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Giuseppe R. Miserendino
Regional Director, SLFPA – W

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The Project

West Bank and Vicinity (WBV) Hurricane Protection Project
Status of Construction

- **40** Completed Construction Contracts  $671M
- **42** Ongoing Construction Contracts  $2.6B
- **2** Remaining Construction Contracts to be Awarded  $10M

Project Total:  $3.28B
West Bank and Vicinity
Hurricane and Storm Damage Risk Reduction System
West Closure Complex

Project Features:

• 19,140 cfs Drainage Pumping Station
  (11 x 1740 cfs vertical “Flower Pot” pumps)
• 225-foot primary navigation gate
• Sluice gates (5 – 16’ x 16’)
• T-wall along edge of Bayou Aux Carpes CWA 404(c) wetlands
  (4200’ X 100’ construction corridor)
• Water Control Structure

Facts:

• Largest drainage pump station in the world
• Largest sector gate in the U.S.
• Over 18 million pounds of rebar
• Over 3 million man hours and counting
GiWW - West Closure Complex

- **Storm Water Drainage:** Harvey and Algiers Canals function as the primary drainage conduits for the West Bank. 9 drainage pumping stations discharge into these canals.

- **Navigation:** The Harvey and Algiers Canals are part of the Gulf Intracoastal Waterway. 30 commercial barge tows per day pass the project site.

- **Environmental:** The project interacts with the Bayou Aux Carpes 404 (c) site. A wetland of national significance, only eleven of this type in the nation.

- **Timing:** Had to provide 100-yr level of protection by June 1, 2011.
July 2009 - Pre-construction
September 2009
January 2010
April 2010
August 2010
January 2011
April 2011
Eastern Tie In

WBV-12 Hero Levee
Awarded March 2010
Complete April 2011 22%

WBV-9d Hero to Oakville Levee
Awarded June 2010
Complete June 2011 44%

WBV-9b Hero Canal Closure
Awarded May 2010
Complete June 2011 38%

WBV 9c Hwy 23 Crossing
Awarded June 2010
Complete April 2011 40%
Algiers Canal
HSDRRS Detention Basin

Current level of risk reduction +7.5 ft. (elevation)*
HSDRRS detention basin design elevation +8.5 ft.

*

Algiers Canal

Algiers Lock

Terrytown

Timberlane

English Turn

Belle Chasse Tunnel

Naval Air Station

Gretna

Current level of risk reduction +7.5 ft. (elevation) *
HSDRRS detention basin design elevation +8.5 ft.

WBV- 47.1 Lock to Belle Chasse Hwy (west)
Awarded October 2010
Complete May 2011 13%

WBV- 48.2 Lock to Belle Chasse Hwy (east)
Awarded September 2010
Complete February 2011 35%

WBV- 10 Belle Chasse PS #1
Fronting Protection
Awarded January 2010
Complete June 2011 32%

WBV- 64.2 Belle Chasse Hwy to Hero (west)
Awarded September 2010
Complete May 2011 44%

WBV- 11 Belle Chasse PS #1
Fronting Protection
Awarded August 2010
Complete June 2011 1%

WBV- 49.1 Belle Chasse Hwy to Hero (east)
Awarded September 2010
Complete February 2011 20%

WBV- 13 NO S&WB PS #11
Fronting Protection
Awarded September 2009
Complete March 2011 32%

WBV- 8 NO S&WB PS #13
Fronting Protection
Awarded September 2009
Complete May 2011 32%

WBV- 7 Planters PS
Fronting Protection
Awarded September 2009
Complete March 2011 35%

WBV- 44 Whitney Barataria PS
Floodwall Modification
Awarded June 2010
Complete April 2011 30%
Harvey Canal
HSDRRS Detention Basin

Current level of risk reduction +8.0 ft. (elevation)
HSDRRS detention basin design elevation +8.5 ft.

Harvey Canal
Algiers Canal
Woodmere
Laplace Blvd

WBV-1 Harvey Floodwall
Awarded February 2008
Complete June 2010 xx%

WBV 14a Harvey Levee
Awarded June 2010
Complete June 2011 4%

WBV-2a Harvey Floodwall
Awarded July 2008
Complete June 2010 xx%

WBV-2b Harvey Floodwall
Complete

WBV-23 New Estelle PS
Fronting Protections
Awarded April 2010
Complete March 2011 67%

WBV 14g Estelle Floodwall
Awarded July 2009
Complete Mar 2011 92%

WBV-3a Hero Pump Station
Awarded July 2008
Complete February 2011 86%

WBV-3b Harvey Floodwall
Awarded December 2008
Complete July 2010 xx%

WBV-33 Old Estelle Pump Station Fronting Protections
Awarded September 2009
Complete April 2011 76%
Harvey Canal
HSDRRS Detention Basin

Harvey Floodgate (USACE)
Cousins Pump Station (Jefferson Parish)
Westwego to Harvey Canal

Current level of risk reduction +9.0 ft. (elevation)
100-yr level of risk reduction design elevation +10.5 ft. (+14.0 ft. 2057)
Bayou Segnette/Company Canal

Current level of risk reduction +9.0 ft (elevation)
100 Yr level of risk reduction design elevation +10.5 ft (+14.0 ft 2057)

- Interim Barge Gate fully Operational
- Current level of risk reduction +9.0 ft (Elevation)
- Barge Gate closes when water south of the gate (floodside) is +2.0 ft and rising
- Interim Gate to be replaced with permanent 56-ft floodgate (sector gate) w/pump station
Current level of risk reduction +8.5 ft. (elevation)
100-yr level of risk reduction design elevation +11.5 ft. (+15.0 ft. 2057)
Western Tie In

100-yr level of risk reduction design elevation +11.5 ft. (+15.0 ft. 2057)

- WBV 73 LA Hwy 18 Crossing (ramp)
  - KR Floodgates
  - Awarded June 2010
  - Complete June 2011 6%

- WBV 71 WTI North South Levee
  - Complete

- WBV 73 Hwy 90 Crossing
  - Floodwall and Bridge
  - Awarded June 2010
  - Complete June 2011 6%

- WBV 72 WTI Last West Levee
  - Awarded March 2010
  - Complete June 2011 54%

- WBV 74 Bayou Verret Floodgate
  - Awarded April 2010
  - Complete June 2011 33%
What Is Working?

Project Coordination TEAM
Developed the (PCT) Collaboration Plan

Example: WBV 90 GIWW WCC
(PCT) Collaboration Plan

- Planning and Design
- Real Estate
- Construction
- Site Visit Plan
- Turnover to Non-Federal Sponsors
(PCT) Collaboration Plan

• **Planning and Design**
  ✓ Review Plans and Specifications
  ✓ On site Plan in Hand Review
  ✓ Operability and Maintenance Requirement Review

• **Real Estate**
  ✓ Rights of Way Acquisition
  ✓ Coordination of required permits (LA DOTD, Railroad, etc.)

• **Construction**
  ✓ Pre-Construction Meeting
  ✓ Monthly Progress Meeting
  ✓ Weekly Inspection Report by SLFPA-W
  ✓ Monthly Site Visit by USACE (Project Management, Engineering, and Construction) and Non-Federal Sponsors (SLFPA-W, OCPR, St. Charles and Plaquemines Parish)
(PCT) Collaboration Plan cont’

• **Site Visit Execution Plan**
  - Project Management
  - Construction
  - Engineering
  - Non-Federal Sponsor
  - Contractor
  - QC Representative

• **Turnover to Non-Federal Sponsors (OCPR/SLFPA-W) for O & M**
  - “Red Zone” Planning
  - Inspection
  - Training
  - O & M Manual
  - As built drawings
Site Visit Execution Plan

- PURPOSE:
  To ensure that all partners in the Project are fully aware of the progress and quality of construction, to promptly resolve design, construction and potential O & M issues.
  Open and frequent communications in an environment of mutual trust and earnest teamwork are a must to ensure the project is constructed in accordance with the contract requirements and meets the expectations of the customer.
What Is Not Working?

Incomplete execution of PCT Plan on the majority of other WBV Projects
(PCT) Collaboration Plan

✓ Planning and Design
✓ Real Estate
✓ Construction

X Site Visit Execution Plan
X Turnover to Non-Federal Sponsors for O & M

What is the outcome?
WBV-1 Sector Gate to Boomtown Casino

- Anchor plate bolts at swing gate
- Bolt threads should be a minimum of flush with top of nut.
WBV-1 Sector Gate to Boomtown Casino

- Holes in paint surface
- Rusting
WBV-2b Boomtown Casino to Hero PS Floodwalls

Hinge Failure
• Debris in fill being dumped
• Non-performance of specifications
WBV-14c.2 NEW WESTWEGO P.S. TO ORLEANS VILLAGE – PHASE 2

Debris
What will June 1, 2011 look like?
Projects we are closely monitoring:

- WBV-72
- WBV-73
- WBV-74
- WBV-75
- WBV-77
- WBV-9a
- WBV-9b
- WBV-9c
- WBV-14c.2
- WBV-MRL 1.1
- WBV-MRL 3.1
- WBV-MRL 4.1
- WBV-MRL 6.1
- WBV-MRL 7.1
WBV-72 Lake Cataouatche Western Tie-In, East-West Levee

Project is 54% complete

The work consists of construction of approximately 14,000 LF of new levees at elevation 13.5, removal of existing levee, permanent bridges, removal of existing temporary bridges and roadways.
Work consists of detour roads; approximately 1,168 LF of concrete T-wall; sheet pile I-wall levee tie-in; drainage box culverts, inlets and piping; pre-stressed concrete girder span bridge; approach slabs; asphalt pavement construction and embankment.
WBV-74 Western Tie-In Closure Structure across Bayou Verrett

Project is 33% complete

Work consists of construction of swing-type sector gates, approximately 364 LF of concrete T-wall, earthen levee, sluice gates, Rip-Rap and other work incidental thereto. To date: All H-piles and cut off sheet piles have been driven for sector gate foundation. Contractor currently driving H-piles to set template for south wall of TRS. Contractor currently welding and driving pipe pile for north end work trestle.
WBV-75 Western Tie-In, BNSF Railroad Crossing

Contract not awarded

Work consists of construction of earthen levee, concrete reinforced T-walls and steel swing gate monoliths across the Burlington Northern Santa Fe (BNSF) Railroads.
WBV-77 Western Tie-In, LA Hwy 18 Crossing and UP Railroad Gate

**Contract not awarded**

Work consists of construction of an earthen ramp, detour roadway, drainage improvements, relocation of 8” waterline, steel swing gate monoliths across the Union Pacific (UPRR), concrete reinforced T-walls.
Project consists of removing and relocating utilities, the construction of approximately 4,560 LF of levees (3 sections constructed to elevation 14.5 to 15), an emergency access road, a pump station, approximately 307 LF of T-wall (9) monoliths, and tie ins to adjacent projects.
Project is 38% complete

Work consists of construction of approximately 482 LF of levees (elevation 14.5 to 15); approximately 412 LF of T-Wall (9) monoliths (total with option 1 & 2), a reinforced concrete 56 ft. bulkhead closure gate; pedestal crane and crane platform; pump station; a temporary bypass channel and stone armoring.
Project is 40% complete

Work consists of construction of approximately 510 LF of reinforced concrete T-walls; placing embankment, asphaltic paving, drainage, installation of swing gates, and other incidental work.
Work consists of construction of approximately 510 LF of reinforced concrete T-walls; placing embankment, asphaltic paving, drainage, installation of swing gates, and other incidental work.
These projects are 0% complete:

- WBV-MRL 1.1 Engineered Alternative Measures, Oak Point to Oakville
- WBV-MRL 3.1 Engineered Alternative Measures, Belle Chasse to Oak Point
- WBV-MRL 4.1 Engineered Alternative Measures, English Turn Bend to Belle Chasse
- WBV–MRL 6.1 Engineered Alternative Measures, Parish Line to English Turn Bend, Plaquemines Parish
- WBV-MRL 7.1 Engineered Alternative Measures, West Crossover Pt. to Parish Line, Orleans Parish,