



US Army Corps
of Engineers®

Lake Pontchartrain & Vicinity Teammate Update February 21, 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

Our team only has 100 days before the start of the 2011 Hurricane Season to get things buttoned up so that our City can defend against a 100-year storm surge. The next three months will be the most decisive construction period yet. We still have hundreds of trucks delivering clay, over 200 cranes working around the perimeter, and nearly 100 trucks delivering concrete round-the-clock to our projects.

Full support and funding from the Administration and Congress enabled us to maintain this aggressive construction schedule. We have been very, very fortunate that the 2009 and 2010 Hurricane Seasons have not impacted construction, and last fall was relatively dry, enabling us to maintain our challenging levee construction schedule.

On 1 June 2011, we intend to have a 90-mile “wall” on the east bank of the Mississippi River capable of defending against a 100-year storm surge. Ideal construction weather for us would be a very dry spring so that we can continue construction without weather delays. And, then get soft, frequent rains on very sunny days beginning around 10 May to enable a great stand of Bermuda grass to get established on our tens of miles of levees before the start of Hurricane Season.

Some work, of course, will continue on parts of the perimeter system past 1 June 2011 to finish off non-storm surge related navigation features at the canal and waterway crossings, further increase safety factors, overbuild for anticipated future settling and sea level rise, increase resiliency of the system, further enhance the system’s armoring, mitigate for environmental damage, and complete some longer-term operations and maintenance features.

Construction of the long-term replacements for existing interim closure structures, such as the outfall canal temporary pump stations, the Seabrook cofferdam and the west return floodwall will be well under way this Hurricane Season.

We will continue to update the Plaquemines Parish leadership on their over 130 miles of levee work by means other than this update.

We continue to encourage elected officials, community leaders and their representatives to schedule visits to our construction projects before 1 June 2011. After that time, much of our work will have been completed, and many of the projects will be owned, operated and maintained by the Southeast Louisiana Flood Protection Authority-East.

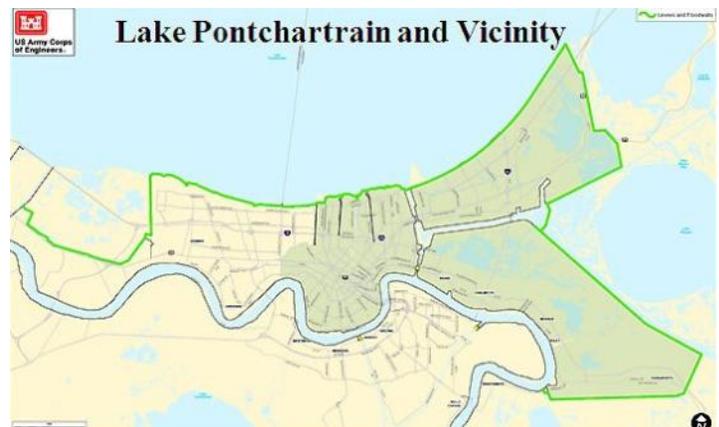
As we approach the 2011 Hurricane Season, please let us know if there is anything we can do to assist, as the cities and parishes located within the system prepare.

Our biggest challenge right now is wrapping up the hundreds of pipeline, utility and facility crossings; as well as fabricating, transporting and installing many of the system’s 225 steel gates before the start of Hurricane Season.

We do have most of our projects scheduled to meet the 100-year requirement in April and May. It will be extremely busy as we maximize the use of the limited construction time available before the start of the 2011 Hurricane Season.



Tim Doody, President, Southeast Louisiana Flood Protection Authority-East and Col. Robert Sinkler, Commander, Hurricane Protection Office observe the concrete barge gate at the Inner Harbor Navigation Canal Lock.



Updates from the New Orleans District - Protection & Restoration Office

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

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

Approximately 70 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.

Times-Picayune: [Floodwall, bridge work ramp up in St. Charles Parish](#)

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

All 16 contracts have been awarded, 12 are under construction and four 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.

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.



Completed Levee Reach - Jefferson Parish



Floodwall Construction - St. Charles Parish

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

There are two contracts to provide wave attenuation and foreshore protection for a large portion of the 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.

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

Construction is wrapping up and more than 95 percent of the levee and floodwall work is complete.

Between 17th Street and Topaz (LPV 101.02), demolition is now complete. The contractor has driven 72 percent of the H-pile and 59 percent of the sheet pile for the project. Seventy-one percent of the wall monoliths have been completed.

Between Orleans and London Avenues (LPV 103.01A1), modifications to the sector gate and floodwall at Bayou St. John are complete, as is the work to strengthen the

Marconi floodgate and tie-in to the Orleans Avenue Canal. The pre-final inspection took place in December 2010, and the contractor is currently working on a punch list of items. Also between Orleans and London Avenues (LPV 103.01A2), 90 percent of the H-pile and 87 percent of the sheet pile have been driven for the floodgate at Rail Street; 13 of 14 total walls have been poured. The contractor is continuing the excavation and pile driving for the floodgate at Lake Terrace.

Between London Avenue and the Inner Harbor Navigation Canal (LPV 104.01A), the pre-final inspection for the roadway ramps at Canal Boulevard, Lakeshore Drive near UNO, Leroy Johnson and Franklin Avenue was held this month and the contractor is working on a punch list of items to finalize the project. Also between London Avenue and the Inner Harbor Navigation Canal (LPV 104.02), the contractor has completed all of the new T-walls west of the Inner Harbor Navigation Canal near Seabrook. The vehicle gate for the boat launch on Leon C. Simon is scheduled to be delivered in April. The contractor will begin work on the ramp at University of New Orleans this month.

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

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

Roughly 75 percent of the New Orleans East lakefront perimeter - between the Inner Harbor Navigation Canal and South Point - is at the 100-year level of risk reduction.

West of the Lakefront Airport (LPV 105.01), 5 percent of the H-pile and 72 percent of the sheet pile have been driven. The contractor will soon begin 24-hour H-pile driving operations.

East of the Lakefront Airport (LPV 105.02), the contractor has driven 62 percent of sheet pile and 38 percent of H-pile. Twenty-seven percent of the new T-walls and 92 percent of the I-walls have been completed for the project.



On the Citrus Lakefront Levee (LPV 106), the contractor has completed all of the sheet pile that is required for the 100-year level of risk reduction. Additionally, all of the H-pile for the project has been driven, 16 percent of the slope pavement has been placed, and 28 percent of the concrete floodwall cap is finished. The contractor is 63 percent complete with the T-wall transition to LPV 108.

At Lincoln Beach (LPV 107), the contractor has driven all of the sheet pile and concrete batter pile for the project, as well as completed 15 of 28 total monoliths.

LPV 109 Levee Construction



From Paris Road to South Point (LPV 108), work is 99 percent complete. Once the seeding operation is complete, a final inspection take place.

Between South Point and the CSX Railroad crossing (LPV 109), the contractor has placed approximately 2.6 million tons of clay on all reaches. Construction of the I-10 highway crossing is under way; the contractor is currently placing roadway and levee embankment adjacent to the east bound lanes; those lanes will reopen to traffic later this month. Construction on the Highway 90 crossing has begun;

construction on the Highway 11 crossing will begin this spring.

At the CSX Railroad Crossing (LPV 110), the existing floodgate was removed last month and demolition of the concrete wall is 95 percent complete. A 200 ton crane is now on site for H-pile driving operations.

Between the CSX Railroad crossing and Inner Harbor Navigation Canal Surge Barrier (LPV 111), work is progressing well on all project features including Deep Soil Mixing (DSM), which is now more than 90 percent complete. The DSM operation will be complete in six weeks. At the west tie-in, all of the piles have been driven and 96 percent of the T-wall monoliths are complete. At Pump Station 15, 80 percent of the H-pile, 47 percent of the sheet pile and 70 percent of the pipe pile has been driven; 51 percent of the T-wall monoliths are complete.



Earlier this month, we participated in a Small Business Workshop in New Orleans East, which was sponsored by Cynthia Willard-Lewis. The event was well attended and provided an opportunity for small business owners to learn about future opportunities with the federal government.

WWL-TV: [Corps using floodwall design that failed during Katrina](#)

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

Construction is moving forward all around St. Bernard Parish. At the Bayou Dupre Floodgate (LPV 144), 24 percent of the H-pile has been driven to date. The contractor is forming the east side walls for the sector gate and has scheduled the concrete pour for this week.

Construction continues between Bayou Bienvenue and Bayou Dupre (LPV 145). The contractor has completed 592 of 608 total footers and 537 stems. Two out of five relocations are complete; Southern Natural Gas will wrap up work on their relocations (three) this month. All three gates on this reach are scheduled to be installed by April 1.



LPV 144 Sector Gate Construction

LPV 106 Floodwall Construction

Work also continues between Bayou Dupre and Highway 46 (LPV 146). The contractor has completed 628 of 800 total footers and 569 walls. Sheet pile driving on this reach is complete. Three of four pipelines have been relocated, and the last will be completed this month.

Construction of the Highway 46 floodgates (LPV 147) is continuing. The contractor is 78 percent complete on this project and fabrication of the gate is approximately 98 percent complete. The gate is scheduled to be delivered on March 1.



LPV 146 Floodgate Construction

LPV 148.02 Floodwall Construction



Between Verret and Caernarvon (LPV 148.02), the contractor has driven 8,375 linear feet of the H-pile (48 percent). A total of 18 H-pile crews have been mobilized and are driving piles. The contractor has placed 43,000 linear feet of sheet pile and that operation is 99 percent complete. Currently, there are 14 work areas with crews placing stabilization slabs; a total of 17,277 linear feet (40 percent) has been placed to date. There are 12 work areas with crews placing base slabs; a total of 10,086 linear feet (23 percent) has been placed to date. There are seven work areas with crews placing walls; a total of 6,492 linear feet

(15 percent) has been placed to date. The contractor now has 115 cranes on the reach in order to reach the 100-year level of risk reduction by June 1, 2011.

Major construction is going forward at Caernarvon (LPV 149). The H-pile installation is 95 percent complete. The contractor completed work on the sector gate base slab; the sector gate fabrication is 55 percent complete and will be delivered on or around March 29. The Railroad and Highway 39 detours are complete and will continue to be used through the end of this month.



LPV 149 Sector Gate / Floodwall Construction

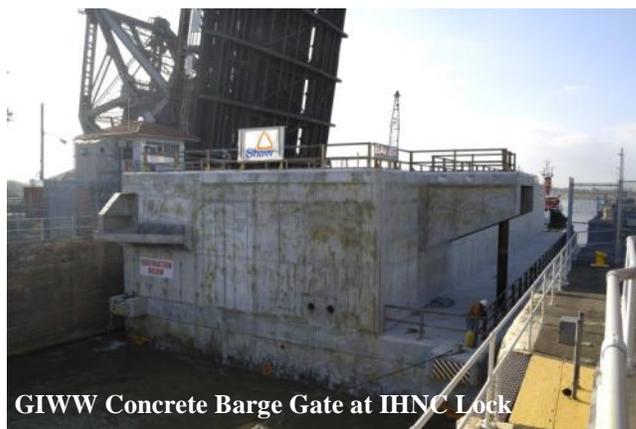
We developed an animation to illustrate the sequence of floodwall and floodgate construction in St. Bernard Parish. The animation is posted at: [View Animation](#)

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.

On February 9, we hosted a photo opportunity at the Inner Harbor Navigation Canal Lock so that media and stakeholders could see the concrete barge gate arriving in New Orleans. The barge gate will be mechanically and electrically “fit up” in the Michoud Canal. The barge gate will be available to be floated into place in the event of storm during the coming hurricane season.



GIWW Concrete Barge Gate at IHNC Lock

News Coverage

WWL-TV: [Deadline looms for 100-year protection](#) | WVUE-TV: [Giant storm gate making journey to New Orleans East](#)

At the Gulf Intracoastal Waterway (GIWW) sector gate, we have placed nine of twelve total concrete sill sections. The first sector gate abutment was placed last week and we continue to tie rebar and set forms at all of the abutments. Fabrication and assembly of the steel sector gates by Shaw Global is approximately 75 percent complete.



GIWW Sector Gate Leaf Fabrication

Bayou Bienvenue Vertical Lift Gate Fabrication



At the Bayou Bienvenue vertical lift gate, the sill and wall concrete placements are complete - only the two deck placements and two slot embed placements remain to complete the monolith. Shaw Global has finished fabricating and painting the vertical lift gate; fabrication of the towers and bridge is under way.

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

The Decision Record for restoring and reinforcing the levees and floodwalls along the Inner Harbor Navigation Canal and Gulf Intracoastal Waterway was signed on November 29 of last year. We will award the relief wells, buttress walls and stability berm contracts shortly.

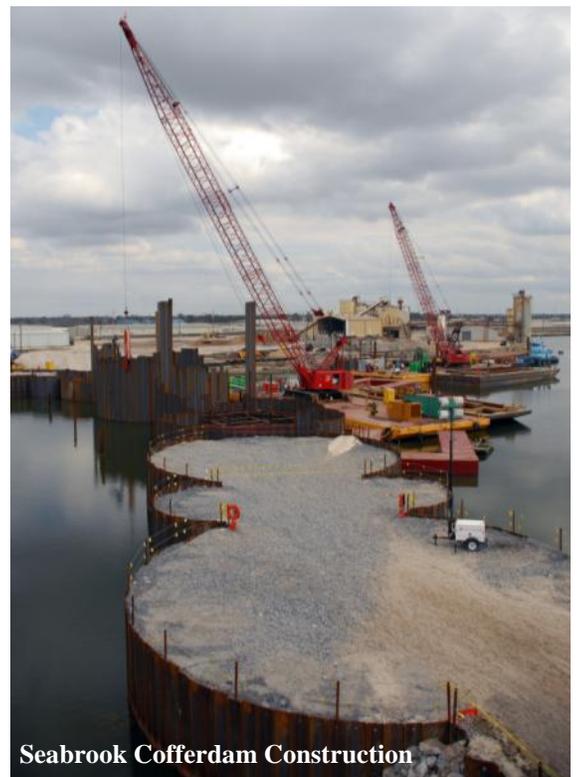
c. Seabrook Floodgate Complex \$155 M construction value

The north wall cofferdam construction operations and east / west T-wall operations are progressing well and on schedule. We hosted a tour and media opportunity at the Seabrook Floodgate Complex on February 16 to showcase progress to date at the construction site. The 100-year level of risk reduction will be achieved in June 2011 with the completion of the Seabrook Interim Closure Structure, the cofferdam inside which the floodgates will be built.



From left: HPO Commander Col. Robert Sinkler; City of New Orleans Councilmember Cynthia Hedge-Morrell, District D; and TK Trang Tieu, City of New Orleans Council President's Office

Aerial - Seabrook Construction



Seabrook Cofferdam Construction

Times-Picayune: [Seabrook Floodgate Complex cofferdam construction is under way](#)

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

There are 78 federal and non-federal pump stations in Orleans, Jefferson, St. Bernard and Plaquemines parishes. We have been involved in repairs to 61 of those pump stations. On February 9, we hosted a ribbon cutting ceremony with the Sewerage and Water Board of New Orleans (S&WB), to officially mark the transfer of operations and maintenance of the 23 pump stations and the Carrollton Frequency Changer Building in Orleans Parish. City of New Orleans Mayor Mitch Landrieu and S&WB Executive Director Marcia St. Martin made remarks during the event, each emphasizing the significance of completing the pump station repair program for the citizens of Orleans Parish.



Pictured from left: City of New Orleans Mayor Mitch Landrieu, S&WB Executive Director Marcia St. Martin and HPO Commander Robert Sinkler

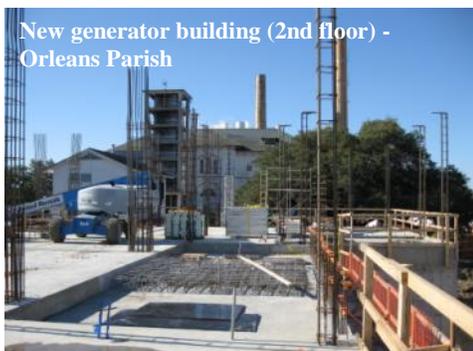


Pictured from left: Existing Pumps Branch Chief John Ashley, S&WB Executive Director Marcia St. Martin, HPO Commander Robert Sinkler and City of New Orleans Mayor Mitch Landrieu

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

We continue work on construction of the storm proofing program in Jefferson Parish (15 projects): two are in project development, two are in design, eight are under construction and three are complete. Storm proofing also continues in Orleans Parish (18 projects): eight are pending, seven are under construction, one is in design and two are complete.

The overall Storm Proofing Program is approximately 43 percent complete. Our goal is to have all scheduled storm proofing work complete in 2012.



New generator building (2nd floor) - Orleans Parish



New generator building (1st floor) - Orleans Parish



New generator - Suburban PS, Jefferson Parish



New water well - Jefferson Parish



New generator platform piles - PS #20



Fuel Containment - Jefferson Parish



New Fuel Containment - Jefferson Parish



New Fuel Containment - Jefferson Parish



Generator Platform Preparation - Orleans Parish



Roof Work - Suburban Pump Station, Jefferson Parish



New Siding - Hero Pump Station, Jefferson Parish



New Gear Box - St. Bernard Parish

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

\$695 M construction value

Revised Phase II proposals are due next week; evaluations will begin shortly thereafter and wrap up in March. 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.

a. 17th Street Outfall Canal

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.



b. Orleans Avenue Outfall Canal

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 this month.



c. London Avenue Outfall 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.



Construction is under way and work will be complete by June 2011 on all three outfall canals.

Times-Picayune: [17th Street Canal homeowners include Army Corps of Engineers in suit over levee property](#)

WDSU-TV: [Homeowners Sue Flood Commissioners for Land Grabbing](#)

WWL-TV: [Homeowners blast flood protection board over losing use of land](#)



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 HSDRRS.

[Corps of Engineers seeks more input on MRGO restoration plan](#)

[Louisiana communities urged to plan for survival](#)



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

Recent Visitors to East Bank Construction Sites



Operation Southern Comfort, from universities in New York, visit to the IHNC Surge Barrier



Local Boy Scouts of America visit the St. Bernard Parish floodwall construction site



U.S. Air Force Chief Engineer MG Timothy Beyers at the IHNC Surge Barrier



Rebuilding Hope In New Orleans (RHINO) at the St. Bernard trailers in Chalmette, LA



U.S. Army Corps Engineering Research and Development Center, Cold Regions Research & Engineering Lab visit to the IHNC Surge Barrier



Local Cub Scouts visit the IHNC Surge Barrier