



US Army Corps
of Engineers
Mississippi Valley Division

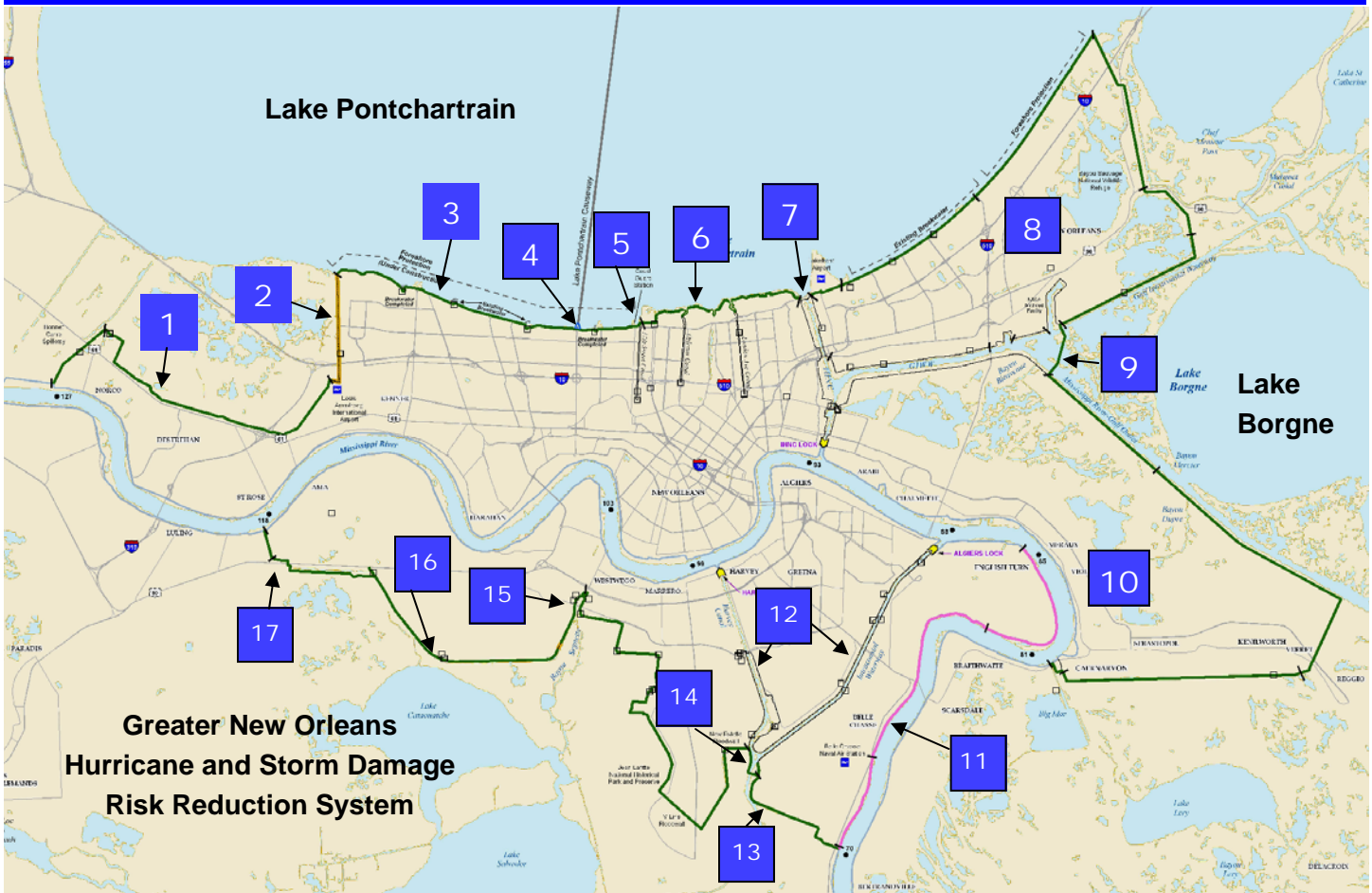


Corps Hurricane Response

Task Force Hope Status Report Newsletter

June 1, 2011

Corps releases update on HSDRRS as of June 1



By Susan Spaht

Over the past six years, the Corps of Engineers, its contractors and partners have been driving hard to design and construct a perimeter defense system to defend the Greater New Orleans area against a storm surge that has

a 1% annual probability of occurrence – the 100-year storm. The Corps has strengthened and improved nearly 120 miles of levees, floodwalls, gated structures and pump stations that make up the Hurricane and Storm Damage Risk Reduction System, greatly reducing the risk of flooding from storm surges. The five-parish area has the best

perimeter defense in its history; it is stronger and more resilient than it has ever been. And the construction continues.

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NEW HSDRRS Status Map available on Corps Web Site

<http://www.mvn.usace.army.mil/hps2/pdf/riskstatusmap.pdf>



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On another front

The Mississippi River is setting new record stages and is forecasted over the coming weeks to be at or near the historic flood levels of 1927 and 1937. Due to high water levels on the Mississippi River, the Corps recently suspended construction work on a segment of the HSDRRS that is co-located with the Mississippi River. The 15.5-mile section is located between English Turn and Oakville on the West Bank side of the river. (see pink line on map) Work will resume on this segment when the river recedes. Once this work is completed,

an integrated system will be in place to defend against the effects of a 100-year storm surge.

“In the interest of public safety and levee integrity, we have suspended construction work on the Mississippi River levees that are part of the HSDRRS,” said Mike Park, Chief of Task Force Hope.

“We will resume construction operations on that segment when the river



Section of co-located Mississippi River Levee

recedes and our engineers tell us it is safe to proceed. In the meantime, our crews have installed flood fight measures to protect the stability of those levees.

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Definitions

Engineered Interim Structures meet the 100-year hydraulic and structural/geotechnical design criteria but are temporary in nature and will be replaced by permanent features for accreditation. The interim pumps and gates at the three outfall canals are examples of Engineered Interim Structures.

Engineered Construction Closures are devices that can be deployed rapidly to close any gap in ongoing construction to defend against possible storm surge. An example of Engineered Construction Closures is Hesco baskets, metal baskets filled with sand or gravel.

System Update

Following the numbers on the map on page 1, the list below describes the perimeter system that is in place as of June 1:

- 1 On the East Bank of St. Charles Parish, all 14 construction projects - including 9.5 miles of levees, floodwalls and gates – meet the 100-year criteria.
- 2 The new West Return Floodwall on the St. Charles/Jefferson Parish line is under construction on the flood side of the original West Return Floodwall and is expected to be completed in December 2011. The original floodwall will remain in place during construction and will be strengthened with earthen berms along the southernmost section of the existing wall to provide interim



storm defense should we experience a tropical event. The existing floodwall will be removed when the new floodwall is completed.

- 3 All of the 9.1 miles of lakefront perimeter levees in East Jefferson meet the 100-year elevation criteria; the only remaining work is turf establishment. The breakwaters at Bonabel and Duncan pump stations provide 100-year risk reduction, while Engineered Interim Measures will be in place at the Elmwood and Suburban pump stations to defend against a 100-year storm surge. Fronting Protection construction continues at the four parish pump stations.
- 4 Start of construction for the bridge abutment and floodwall tie-ins at the Causeway Bridge was delayed due to a construction protest. Floodwall work is currently under way and scheduled for completion in January 2012. The existing floodwall, with the addition of sandbags across the bridge decks to minimize wave overtopping, will provide interim 100-year storm defense for this year's hurricane season.
- 5 Interim pumps and closure gates at the three outfall canals currently provide 100-year storm surge

defense. These gates and pumps performed as designed during Hurricane Gustav in 2008. The design/build contract for the Permanent Canal Closures and Pumps is under protest until early August.

- 6 In Metro New Orleans, the Corps constructed floodwalls and vehicle floodgates, and modified and strengthened existing floodgates, floodwalls and the Bayou St. John sector gate. All features are complete and provide 100-year level of risk reduction.
- 7 A cofferdam and floodwall tie-ins on the east and west sides of the Seabrook Floodgate Complex will defend against a 100-year storm this hurricane season. Construction of the complex will be completed in 2012.
- 8 All New Orleans East levees and floodwalls provide 100-year level risk reduction.
- 9 The IHNC Surge Barrier wall and tie-ins are complete. All three gates are installed or on site to provide 100-year level risk reduction. The remaining work on this project will be completed by June 2012.

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10 The St. Bernard floodwall project is 23 miles long and includes sector gates at Bayou Dupre and Caernarvon Canal. This huge project is complete and provides 100-year level risk reduction.

11 Approximately 15 miles of the Mississippi River Levee, from Mile 70 to Mile 85.5 (Oakville to English Turn), do not meet the new criteria for 100-year level risk reduction. Construction work has been suspended due to high water on the Mississippi River.

12 The Algiers and Harvey Canals have been removed from the first line of storm defense by the construction of the West Closure Complex (**14.**) which restricts storm surge from entering the canals. The Harvey Canal Floodgate, a major risk reduction feature, was completed in 2007. To complete risk reduction south of the floodgate, approximately 2.5 miles of floodwalls and one mile of levee have been constructed along the Harvey Canal.

13 Construction continues on the Hero Canal closure structure, levees and floodwalls, and the Eastern Tie-In swing gate across Hwy. 23 and the adjacent railroad floodgate. Engineered Construction Closures will be used this hurricane season if the area experiences a storm.

14 The massive West Closure Complex includes a 225-foot sector gate structure, floodwalls, foreshore protection, five sluice gates, an earthen levee, and the largest drainage pump station in the world. The WCC is capable of defending against a 100-year storm surge with 8 of 11 pumps operational at present; the remaining 3 pumps will be on line in a couple of weeks. Construction of the complex continues through 2012.

15 At Company Canal, an operable interim closure gate across the canal is providing 100-year level risk reduction while construction is wrapping up on a floodgate, levee and pump station complex.

16 Levee enlargements for the Lake Cataouatche area, a new flood-

wall at Bayou Segnette State Park, and fronting protection for the Lake Cataouatche Pump Station provide 100-year level risk reduction for this portion of the West Bank.

17 The Western Tie-In, a project designed to link the HSDRRS with the Mississippi River Levee, is under construction. Engineered Construction Closures will be in place along Highway 90 and at railroad crossings to defend against a possible 100-year storm surge. There are 3 Engineered Construction Closures and one Engineered Interim Structure along Bayou Verret.

Commitment

“We made a commitment to the people of the Greater New Orleans area to have the key features of a perimeter system in place by

June 1 that could defend against a 100-year storm, and we have met that goal,” said Park. “It has taken a tremendous amount of hard work, determination and close collaboration with our stakeholders and partners to get to this point. This area has the best storm surge defense in its history; but we cannot celebrate just yet. We still have additional work to do before we can say our mission is accomplished.

“Yet even when the work is completed, we strongly advise the public to always heed evacuation orders. If your elected officials advise you to evacuate prior to a storm...please EVACUATE for the safety of yourself and your family.”



Mike Park





★ A Message from our Commanding General ★

Over the past two months, record rains and tremendous snowmelt runoff across the world's third largest watershed have generated historic flooding. The Mississippi River has already set new record stages at Cairo, Greenville, Vicksburg, Natchez and Morgan City, and has exceeded many of the highest flood levels from the Great Floods of 1927 and 1937. These all-time high-water levels are placing tremendous stress on the Mississippi River levee system.

However, the flood is not our only historic task. We continue to focus resources on completing the entire Hurricane and Storm Damage Risk Reduction System in order to meet our commitment to be ready to defend against a 100-year storm. The infrastructure in place is stronger and more resilient than it has ever been, reducing the risk of flooding from hurricane storm surge to its lowest levels ever. The Corps and our partners have raised and strengthened virtually all of the lev-

ees, floodwalls and surge barriers that form the 133-mile Greater New Orleans HSDRRS perimeter. Construction of surge barriers at Lake Borgne, Seabrook, the New Orleans Outfall Canals, and the West Closure Complex have pushed the line of protection outside of the city and removed about 68 miles of interior levees and floodwalls from exposure to storm surges.

In the interest of public safety and to address the more immediate threat of riverine flooding, work on the 15-mile segment of Hurricane and Storm Damage Risk Reduction System levees co-located with the Mississippi River Levees between English Turn and Oakville has been suspended due to the increasing high river levels.

Because of construction restrictions and safety concerns associated with these high river levels, I have suspended levee construction operations and we will be unable to complete these levees to meet hurricane surge requirements by 1 June.

The senior leaders and the employees of the Mississippi Valley Division, along with our partners, are engaged in historic flood fighting efforts on the Mississippi River and its tributaries now and over the next month. With the priority of effort squarely focused on public safety and the immediate threat of riverine flooding, Corps assets and resources are being directed to the flood fighting and protection of the Mississippi River levee system.

To sustain the focus on the present riverine flood threat, the Corps will reschedule the 1 June visit of the Hurricane and Storm Damage Risk Reduction System planned with senior members of the Administration, Congressional members, senior Corps officials, stakeholders, and our partners in New Orleans.

Michael Walsh

Major General Michael Walsh, Commander
Mississippi Valley Division





June 1, 2011

Key features of HSDRRS in place



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This is an online publication that is open to public distribution.

This issue and past issues can be found at: <http://www.mvn.usace.army.mil/hps>

Comments and questions may be sent to the Status Report Newsletter editor at: b2fwdpao@usace.army.mil

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