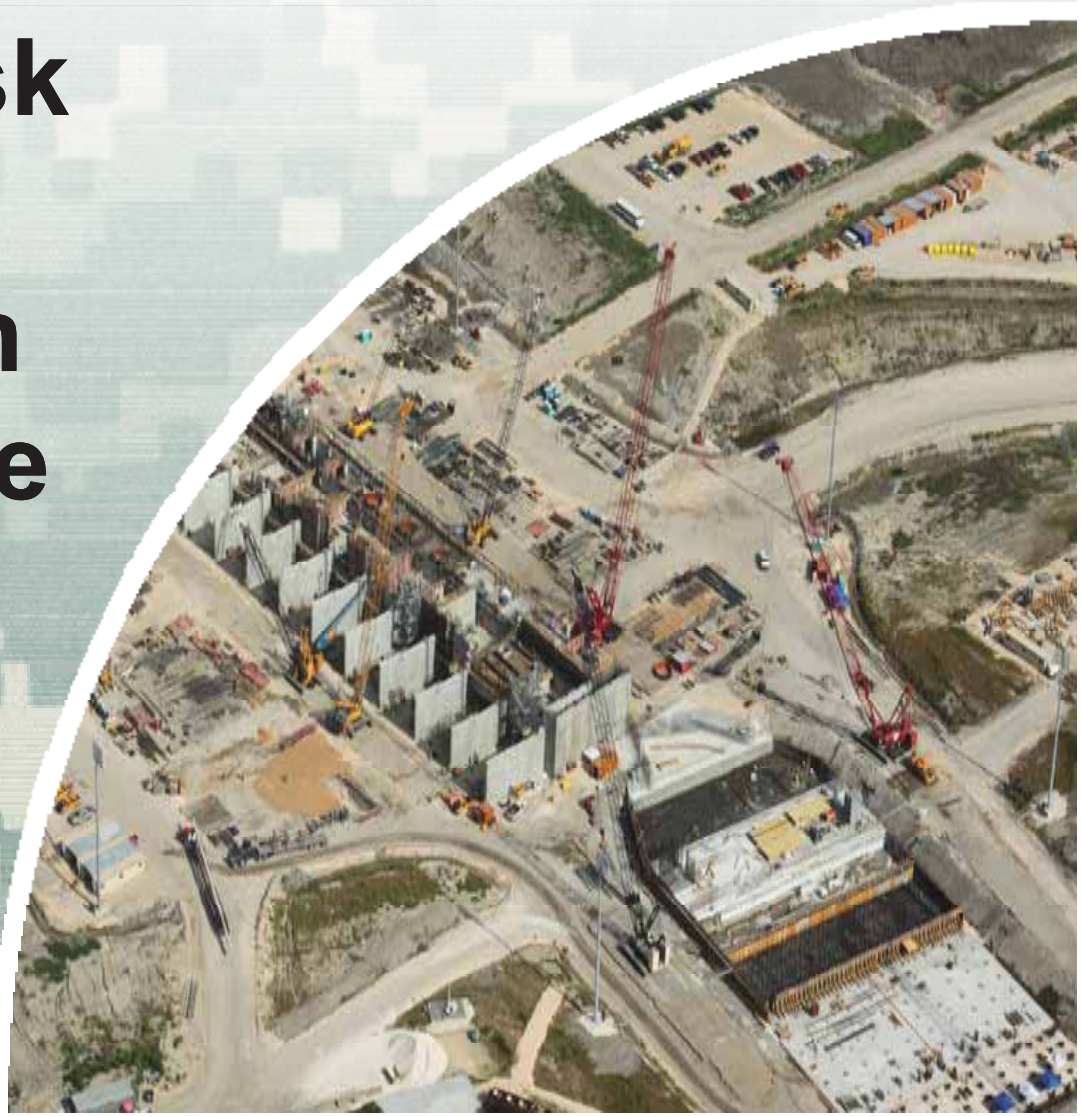
Greater New Orleans Hurricane & Storm Damage Risk Reduction System

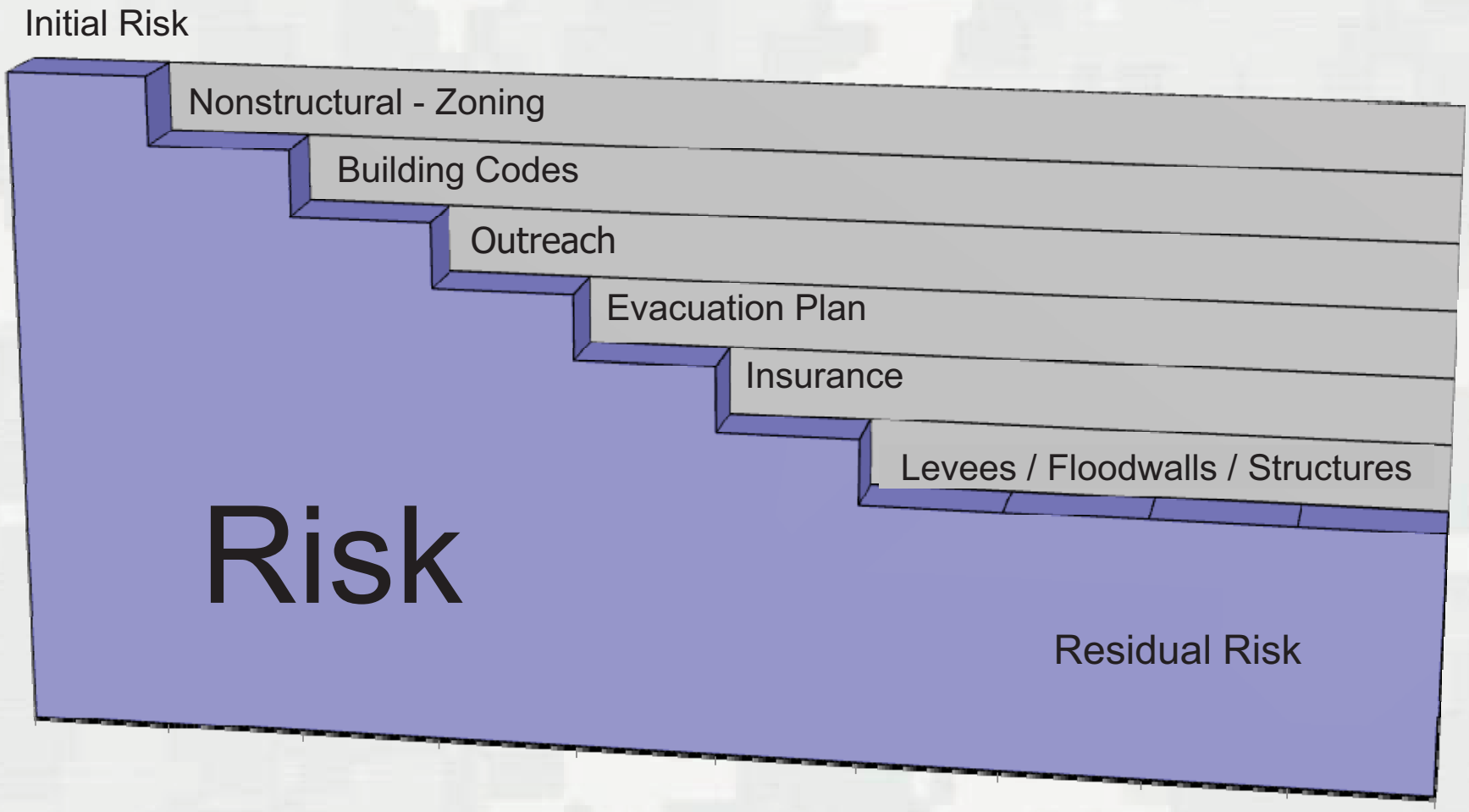
Westbank Risk Reduction Construction Status Update

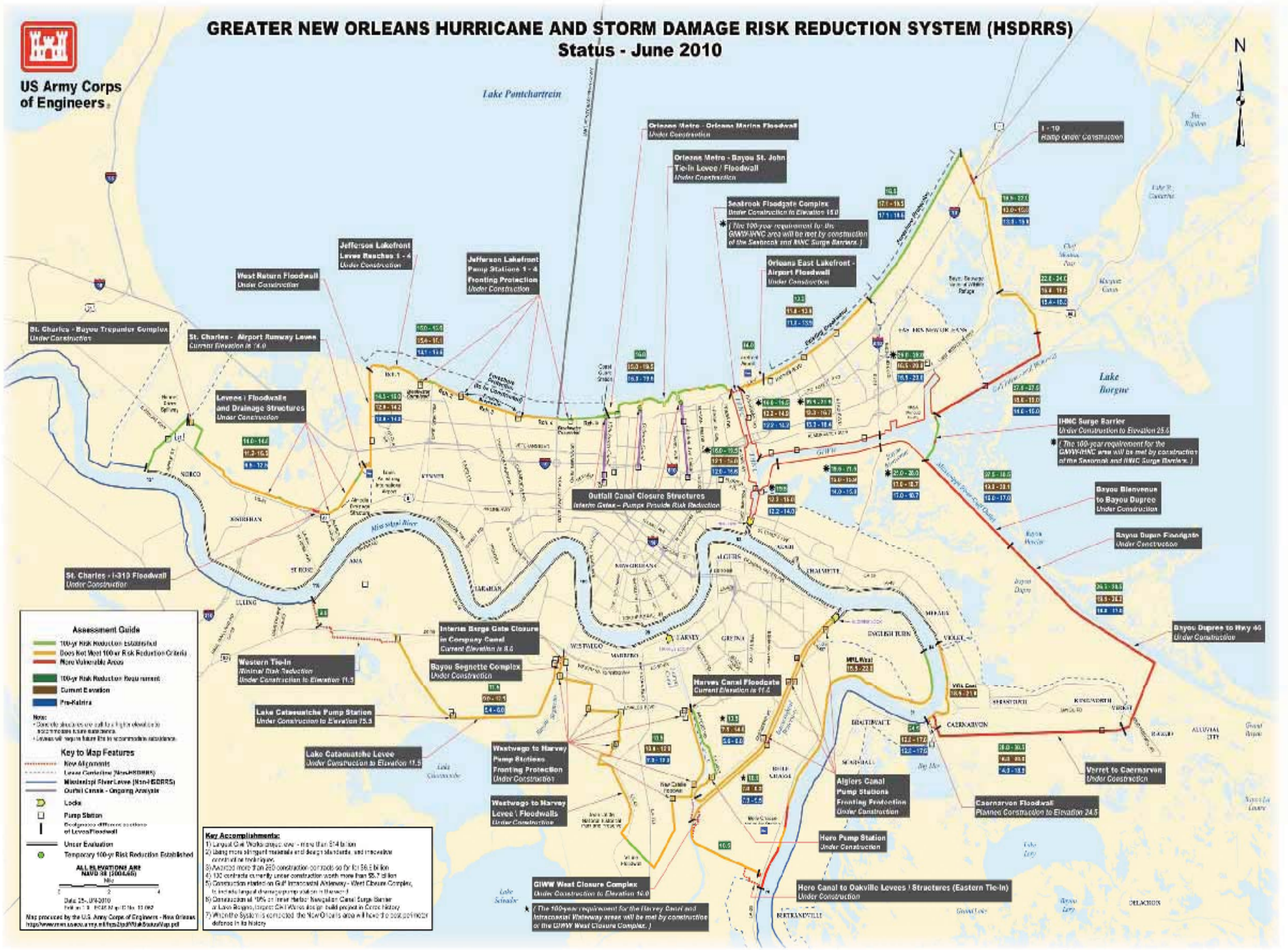


Sept. 14, 2010
Belle Chasse Library

US Army Corps of Engineers
BUILDING STRONG®

Risk – Shared Responsibility




GREATER NEW ORLEANS HURRICANE AND STORM DAMAGE RISK REDUCTION SYSTEM (HSDRRS)
Status - June 2010
US Army Corps of Engineers
N
Lake Pontchartrain
Lake Borgne
Orleans Metro - Orleans Marina Floodwall
Under Construction
Orleans Metro - Bayou St. John Tie-In Levee / Floodwall
Under Construction
Seabrook Floodgate Complex
Under Construction to Elevation 16.0
(The 100-year requirement for the GIWW-HNC area will be met by construction of the Seabrook and IHNC Surge Barriers.)
I - 10
Ramp Under Construction
Jefferson Lakefront
Levee Reaches 1 - 4
Under Construction
Jefferson Lakefront
Pump Stations 1 - 4
Fronting Protection
Under Construction
West Return Floodwall
Under Construction
Orleans East Lakefront - Airport Floodwall
Under Construction
St. Charles - Bayou Trepanier Complex
Under Construction
St. Charles - Airport Runway Levee
Current Elevation is 14.0
Levees / Floodwalls and Drainage Structures
Under Construction
IHNC Surge Barrier
Under Construction to Elevation 25.5
(The 100-year requirement for the GIWW-HNC area will be met by construction of the Seabrook and IHNC Surge Barriers.)
Outfall Canal Closure Structures
Interim Gates - Pumps Provide Risk Reduction
Bayou Bienvenue to Bayou Dupree
Under Construction
Bayou Dupre Floodgate
Under Construction
St. Charles - I-310 Floodwall
Under Construction
Bayou Dupree to Hwy 46
Under Construction
Interim Barge Gate Closure in Company Canal
Current Elevation is 8.0
Western Tie-In
Minimal Risk Reduction
Under Construction to Elevation 11.5
Bayou Segnette Complex
Under Construction
Harvey Canal Floodgate
Current Elevation is 11.5
Lake Cataouatche Pump Station
Under Construction to Elevation 15.5
Lake Cataouatche Levee
Under Construction to Elevation 11.5
Westwego to Harvey Pump Stations Fronting Protection
Under Construction
Westwego to Harvey Levee \ Floodwalls
Under Construction
Algiers Canal Pump Stations Fronting Protection
Under Construction
Verret to Caernarvon
Under Construction
Caernarvon Floodwall
Planned Construction to Elevation 24.5
Hero Pump Station
Under Construction
GIWW West Closure Complex
Under Construction to Elevation 16.0
(The 100-year requirement for the Harvey Canal and Intracoastal Waterway areas will be met by construction of the GIWW West Closure Complex.)
Hero Canal to Oakville Levees / Structures (Eastern Tie-In)
Under Construction
Assessment Guide
100-yr Risk Reduction Established
Does Not Meet 100-yr Risk Reduction Criteria
More Vulnerable Areas
100-yr Risk Reduction Requirement
Current Elevation
Pre-Katrina
Key to Map Features
New Alignments
Locks
Pump Station
Under Evaluation
Temporary 100-yr Risk Reduction Established
Key Accomplishments:
1) Largest Civil Works project ever - more than $14 billion
2) Using more stringent materials and design standards, and innovative construction techniques.
3) Awarded more than 250 construction contracts so far for $8.6 billion
4) 130 contracts currently under construction worth more than $5.7 billion
5) Construction started on Gulf Intracoastal Waterway - West Closure Complex, to include largest drainage pumping station in the world
6) Construction of "World's largest Hydraulic Navigation Canal Surge Barrier at Lake Borgne, largest Civil Works design-build project in Corps History
7) When the System is completed, the New Orleans area will have the best hurricane defense in its history.

Meeting Purpose

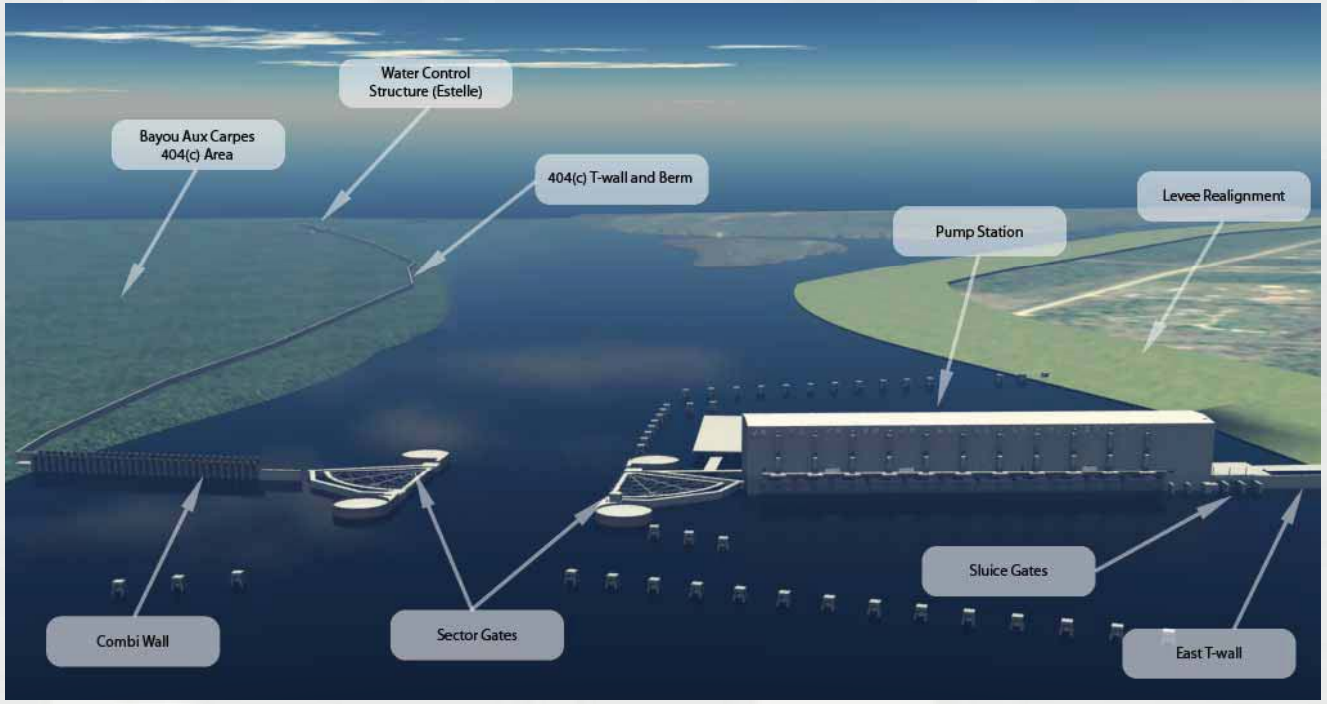
- To discuss construction status of the GIWW-West Closure Complex, Hero Canal Levee and Eastern Tie-In risk reduction projects
- To discuss the proposal to use the “Westbank N” borrow site as an alternative disposal site for material removed from the GIWW-West Closure Complex and the Hero Canal Levee

National Environmental Policy Act: NEPA

- Required of all major federal actions
- Analyze potential impacts to the human and natural environment and investigate reasonable alternatives
- Public involvement is KEY! We want to hear from you.
- Goal: more informed decision making through public involvement
- Analysis documented in Individual Environmental Reports (IER)
- Corps has made alternative arrangements to expedite project timelines

West Bank Hurricane & Storm Damage Risk Reduction System

GIWW-West Closure Complex



- 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
- Levee and East Bayou Road Realignment
- Environmental Mitigation and Augmentations
- Foreshore Protection
- Algiers Canal dredging

Not-to-scale
Conceptual

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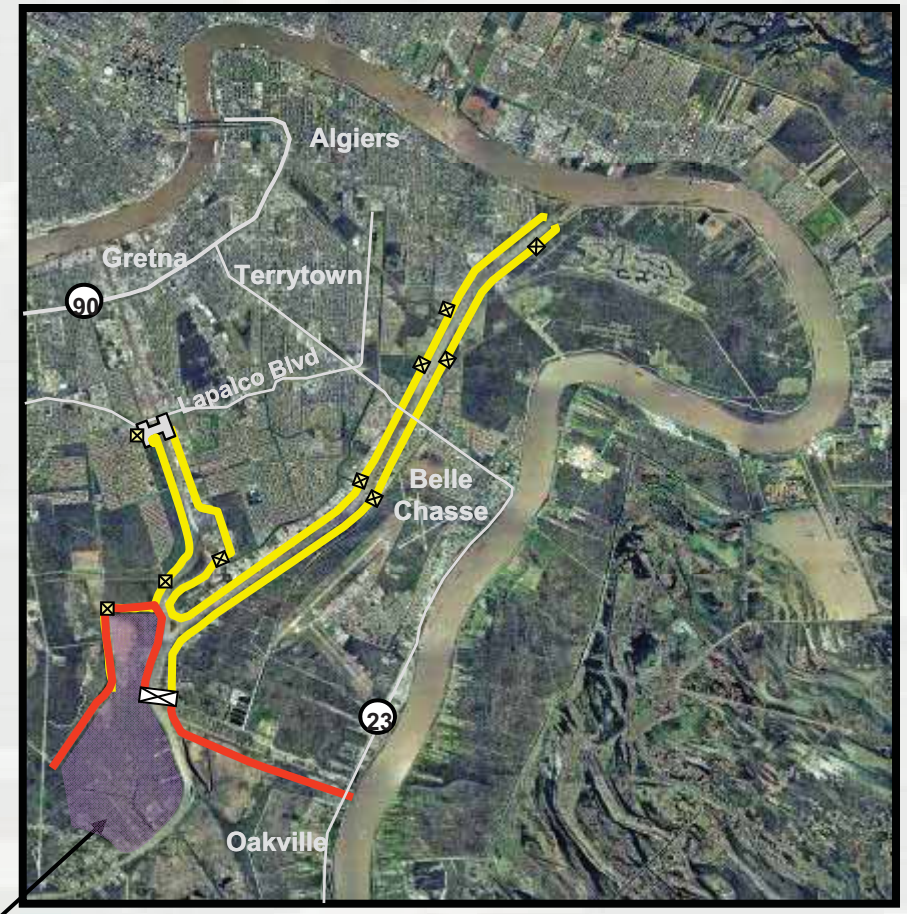
GIWW - West Closure Complex

Key Project Influences / Challenges

- **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 11 of this type in the nation.
- **Timing:** Achieve risk reduction by June 2011



Bayou Aux Carpes 404 (c) site

Construction July 2009

Construction of the GIWW-West Closure Complex began in August 2009 with grubbing and clearing

Construction November 2009

Construction July 2010

By the summer of 2010, major advances on the construction of all features of the GIWW West Closure Complex were underway.
The onsite concrete batch plant in the foreground produces 350 cubic yards per hour.

Construction August 2010

The pump station and bays are clearly visible, with the sector gate foundation taking shape in the foreground.

Pump Installation

- 4 September 2010, 3 of 11 flower pot pumps were installed in the pump station
- Each pump has a capacity of 1,740 cubic feet per second and weighs approximately 70 tons

Pump Installation

- A 600 ton crane lifted each pump individually into place
- Eight pumps will be installed by hurricane season of 2011, and the remaining three will be in place by 2012

Pump Station

The 19,140 cubic feet per second pump station would evacuate stormwater from the Harvey and Algiers canals during a storm event.

GIWW - West Closure Complex

Conceptual

Approx. 1,000 workers work two, 10-hr shifts per day 6 days a week

GIWW-West Closure Complex by the Numbers

- 2,300,000 cubic yards of on-site excavation/dredging
- 610,000 linear feet of piling
- 140,000 cubic yards of concrete
- 18,028,000 pounds of rebar
- 770,000 cubic yards of levee embankment
- Nearly 3,000,000 man hours

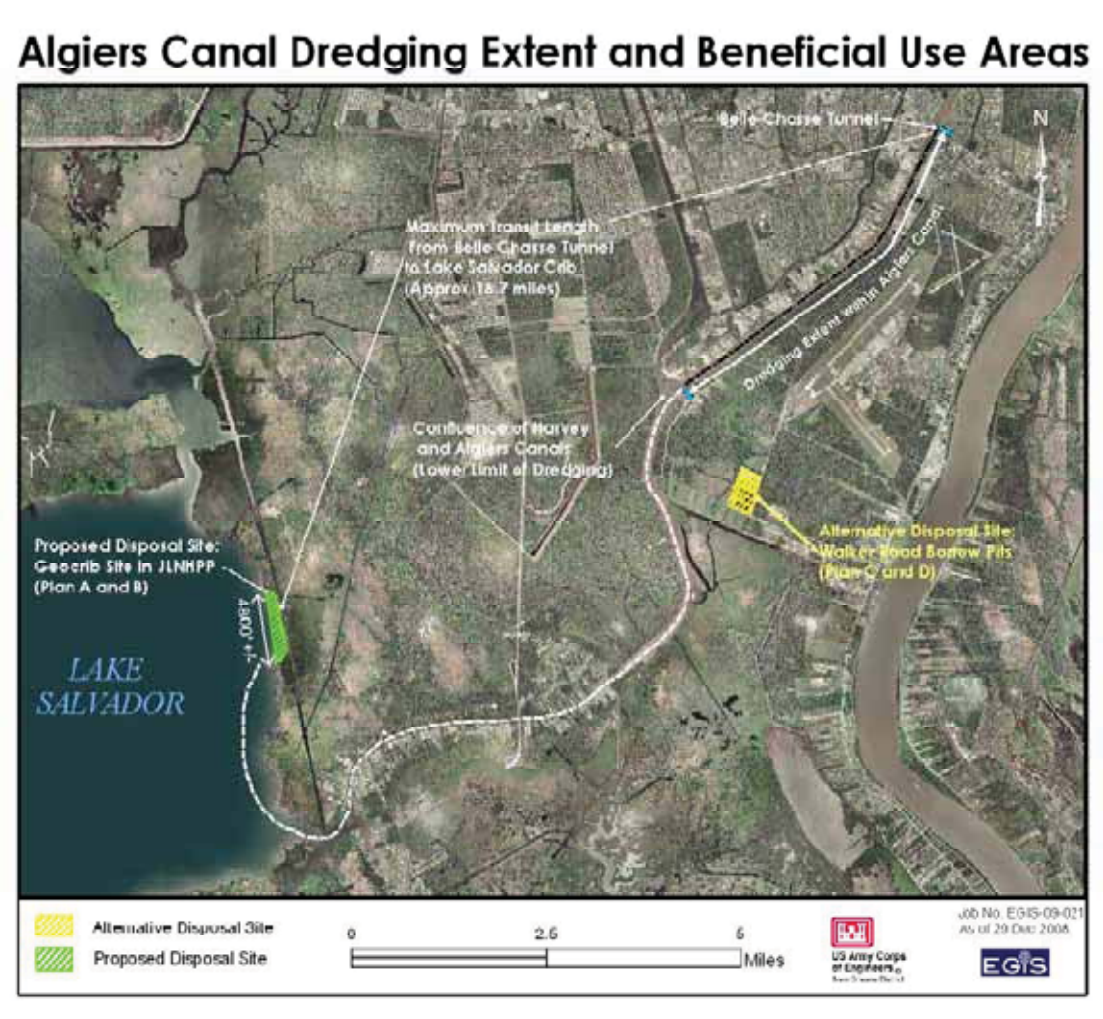
West Bank Hurricane & Storm Damage Risk Reduction System

Original Disposal Plan

- Corps has refined plans throughout construction

- All unsuitable earthen material excavated from the WCC site was originally to be disposed of in the Walker Road borrow sites

- Material dredged from the Algiers Canal is being disposed of in Jean Lafitte National Historic Park and Preserve “Geocrib” site



Geocrib

Per the original disposal plan, material dredged from the Algiers Canal has been deposited into the geocrib and is helping to rebuild marsh lands.

Proposed Modification to Disposal Plan
Westbank N Borrow Site

- Individual Environmental Report 12 Supplemental
  - Proposes unsuitable material be placed in Westbank N borrow site, in addition to Walker Road borrow sites
  - Is a more economical disposal site, shorter haul distance
  - Reduces risk of Belle Chasse Naval Air Station aircraft encountering birds on landings and takeoffs
  - Currently available for public review and comment through Oct. 2, 2010
  - Available for download at www.nolaenvironmental.gov

West Bank Hurricane & Storm Damage Risk Reduction System

Hero Canal Levee Construction

- Connects to the GIWW-West Closure Complex and the Eastern Tie-In project
- Approx $12 million contract awarded to Gulf IntraCoastal Constructors in April 2010
- Earthen levees being raised from about 8 ft. to a final elevation of 10.5 ft.

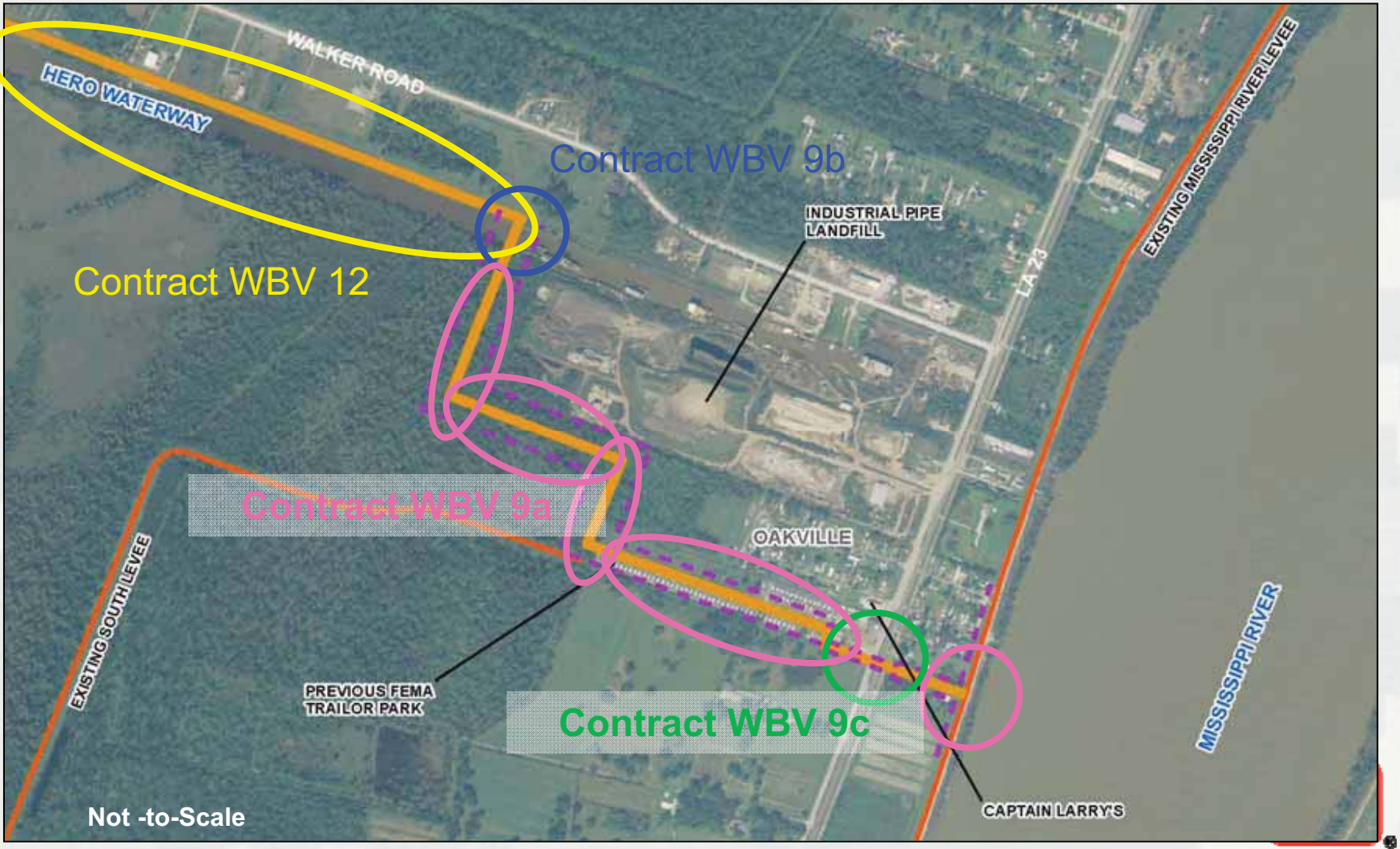
Hero Canal Levee Construction

- Scheduled for completion in March 2011
- Approx 643,000 cubic yards of clay will be used to build the 2.2 mile levee

West Bank Hurricane & Storm Damage Risk Reduction System

Eastern Tie In

Connects to the Hero Canal Levee and the Mississippi River Levees in Oakville



Eastern Tie-In

Contract WBV 9a recent/current activities:

- **Clearing and grubbing of the wetlands area west of Oakville**
- **Clearing and grubbing of the former FEMA trailer site**

Completed work will include:

- **Earthen levees that will connect to the Mississippi River Levee**
- **Emergency Bypass Road**
- **150 cfs pump station which will discharge into the wetlands**

A portion of the Eastern Tie-In project will include new levee construction in a wetlands area. Impacts to wetlands will be mitigated.

Eastern Tie-In

Contract WBV 9b recent/current activities:

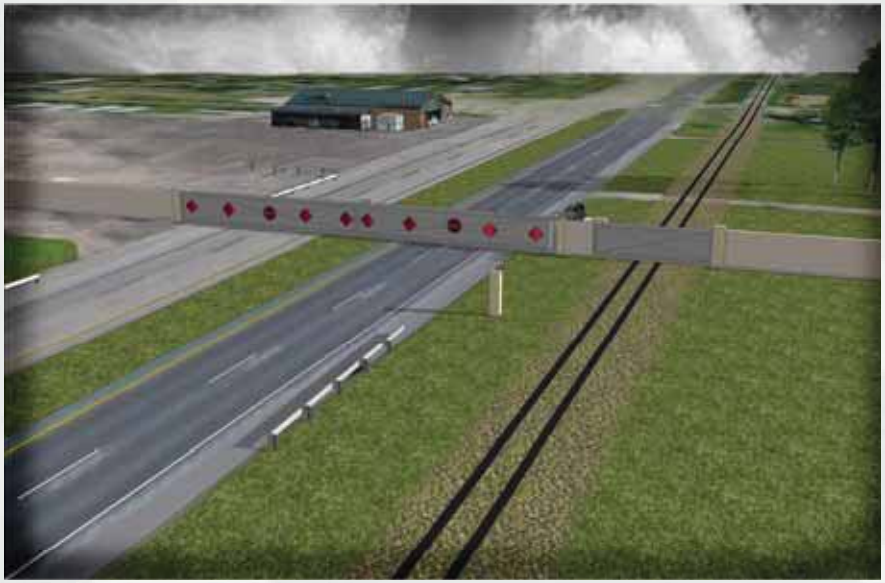
- **Installation of sand pre-load and wick drains**
- **Dredging of the Hero Canal**

Completed work will include:

- **56 ft stoplog gate across the Hero Canal**
- **70 cfs pump station which would discharge into the unprotected side of the Hero Canal**

Construction of the stoplog gate at the Hero Canal includes dredging a portion of the Hero Canal.

Eastern Tie-In



Contract WBV 9c includes construction of:

- **Three swing gates at Hwy 23**
- **A concrete T-wall built to elevation 14 ft on the southern edge of Capt. Larry's Seafood Restaurant Parking lot**
- **Contract has been awarded but work has been delayed**

What To Expect During Construction

- Construction impacts
  - Elevated noise levels from motors, pumps, generators, pile driving, etc.
  - Increased truck traffic
- Corps' efforts to minimize impacts
  - Contractor has ability to use both canal and road access
  - Wet unpaved roads (to minimize dust)

Construction of T-walls at the GIWW West Closure Complex require pile driving and heavy equipment

Mitigation

- The Corps has made efforts to avoid impacts to natural resources
- Minimize impacts to the greatest extent possible
- Compensate for unavoidable impacts
- Mitigation plans will be discussed in environmental documents
- Mitigation is funded

Proposed mitigation projects are currently under development and will be discussed in future environmental documents.

Currently Available for Public Review

- IER 27 – Outfall Canal Remediation
  - Public review Sept. 2 through Oct. 1, 2010
- IER 12 Supplemental – Westbank N Disposal Site
  - Public review Sept. 3 through Oct. 2, 2010
- Comments can be submitted by:
  - Calling 504-862-1544
  - E-mailing mvnenvironmental@usace.army.mil
  - Or at any time at www.nolaenvironmental.gov

Opportunities for Public Input

- Regular public meetings throughout the Hurricane and Storm Damage Risk Reduction System (HSDRRS) Area
- Make sure to sign in tonight to get on our meeting notification mailing list
- Construction Impact Hotline: 1-877-427-0345
- Comments can be submitted at any time at
  www.nolaenvironmental.gov

Questions and comments may be submitted to
Telephone: 504-862-2201
E-mail: AskTheCorps@usace.army.mil

US Army Corps of Engineers
New Orleans District

Social Web Networking Communities

and what they mean to you

twitter is an online messaging and social networking system that allows people to share their daily life experiences minute-by-minute, hour-by-hour, and/or day-by-day via their computer or mobile phone. Team New Orleans is joining in and taking on the opportunity to tweet with the public and offer reports on developments, additions, changes, and upcoming public meetings and events that will affect local communities. Check it out by going to **twitter.com/teamneworleans**.

Flickr is an online community platform for global photo management and sharing applications via the web. Team New Orleans has become a part of the movement and is using Flickr to visually explain our projects. Check out our photos at **www.flickr.com/photos/37671998@N05**.

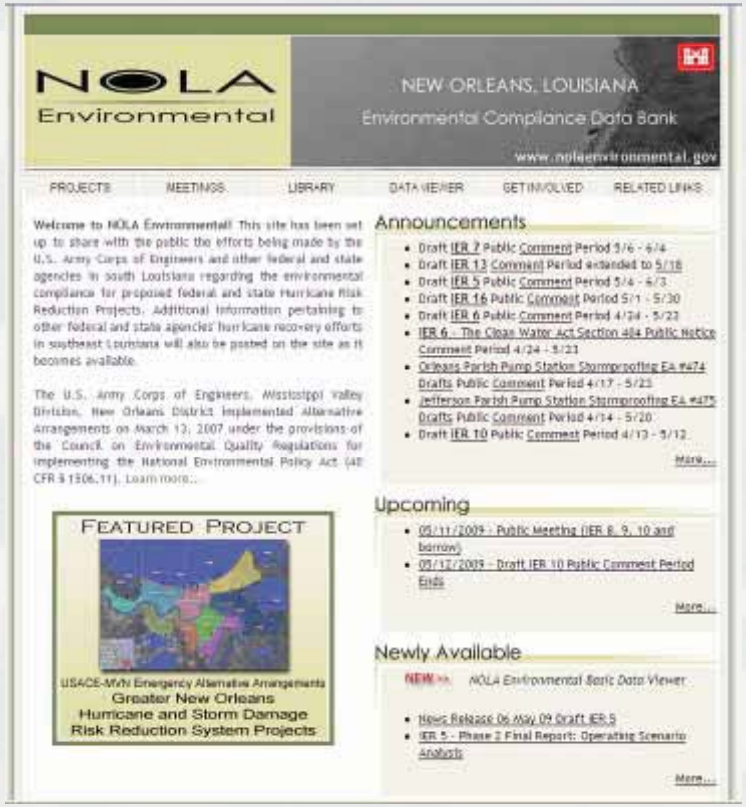
flickr

Explore...

facebook is a global social networking Web site that links people from across the world and is currently ranked as the most popular of its kind. Team New Orleans is following in the trend and is using Facebook to update the public about projects, events, activities and public meetings. Become friends with Team New Orleans by visiting **www.facebook.com, search New Orleans District**.

Resources

www.nolaenvironmental.gov



http://www.mvn.usace.army.mil