JEFFERSON PARISH
HARAHAN
PUMP TO THE RIVER

John F. Young, Jr.
Parish President

Kazem Alikhani, P.E.
Director of Public Works
West Bank Pump Stations & Drainage Basins

- **Waggaman Basin**
  - Area = 9439.27 Acres

- **Bayou Segnette Basin**
  - Area = 5170.03 Acres

- **Avondale Basin**
  - Area = 6839.50 Acres

- **Westwego Basin**
  - Area = 1816.76 Acres

- **James Basin**
  - Area = 4041.97 Acres

- **Estelle Basin**
  - Area = 5075.13 Acres

- **Harvey Basin**
  - Area = 4719.85 Acres

- **District #9 Basin**
  - Area = 11500.8 Acres
Topography of Jefferson Parish

Most of Jefferson is urbanized with a relatively flat topography. Ground elevations vary from above sea level near the Mississippi River to approximately five (5) feet below sea level in areas away from the river. In essence, we live in a bowl.
THE HISTORICAL EVOLUTION OF THE SOUTHEAST LOUISIANA URBAN FLOOD CONTROL PROGRAM (SELA)
MASSIVE FLOODING STRIKES
NOV. 7, 1989

• Flooding as a result of 12 inches of rainfall in Orleans and Jefferson parishes

• Rainfall levels exceeded pumping station capacity

• Senator Bennett Johnston and Congressman Robert Livingston tour damaged homes in the metro areas
FLOOD PROTECTION STUDY
IS AUTHORIZED
ADOPTED JUN 12, 1990 & AUG 1, 1990

Resolutions of the Committee on Environment and Public Works of the United States Senate and the committee on Public Works and Transportation of the United States House of Representatives.
MASSIVE FLOODING STRIKES (AGAIN)
MAY 8, 1995

- Record rainfalls drench study area
- Damages exceed $1 billion
- Some area received 18” -24” of rain in less than 12 hours
CONGRESS AUTHORIZES SELA
NOV 13, 1995

• Jefferson, Orleans, and St. Tammany parishes included in 1996 Energy and Water Development Appropriations Act (PL 104-46, Section 108)
“The Secretary shall proceed with engineering, design, and construction of projects to provide for flood control and improvements to rainfall drainage systems in Jefferson, Orleans, and St. Tammany Parishes....”
In 2009, due to federal requirements to do business with only one non-federal agency in the state, the LA Coastal Protection and Restoration Authority (CPRA) is designated as the facilitator between Orleans parish and the Corps.
In response to the extensive damage caused by 2 major rain storms in November '89 and May '95, the U.S. Congress authorizes the Southeast Louisiana Urban Flood Control Project (SELA) in November '95.
As a part of the remediation of the flooding problem the Harahan Pump to the River project came into being. This project will take 1200 CFS of rain water from head waters of the Soniat Canal and Pump it to the River, reducing the threat of flooding for River Ridge, Harahan and Elmwood and provide additional pumping capacity for the remaining drainage basin.
HARAHAN PUMP-TO-THE-RIVER
PHASES

• Phase I Tubes $8.4 Million Complete
• Pump Station $31.6 Million Under Construction
• Intake Structure $10.6 Million Under Construction
• North Discharge Tubes $10.7 Million Under Construction
• South Discharge Tubes $23.8 Million Under Construction
• Discharge Structure $24.5 Million Under Construction
FUNDING OF HARAHAN PUMP-TO-THE-RIVER
TOTAL OF ALL (6) PHASES

FEDERAL SHARE (65%) = $71,241,300
PARISH SHARE (35%) = $38,360,700

$109,602,000
Intake attaches to Soniat Canal
Looking East from Soniat Canal towards new pump station along alignment of intake
Intake crossing at Dickory Avenue
Intake between Fire Station and VFW Hall
INTAKE STRUCTURE
NORTH TUBES
SOUTH TUBES
PH. I TUBES
DISCHARGE STRUCTURE

HARAHAN PS (Pump to River)
Additional 1,200 cfs

Elmwood
HARAHAN

River Ridge
CLEARVIEW PKWY
US 90
JEFFERSON HWY
LA 611-1
RIVER RD
HUEY P. LONG BRIDGE
Technical Specifications

• Prime Power ---- EMD 12 Cylinder 3000 Hp /pump
• Pump ------ Three 400 CFS Patterson pumps for a total of 1200 CFS
• Total Dynamic Head ------ 53 feet
• All pump station operations can be accomplished remotely from within the Safe Room
• Station has sufficient generator power to operate without outside sources plus a 100% redundant generator source
• Station superstructure is designed for 156 MPH wind speed
• Safe Room is designed for a 250 MPH wind speed plus impact load resulting from collapse of the station superstructure
• Climber screens are being supplied which will allow remote operation i.e. from safe room
• Vacuum breakers at the levee crossing can be operated from the safe room.
Wood pile for Pump Station Foundation
Pile driving underway and showing tension anchor
Intake basin and scaffolding for floor construction
Climber screens for pump station
West view of pump station
Operating Floor Slab
Operator and Safe Room in Pump Station
Cofferdam in front of pump station
Operating floor and safe room supporting walls
Intake bay construction
Foundation piles for discharge tubes leaving the station
Connection box for discharge pipes leaving the station
Looking south towards Mississippi River 3 -84” discharge pipes leaving the station
Discharge pipe connection to station
Discharge pipe connection to station
Temporary bracing of pipe
Concrete support piles for discharge pipe
Close-up of 84” discharge pipe
Anchor bolts for pump base
Median where discharge pipes will buried – north tubes
North tubes construction looking south towards Mississippi River
Shows Entergy tower relocation
Median where discharge pipe will be buried
Cathodic protection for discharge pipe
Old Dickory Oak Tree
HARAHAN PS
(Pump to River)
Additional 1,200 cfs
Discharge pipes will be install beneath Power Line Drive and over Mississippi levee
Looking downstream at new levee crossing
Section of 84” discharge pipe
Excavation and installation of discharge pipes
Excavation and installation of discharge pipes
Protection of welded joint before backfilling
Discharge bell
Cofferdam for discharge structure at Mississippi River
<table>
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<tr>
<th>Project Type</th>
<th>Construction Costs</th>
<th>Total Costs</th>
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<td><strong>Eastbank SELA PROJECTS</strong></td>
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<td>Total Under Construction (7 Projects)</td>
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Questions?