



US Army Corps
of Engineers®

Lake Pontchartrain & Vicinity Teammate Update January 18, 2011



Mission

We are committed to achieving the 100-year level of risk reduction in 2011 for the people of Orleans and St. Bernard parishes by constructing the Hurricane and Storm Damage Risk Reduction System.

The program also includes completing the permanent canal closures and pumps, the Grand Isle flood risk management project, Plaquemines Parish risk reduction projects, storm proofing and repair of existing pump stations.

Executive Summary

2011 is finally here, and we have less than five months before Hurricane Season officially begins. We are in the most intensive construction period yet. We have been blessed that the last two hurricane seasons have not impacted construction. The fall has been a relatively dry one, enabling us to continue to build clay levees, but we will also need a relatively dry winter and spring to meet the aggressive schedule. All levee and floodwall construction contracts have been awarded; construction is under way and projects are finishing up along the roughly 90 miles of the perimeter in the vicinity of Lake Pontchartrain, about the same distance between New Orleans and Baton Rouge.

The six districts in the Mississippi Valley Division from St. Paul, Minn. to New Orleans, La.; and employees from more than 30 Corps districts nationwide have been engaged in planning, designing and constructing the Hurricane and Storm Damage Risk Reduction System (HSDRRS) over the last five years.

The Corps does not do anything alone, and we do have a great interagency team which has had a fundamental role in our successes to date. We are also very fortunate to have some great contractors on the team committed to delivering a quality system on schedule. We've attached a few slides that shows many of the teammates supporting the effort. If we are missing someone's logo, let us know or please send it to us.

We would not be where we are today without all of the great support from the State's Office of Coastal Protection and Restoration and the Southeast Louisiana Flood Protection Authority - East. The recently created professional regional levee authority has enabled us to truly deliver a real system that crosses parish, political and organizational jurisdictions.

We welcome anyone who wishes to visit projects in the HSDRRS. Nearly half of this part of the system has a public roadway along the extensive and substantial clay, concrete, rock and steel wall. We encourage folks to drive by and see what we have built. More and more roads and crossings will open back up this spring. Some good places to view the work now are along Lakeshore Drive and Hayne Boulevard. In Orleans East, the work can be seen at the Interstate 10, Highway 11 and Highway 90 crossings. In St. Bernard Parish, some of the best places to see the work are at the Highway 39 and Highway 46 crossings.

In Plaquemines Parish, more than 130 miles of levees and floodwalls will be improved over the next four years. Due to the magnitude of this effort, we will continue to keep Parish leadership informed by means other than this update.

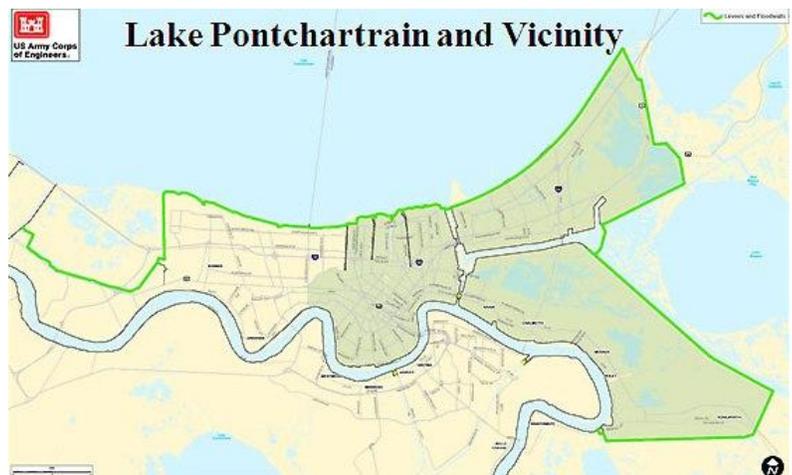
Please take an opportunity to peruse our [Photo Archive](#) on Flickr of some of the above project sites and group tours.

The next few months will be the toughest construction period yet, and we thank you for your continued assistance and support!

Sandy Rosenthal, Founder, Levees.org [Interview](#)



Tim Doody, President, Southeast Louisiana Flood Protection Authority-East and Col. Robert Sinkler, Commander, Hurricane Protection Office at the Deep Soil Mixing Project (LPV 111) in Orleans East.



Updates from the New Orleans District - Protection & Restoration Office

1. St. Charles Parish *\$100 M construction value*

All 14 construction contracts have been awarded, 10 are under construction and four are complete.

Approximately 60 percent of the 9.5 miles of St. Charles Parish's perimeter levees have been raised to the 100-year risk reduction elevations, and all of the remaining contracts are under construction

New T-walls at the Almedia and Walker Drainage Structures, as well as the Goodhope Floodwall are complete. The bridge at Cross Bayou Drainage Structure is complete and the Gulf South Floodwall, constructed as part of an ongoing levee contract, is substantially complete.

Work continues at the Bayou Trepagnier Complex, Shell Pipeline Floodwall, Levee Reach 2A, Cross Bayou Drainage Structure, Levee Reach 1A, St. Rose Drainage structure, I-310 Floodwall, Levee Reach 1B, and the Illinois Central Railroad Gate. At structures and floodwalls where the existing protection is being degraded for construction purposes, Temporary Flood Protection will be in place to prevent flooding from high tides and winter storms.

Currently, St. Charles Parish levee work is scheduled for completion by June 2011.

2. Jefferson Parish *\$450 M construction value*

All 16 contracts have been awarded, 11 are under construction, two will begin construction shortly and three are complete.

Ninety-nine percent of the 9.1 miles of Jefferson Lakefront levees have been raised to the 100-year risk reduction elevations. All of the embankment work is complete and remaining work consists of turf establishments.

Construction continues at all five lakefront levee reaches. The final levee contract, which includes improvements to the levee adjacent to the Louis Armstrong New Orleans International Airport, was awarded in September 2010.

West Return Floodwall Construction



The breakwaters at Bonnabel Pump Station and Duncan Pump Station are substantially complete. In addition, the floodgates and floodwalls at Bonnabel and Williams Boulevard are substantially complete.

Fronting protection at the four East Jefferson lakefront pump stations began in April 2010 and is progressing.

There are two contracts to provide wave attenuation and fore-shore protection for a large portion of the Jefferson Parish levee system on Lake Pontchartrain; both contracts have been awarded, and construction is under way on one of the two.

Currently, Jefferson Parish levee work is expected to be complete in spring 2011 and structures and floodwalls are scheduled to attain the 100-year level of risk reduction by June 2011. All project construction is scheduled for final completion in late 2013.

Times-Picayune - [West Return Canal floodwall work is behind schedule](#)



Completed Levee Reach - St. Charles Parish

3. Orleans Metro (Main Supporting District - St. Louis) \$90 M - \$100 M construction value

Construction is finishing up; 95 percent of the levee and floodwall work is complete. Major construction of ramps between 17th Street and the Inner Harbor Navigation (Industrial) Canal is nearing completion.

Between 17th Street and Topaz (LPV 101.02), demolition is 85 percent complete and 67 percent of the walls and footers have been poured. The contractor has driven 58 percent of H-pile and 59 percent of the sheet pile for the project.

Between Orleans and London Avenues (LPV 103.01A2), the contractor has driven 66 percent of the H-pile and 45 percent of the sheet pile for the project. More than half of the walls and footers have been poured at Rail Street.

Due to ongoing construction, the following road closures remain in place:

- *Lakeshore Drive at Lake Terrace will remain closed through April 2011;*
- *Westbound lane at Leon C. Simon will remain closed through March 2011;*
- *Lakeshore Drive at Rail Street will remain closed through April 2011.*

We do anticipate additional road closures; throughout the construction phase, we will continue to work with our partners at the City of New Orleans and Orleans Levee District to ensure public safety. If you have questions and / or concerns, please call our **Construction Impacts Hotline: 877-427-0345**.

4. New Orleans East (Main Supporting District - Memphis) \$800 M - \$1 B construction value

Over half of the construction is complete. West of the Lakefront Airport (LPV 105.01), the foundations for the two roller gate monoliths have been placed and one-third of the H-pile has been delivered to the site. Downman Road north of Hayne Boulevard reopened late last month.

East of the Lakefront Airport (LPV 105.02), the contractor has demolished 63 percent of the existing I-wall. We are also preparing to close two westbound lanes of Hayne Boulevard, which is required for safety during demolition. That operation should be complete next month. The contractor has driven 44 percent of sheet pile and 23 percent of H-pile, as well as completed 19 percent of the new T-wall.

Major construction on the Citrus Lakefront Levee (LPV 106) continues with sheet pile installation from

Hayne Boulevard Floodwall Construction



Jahncke Pump Station to west of Lincoln Beach. The contractor has completed approximately 80 percent of the sheet pile that is required for the 100-year level of risk reduction. Approximately 49 percent of the H-pile has been driven, 10 percent of the slope pavement has been placed and 15 percent of the floodwall cap is complete.

At Lincoln Beach (LPV 107), the contractor has driven all of the sheet pile, more than 70 percent of the concrete batter piles and completed 10 of 28 total monoliths.



Completed Floodwall Section - Orleans Metro



Hayne Boulevard Floodwall Construction

From Paris Road to South Point (LPV 108), work is 99 percent complete. The contractor is cutting grass this week and continuing to repair ruts and place seed on bald spot areas. Once the seeding operation is complete, a final inspection will be scheduled.

Between South Point and the CSX Railroad crossing (LPV 109), the contractor has placed approximately 2.1 million tons of clay on all reaches. Construction of the I-10 highway crossing is under way; paving operations on the west bound lanes is complete and they reopened last month. The east bound lanes will be detoured this month.

Construction on the Highway 90 crossing has begun; Highway 11 crossing construction will begin this spring.



I-10 Highway Crossing Construction

Highway 11 Crossing



At the CSX Railroad Crossing (LPV 110), the existing floodgate was removed last month and demolition of the concrete wall is 95 percent complete.

Between the CSX Railroad crossing and Inner Harbor Navigation Canal Surge Barrier (LPV 111), work is progressing on all project features including Deep Soil

Mixing (DSM), which is now more than 84 percent complete. Sixty-four percent of the clay embankment is complete. At the west tie-in, all of the piles have been driven and 89 percent of the T-wall monoliths are complete. At Pump Station 15, 64 percent of the H-pile and 42 percent of the sheet pile has been driven and 35 percent of the T-wall monoliths are complete.



Highway 90 Crossing

Times-Picayune - [Downman Road reopens at Hayne](#) | WWL-TV [Police crack down on speeding trucks](#)

5. St. Bernard Parish (Main Supporting District - St. Paul) \$1 B - \$1.5 B construction value

Construction is under way all around St. Bernard Parish. Major construction on the Bayou Dupre Floodgate (LPV 144) is ongoing. The footing forms have been removed, sheet piles are being driven on the west side and H-piles on the east and west sides. The first wall will be placed in the gate next month.

Construction continues between Bayou Bienvenue and Bayou Dupre (LPV 145). The contractor has completed 453 of 608 total footers and 422 stems. Relocations by Southern Natural Gas are in process for the three pipelines and that work should be completed later this month. America Midstream will also have its pipeline relocated this month.



LPV 144 Cofferdam

Highway 46 crossing



Work also continues between Bayou Dupre and Highway 46 (LPV 146). The contractor has completed 496 of 800 total footers and 431 walls. All pile driving activities will be complete next month. Two of the three total operations & maintenance / animal crossing gates are complete, and the footer for the third gate will be poured this week.

Construction of the Highway 46 floodgates (LPV 147) is progressing. The contractor is 74 percent complete on this project and fabrication of the gate is approximately 80 percent complete. Installation of H-pile and sheet pile on the east side of Highway 46 was completed this month.

Between Verret and Caernarvon (LPV 148.02), the contractor has driven 3,200 of the H-piles. All H-pile crews have been mobilized and will be driving piles within the next few weeks. The contractor has placed 42,433 linear feet of sheet pile and that operation is now 98 percent complete. The contractor will have nearly 100 cranes on site when fully mobilized to reach the 100-year level of risk reduction by June 2011.



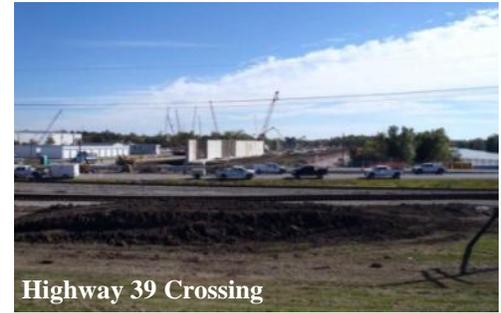
LPV 148.02 Floodwall Construction



LPV 149 Sector Gate Construction

Construction is going forward at Caernarvon (LPV 149). The H-pile installation is 85 percent complete. The framework for the sector gate base foundation will begin next week, and the gate will be delivered in early March. The

Highway 39 detour is complete and currently in use.



Highway 39 Crossing

We developed an animation to illustrate the sequence of floodwall and floodgate construction in St. Bernard Parish. The animation is posted at: [View Animation](#)

6. Inner Harbor Navigation Canal (Corps-wide Support)

a. Surge Barrier \$1.1 B construction value

The overall design of the structure is 97 percent complete. At the Gulf Intracoastal Waterway (GIWW) sector gate, we are working on pile clean out and pile concrete and steel infill. The third of twelve concrete sill sections will be placed this week. Fabrication and assembly of the steel sector gate is approximately 68 percent complete.



GIWW Sector Gate Fabrication

At the Bayou Bienvenue vertical lift gate, we will cast the last two wall sections this week and the last abutment next week. The next phase of construction will be the casting for the lift gate slots and two decks. Fabrication and assembly of the steel lift gate is approximately 70 percent complete.

Following a two-week cycle of inspections, the barge gate will be moved from Sulfur to New Orleans through the IHNC lock. The gate is scheduled to be floated to the site next month.



GIWW Barge Gate Construction

b. Floodwall Remediation \$25 - \$50 M construction value

We signed the Decision Record for restoring and reinforcing the levees and floodwalls along the Inner Harbor Navigation Canal and Gulf Intracoastal Waterway on November 29 of last year. Design of the restoration work is complete and a formal request for Right of Entry has been sent to the Non-Federal Sponsor. We expect to advertise later this month and award three construction contracts in February.

c. Seabrook Floodgate Complex \$155 M construction value

The vibro-compaction for the scour hole sand fill is complete. Construction of the north wall cofferdam across the channel is under way. West t-wall base slabs are being poured and two stems have been placed. East T-wall H-pile installation is progressing with three monoliths driven.

Aerial - Seabrook Construction



Sand fill in North wall Cofferdam

7. Existing Pump Station Repairs (Main Supporting District - Chicago) \$80 M construction value

There are 73 non-federal pump stations in Orleans, Jefferson, St. Bernard and Plaquemines parishes. We have been involved in repairs to 61 of those pump stations. Work in Orleans Parish is complete and the final transfer to the New Orleans Sewerage and Water Board is pending. The overall Pump Station Repair Program is approximately 99 percent complete.

8. Storm Proofing (Main Supporting District - Chicago) \$225 M construction value

We continue work on wrapping up the storm proofing program in Jefferson Parish (15 projects): one is in project development, two are in design, one is in preconstruction, eight are under construction and three are complete. Storm proofing also continues in Orleans Parish (18 projects): eight are pending, one is in design, one are in the proposal / bidding stage, six are under construction and two are complete.

The overall Storm Proofing Program is approximately 39 percent complete. Our goal is to have all scheduled storm proofing work complete in 2011.



Storm proofing - Orleans Parish



Storm proofing - Orleans Parish

9. Permanent Canal Closures & Pumps (Main Supporting District - Portland)

\$695 M construction value

Evaluation of the Phase II proposals is complete. The competitive range determination is in process, and oral presentations are scheduled for Jan. 17 - 21. We remain on schedule to award the design-build contract in April 2011.

10. Outfall Canals \$25 - \$50 M construction value

The construction of the Interim Closure Structures and temporary pump stations effectively removed the outfall canal walls as part of the primary hurricane storm surge system. Since construction of the walls along the three canals in the mid-1990s, they have performed well in removing rainwater from the city, including the record rainfall events in May 1995 and December 2009. Since 2005, \$35.6 million in repairs and improvements were made to the London Avenue Canal and \$25.7 million in repairs and improvements were made to the 17th Street Canal.

On Dec. 7, we awarded a \$17.9 million contract to New Orleans-based Integrated Pro Services, LLC, a Service-Disabled Veteran-Owned Small Business, for remediation of the London Avenue Canal floodwalls. The approximately five-month contract calls for driving sheetpile to prevent seepage, as well as adding embankment at the crown of the levee to reduce floodwall stick-up.

On Dec. 9, we awarded a \$10.2 million contract to New Orleans-based Bailey-CKY JV, a Service-Disabled Veteran-Owned Small Business, for remediation of the 17th Street Canal floodwalls. The approximately five-month contract calls for using deep soil mixing to strengthen the canal levees and adding embankment at the crown of the levee to reduce floodwall stick-up.

On Dec. 23, we awarded a \$405,737 contract to Louisiana-based Progressive Construction Company, L.L.C, a minority-owned small business, for remediation of the Orleans Avenue Canal floodwalls. Work includes construction of an earthen buttress, known as a stability berm, at the toe of the floodwall levee along a portion of the canal between Mirabeau and Filmore Avenues.

A second remediation contract for the Orleans Avenue Canal will be awarded in early 2011. Construction is expected to begin this month and work will be complete by June 2011.

Associated Press - [Corps to strengthen New Orleans floodwalls](#)

Times-Picayune - [17th Street Canal contract awarded](#) / [Work to begin on N.O.'s canals](#) / [17th Street Canal homeowners sue to stop floodwall project](#)



Planning is under way to create marsh and re-establish cypress forests in the Lake Pontchartrain Coastal Zone (Basin) to mitigate for construction of the Hurricane & Storm Damage Risk Reduction System.

[Mississippi River Gulf Outlet Video](#)

[Corps lays out vision to heal MR-GO scars](#)

[Erasing MR-Go's damage: An Editorial](#)

Robert A. Sinkler
Colonel, U.S. Army Corps of Engineers
Commander, Hurricane Protection Office
Mississippi Valley Division

Recent Visitors to East Bank Construction Sites



Mississippi Valley Division Commander MG Michael Walsh presents award to Inner Harbor Navigation Canal Surge Barrier Resident Manager LTC Vic Zillmer (Ret.)



Sny Island Levee Drainage District (Illinois) visit to LPV 145 in St. Bernard Parish



St. Gabriel Church members visit the IHNC Surge Barrier



Entergy executives visit the IHNC Surge Barrier



University of New Orleans students visit the Seabrook Floodgate construction



USACE Sacramento District engineers visit the IHNC Surge Barrier

Recent Visitors to East Bank Construction Sites



Citizens for 1 Greater New Orleans visit the IHNC Surge Barrier



St. Bernard Parish government officials visit LPV 145 in St. Bernard Parish



Southern Yacht Club members visit LPV 145 in St. Bernard Parish



St. Bernard Parish Planning Office visits the IHNC Surge Barrier



46th Engineer Brigade visit to the IHNC Surge Barrier



Tim Doody, President, Southeast Louisiana Flood Protection Authority-East visits LPV 109 in New Orleans East

Recent Visitors to East Bank Construction Sites



John Hankinson, Executive Director of the Gulf Ecosystem Restoration Task Force, visits the IHNC Surge Barrier



Tim Doody, President, Southeast Louisiana Flood Protection Authority-East, at the IHNC Surge Barrier



Jumonville North Subdivision visits LPV 145 in St. Bernard Parish



Tim Doody at LPV 111 in New Orleans East



Susan Maclay, Executive Director, Southeast Louisiana Flood Protection Authority-West and Tim Doody



Southeast Louisiana Flood Protection Authority-East guests visit the IHNC Surge Barrier