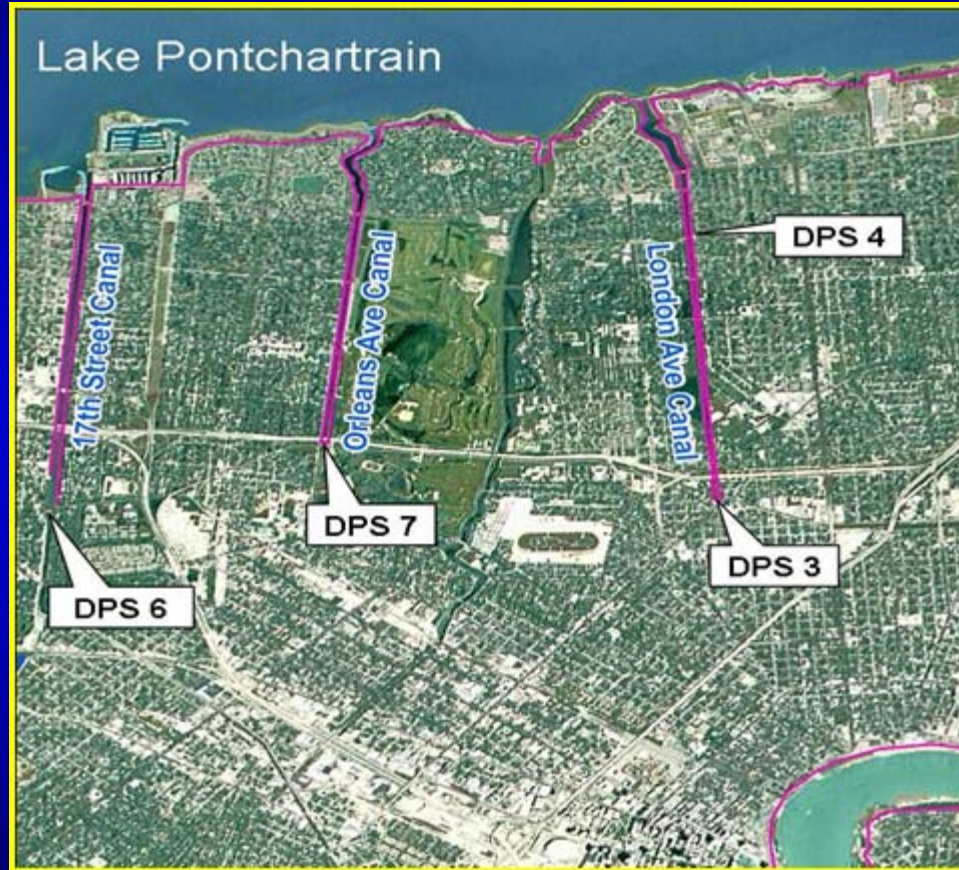




US Army Corps
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New Orleans District

Permanent Protection System for the Outfall Canals



Individual Environmental Report #5

One Team: Relevant, Ready, Responsive and Reliable



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Why we are here tonight

To discuss how to permanently protect Orleans and Jefferson Parishes from storm surge-induced flooding through the 17th Street, Orleans Avenue, and London Avenue Canals, while not impeding the ability of the area's internal drainage system to remove storm water.



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National Environmental Policy Act

“NEPA”

- **Required for all major Federal actions**
- **Analyze potential impacts to the human and natural environment and investigate reasonable alternatives**
- **Analyses documented in Environmental Assessments (EA), Environmental Impact Statements (EIS) or Individual Environmental Reports (IER)**
- **Public involvement is KEY: We want to hear from you!**
- **Goal: more informed decision making through public involvement**



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NEPA Process and Path Ahead

- March/April 07: NEPA Process began with Public Scoping Meetings
- April 07 through now: Alternatives developed
- **Now through Early March 08: Conduct Impacts Analysis, Continue Solicitation of Public Input and Complete Draft IER**
- Early March 08: Release Draft IER (including preferred alternative and preferred site) for 30-day public comment period
- Early April 08: Review Public Comments
- Mid/Late April 08: Make Final Decision



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NEPA Alternatives

- 1. No Action (NEPA Mandated)**
 - 2. Non-Structural (WRDA Mandated)**
 - 3. Barrier Plan**
 - 4. Canal Closure**
 - 5. Parallel Protection**
 - 6. Canal Closure and Pumps**
- **Additional Features**



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NEPA Alternatives

1. No Action (NEPA Mandated):

No further actions other than maintenance would be done to the projects that are now in place; the Interim Control Structures would remain in place for the life of the project.

2. Non-Structural (WRDA Mandated):

Includes floodproofing by raising homes and businesses, or real estate acquisition or relocation of residences within the Orleans East Bank sub basin to a safe, sanitary, decent and comparable residence selected by the homeowner.

3. Barrier Plan:

First investigated in the 1972 LPV EIS, this system would provide a barrier between Lake Pontchartrain and the Gulf.



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NEPA Alternatives

4. Canal Closure:

Includes various alternative gate configurations to block Lake Pontchartrain storm surge from entering the outfall canals

5. Parallel Protection:

Includes alternatives such as concrete lined canals or replacing “I-walls” with “T-walls”



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NEPA Alternatives

6. Canal Closure and Pumps:

Variations of this alternative include a pressurized conduit system, conversion of the interim control structures to permanent systems, or construction of new permanent gated or closure structures and pump stations at or near the mouths of the canals, which would concurrently block storm surge while allowing for drainage of storm water



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NEPA Alternatives

- **Additional Features:**

Various water diversion projects that would decrease the capacity demands of any pump station installed on the outfall canals. These diversion projects include options such as diverting water from the 17th Street Canal to the Mississippi River through Hoey's Basin and from the London Avenue Canal to the Industrial Canal.



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Opportunities for Public Input

- **Monthly Public Meetings throughout New Orleans Metro Area**
 - **Make sure to sign in tonight to get on our meeting notification mailing list**
- **Comments can be submitted at any time at www.nolaenvironmental.gov**
- **Individual Environmental Reports (IER) 30-day Public Review**

**Questions and comments regarding Hurricane Protection Projects
should be addressed to:**

**Gib Owen
PM-RS
P.O. Box 60267
New Orleans, LA 70160-0267
Telephone: 504-862-1337**

E-mail: mvnenvironmental@usace.army.mil



**US Army Corps
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New Orleans District

NOLA
Environmental

NEW ORLEANS, LOUISIANA
Environmental Compliance Data Bank



www.nolaenvironmental.gov

PROJECTS

MEETINGS

LIBRARY

DATA VIEWER

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

[USACE NEPA Questions & Answers](#)

[USACE Alternative Arrangements NEPA Process](#)

[USACE Alternative Arrangements NEPA Process Appendix](#)

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, Mississippi Valley Division, New Orleans District implemented Alternative Arrangements on March 13, 2007 under the provisions of the Council on Environmental Quality Regulations for Implementing the [National Environmental Policy Act](#) (40 CFR § 1506.11). This process was implemented in order to expeditiously complete environmental analysis for the 100-year level of Hurricane and Storm Damage Reduction effort authorized and funded by the Administration and the Congress. The proposed actions are located in southern Louisiana area and relate to the Federal effort to rebuild the Hurricane and Storm Damage Reduction system in the New Orleans Metropolitan area as a result of Hurricanes Katrina and Rita. [Learn More](#)

[IER 18 Government Furnished Borrow Draft Report](#) Public [Comment](#) Period: Oct. 28, 2007 - Dec. 04, 2007

[IER 19 Contractor Furnished Borrow Draft Report](#) Public [Comment](#) Period: Nov. 2, 2007 - Dec. 6, 2007

UPCOMING EVENTS: [Public Meetings](#)

[Nov. 29, 2007 7:00 - 9:00 pm \(Open House: 6:00 - 7:00 pm\), Orleans East Bank \(IER 5\)](#)

[Dec. 06, 2007 7:00 - 9:00 pm \(Open House: 6:00 - 7:00 pm\), St. Charles \(IER 1, 2, 3\)](#)

[Dec. 11, 2007 7:00 - 9:00 pm \(Open House: 6:00 - 7:00 pm\), Environmental Justice](#)





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New Orleans District

Back-up slides



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New Pump Station Alternatives

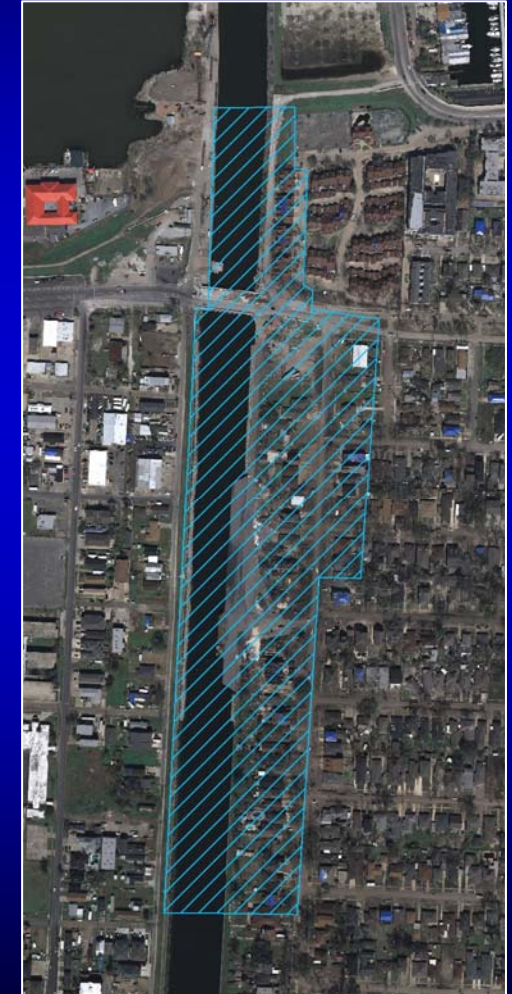
17th Street Site Locations

Location C

Location A



Location B

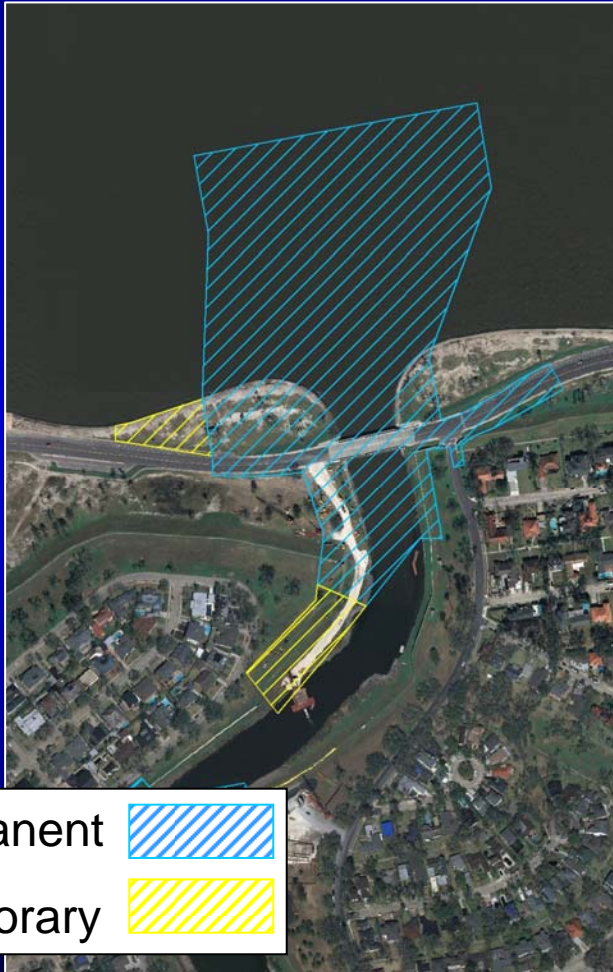




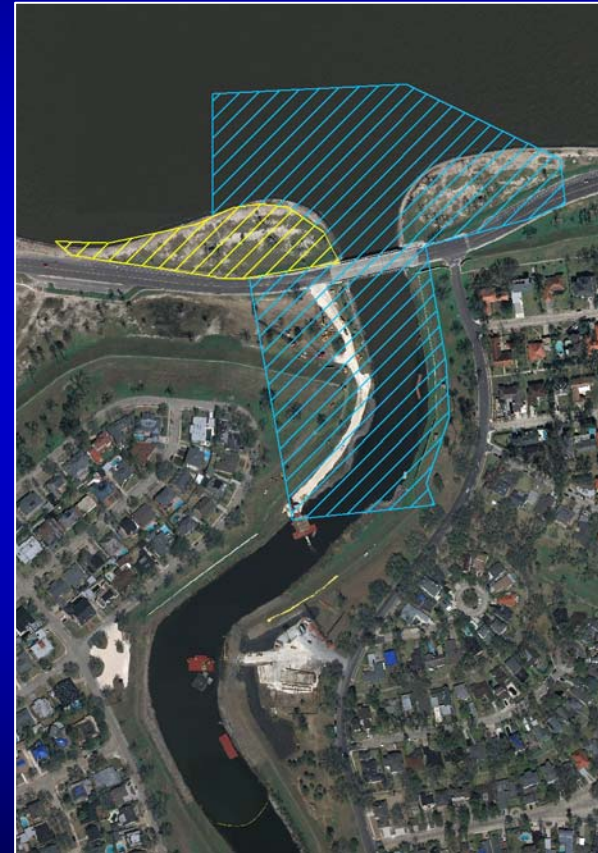
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New Pump Station Alternative Orleans Ave. Site Locations

Location A



Location B



Permanent



Temporary





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New Pump Station Alternative Orleans Ave. Site Locations

Location C



Permanent



Temporary



Location D

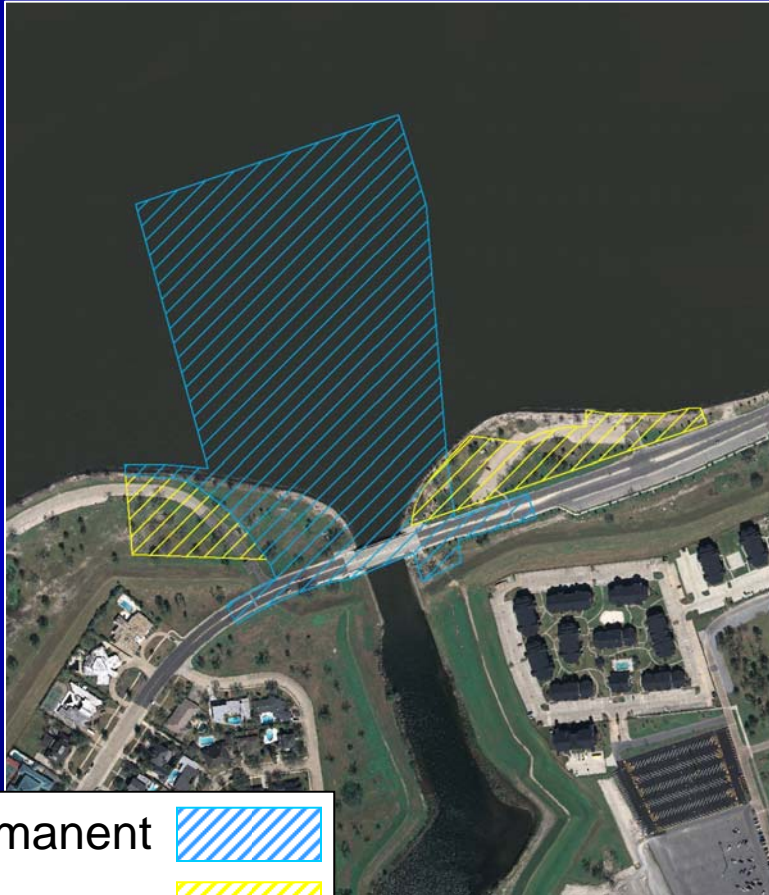




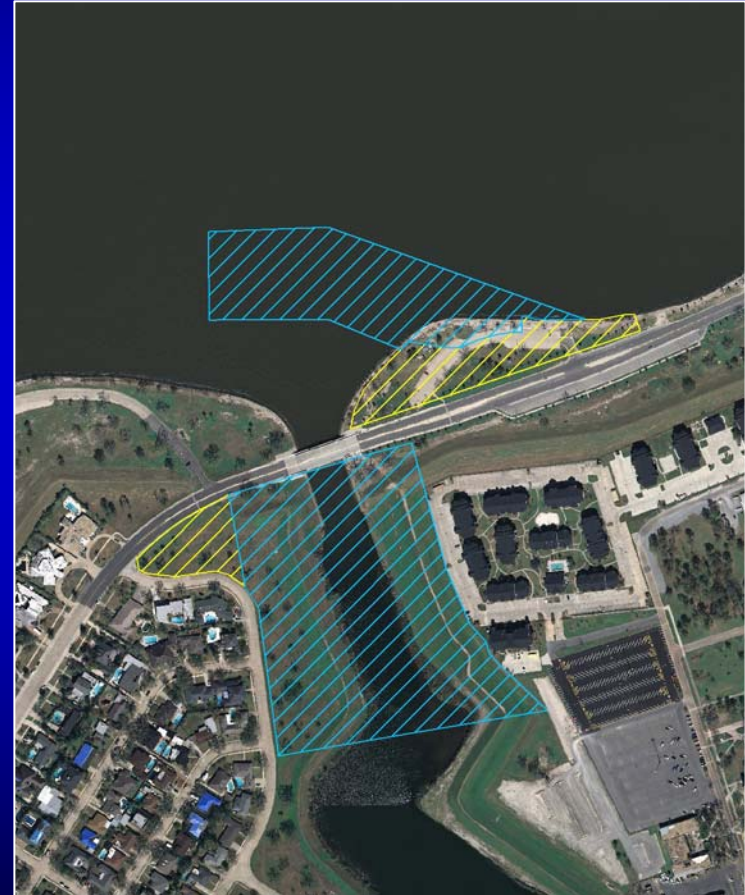
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New Pump Station Alternative London Ave. Site Locations

Location A



Location B



Permanent



Temporary

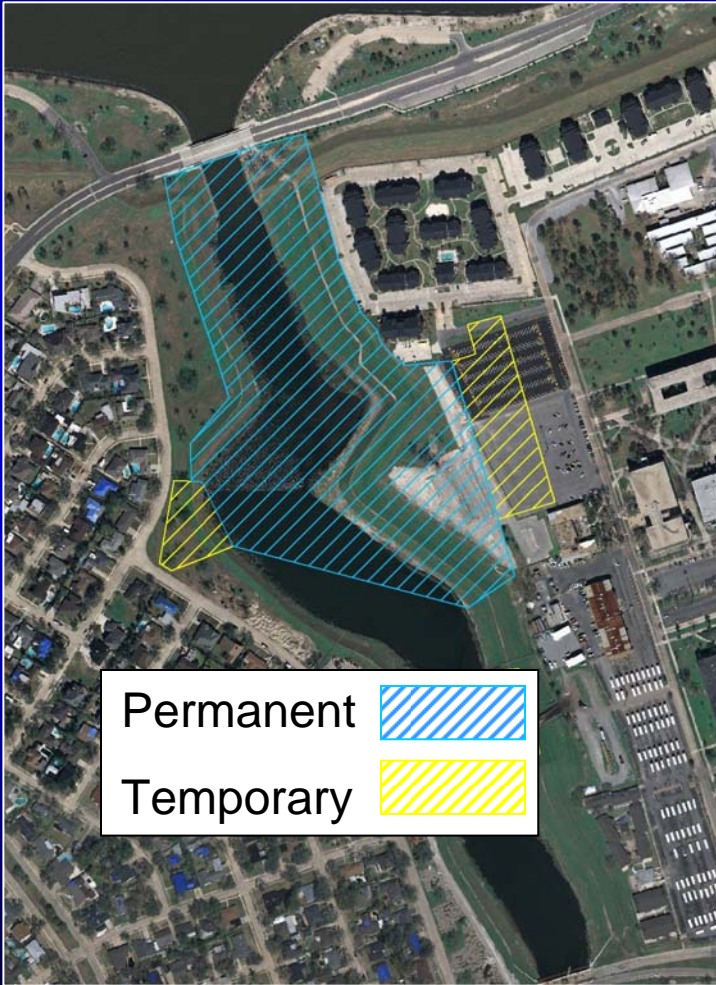




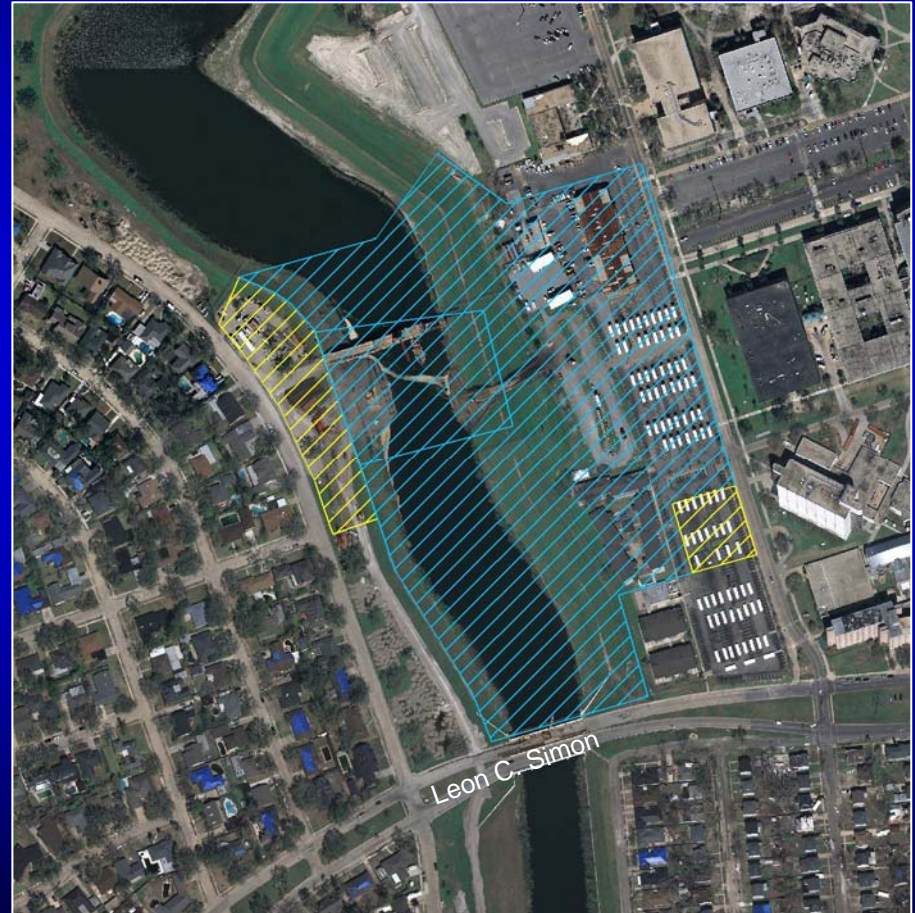
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New Pump Station Alternative London Ave. Site Locations

Location C



Location D





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NEPA/WRDA Mandated Alternatives

1. No Action (NEPA Mandated)



2. Non-Structural Solutions (WRDA 1974 Mandated)



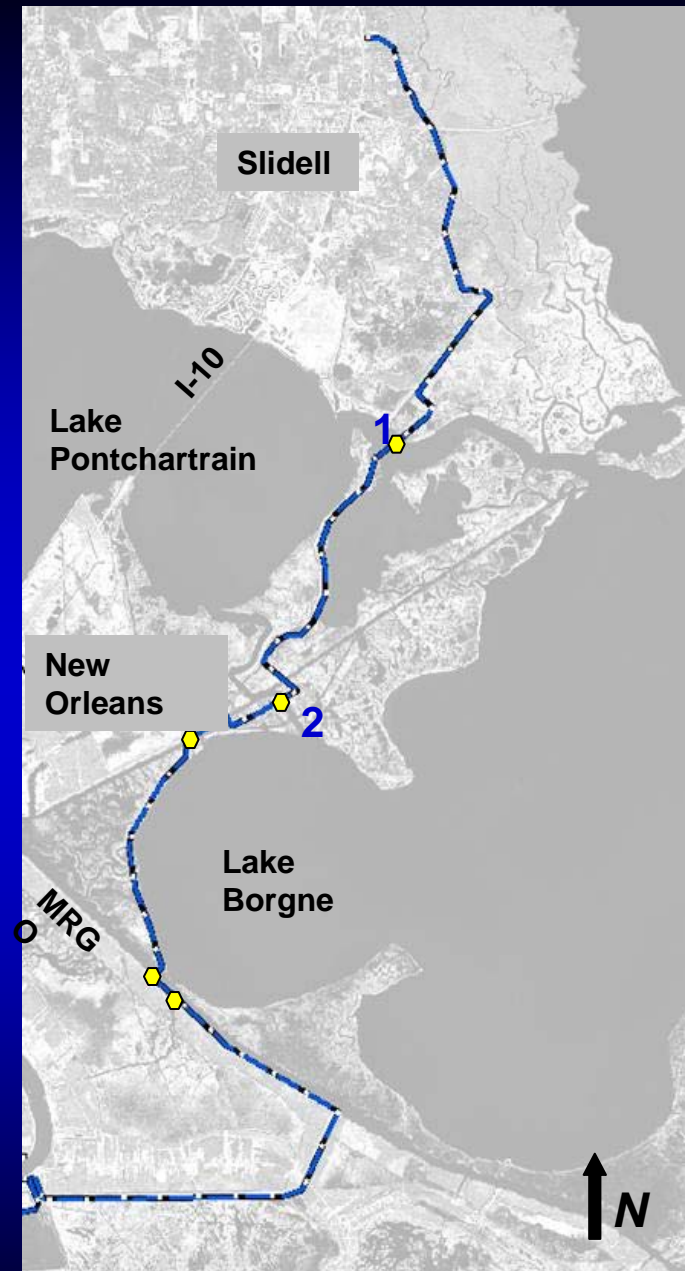
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3. Barrier Plan

- Originally proposed for 1974 Lake Pontchartrain and Vicinity Hurricane Protection Project
- Includes storm surge barriers at Rigolets (1) and Chef Menteur (2) Passes to restrict tidal influx into Lake
- Does not address wind-driven surge on Lake Pontchartrain

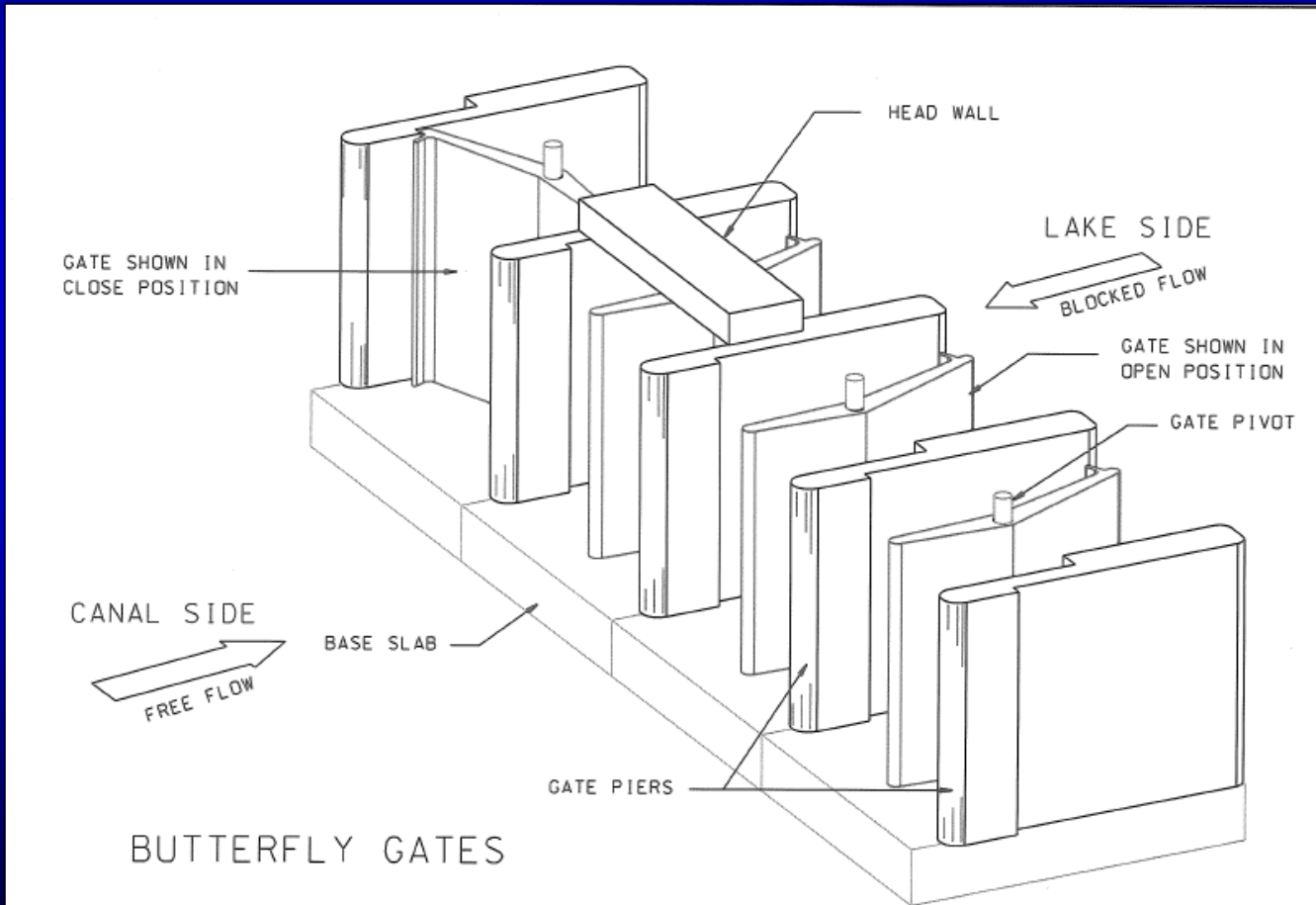




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4. Canal Closures

A. One Directional Flow Gate (passive system)

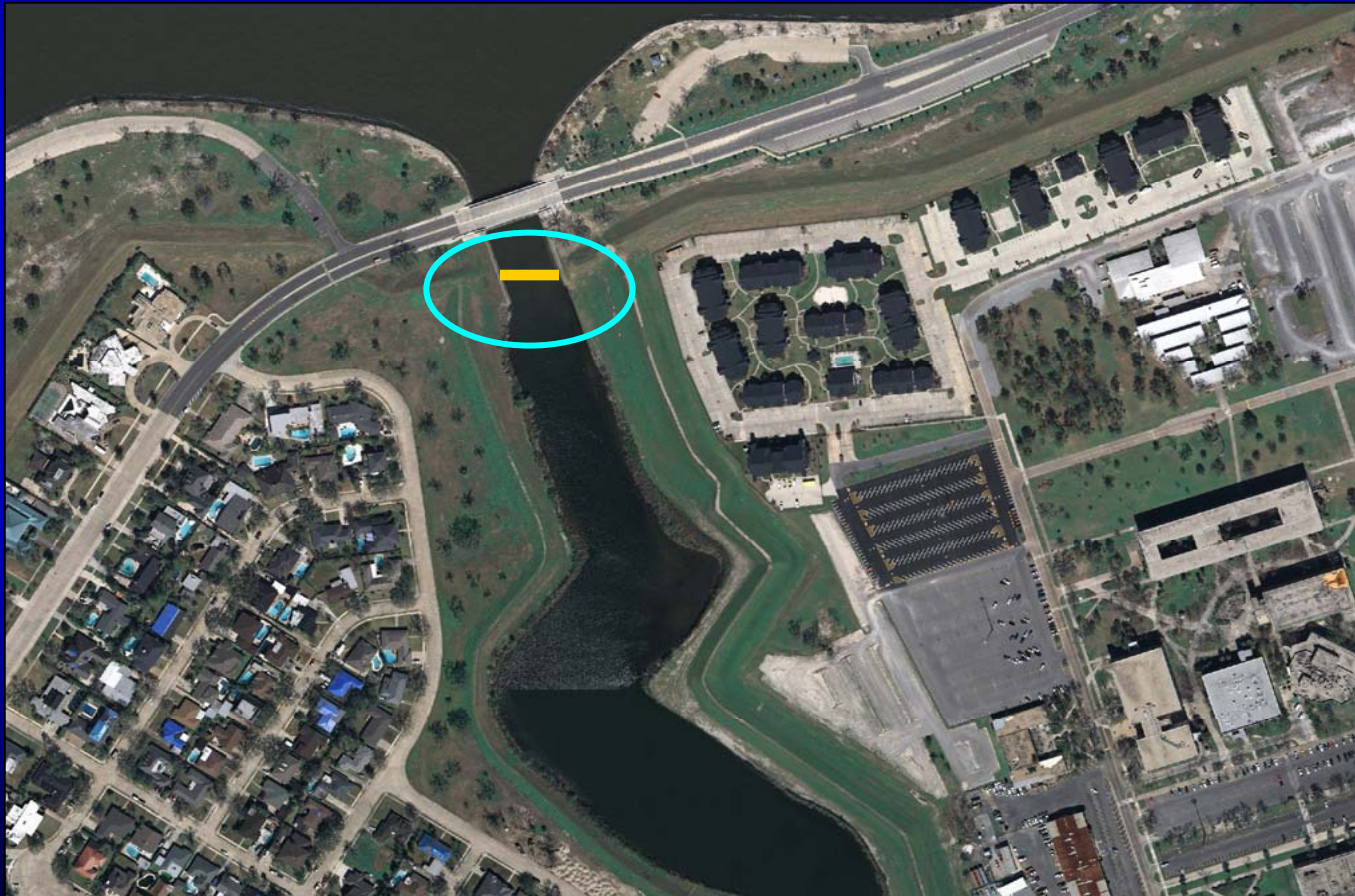




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4. Canal Closures

B. New Manual Gate



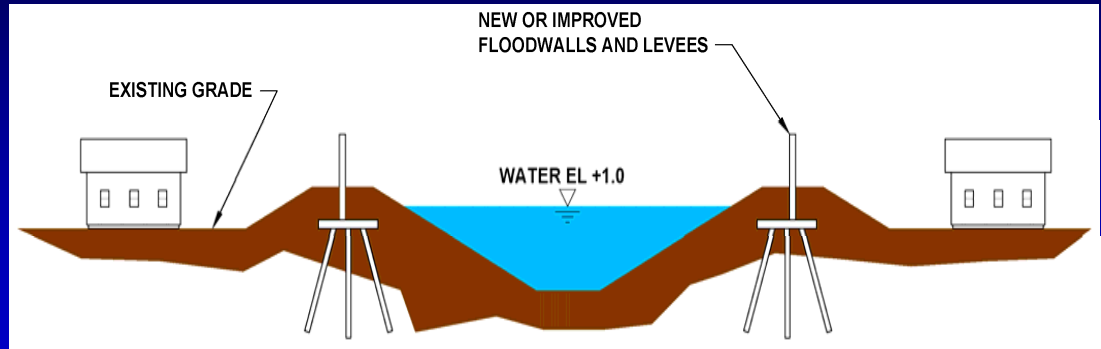
— One Team: Relevant, Ready, Responsive and Reliable —



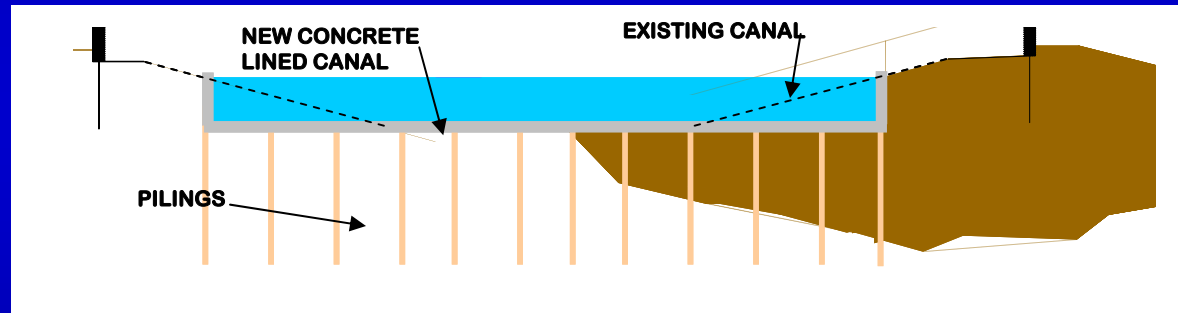
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5. 100 Year Parallel Protection

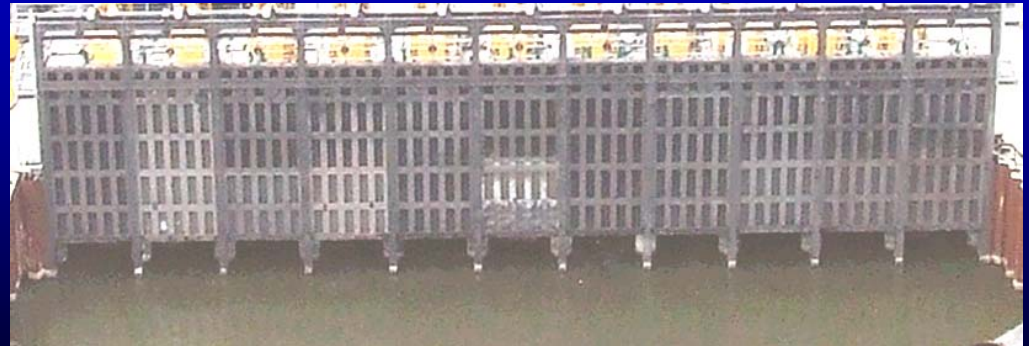
A. Replace I-walls With T-Walls



B. Concrete Lined Canal



C. T-Walls leaving the Interim Control Structure Gates In Place

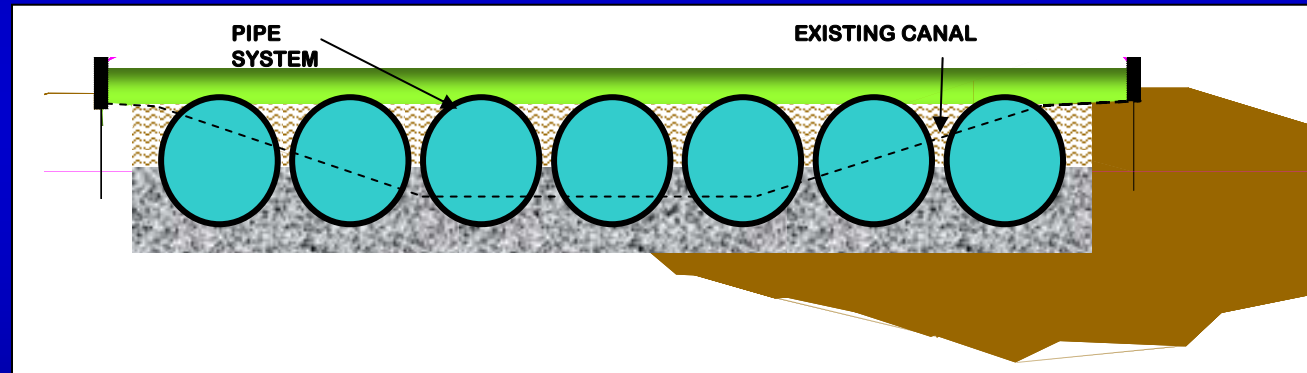
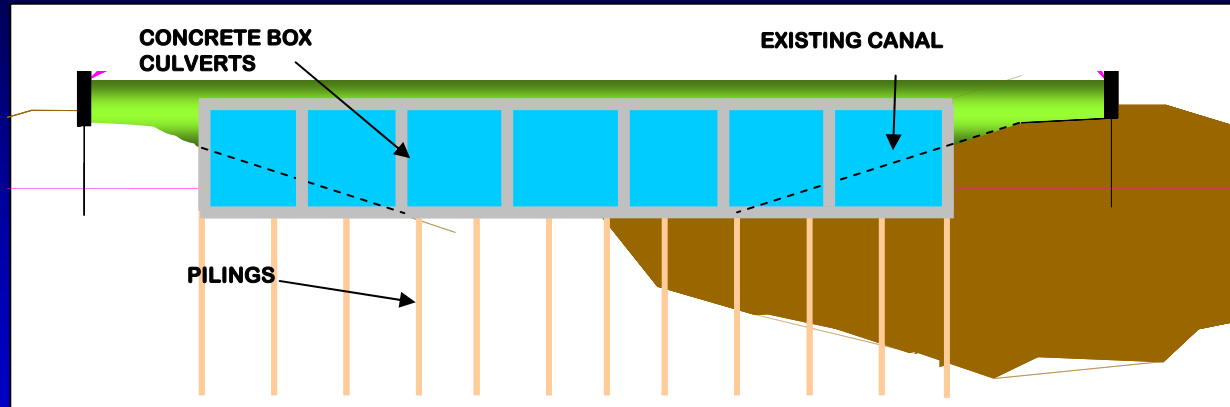




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6. Canal Closures and Pumps

A. Pressurized System (box culverts or pipes)



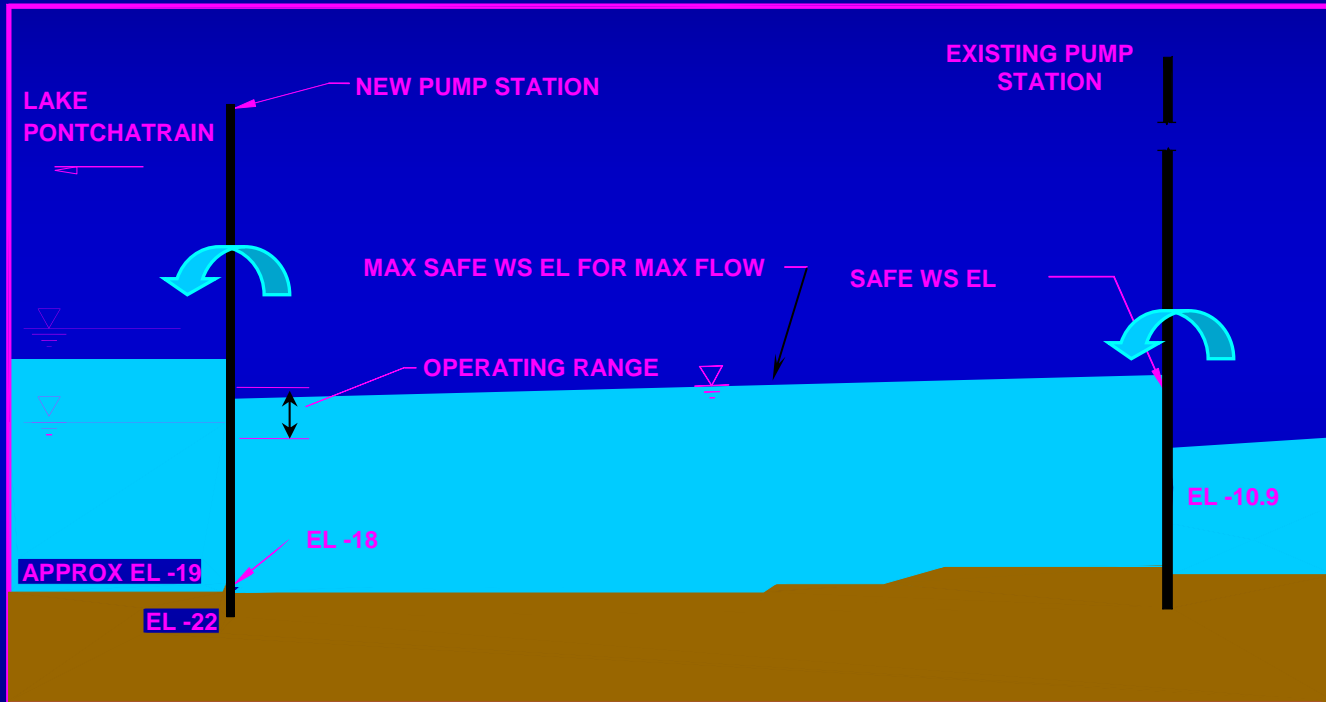
B. Upgrade Interim Control Structures to Permanent



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6. Canal Closures and Pumps

C. New Gated Pump Station



CANAL
LONGITUDINAL SECTION

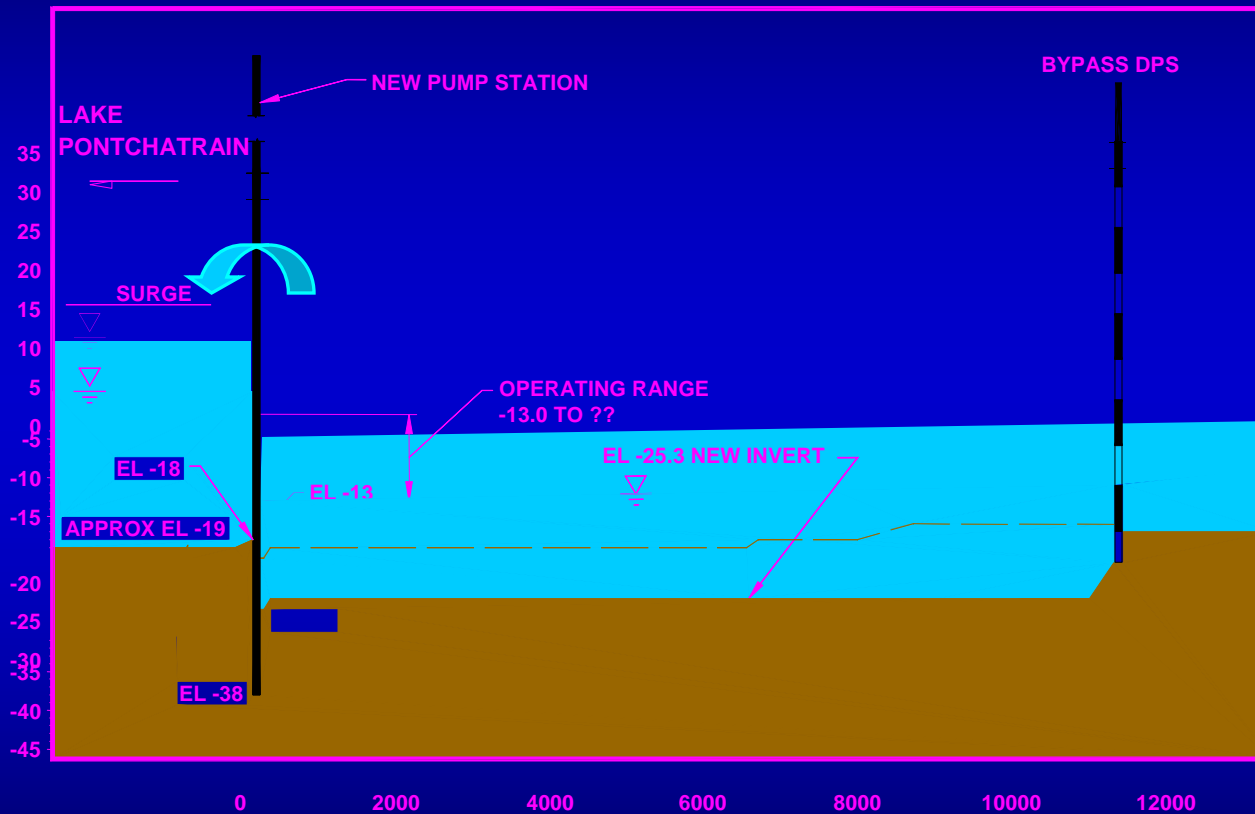
Elevation	EL
Water Surface	WS



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6. Canal Closures and Pumps

D. New Permanent Closure Pump Station



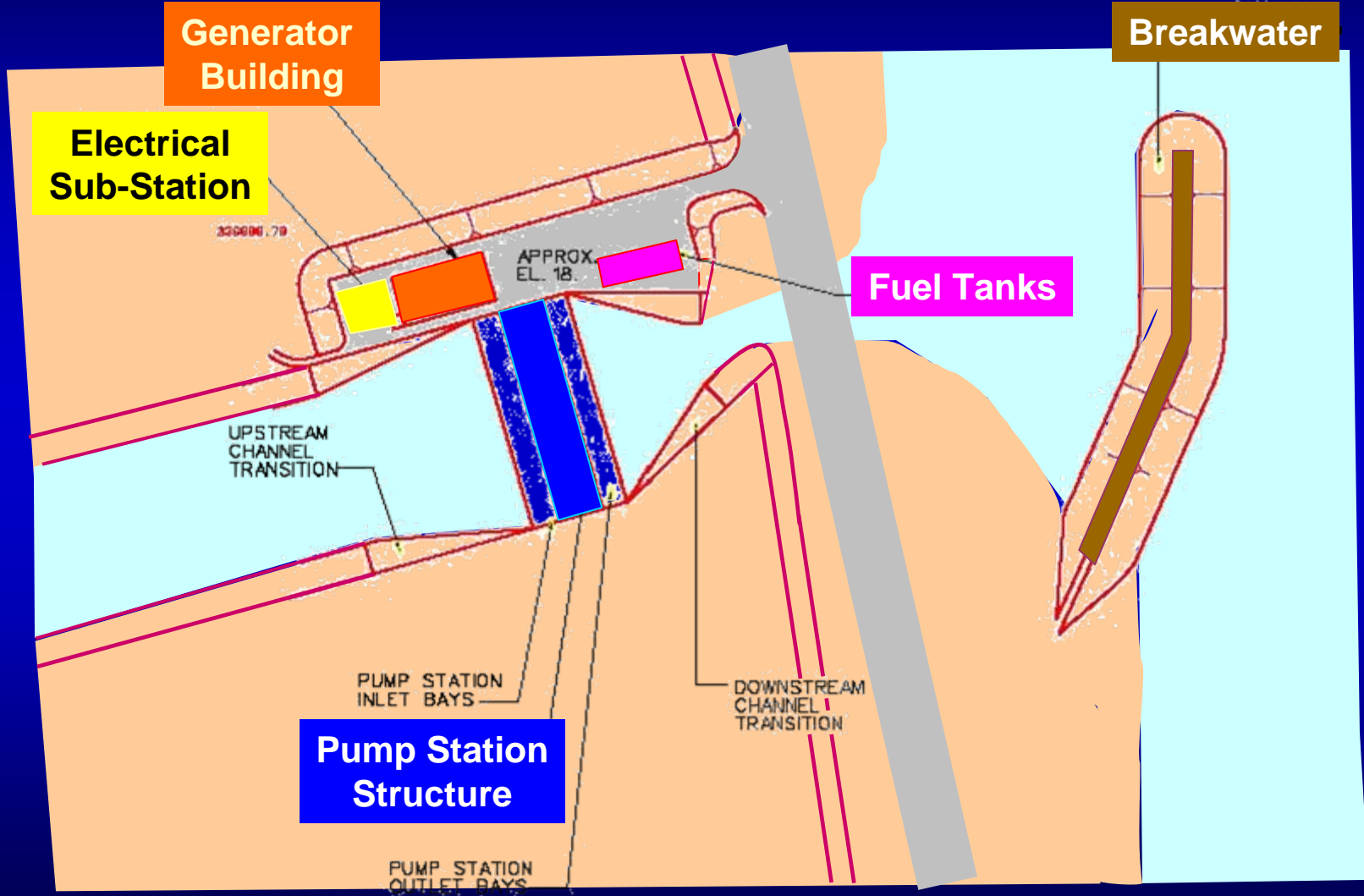
Elevation	EL
Drainage Pump Station	DPS

**CANAL
LONGITUDINAL SECTION**



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Typical Pump Station Components



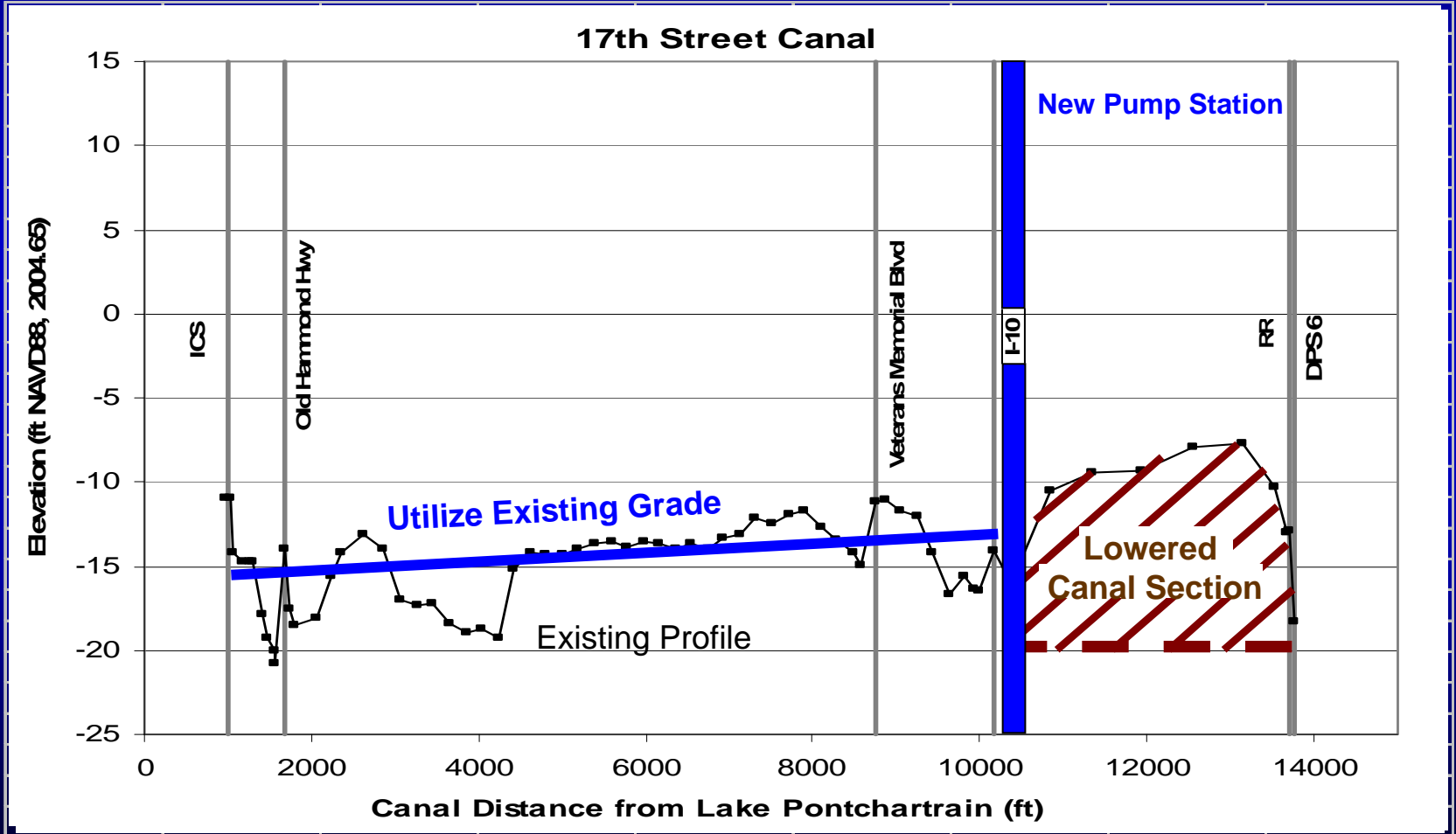
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New Orleans District

6. Canal Closures and Pumps

E. Utilize Grade Variation

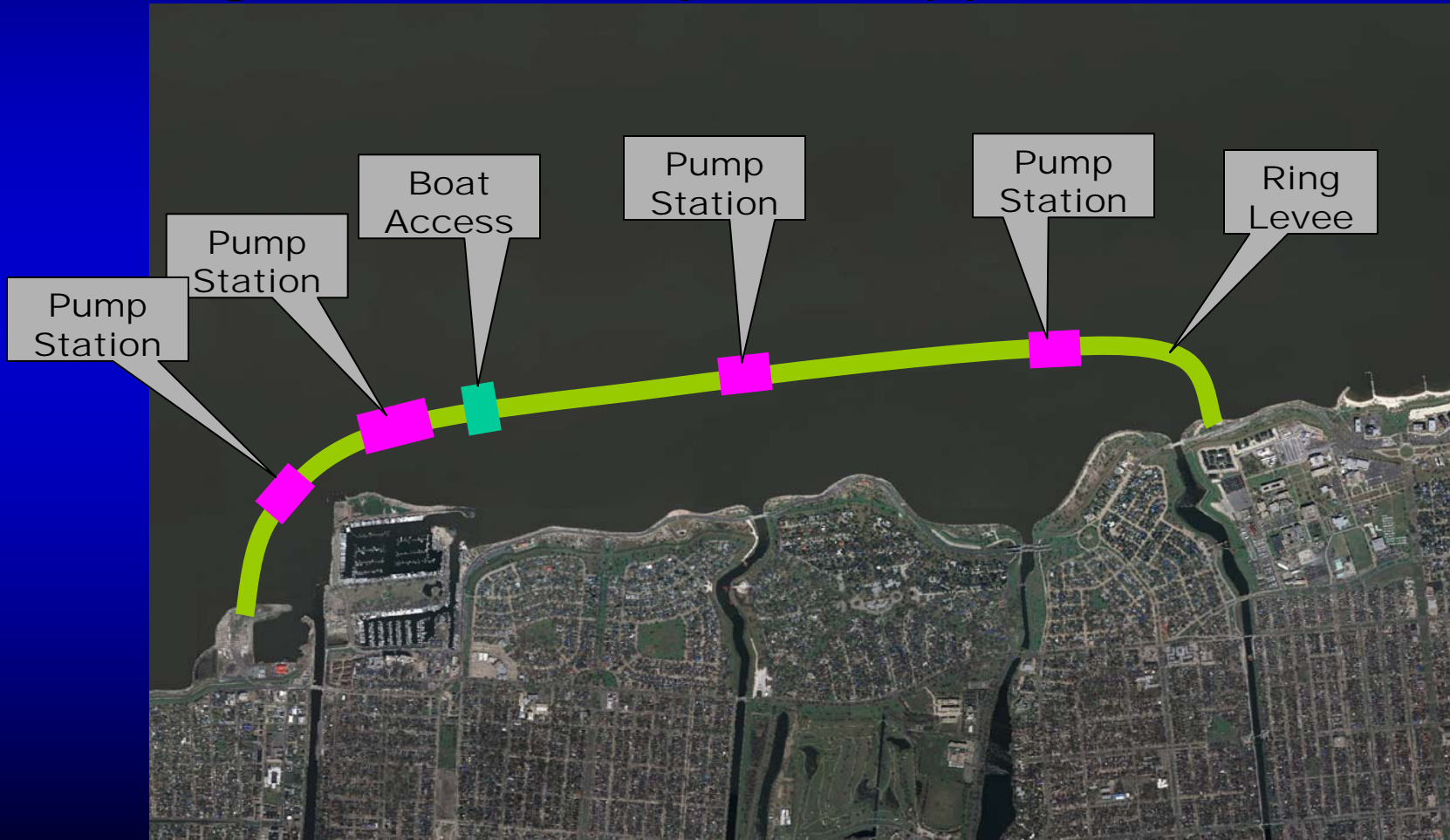




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6. Canal Closures and Pumps

F. Ring Levee and Pump Station(s) in Lake



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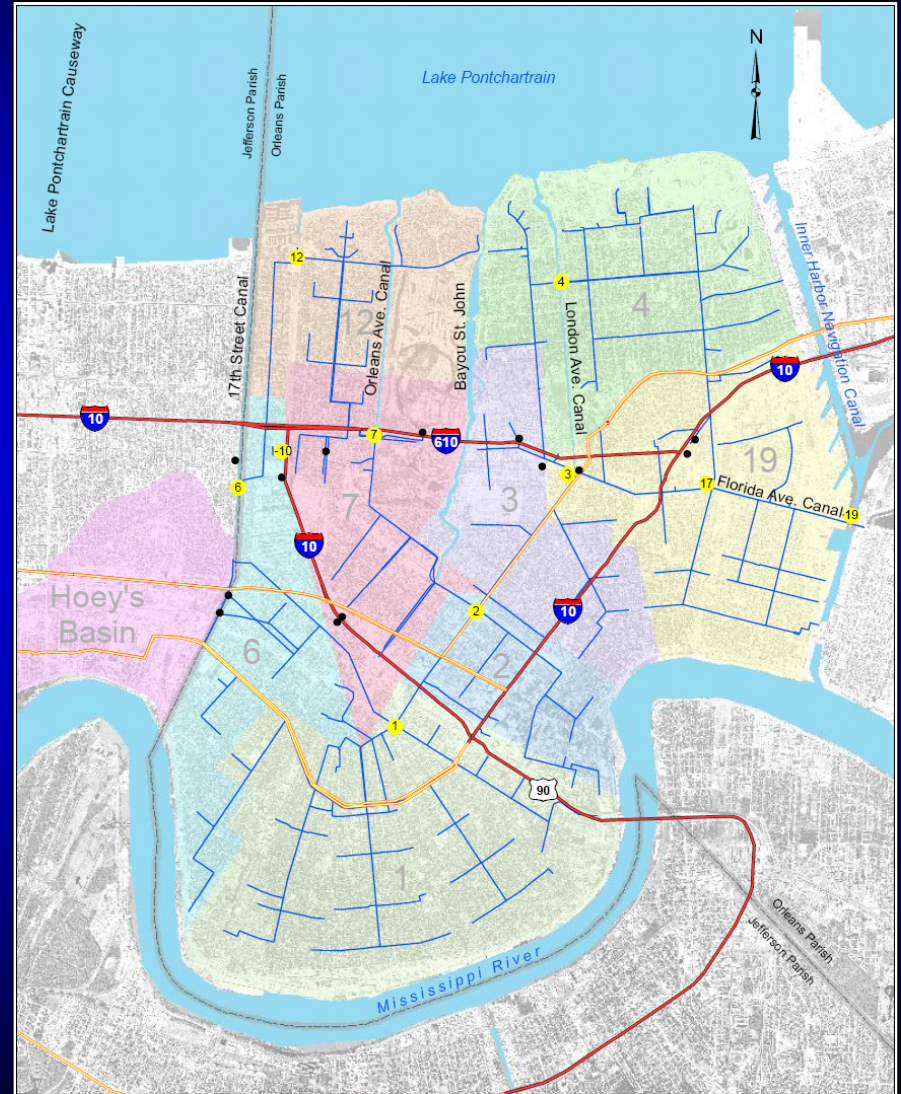


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Additional Features

- **Divert Water**
 - **London to Industrial Canal**
 - **Pump to the River (ex. Hoey's Basin)**
 - **Additional Pump Stations**
- **City Park Detention**
- **Polders**
- **Interconnected or Consolidated Canals**

Pump Station #



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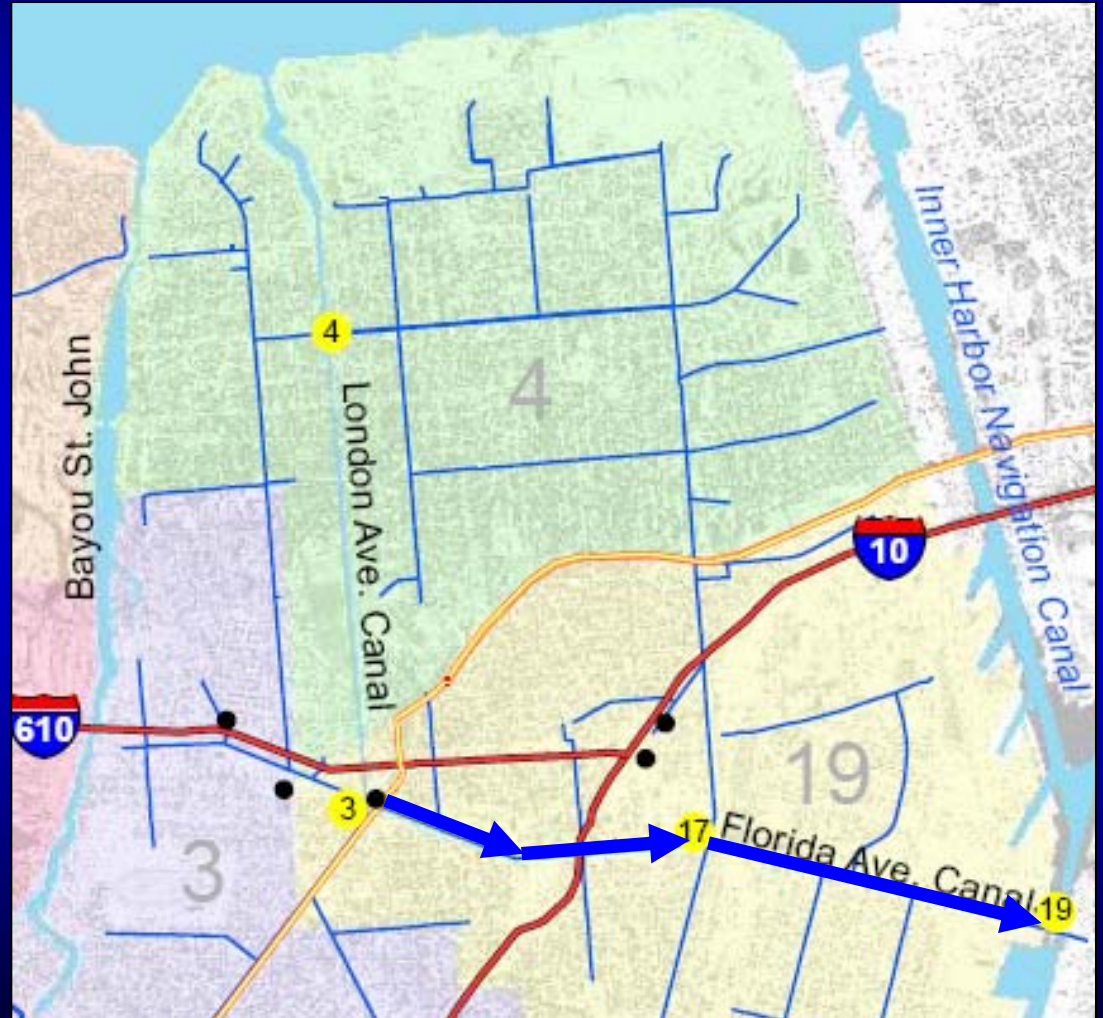
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Additional Features

London to Industrial Canal

- Possible reduced demand on main system
- Possible improvement in redundancy

Pump Station #



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Additional Features

Pump to the River

- Orleans Parish
- Jefferson Parish/
Hoey's Basin



Pump Station #



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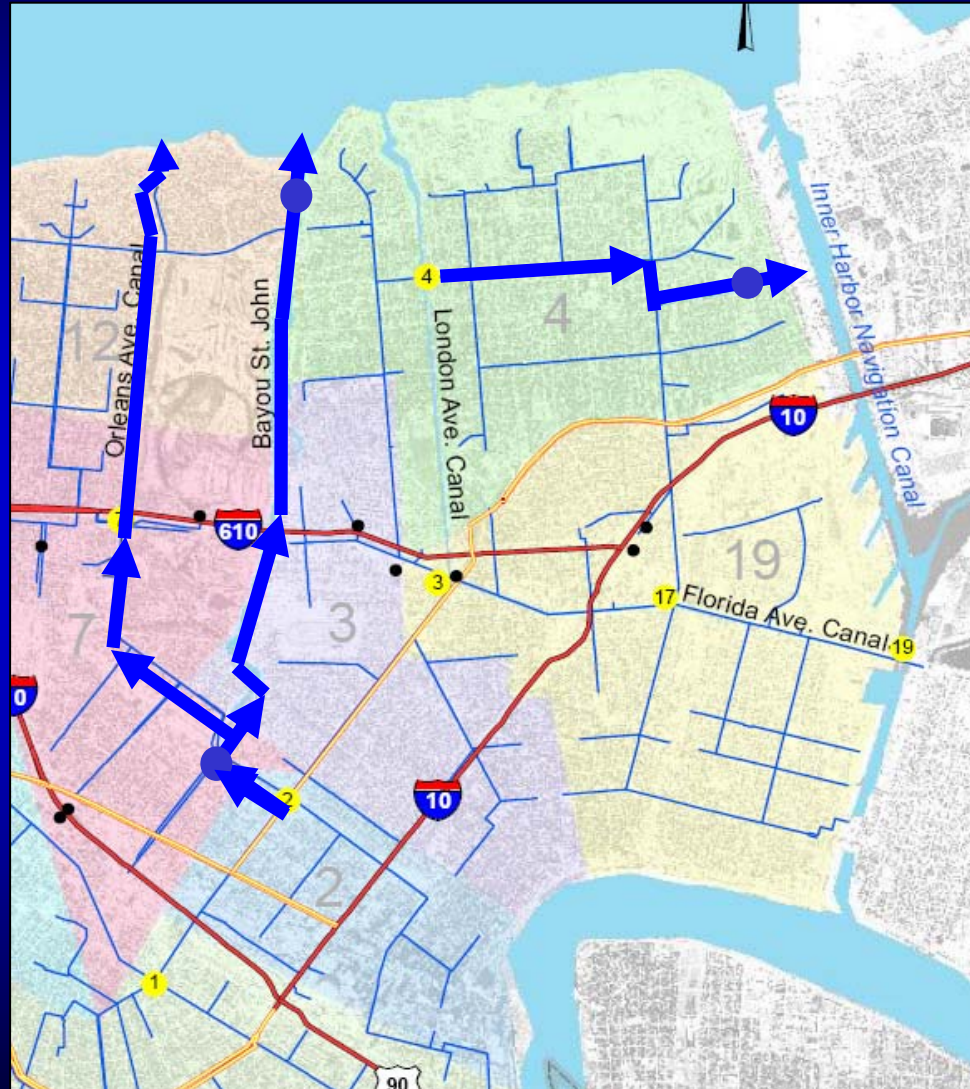


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Additional Features

Additional Pumps

- London Avenue Canal to Industrial Canal
- PS #2 to Orleans Avenue
- PS #2 to Bayou St. John



Pump Station #



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Additional Features

City Park Detention

- Temporarily hold water in City Park until system removes water in residential areas

Pump Station #



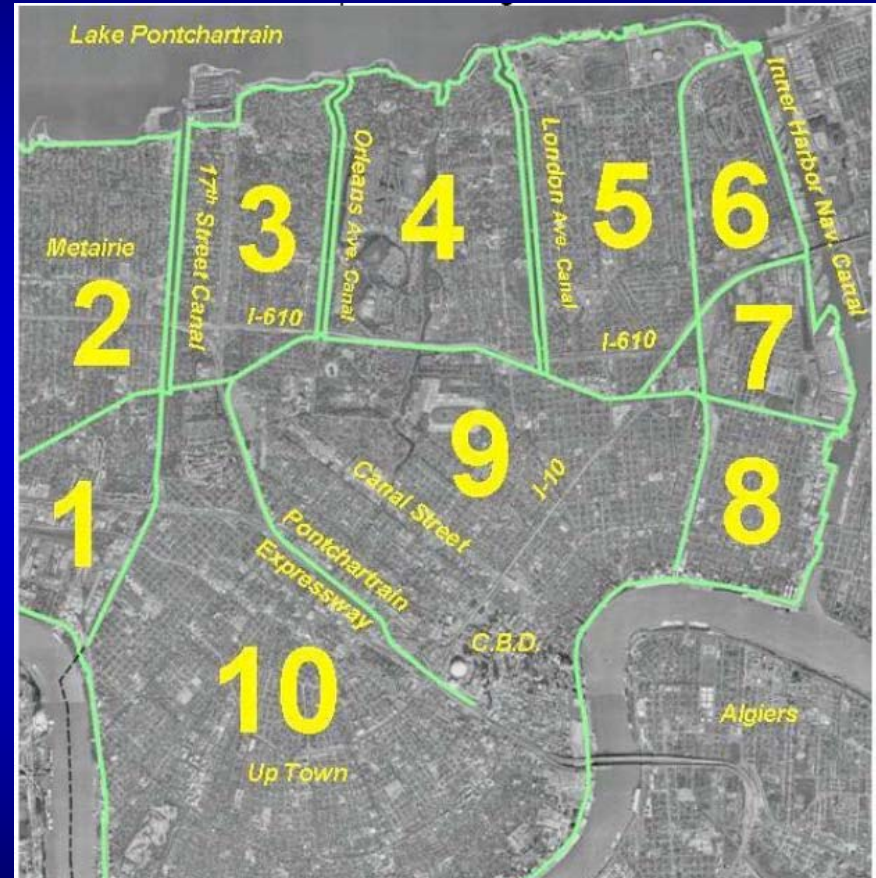


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Additional Features

Polders

- Create sub-drainage basins to restrict spread of floodwater
- Utilize natural features and existing infrastructure to maximum potential





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Additional Features

Interconnect or Consolidate Canals

- System similar to canals in Jefferson Parish
- Interconnection increased redundancy

