



US Army Corps
of Engineers
Mississippi Valley Division



Corps Hurricane Response

Task Force Hope Status Report Newsletter

July 14, 2010

Hurricane Season: June 1—November 30

The Corps is prepared...are you?

Corps has HSDRRS hurricane preparation plans in place

By Susan Spaht

The Corps of Engineers is driving to complete the five-parish Hurricane and Storm Damage Risk Reduction System (HSDRRS) with 100-year level perimeter defense by June 2011 – less than one year from now. The Corps and its contractors are working at a rapid pace and have accomplished an amazing amount of work; but the system is not yet complete.

Meanwhile, meteorologists are predicting an active 2010 hurricane season for the Gulf of Mexico, and we've already seen our first hurricane, Alex.

Naturally, some questions arise: What will happen at unfinished construction sites if we experience a storm this season? What areas of the system are better prepared? What areas are more vulnerable?



In advance of an expected tropical event, the Corps will often use Hesco baskets to temporarily close openings or gaps in the system where construction is incomplete. Prior to Hurricane Gustav in 2008, the Corps placed sand-filled Hesco baskets (above) along the Inner Harbor Navigation Canal west wall. USACE Photo

What actions can be taken to reduce that vulnerability?

Hurricane Construction Site Preparation

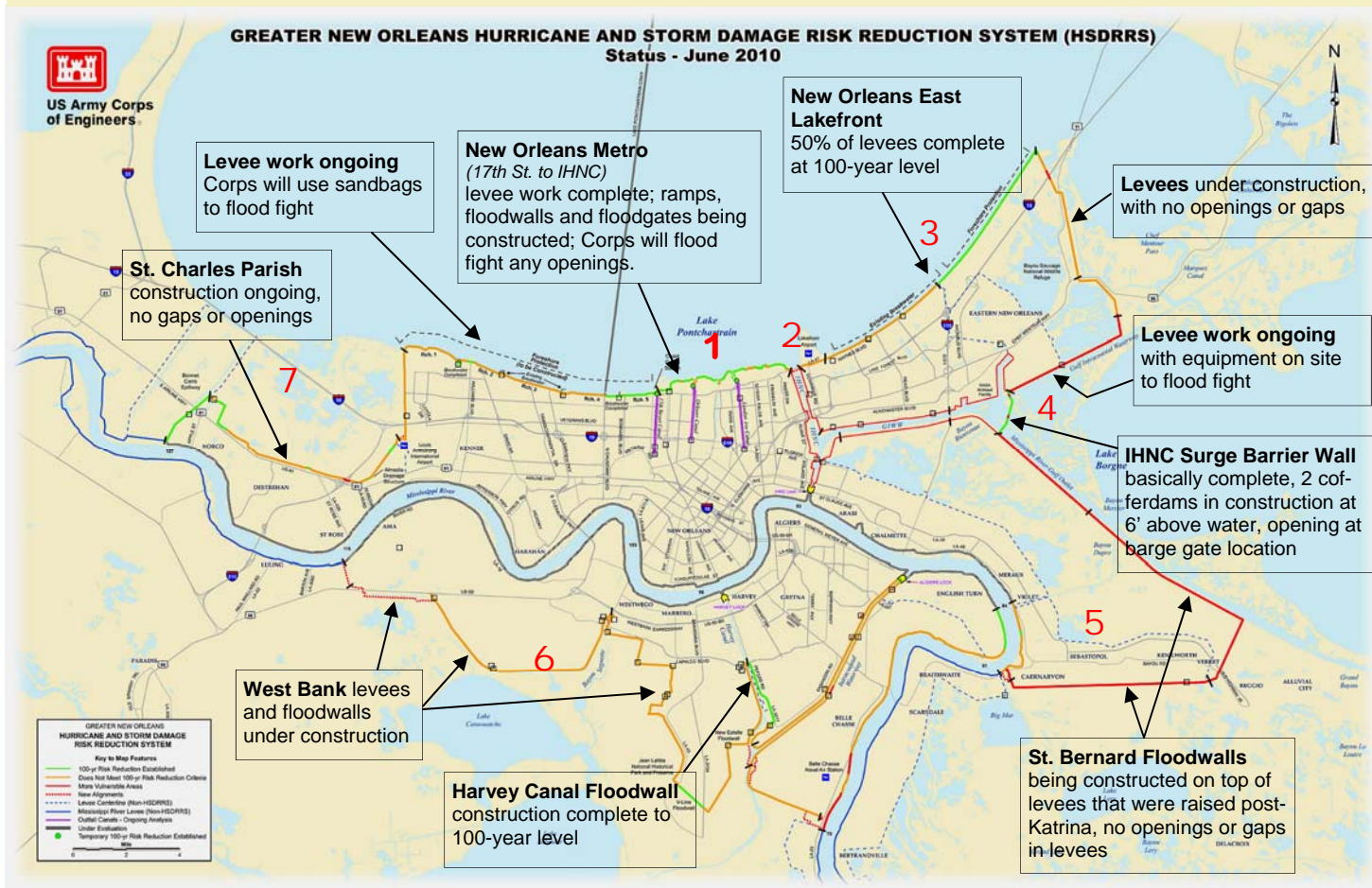
Unfinished areas in the system are referred to as "gaps" and "openings." **Gaps** are areas in the system where surge reduction features do not exist but soon will. **Openings** are areas in the system where the existing lev-

ees or floodwalls are being removed and rebuilt to the Corps' new design standard, or where another 100-year feature is under construction. Even

Continued on page 2

Commander's Note on oil spill response.....Page 5

Corps will bolster gaps and openings at construction sites during storms



Continued from page 1

where there is a gap or opening, the system is better prepared for a storm than before Hurricane Katrina due to first phase repairs, levee lifts and other measures performed by the Corps of Engineers since Katrina.



Col. Sinkler

“We have hurricane preparation plans in place for gaps and openings in the system,” said Col. Robert Sinkler, Commander of the Hurricane Protection Office. “At locations where levee and floodwall construc-

tion is ongoing, our contractors are required to have plans and equipment in place to defend against an oncoming storm.” For example, contractors work on floodwall sections that are small enough to be temporarily closed with Hesco baskets (sand/gravel-filled containers) should a storm approach. Contractors working on levees are required to compact the new soil in advance of a storm to make the new levee more resilient to possible flood waters and/or overtopping.

The Corps requires construction-site storm preparation work, or “flood fighting” measures, to be done 48 hours prior to the anticipated arrival of a storm.

Status of the System

(refer to map, this page)

1. New Orleans Metro

On the south shore of Lake Pontchartrain, more than 90% of the perimeter system between the 17th Street Canal and the Inner Harbor Navigation Canal (IHNC) meet the 100-year level of protection. All of the levee work is completed and there are five spots where ramps are being constructed over finished levees. These sites will not require any additional site preparation should we experience a storm.

Floodwall work between the 17th Street Canal and Topaz Street is

Continued on page 3

Continued from page 2

progressing well, but this is one area where an **opening** exists. Approximately 70 feet of open wall will be under construction at any one time. In the event of a storm, the Corps will close any opening with sand-filled Hesco baskets 48 hours prior to the anticipated arrival of the storm.

2. Seabrook

One **gap** in the system will be filled by the Seabrook Floodgate Complex, a major project planned for the Inner Harbor Navigation Canal (IHNC) at Lake Pontchartrain. When constructed, this project will consist of huge sector gates flanked by a pair of lift gates. It will work in tandem with the IHNC Surge Barrier wall and closure gates at Lake Borgne to greatly reduce the risk of flood surges to Gentilly, the Ninth Ward, New Orleans East, Orleans Metro and St. Bernard Parish.

Last year, the Corps performed work on the existing floodwalls and levees at the IHNC. That work included an innovative method called Deep Soil Mixing to strengthen the soil and add resiliency. Also, additional relief wells were built to further improve levee stability. Even before that work was completed, the levees along the IHNC withstood Hurricane Gustav.

3. New Orleans East

From the IHNC to South Point, 50% of the levees along the lakefront are complete to the 100-year level of protection. The remaining levees and floodwalls along the lakefront and those that run south along the Bayou Sauvage Wildlife Refuge are currently under construction but there



Hesco baskets are wire and fabric containers that are filled with sand or gravel to temporarily close a construction opening or gap during storms.

will be no **openings** or **gaps** this hurricane season.

New Orleans East levees between the CSX railroad crossing and the IHNC Surge Barrier tie-in are being bolstered and raised through deep soil mixing - one of the world's largest projects of this kind. Areas of this levee have been degraded to conduct this process. At each area where these **openings** exist there is equipment on hand to raise the levee to pre-existing levels within 48 hours of an anticipated storm.

4. IHNC Surge Barrier

The 1.8-mile surge barrier wall is nearly complete. The important tie-ins that connect the wall with the risk reduction system in New Orleans East and St. Bernard Parish will be

EVACUATE!

This area already has the best defense against hurricane surge than any time in its history; but if local authorities give the order to evacuate, people should heed that advice. Everyone should be prepared, have a plan, then **evacuate** if the order comes.



complete to the 100-year level elevations by the height of hurricane season. The only hurricane season construction **gaps** that remain on this enormous project are the three gates. The barge gate on the Gulf Intracoastal Waterway (GIWW) will be delivered this fall. Cofferdams are in construction for the huge sector gate across the GIWW and the vertical lift gate at Bayou Bienvenue.

These two structures will stand at 6 feet above water and could provide some degree of surge reduction.

5. St. Bernard Parish

One of the largest projects in the system is the 22.3 miles of floodwalls being constructed in St. Bernard Parish. Since St. Bernard is one of the most vulnerable areas in the system, the Corps' new design criteria requires those floodwalls be built to heights of 26.5 - 30.5 feet. The pre-Katrina heights of those levees ranged from 14 - 18 feet. Construction on the new floodwalls has only recently begun; however, the levees onto which the new floodwalls are being constructed were raised post-Katrina to heights of 19 - 20 feet. The current elevation of the levees means there is an improved level of risk reduction there, but wave overtopping would be expected if a strong storm were to occur this season. There are no **gaps** or **openings** in the St. Bernard project.

6. West Bank

Some major **gaps** still remain in the HSDRRS. This is the case on the West Bank where 66 miles of levees, floodwalls, floodgates and other wa-

Continued on page 4

Continued from page 3

ter control structures are currently in construction. Some of these risk reduction features include: the largest drainage pump station in world, the West Closure Complex, located at the confluence of the Algiers and Harvey Canals; a new floodgate, levee and pump station complex at the Company Canal and Bayou Segnette area; a pump station at Lake Cataouatche; levees and flood-



Floodwall construction

walls at the Western Tie-In (where the HSDRRS ties into the Mississippi River at Davis Pond), and a swing gate at the Eastern Tie-In (where the HSDRRS ties into the Mississippi River at Oakville.)

Authorized work on the West Bank was about 38% complete when Hurricane Katrina made landfall, and the work was expected to be completed in 2018. Post-Katrina, the Corps received authorization and funding to accelerate completion of the work – most of which will now be completed in 2011.

Already more than 15 miles of levees and 2.5 miles of floodwalls have been raised throughout the West Bank, an interim floodgate has been installed at the Company Canal, the new Harvey Canal Floodgate went operational in 2007, and all construction work continues at a fast pace.

7. St. Charles Parish

All contracts have been awarded and construction is well-underway. There are **no gaps** or **openings**.

What About Your Neighborhood?

Last month the Corps released a new Construction Status Map (see page 2) for the HSDRRS. Through color-keying, the updated map shows stages of construction of projects around the perimeter system. It shows some areas of the system are already complete and provide 100-year level risk reduction – these are shown in green on the new

map. Some areas of the system are well along in their construction but not completed – these areas are shown in amber. Other areas are still in the design phase, or they are just beginning the construction phase – these areas are shown in red.

It is important to mention that areas around the five-parish system have differing elevations that are based on hydrologic conditions, geography, and the various shapes of levees and floodwalls at particular locations; therefore, perimeter elevations will vary from location to location.



You can check the status of the system in your neighborhood by clicking on this link: http://www.mvn.usace.army.mil/hps2/pdf/2010_System_Construction%20Status_Map.pdf

To learn about the type of construction work that is ongoing or planned for any given area, and the scope of that work, click on this link: http://www.mvn.usace.army.mil/hps2/pdf/System%20Contract%20Award%20Status%20Map_06_2010.pdf

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The *Status Report Newsletter* supports the information program for Task Force Hope and its stakeholders.

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Comments and questions may be sent to the

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Status Report Newsletter

Task Force Hope

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Commander's Note

*Excerpted from Col. Al Lee's
July Stakeholder Update*

I would like to take this opportunity to address a recent criticism about the Corps. As many of you have undoubtedly read or heard, some media and local officials have stated that we have not been working in an expeditious manner befitting the nature of the emergency the Gulf Coast is now facing. These allegations are simply false.

The New Orleans District's role in the Deepwater Horizon oil spill response is under our regulatory authority. We understand how this role can impact emergency response efforts. Since the very first emergency permit request arrived, my team has been operating under our emergency permitting procedures, putting in countless hours, taking time from family and friends, to ensure a swift yet thorough review of each permit request. Despite what others report, we are working both weekends and holidays (actually, since 2005, this is common place for Team New Orleans).

My team does not need me to defend their dedication and efforts in helping in the response efforts. Their production speaks for itself. Under the standard Department of the Army permit-



Col. Al Lee

ting procedures, the permit process generally takes between 90 and 120 days for a decision. Since the first permit request arrived on May 5, 2010, our Regulatory Branch has received 40 emergency permit requests, of which the Corps has issued 32 permits and denied two, while five were withdrawn by the applicants. Furthermore, 15 permits were issued the same day and nine were issued the following day.

However, it must be clear that the greater complexity of the request or its potential for adverse impacts, the longer the review process will take. Under our regulatory authority, the Corps must consider all of the available information and the insight of experts before making a decision to issue or deny a request. When the need arises, we have and will con-

tinue to ask for additional information. To act otherwise would be irresponsible on our part.

The Deepwater Horizon oil spill is an unprecedented disaster with impacts that will be felt for years. Many of the emergency requests reflect the type of innovation and ingenuity necessary to prevent or reduce these impacts. Yet, we must determine and avoid any approaches that have the potential of producing greater short and long-term damage than the oil they are designed to stop. To do so, the Corps will continue to ensure that these good ideas are supported with good science and good engineering.

Building Strong,

Al Lee

Col. Alvin Lee
Commander, New Orleans District

To read Col. Lee's July Stakeholder Update, click this link: [Stakeholder Update](#)



Reach E-4 of the sand berm at the Chandeleur Islands