



## The Greater New Orleans Hurricane and Storm Damage Risk Reduction System

Congress has fully authorized and funded the Hurricane and Storm Damage Risk Reduction System (HSDRRS) for southeast Louisiana. The HSDRRS includes five parishes and consists of 350 miles of levees and floodwalls; 73 non-Federal pumping stations; 3 canal closure structures with pumps; and 4 gated outlets.

## St. Bernard Emergency Repairs – Task Force Guardian

Following Hurricane Katrina, many emergency repairs were completed in St. Bernard Parish. Scour was replaced and reinforced along the backside of the Paris Road floodgate; the Bayou Bienvenue and Bayou Dupre floodgates were repaired, and the surrounding levees were reinforced; the 40 Arpent levees were raised; and levees along the eastern stretch of the parish along the Mississippi River Gulf Outlet were raised. These repairs were mostly completed in 2006 prior to the first full hurricane season after Katrina.



## 100-Year Level Work

In St. Bernard Parish, work is under way to construct new structural features that, when complete, will reduce the risk associated with a storm surge that has a one percent chance of occurring in any given year. Risk reduction features will be operational in June 2011. Below is the status for the various Corps projects around St. Bernard Parish (as of 21 September 2010):

- LPV 144 (Bayou Dupre Floodgate)
  - **Scope:** Replace Bayou Dupre Floodgate; construct T-wall tie-ins.
  - **Status:** The contractor will soon finish pouring the concrete foundation for the sector gate, which is being fabricated off-site. H-pile driving for the floodwall tie-ins is ongoing. Bayou Dupre is closed to all marine traffic and will remain closed until summer 2011. Marine traffic will need to utilize Bayou Bienvenue to exit the Central Wetlands. Construction is scheduled to be complete in May 2011.
- LPV 145 (Bayou Bienvenue to Bayou Dupre)
  - **Scope:** Construct new T-walls on top of the existing levee; drive sheet pile for seepage cut-off.
  - **Status:** T-wall construction is under way and scheduled to be complete in June 2011. Approximately four out of six miles of T-walls are complete. Crews have constructed a temporary bridge on the protected side of Bayou Bienvenue to provide continuous access from Paris Road to Bayou Dupre. Small vessels are able to pass under the bridge without delay, while large vessels (more than 14 feet of clearance) are only allowed to pass four times a day.
- LPV 146 (Bayou Dupre to Highway 46)
  - **Scope:** Construct new T-walls on top of the existing levee; drive sheet pile for seepage cut-off; construct an emergency bypass for Hwy 46; install four gates within the floodwall for animal crossing and operations and maintenance.
  - **Status:** Construction crews continue pouring concrete for the T-walls and the project is now over 50 percent complete. H-pile driving recently began at the emergency bypass ramp. Construction is scheduled to be complete in June 2011.
- LPV 147 (Highway 46 Floodgates):
  - **Scope:** Construct floodgates across Hwy 46; construct T-wall tie-ins.
  - **Status:** The contractor has begun lane shifts along Highway 46 in order to clear the construction site. Crews are driving sheet and H-piles, pouring concrete for the wall and constructing features for the gate approach and acceleration lane. The highway gates are being fabricated off-site. Construction is scheduled to be complete in April 2011.

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- LPV 148.02 (Verret to Caernarvon):
  - **Scope:** Construct new T-walls on top of the existing levee; drive sheet pile for seepage cut-off; replace T-walls around St. Mary's Pump Station; demolish existing Creedmore Drainage Structure.
  - **Status:** All H-pile crews have been mobilized, and the contractor has driven 8 percent of H-piles to date. The contractor is almost finished with placing the required sheet pile and continues placing concrete for the floodwalls. The contractor will have more than 80 cranes on site to complete construction by June 2011. The project is currently 25 percent complete.
- LPV 149 (Caernarvon Canal at Highway 39/Railroad)
  - **Scope:** Build new T-walls along an offset alignment that crosses the Caernarvon Canal and ties into the Mississippi River levee; construct new gates across Hwy 39 and the Norfolk Southern railroad track; construct a sector gate across the Caernarvon Canal to the 100-year elevation.
  - **Status:** The contractor continues to place concrete for the floodwalls. The dewatering of the cofferdam at the Caernarvon Canal is under way and the tremie slab is scheduled to be poured in December 2010. The Highway 39 and railroad detours are complete and currently in use. The project is currently 45 percent complete.

### St. Bernard Parish Floodwall Construction Facts

- Approximately 250 construction workers from St. Bernard Parish are employed by the various contractors.
- Approximately 115,000 linear feet of sheet pile, with each sheet ranging in length from 20 feet to 40 feet, is being used to support the floodwall's foundation.
- Approximately 42,000 H-piles, with each H-pile ranging in length from 90 feet to 160 feet, are being used to support the floodwall's foundation.
- Approximately 300,000 cubic yards of concrete, or roughly 6.5 million square feet, is being used in floodwall construction. That is 1.75 times the amount of concrete used to construct the Louisiana Superdome.
- Approximately 25,000 tons of rebar is being used to reinforce the concrete floodwalls.
- Approximately 207,000 tons of steel H-pile is being used in floodwall construction. That is approximately 28 times the amount of metal used to construct the Eiffel Tower.

