New Orleans
Hurricane and Storm Damage Risk Reduction System Update

by

Team New Orleans
U.S. Army Corps of Engineers

November 13, 2008
New Orleans Area
Hurricane Storm Damage Risk Reduction System

5 Parishes
350 Miles of Levee/Floodwall
73 Pumping Stations (Fed & Non-Fed)
4 Gated Outlets

Legend
- Federal
- Federal Non-COE
- Non-Federal
HSDRRS: Our Mission and Commitment

• Repair the damages, making what was there before whole again.

• Strengthen and improve the system and provide 100-year level of protection capable of withstanding the effects of a storm having a 1% chance of occurring each year.

• Current funding level $14.3 B (fully funded).
  – Non-federal sponsor 30-yr payback cost-share portion: $1.5 B

• Study and recommend solutions to provide higher levels of protection; restore and protect coastal wetlands (LaCPR).
  – Technical report to be complete in Jan ‘09
  – Expect transmittal to Congress by Fall ‘09
How We Deliver

U.S. ARMY CORPS OF ENGINEERS

Mississippi Valley Division
BG Michael Walsh

St. Paul District
Rock Island District
St. Louis District
Vicksburg District
Memphis District
New Orleans District

Air Force Center for Engineering and Environment (AFCEE)
Engineer Research and Development Center (ERDC)
Walla Walla District Cost Center of Expertise
Corps Planning Centers of Expertise
Omaha District Rapid Response
Philadelphia District Peer Review Center of Expertise

Task Force Hope
Karen Durham-Aguilera (SES)

Protection Restoration Office
COL Al Lee

Hurricane Protection Office
COL Mike McCormick

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Current System Programmatic Schedule

- **Perimeter Protection**
  - CY 07: Leves, Floodwalls
  - CY 08: IHNC
  - CY 09:
  - CY 10: Construction NTP
  - CY 11: Storm Protection
  - CY 12:

- **Permanent Pumping**
  - CY 07: Pump Repair
  - CY 08:
  - CY 09: SELA
  - CY 10:
  - CY 11:
  - CY 12:

- **Interior Drainage**
  - CY 07:
  - CY 08: Storm Proof
  - CY 09:
  - CY 10:
  - CY 11:
  - CY 12:

- **Plaquemines Larose to GM Grand Isle**
  - CY 07:
  - CY 08: Permanent Pumping
  - CY 09:
  - CY 10:
  - CY 11:
  - CY 12:

- **Planning**
  - CY 07: LaCPR
  - CY 08:
  - CY 09:
  - CY 10:
  - CY 11:
  - CY 12:

- **Hurricane Season**

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Project Partnering Agreements

LPV PPA
• Signed on 22 Sep
• Draft supplemental repayment agreement coordinated 24 Oct with the Administration
• **Next Step:** *provide draft to State*

WBV PPA
• Signed on 6 Nov

MRGO MOA
• Executed 31 Oct

SELA Signature Issue
• Draft overarching SELA PPA provided to CPRA – 6 Nov 2008
• Administration position is CPRA is sole signatory
• Florida Ave. Phase I construction pending executed PPA

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IHNC Surge Protection
Lake Borgne

Objectives:

• Provide protection to New Orleans East / New Orleans Metro / IHNC-MRGO / St. Bernard area.
• Complete protection by 2011 with advanced measures (risk reduction) by Aug 2009

Status

• Awarded 3 APR 08 a design-build contract to Shaw E&I for $695M – largest in Corps
• Wide stakeholder engagement
• Environmental Compliance complete
• Contractor mobilized
• Notice to proceed with construction issued 4 Nov 2008
• Navigation simulation continues
• Expect groundbreaking ceremony: 3 or 4 Dec

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GIWW Sector Gate – Bypass Closed

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Barrier Wall
(Advance Measures)

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Barrier Wall
Completed Protection

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Proposed Alignment with Beneficial Use Disposal Areas and Dredge Pipes

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IHNC Surge Protection
Lake Pontchartrain

Objectives:
• Provide protection to New Orleans East / New Orleans Metro / IHNC-MRGO / St. Bernard area.

Status
• Complete environmental compliance – Spring 2009
• Begin construction – Spring 2010
• Complete by 1 June 2011

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Performance of the HSDRRS

Waves Over IHNC Floodwall

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Performance of the HSDRRS
Lower 9th Ward IHNC Floodwall

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Performance of the HSDRRS interim measures in the IHNC

Pre-Gustav

Post-Gustav

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St. Bernard Risk Reduction

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MRGO Closure Status

Objectives:

• MRGO Deauthorized for navigation between the GIWW and the Gulf – 5 June 2008
• Rock closure structure will be constructed in the vicinity of Bayou La Loutre Ridge in St. Bernard Parish.

Status

• Memorandum of Agreement executed 31 Oct, 2008
• Awarded construction contract 5 Nov, 2008
• SLFPA-E exercised quick action – ruling expected to be appealed
• Construct closure structure by June 2009

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External Peer Review

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External Peer Review
Real Estate – Right of Entry

- USACE has requested “blanket” Right Of Entry (ROE) for all existing levee/floodwall Right of Way (ROW) that are owned/claimed by levee districts in Jefferson, Orleans, Plaquemines and St. Bernard Parishes
- No new real estate acquisition required
- Blanket Right of Entry will enable acceleration of engineering and design phases of construction contracts
- USACE requests blanket ROE by 20 November 2009.
Upcoming Large Contracts – 2009

New Orleans East
• Paris Rd. to Lakefront Airport  summer
• South Pt. to GIWW  late 2008
• CSX RR to Michoud Canal  winter

St. Bernard
• Bayou Bienvenue to Bayou Dupre  fall
• Bayou Dupre to Hwy 46  winter
• Verret to Caernarvon  summer

Jefferson Parish
• West Return Floodwall  fall

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Permanent Pumps

Objectives:
• Operation of new pumping stations at the mouths of 17th St., Orleans and London Ave. canals concurrently or in series with existing pumping stations

Status
• Issue draft environmental report for public comment – Dec. 2008
• Conduct Industry Day in Feb 2009
• Partnership agreement is required
• Award Design-Build contract in Feb 2010
• Est. construction completion by May 2013

Other
• Pump option cost report pending submission to ASA(CW)

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Borrow

• Complex Process:
  • Technical suitability
  • Environmental clearance
  • Real Estate Acquisition

• Approx. 76 million cubic yards required for HSDRRS

• Approx. 107 million cubic yards currently under consideration

• Flexibility required to meet scheduled 2011 completion –
  3 methods of delivery:
  • Government furnished
  • Contractor furnished
  • Supply contract

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Armoring Manual:
- Status – Undergoing Independent External Peer Review.
- Purpose – Provide design guidance on back slope levee armoring.

ERDC Full Scale Testing Facility:
- Status – Currently in planning and design phase. Workshop with 8 US and internal experts in flumes, hydraulics, and modeling is being held in Nov 2008.
- Purpose – Provide sound engineering guidance and product testing for unsteady flow conditions.

Transitions:
- Status – Typical designs and specifications are under development, work is will be coordinated during project construction.
- Completion – same as project construction
- Purpose – Provide armoring at transitions, such as levees and floodwalls to protect critical areas.

Modeling:
- Status – Transitions and mat anchoring will be modeled by Texas A&M and ERDC respectively.
- Completion – Spring 2009
- Purpose – Perform additional research of hydraulic modeling at transitions and anchored mats to develop improved design guidance.

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Upcoming Public Meetings

• Discuss recommended proposed action to strengthen the New Orleans Lakefront Levee (from the 17th St. Canal east to the IHNC).
• Impacts of the proposed action will be discussed in IER 4, which will be available for public review in the next few weeks.

**When:** Nov. 13
7 p.m. to 9 p.m.

**Where:** Lindy C. Boggs Conference Center Rm 236
2045 Lakeshore Dr.
New Orleans, LA 70122

• Discuss the status of the Citrus Lakefront Levee, New Orleans East levees and floodwalls and the IHNC Lake Borgne Surge Barrier.
• Human and environmental impacts of these projects are captured in IERs 6, 7 and 11 Tier 2 Borgne.
• Meeting will also address borrow. Impacts of excavating borrow are captured in IERs 18, 19, 22, 23, 25 and 26.

**When:** Nov. 18
7 p.m. to 9 p.m.

**Where:** Church at New Orleans
11700 Chef Menteur Hwy
New Orleans, LA 70129

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Questions?

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