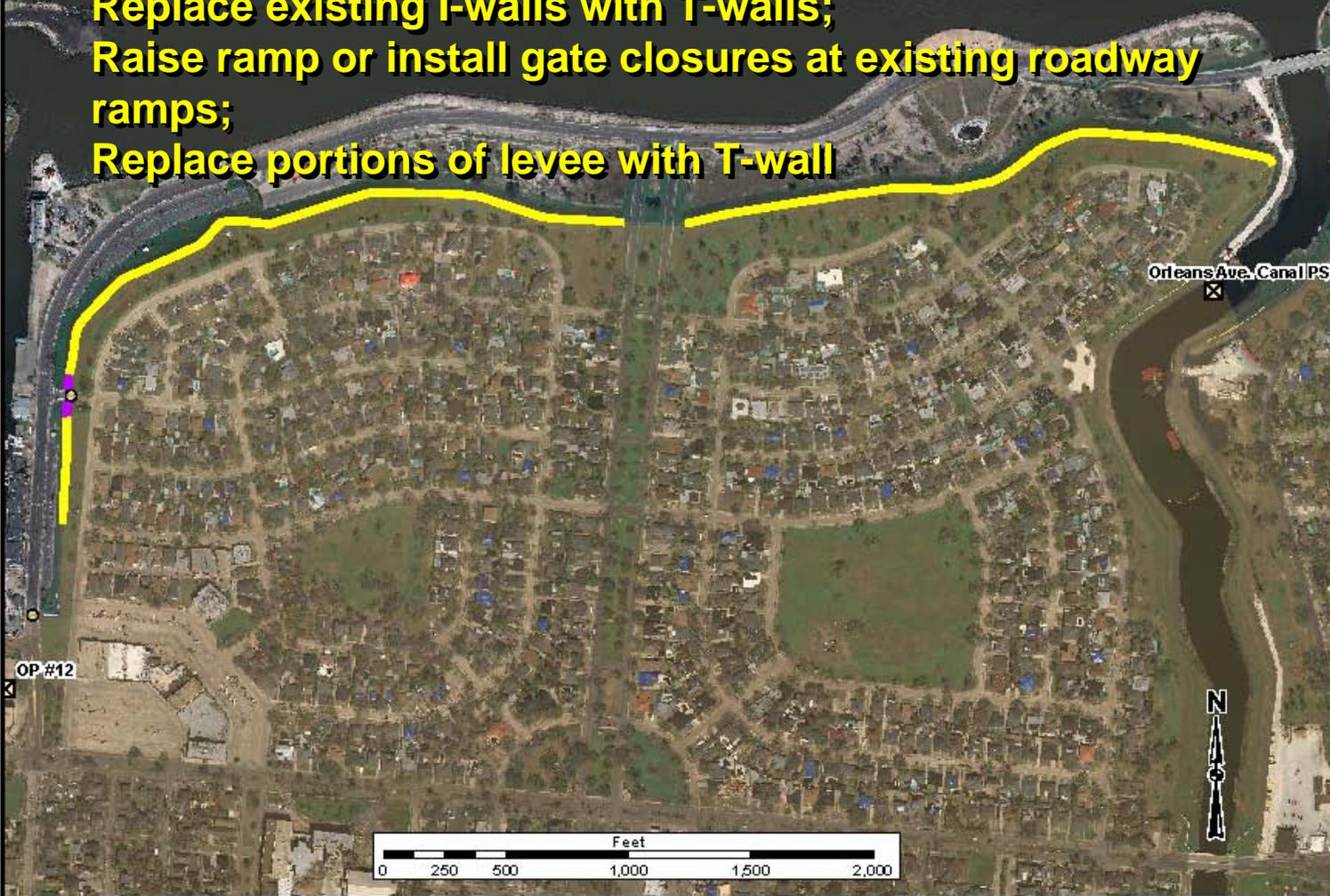
- Total Length: 3,228'
- Federal Floodwall: 2,078'
- Federal Hurricane Levee: 630'
- Federal Levee and Floodwall: 283'
- Structure Gaps (S): 236'
- Authorized Grade: 14'
- 100-Year Grade: 16'-18'
- Existing Elevation: 12.5'-13.5'
- Est. Cost (Millions): Phase 1 - \$1.0, Phase 2 - \$54.6



**Alternatives being considered, include:**

**LPV 102.02**

- 1) **Raise earthen levee;**
- Replace existing I-walls with T-walls;**
- Raise ramp or install gate closures at existing roadway ramps;**
- Replace portions of levee with T-wall**



U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
MISSISSIPPI VALLEY DIVISION

**Map Legend**

- Overall Floodgate
- Inverted Floodgate
- Ribbed Floodgate
- Flap Floodgate
- ⊗ Pump Station
- Federal Hurricane Flood-wall
- Federal Hurricane Flood-wall
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Harbor Protection Levee
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Federal T Flood-wall
- Local Drainage Levee; Local Hurricane Levee
- Local Hurricane Levee and Flood-wall
- Local Levee; Federal Free
- Road to Levee
- Parish Boundary

**PROJECT STATISTICS**

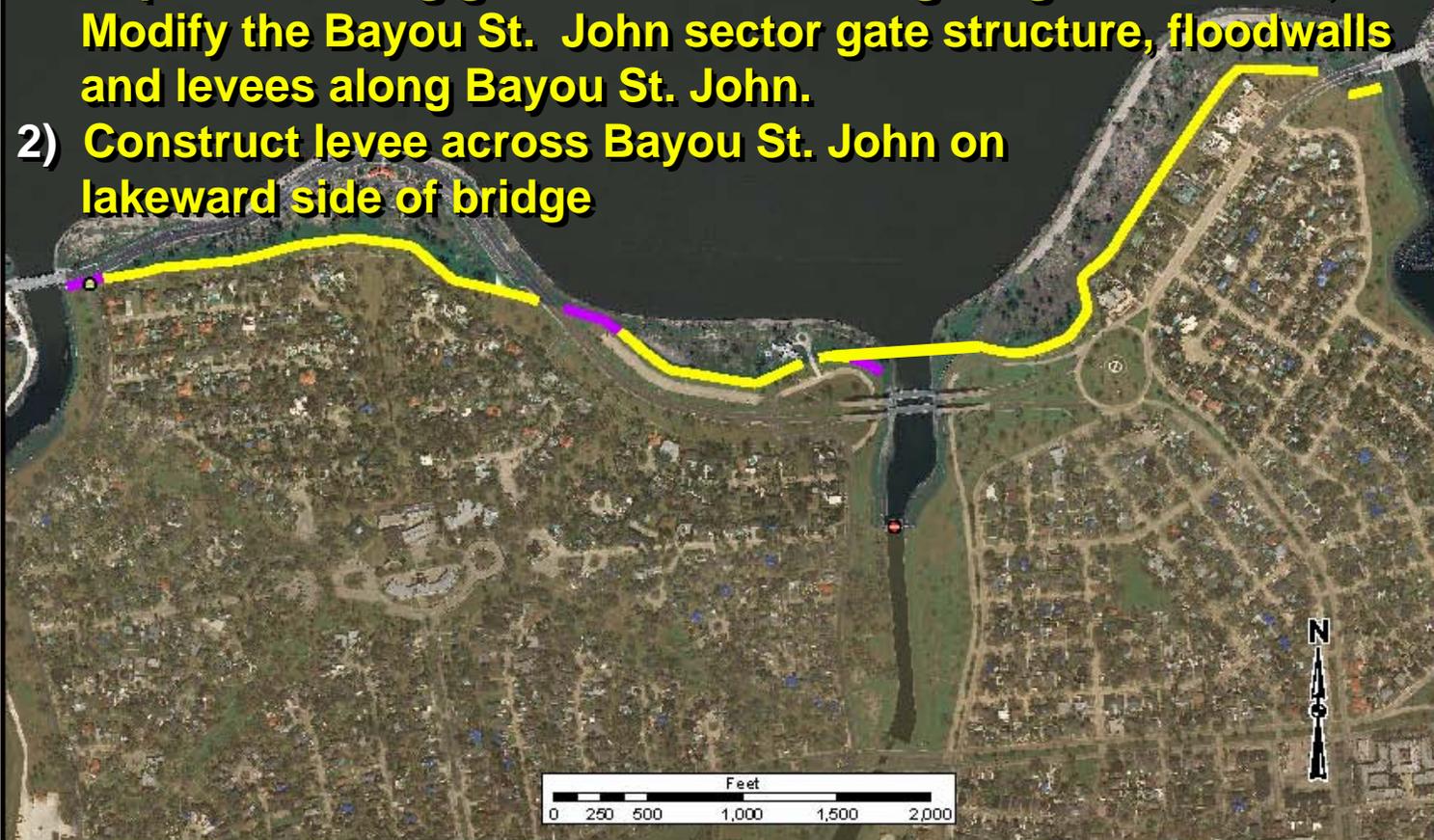
- Total Length: 6022'
- Federal Hurricane Levee: 5577'
- Federal Levee and Floodwall: 151'
- Structural Gaps: 294'
- Authorized Grade: 18.5'
- 100-Year Grade: 18.5'-20.5'
- Existing Elevation: 16.5'-19.0'
- Est. Cost (Millions): Phase 1 - \$4.2, Phase 2 - \$10.5



## Alternatives being considered, include:

### LPV 103.02

- 1) **Raise earthen levee;  
Replace existing I-walls with T-walls;  
Raise ramps or install gate closures at existing roadway ramps;  
Replace existing gate closures with higher gate closures;  
Modify the Bayou St. John sector gate structure, floodwalls and levees along Bayou St. John.**
- 2) **Construct levee across Bayou St. John on lakeward side of bridge**



U.S. ARMY ENGINEER DISTRICT  
CORPS OF ENGINEERS  
MISSISSIPPI VALLEY DIVISION

#### Map Legend

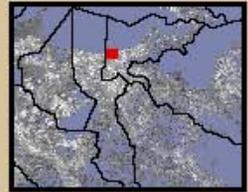
- Channel Floodgate
- Inverted Floodgate
- Railroad Floodgate
- Road Floodgate
- Pump Station
- Federal Hurricane Flood-wall
- Federal Hurricane Flood-wall
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Inland Protection Levee
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Federal Hurricane Levee
- Federal Hurricane Levee and Flood-wall
- Federal T Flood-wall
- Local Drainage Levee, Local Hurricane Levee
- Local Hurricane Levee and Flood-wall
- Local Levee, Federal Free
- Road Levee
- Parish Boundary

PROJECT STATISTICS  
Total Length: 7121'  
Federal Hurricane Levee: 6479'  
Federal Levee and Floodwall: 668'  
Stretch Gaps: 6:573'  
Authorized Grade: 18.0  
100-Year Grade: 18.5'-20.5'  
Existing Elevation: 16.5'-20.0'  
Est. Cost (Millions): Phase 1 - \$9.1,  
Phase 2 - \$46.0

#### AREA MAP



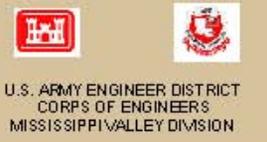
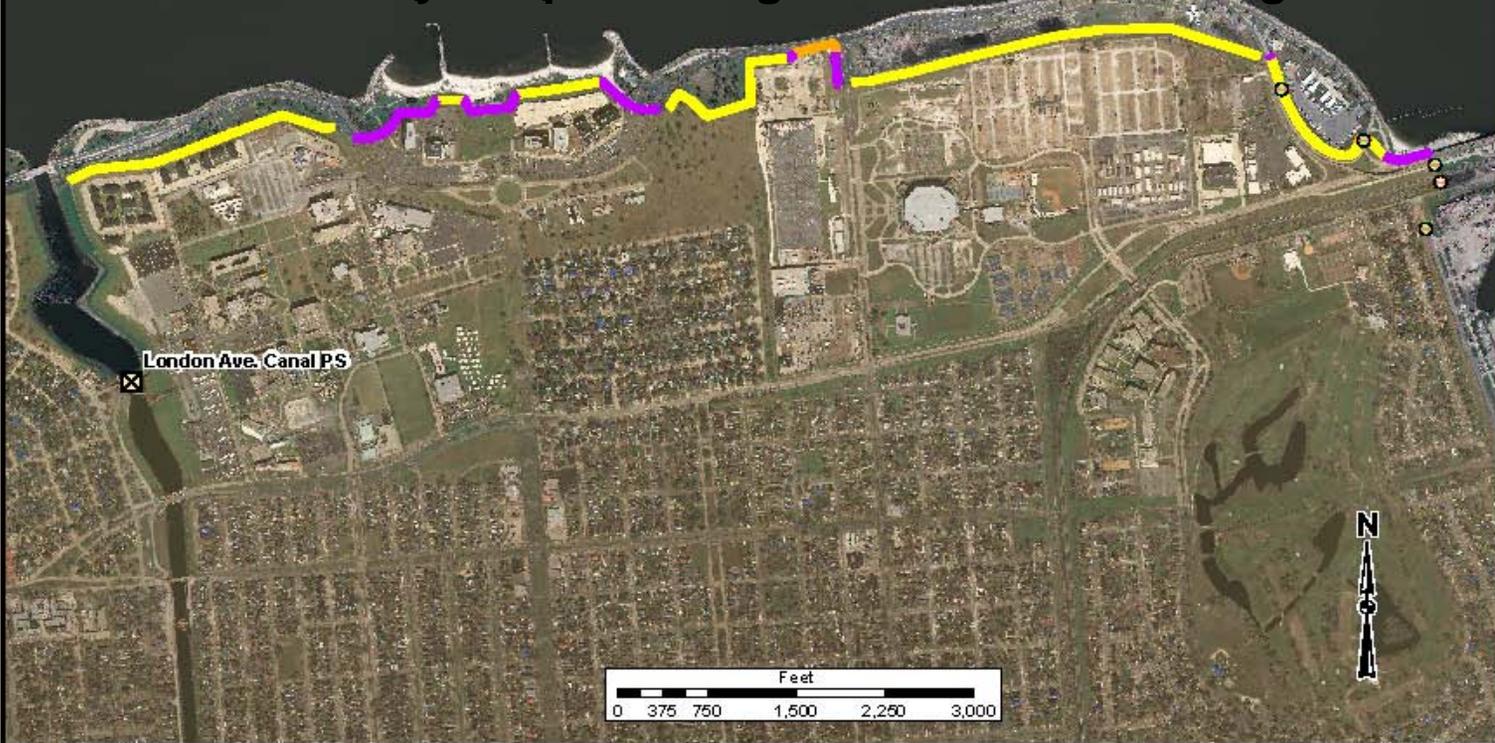
#### REGION MAP



**Alternatives being considered, include:**

**LPV 104.02**

- 1) Raise earthen levee;**
- Replace existing I-walls around UNO Research Park and the OLD Yard with Levee**
- Realign levee west of OLD Yard lakeward.**
- Replace existing I-wall west of IHNC with T-walls;**
- Raise roadway ramp crossings or install new floodgates**



**Map Legend**

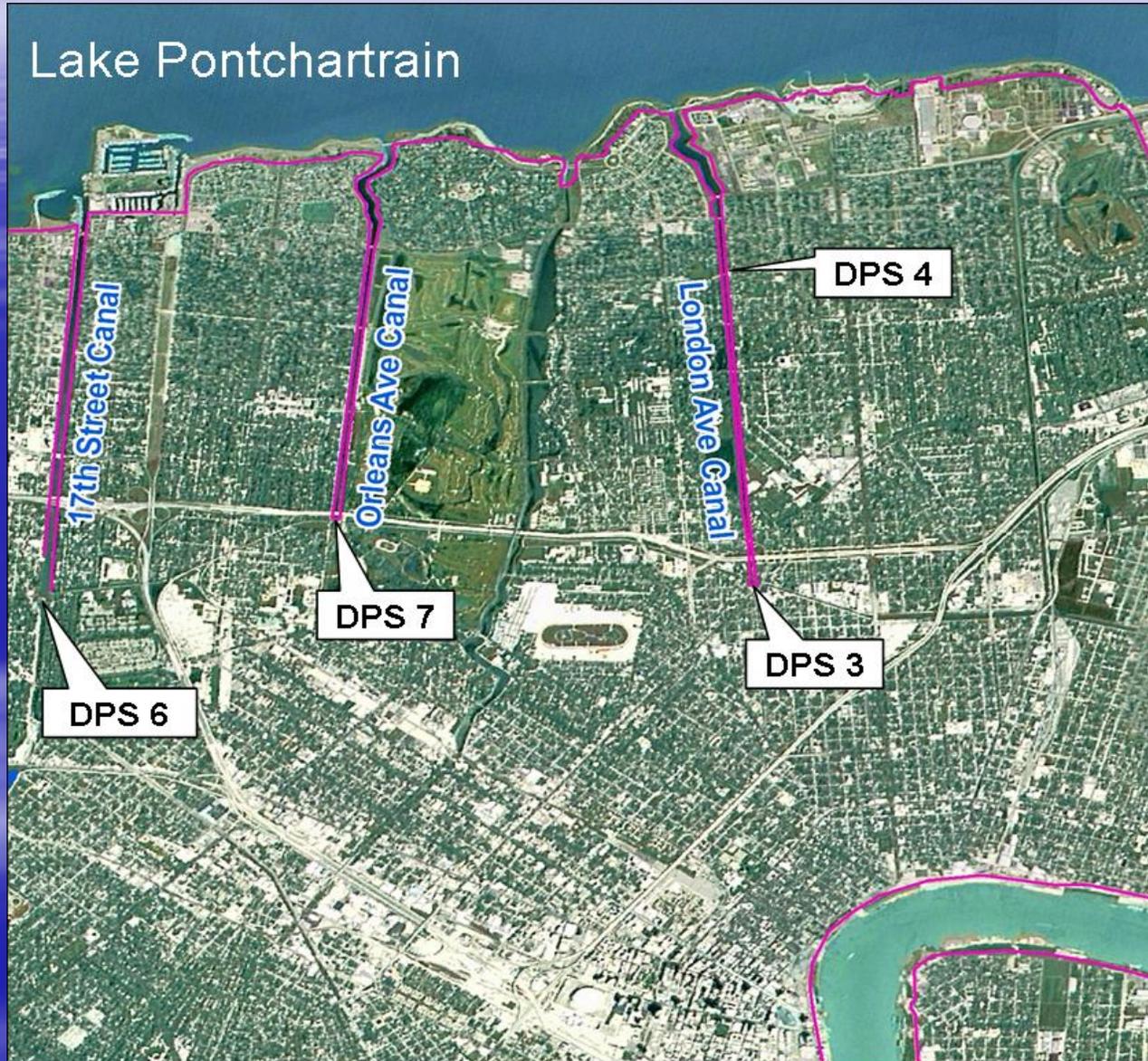
- Canal Floodgate
- Inland Floodgate
- Railroad Floodgate
- Road Floodgate
- ⊗ Pump Station
- ▭ Federal I/Wall Floor-wall
- ▭ Federal I/Wall Floor-wall
- ▭ Federal I/Wall Levee
- ▭ Federal I/Wall Levee and Floor-wall
- ▭ Inland Protection Levee
- ▭ Federal I/Wall Levee
- ▭ Federal I/Wall Levee and Floor-wall
- ▭ Federal I/Wall Levee and Floor-wall
- ▭ Federal I/Wall Levee and Floor-wall
- ▭ Federal T Floor-wall
- ▭ Local Drainage Levee, Local Inland Levee
- ▭ Local Inland Levee and Floor-wall
- ▭ Local Levee Federal Free
- ▭ Road Levee
- ▭ Park Boundary

**PROJECT STATISTICS**

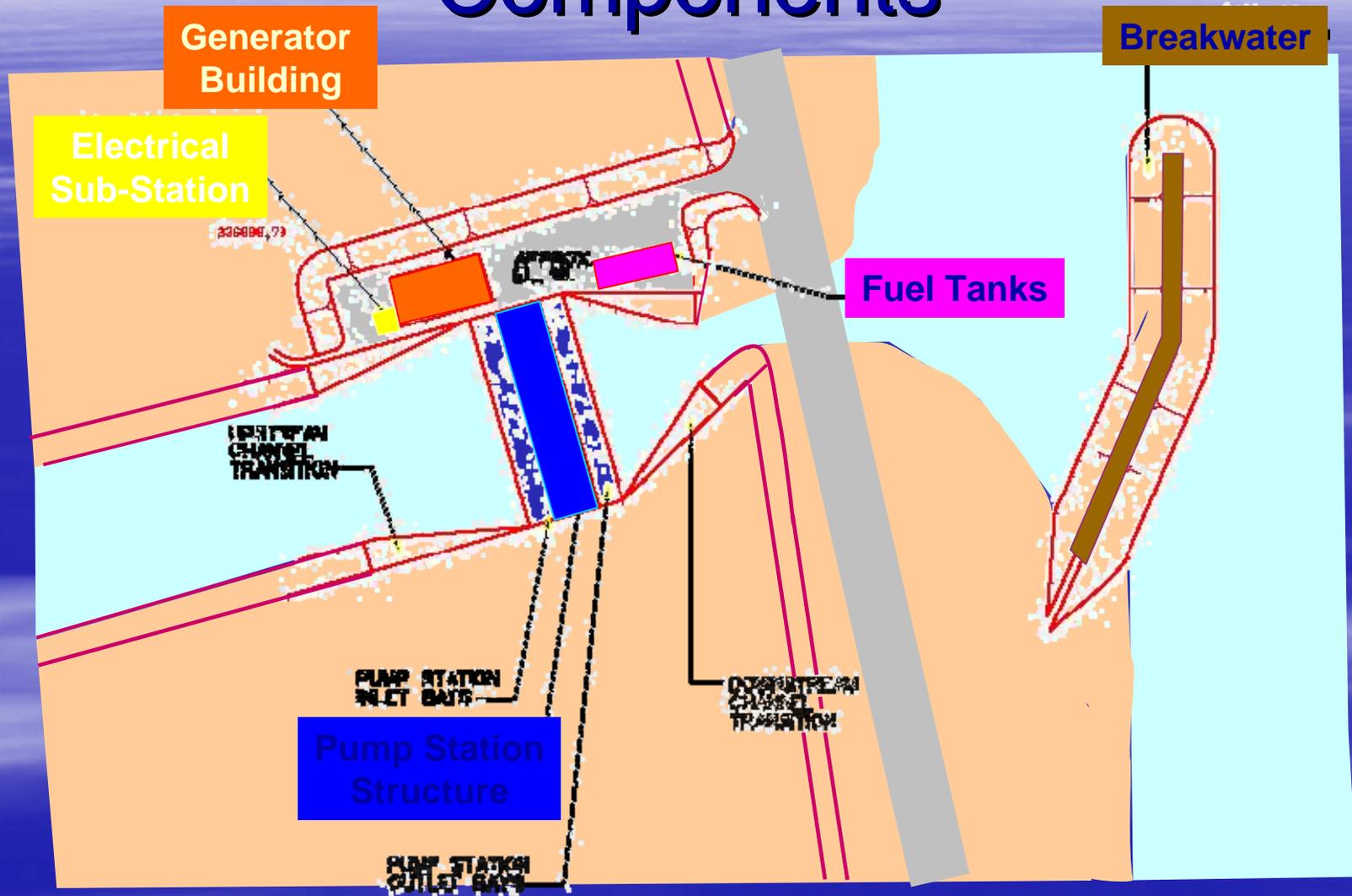
- Total Length: 1,369'
- Federal Floodwall: 538'
- Federal Inland Levee: 970'
- Federal Levee and Floodwall: 2930'
- Structural Gaps: 6: 520'
- Authorized Grade: 18.0'-20.5'
- 100-Year Grade: 18.5'-20.5'
- Existing Elevation: 15.0'-20.0'
- Est. Cost (Millions): Phase 1 - \$5.8, Phase 2 - \$25.2



# Existing Facilities



# Typical Pump Station Components



# PROJECT PROGRESS

- Developing Best Engineering Solution with Senior Panel of Engineers and Stakeholder Input
- 17th Street Canal Repairs
- Proceeding with London Avenue Canal Load Test
- AE firm working on Structural Repairs to walls of all Outfall Canals

Questions?  
Comments?