

Pump Stations

There are 78 pump stations (Federal and non-Federal) in the four-parish area. Following hurricanes Katrina and Rita, the Corps received authorization and funding for 34 repair contracts. All contracts are now complete.

Pump Station repair projects included:

Jefferson Parish (\$2.7M):

- Eight repair contracts at 17 stations

Orleans Parish (\$73.2M):

- 14 repair contracts at 23 stations and the Carrollton Frequency Changer Building

St. Bernard Parish (\$40.1M):

- Seven repair contracts at eight stations

Plaquemines Parish (\$26.5M):

- Five repair contracts at 13 stations

Storm Proofing of Pump Stations

There are 34 original Storm Proofing contracts in Jefferson and Orleans parishes. All contracts are complete.

Jefferson Parish: 16 contracts, \$136M

There are 25 pump stations divided into 16 individual Storm Proofing construction contracts.

Orleans Parish: 18 contracts, \$204M

There are 24 pump stations divided into 18 individual Storm Proofing construction contracts.

Outfall Canals

Construction and installation of the interim closure structures and pump stations at the three outfall canals were performed before the start of the 2006 hurricane season. These interim structures provided 100-year level risk reduction until the Permanent Canal Closures and Pumps were completed in May 2018. They were removed in 2020.

Permanent Canal Closures and Pumps

Major construction is complete on the Permanent Canal Closures and Pumps (PCCP) The total maximum pumping capacity at the three outfall canal pumps is 24,300 (cubic feet per second (cfs)).

17th Street PCCP

The PCCP at 17th Street consists of 15 generators (2.6 megawatts (MW) each), six 5,000 horsepower (hp) pump motors capable of pumping 1,800 cfs, two 2,500 hp pump motors capable of pumping 900 cfs—that is a total pumping capacity of 12,600 cfs.

Orleans Avenue PCCP

The PCCP at Orleans Avenue consists of four generators (2.6 MW each) and three 2,500 hp pump motors capable of pumping 900 cfs—that is a total pumping capacity of 2,700 cfs.

London Avenue PCCP

The PCCP at London Avenue consists of 11 generators (2.6 MW each), four 5,000 hp pump motors capable of pumping 1,800 cfs, and two 2,500 hp pump motors capable of pumping 900 cfs—that is a total pumping capacity of 9,000 cfs.



Greater New Orleans Hurricane and Storm Damage Risk Reduction System

Facts and Figures

Aug 2020

Following hurricanes Katrina and Rita in 2005, the U.S. Army Corps of Engineers was authorized and funded to design and construct the Hurricane & Storm Damage Risk Reduction System (HSDRRS) for southeast Louisiana.

Over the past ten years, the Corps has strengthened the levees, floodwalls, gated structures and pump stations that form the 133-mile Greater New Orleans perimeter system, as well as improved approximately 70 miles of interior risk reduction structures. Among its technically-advanced engineering solutions, the HSDRRS now includes the world's largest surge barrier of its kind, the IHNC-Lake Borgne Surge Barrier, and the largest drainage pump station in the world, the GIWW-West Closure Complex.

The HSDRRS is stronger and more resilient than it has ever been, and capable of defending against a 100-year level of storm surge, also known as a storm that has a one percent chance of occurring in any given year.

Shared responsibility with and commitment from our partners enabled successful completion of the 100-year system, which performed as designed in recent storms such as Hurricane Isaac.



US Army Corps
of Engineers
New Orleans District

<http://www.mvn.usace.army.mil>

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BUILDING STRONG®

HSDRRS Construction Contracts

Total Program Budget:	~\$14.6B
Obligated To Date:	~\$13.6B
Total Construction Contracts:	481
Awarded To Date:	475
(as of Aug 2020)	

Armoring

There are 350 miles of levees/floodwalls in the HSDRRS, including interior levees and floodwalls.

Armoring

- Armoring adds resiliency to a levee and can reduce erosion and scouring of back slopes when wave overtopping occurs.
- After Hurricane Katrina, the Corps undertook a concerted effort to improve armoring methods, and worked with academia to research various armoring materials. To date, 21 armoring contracts are substantially complete, and five are under construction.
- Approximately 420 transition spots (where a floodwall meets a levee) have already been armored.

Major Projects

West Bank & Vicinity Project (WBV)

- Currently, there are 132 contracts that are substantially complete and five ongoing construction contracts throughout the WBV project. There is one contract not yet awarded for environmental mitigation.
- Approximately \$3.7B has been budgeted for construction of the 100-year system for WBV.
- The two major structures for WBV, West Closure Complex and Bayou Segnette Complex, are fully operational—operations and maintenance responsibility has been transferred to the non-Federal sponsor.
- **Gulf Intracoastal Waterway-West Closure Complex**
 - The GIWW-WCC is a major feature of the HSDRRS that provides the first line of defense from storm surge entering the Harvey and Algiers canals. The WCC significantly reduces the risk to a large area of the West Bank by eliminating 25 miles of levees, floodwalls, floodgates and pumping stations along the canals from the direct impacts of storm surge. The nearly \$1B project consists of the nation's largest sector gate, the world's largest drainage pump station, floodwalls, sluice gates, foreshore protection and an earthen levee. The project also includes dredging of Algiers Canal, beneficial use of the dredge material and realignment of a portion of Bayou Road in Plaquemines Parish. Construction of this enormous project began in August 2009. The structure is fully operational and has provided the 100-year level of risk reduction since September 2011.

Lake Pontchartrain & Vicinity Project (LPV)

- Currently, there are 114 contracts that are substantially complete and two ongoing construction contracts throughout the LPV project. Approximately \$4B has been budgeted for construction of the 100-year system for LPV.
- The two major structures for LPV, the IHNC Surge Barrier and Seabrook Floodgate Complex, are fully operational—operations and maintenance responsibility has been transferred to the non-Federal Sponsor.

Inner Harbor Navigation Canal Surge Barrier

- Construction of the massive IHNC Surge Barrier at Lake Borgne, the largest design-build civil works project in Corps history, began in May 2009. The project is a key feature of the HSDRRS, providing the 100-year level of risk reduction to a large portion of Orleans and St. Bernard parishes by reducing the risk of surge entering the GIWW/IHNC corridor from Lake Borgne and the Gulf of Mexico.
 - The 1.8-mile barrier, the largest of its kind in the world, includes three gated structures and a barrier wall with a top elevation of 26 feet. The barrier wall and all three gates are complete, and have been operated in a storm event.
- **Seabrook Floodgate Complex**
 - The Seabrook Floodgate Complex is located in the Inner Harbor Navigation Canal and reduces storm surge entering from Lake Pontchartrain. Seabrook works in tandem with the IHNC Lake Borgne Surge Barrier to provide 100-year level risk reduction to the entire IHNC corridor.

Southeast Louisiana Urban Flood Control Project (SELA)

- SELA reduces the risk of flood damages due to rainfall flooding in Orleans, Jefferson and St. Tammany parishes. The improvements generally support the parishes' master drainage plans and provide flood risk reduction up to a level associated with a 10-year rainfall event. The project includes more than \$2B of improvements in Jefferson and Orleans parishes. All major SELA construction contracts have been awarded.
- In Orleans Parish, 19 projects are substantially complete and one is under construction. In Jefferson Parish, 59 projects are complete.

New Orleans to Venice Project (NOV)

- The project will reduce risk in Plaquemines Parish below Oakville where the 100-year HSDRRS ends.
 - The currently proposed work for the NOV project includes approximately 15 miles of back levee and Mississippi River levee modifications, two sector gates on the west bank (near the Empire Floodgate and Empire Lock), fronting protection at pumping stations, backflow prevention at two locations on the east bank (Bellevue and East Point a la Hache pumping stations).
 - The project also includes the incorporation of non-Federal Levees (NFL) for approximately 34 miles of levee modifications or replacements and a tie-in to NOV levees at St. Jude.
- Of the 28 NOV contracts, three are in design, eight are under construction, and 17 are substantially complete. All contracts are scheduled for completion in 2025.

