

ADDENDUM TO
DRAFT INDIVIDUAL ENVIRONMENTAL REPORT
WEST BANK AND VICINITY
HERO CANAL LEVEE AND EASTERN TIE-IN
PLAQUEMINES PARISH, LOUISIANA
IER #13



OCTOBER 2009



**US Army Corps
of Engineers®**

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Section 1 Introduction

Background

Draft Individual Environmental Report (IER) #13, entitled West Bank and Vicinity, Hero Canal and Eastern Tie-in, evaluates the potential impacts associated with the proposed enlargement of the Hero Canal levee, and construction of the Eastern Tie-in portion of the West Bank and Vicinity Louisiana, Project (WBV). The WBV is part of the larger Hurricane and Storm Damage Risk Reduction System (HSDRRS). The U.S. Army CEMVN of Engineers (USACE), Mississippi Valley Division, New Orleans District (CEMVN) engaged in a number of public involvement activities prior to the official release of draft IER #13. In addition to scoping meetings, pursuant to the National Environmental Policy Act (NEPA) Alternative Arrangements, the CEMVN hosted 31 public meetings where this project was discussed, which are further discussed in Section 5 of this Addendum.

Draft IER #13 was made available to the public on April 3, 2009. The 30-day public review and comment period was extended twice at the request of interested stakeholders and ended on June 1, 2009. Distribution of the draft IER #13 for review and comment included mailing the document to Federal and state agencies, and parties that requested the document. In addition, the draft IER #13 was and is still available at www.nolaenvironmental.gov.

Two public meetings were held during the draft IER #13 review period, on April 29 and May 4 2009. The meetings provided an additional opportunity for the public to provide comments on draft IER #13. Attendees at these and other public meetings were provided an opportunity to ask questions and provide comments on the proposed actions. These meetings focused on the proposed action discussed in draft IER #13 and the additional risk reduction that would be afforded to Plaquemines Parish by the separate Federal project that will improve the existing Plaquemines Parish non-Federal Levees (NFL) and incorporate them into the New Orleans to Venice Hurricane Protection Project (NOV). This newly-authorized and funded portion of the NOV project will be discussed in a Supplemental Environmental Impact Statement (SEIS) being prepared by the USACE.

A public workshop was held prior to the release of this draft IER #13 Addendum. That workshop, held on September 19, 2009 in Belle Chasse, presented information on the alternatives discussed in Section 4 of this document. For more information and a copy of the presentations from that workshop please visit nolaenvironmental.gov.

This draft Addendum was prepared in accordance with the Alternative Arrangements implemented by CEMVN in accordance with the provisions of the Council on Environmental Quality Regulations for Implementing the National Environmental Policy Act (NEPA) (40 CFR §1506.11). The CEMVN began implementing the Alternative Arrangements on March 13, 2007 following consultation with the Council on Environmental Quality (CEQ), Federal and state resource agencies, and after coordination with interested stakeholders (72 FR 1137).

All references to project feature elevations, or El., are design elevations based on the NAVD88 2004.65 datum for a specific level of risk reduction (i.e. 1 percent annual chance of exceedence storm surge levels, etc.). A 1 percent exceedence surge event refers to the surge level that has a 1

percent chance of being equaled or exceeded in any given year. For more information on the existing flood risk reduction system, the upgrades proposed, and details on risk and reliability visit www.nolaenvironmental.gov.

Purpose of the Addendum

Written and verbal comments received during the public review period for the draft IER #13 document were reviewed by CEMVN staff and a determination was made by the New Orleans District Commander that three issues addressed in those comments rose to the level of being substantive. In accordance with the Alternative Arrangements for Implementing the NEPA, the USACE prepared this draft Addendum to address the substantive comments before a decision is made on the proposed action. The issues were:

1. Is there an increased risk of flooding to the areas south of the WBV Belle Chasse polder associated with increased storm surge as a result of:
 - a. Constructing the West Bank and Vicinity Project, including the portion described in draft IER #13?
 - b. Constructing a floodgate across Hwy 23 as proposed in draft IER #13?
2. What is the impact to the interior drainage system (e.g., Ollie Canal and Pumping Station) in the areas of south of the Belle Chasse polder as a result of the draft IER #13 proposed action?
3. How will the draft IER #13 proposed action affect property values and flood insurance prices in the areas south of the WBV Belle Chasse polder?

Responses to those substantive comments are contained in Section 3. This draft IER #13 Addendum also provides additional information concerning the alternatives presented in the draft IER #13. This includes clarifications and inclusions of additional hydraulic and engineering information. Prior to the District Commander making a decision on the proposed action, the draft IER #13 Addendum will be published for a 30-day public review and comment period. A public meeting will be held during the public comment period.

Authority

The scope of this draft IER # 13 Addendum is defined by the authorities for the WBV project as discussed in section 2.3 of the draft IER #13.

Scope and Limitations

Some comments received during the public review period fall outside the scope of WBV authorization (i.e. extending the WBV project alignment further south and including additional portions of Plaquemines Parish into the WBV HSDRRS). The planning objective of providing risk reduction to the Belle Chasse polder, including Oakville, Louisiana as part of the WBV project was established in the 1994 Feasibility Report and Environmental Impact Statement. Congress ratified this planning objective in Public Law 104-303, Section 101 (a)(17) (WRDA 1996) which states that the project should be carried out substantially in accordance with the plans and conditions in the May 1, 1995 "Report of the Chief of Engineers on the West Bank of

the Mississippi River in the Vicinity of New Orleans, Louisiana (East of the Harvey Canal)" which transmitted the 1994 Feasibility Report and Environmental Impact Statement. Thus, the community of Oakville is within the authorized eastern tie-in of the WBV project.

Following Hurricane Katrina, Congress, in Public Law 109-148 (3rd Supplemental), appropriated funds to accelerate the completion of the previously authorized WBV project and to restore and repair the WBV project at full federal expense. Public Law 109-234 (4th Supplemental) appropriated funds and added authority to raise levee heights where necessary, reinforce and replace floodwalls, and otherwise enhance the existing WBV project to provide the levels of risk reduction necessary to achieve 1 percent accreditation within the National Flood Insurance Program. Thus, post-Katrina, Congress provided appropriations to accelerate completion of those portions of the WBV project, including the Eastern Tie-in, that were not completed pre-Katrina. Congress also provided authority and appropriations to raise levee heights where necessary and otherwise enhance the WBV project to provide the levels of risk reduction necessary to achieve 1 percent accreditation within the National Flood Insurance Program. Based on authorizations and appropriations, the CEMVN is proposing in draft IER #13 an alternative that provides 100-year level of risk reduction to the portion of the WBV project known as the Belle Chasse polder.

In response to public comments, the CEMVN evaluated whether the current WBV authority could provide additional 100 year level of risk reduction to communities south of the Belle Chasse polder. The CEMVN does not have authority or appropriations to consider alternatives for the WBV project that would extend south of Oakville.

Comments Received

Comments were received from several government agencies including the US Fish and Wildlife Service (USFWS) and the Louisiana Department of Transportation and Development (LaDOTD) during the draft IER #13 public comment period (see Appendix B). The CEMVN has and will continue to coordinate with government agencies in regards to the HSDRRS, the incorporation of the existing Plaquemines Parish non-Federal Levees into NOV, and the existing NOV project.

The CEMVN received over 200 written and verbal comments regarding the IER #13 draft during the public comment period. Appendix C provides copies of the written comments on draft IER #13 received by the CEMVN during the public review period and beyond. The comments are organized primarily by date received. Substantive comments are addressed in Section 3.

Section 2 Modifications and Clarifications

Modifications to the Proposed Action as discussed in Draft IER #13

The proposed action, as described in the draft IER #13, begins at Hero Canal south of the confluence of the Algiers and Harvey Canals off of the Gulf Intracoastal Waterway. The first portion of the alignment is referred to as WBV-12 (Hero Canal Levee), which is an earthen levee bordering the north bank of Hero Canal. The alignment then crosses Hero Canal to the south with a closure structure and 70 cfs pump station in a reach referred to as WBV-9b. The earthen levee to the south and east of the Hero Canal, as well as the 150 cfs pump station structure, is WBV-9a. As the alignment crosses Highway 23 the closure structures are referred to as WBV-9c. The WBV-9c structures transition into earthen levee (WBV-9a) that ties into the Mississippi River Levee (MRL). The figure below (1) illustrates the reaches that are referenced in the draft IER # 13 and this Addendum.

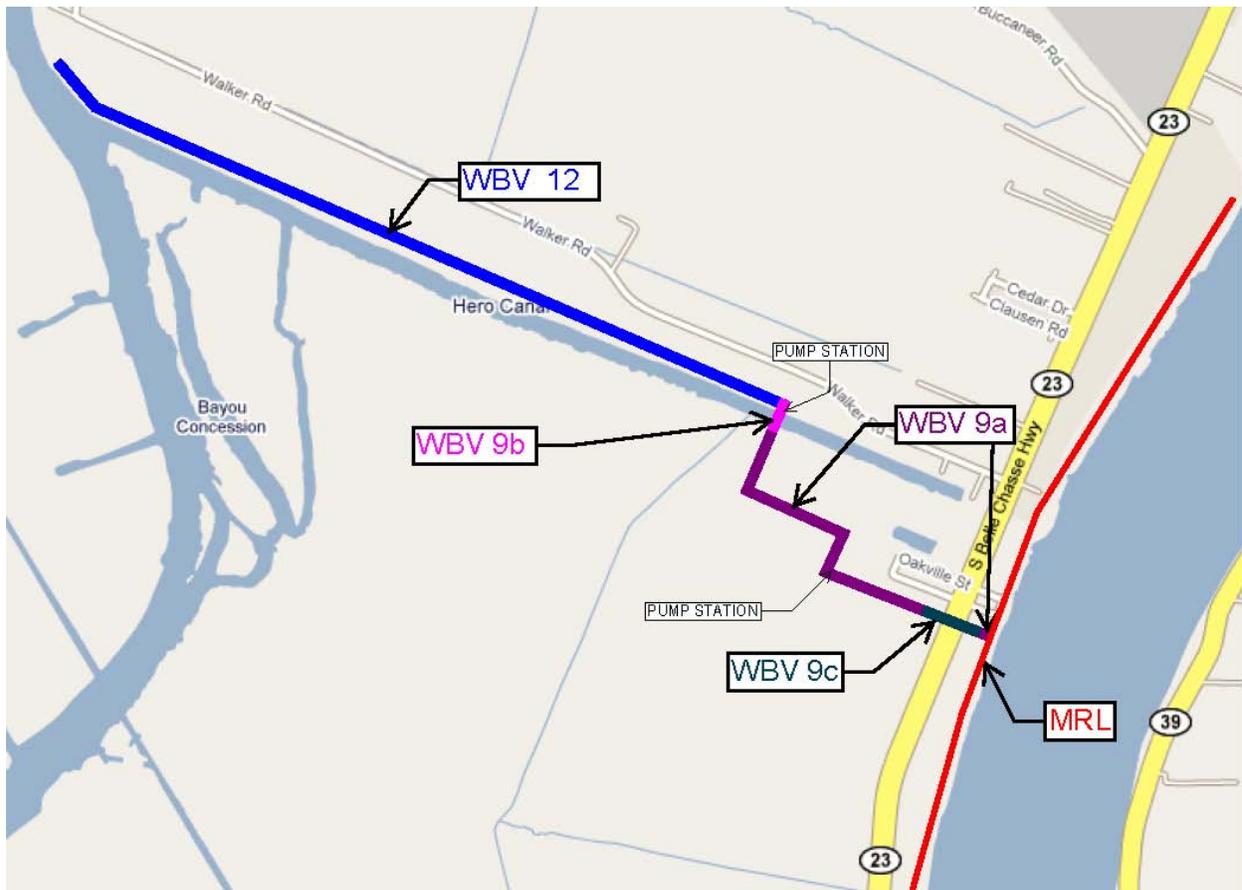


Figure 1. IER #13 Alignment Contract Numbers and Proposed Pump Station Locations

Modifications to the proposed actions for WBV 12, WBV 9a, 9b, and 9c are detailed here. Section 4 provides additional discussion concerning the proposed action for WBV 9c. The remainder of the proposed action alignment, except for the stated modifications, remains as described in the draft IER #13.

WBV 12 Modifications:

- Proposed changes to the project footprint have been made to allow for additional temporary work areas, staging, turnaround, and transportation of project materials. Appendix D details the additional right-of-way (ROW) required. The additional proposed work areas, staging turnarounds, etc would have minimal impacts to the human environment

WBV 9a Modifications:

- The outflow from the proposed 150 cubic feet per second (cfs) pump station in Oakville would be directed to the flood side of the levee system instead of south into the Ollie Drainage Canal as discussed in the draft IER #13 document, Section 2.3. This pump would be primarily utilized during a tropical storm event and for routine maintenance. Day to day stormwater flows would still be directed through an approximately 120 cfs 4ft x 4ft box culvert drainage structure to the Ollie Drainage Canal.

Because gravity drainage into the Ollie Canal through the culvert would not be possible during a surge event, as the box culvert would be closed, the pump station would be used to pump interior stormwater drainage from the Oakville area into the cypress swamp. Depending on the water level in the cypress swamp, the depth of water in the cypress swamp may increase when the pumps are operated. The increase in water depth in the swamp due to the pumping of interior water into the swamp would be greater at the pump discharge location and would decrease to a negligible depth as the water flows west and spreads out over a wider area. Flowage easements would be required, totaling approximately 67.2 acres. The flowage easement would border the Ollie Levee on the south side, the Hero Canal on the North side, the proposed Oakville Levee on the east side, and the projected north-south leg of the Ollie Canal on the west side (See Appendix D). The redirection of this discharge during a tropical event would have minimal impacts to the human environment.

WBV 9b Modifications:

The dredged material from Hero Canal would be deposited at the All-Terrain Vehicle (ATV) Park development on Walker Road if no other nearer suitable sites are identified. Two recent Phase II studies of canal sediments in Algiers and Hero Canals have both concluded that the level of contamination in the canals is too low for any regulatory concerns.

WBV 9c Modifications:

- Redesign of the proposed Hwy 23 crossing provides for wider gates and out of sight storage of the gates to the greatest extent possible. To cross Hwy 23, two approximately 55 ft wide steel swing gates would be constructed to match the adjacent wall at El.14 with the northbound gate storing parallel to Hwy 23 and the southbound gate storing parallel to the floodwall on the western side of Hwy 23 (Figure 2). Mechanical operation of the northbound swing gate would enable closure in high winds. This option allows more flexibility in the timing of closing down lanes of traffic during emergency evacuation situations. Approximately 175 LF of guardrail would parallel the Hwy 23 southbound side of the Hwy along the outside side of the shoulder beginning approximately 80 ft north of the alignment in Captain Larry's parking lot and terminating approximately 95 ft south of the proposed alignment. Approximately 200 LF of guardrail would parallel the Hwy 23 northbound side

of the Hwy along the outside of the shoulder beginning approximately 150 ft south of the alignment and terminating approximately 50 ft north of the alignment. A removable center column to which the swing gates would latch and close excludes the need for guardrail in the Hwy 23 median. To cross the railroad tracks that are located parallel to the eastern side of Hwy 23, a swing gate built to El. 14 would be constructed. The railroad swing gate would store parallel to the wall on the eastern side of the railroad tracks. Figure 1 shows the configuration of the Hwy gates and railroad gates in open and closed position.

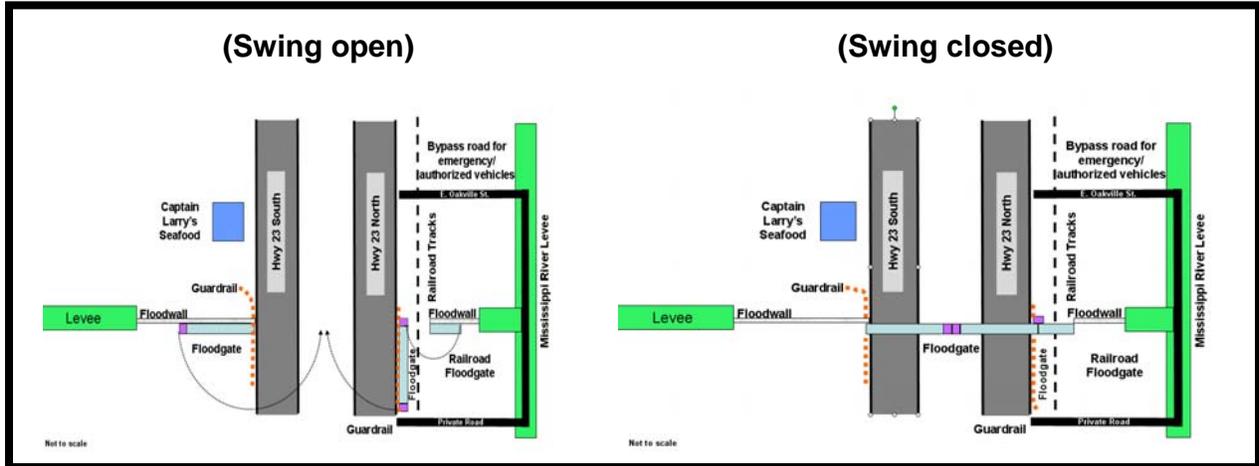


Figure 2. Swing Gates

In addition to addressing substantive comments, this draft IER #13 Addendum provides additional information that was used when evaluating the alternatives presented in the draft IER #13. This includes clarifications and inclusions of hydraulic and engineering information.

Clarifications for Draft IER # 13 Content

Socioeconomics

The Socioeconomic portion of the draft IER #13 contained a section (3.3.2) on the indirect impacts of the no action alternative to employment, business, and industry. The paragraph below clarifies the statements made in that section.

Under the no action alternative, the West Bank and Vicinity Hurricane Protection Project authorized in 1996 would be constructed. However, the height of the levees would be lower than those under the proposed action. Consequently, the levees would not be built to the elevations required for accreditation at the 1 percent exceedence levels as defined by the National Flood Insurance Program (NFIP). The Flood Insurance Administration (FIA) would take this into account during the updating of Flood Insurance Rate Maps (FIRMs) for the affected area. The existing actual flood risk in the Belle Chasse polder is higher than the risk under the proposed action. The existing higher risk of future flood damages in the Belle Chasse polder could

discourage commercial development in the area and, for more severe events or with repetitive flooding, lead to the permanent displacement of business and industrial properties.

The area of Plaquemines Parish south of the Belle Chasse polder is currently classified as a special flood hazard area by the FIA. The preliminary digital flood insurance rate maps that were released in January 2009 show a change in Advisory Base Flood Elevation compared to the original FIRMs prepared in 1985. Coincident with this project, the CEMVN has been authorized and funded to incorporate the existing Plaquemines Parish non-Federal Levees extending from Oakville to St. Jude into the NOV. As a result of rehabilitating and raising these levees to Federal standards, the communities within that alignment are expected to have a higher level of risk reduction in the future than currently exists.

The area south of the WBV proposed action in Plaquemines Parish has developed since the original 1996 Congressional authorization. Risk reduction for the communities located in Plaquemines Parish south of the proposed action will be discussed in the socioeconomic analysis contained in the New Orleans to Venice Supplemental Environmental Impact Statement (NFL SEIS) currently being prepared by the USACE for incorporation of the existing Plaquemines Parish non-Federal Levees into the NOV project. The NFL SEIS should not be confused with the NOV SEIS which is being prepared to complete the existing NOV levee system. Parties who wish to be notified of NFL SEIS availability should sign up for notifications on www.nolaenvironmental.gov by submitting a comment stating such or by contacting the CEMVN directly.

Terminology

In Section 3.1.2.2 of the draft IER #13 document, the word “adjacent” was utilized to describe the area to the south of the proposed action. The intent of the word was to describe the area that directly abuts the proposed project area (i.e. the Perez property). Draft IER #13 did not contain a detailed description or socioeconomic analysis of the areas further than one mile south of the proposed levee area because those areas are outside of the authorized WBV project area. The supplemental funding authorizations directed the CEMVN to complete the construction of the authorized projects and to upgrade the projects to meet the new 1 percent annual chance of exceedence storm surge levels established by the Federal Emergency Management Agency (FEMA). That authorization did not provide funding or authorization for an update or reevaluation of the authorized project boundaries. Specific Congressional authorization and appropriations would be required for a re-evaluation of the WBV project boundaries.

The use of the term Belle Chasse or the Belle Chasse polder (Figure 3) in draft IER #13 and/or this Addendum refers to an area that is bounded by the Mississippi River to the north and east, Hero Canal to the south, and the Algiers Canal to the west. The USACE acknowledges that residents outside of the Belle Chasse polder receive U.S. Postal Service mail via the Belle Chasse, Louisiana post office. The boundaries of the U.S. Postal Service districts and HSDRRS polders do not coincide.

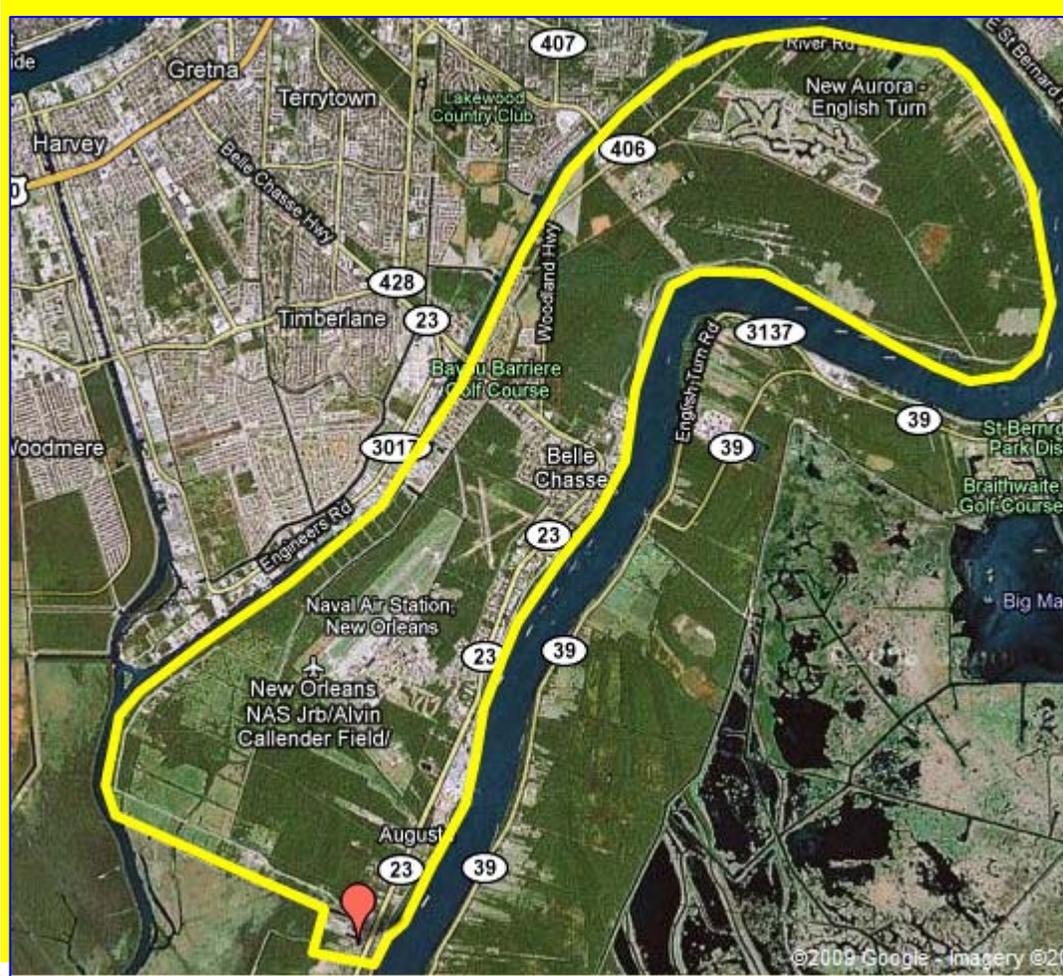


Figure 3. Belle Chasse Polder (Pink Balloon at Oakville)

Risk Reduction Projects South of the Proposed Action

Figure 4 shows the existing Plaquemines Parish non-Federal Levees and existing NOV project alignments south of the WBV proposed action. Communities south of the Belle Chasse polder are currently subjected to a high risk of flooding due to the condition of the existing Plaquemines Parish non-Federal Levees. The current levee elevations of approximately El. 5 to El. 7 in the Oakville to La Reussite segment provide risk reduction for approximately a 4% to 10% annual chance of exceedence surge level event (10 to 25 year surge event/return period). Interim flood fight measures taken by the parish have reduced that risk to some degree but these measures would likely be ineffective for 1% annual chance of exceedence surge and wave levels.

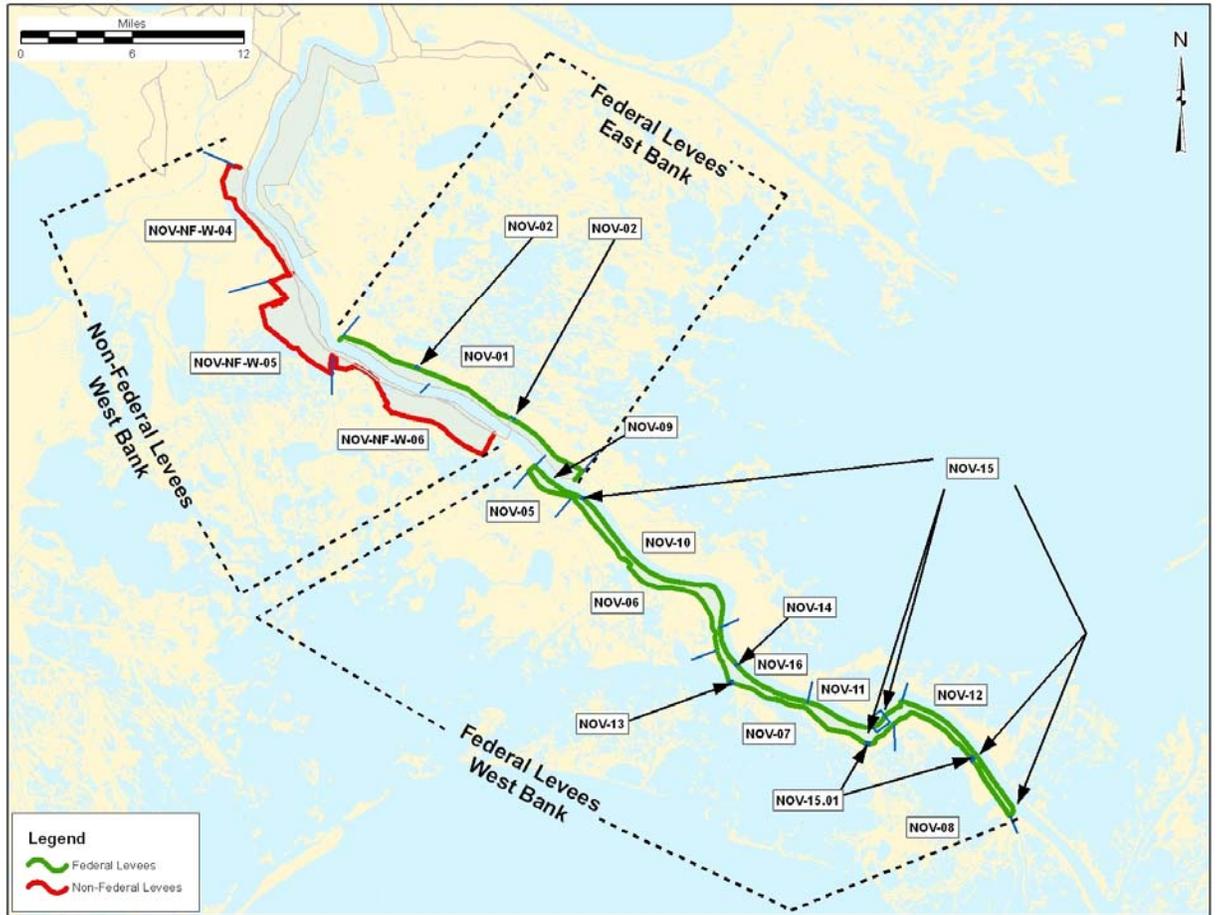


Figure 4. Existing Plaquemines Parish Non-Federal Levee Alignment on the West Bank and existing NOV Project

The higher level of risk for areas south of the proposed action is evident from a review of the Advisory Base Flood Elevation (ABFE) as established by FEMA for the Oakville to La Reussite communities. ABFEs are based upon current conditions. With or without WBV modifications, advisory maps show ABFEs in the range of El. 8 within the subject communities.

For example, in the Oakville to La Reussite area (see Figure 5), the 2%, 1%, and 0.2% annual chance of exceedence storm surge levels from the west are approximately El. 6, El. 8 and El. 12 respectively; whereas the existing levee crest is only in the elevation El. 5 to El. 7 range. In addition, tropical events produce waves on top of storm surge. Interim flood fight measures taken by Plaquemines Parish have reduced that risk to some degree, but these measures would likely be ineffective for a 1 percent exceedence surge event. Along this segment of levee, preliminary analysis indicates a levee elevation of El. 10.5 – El. 12.5 , with 4V:1H levee slopes, would be required to provide levels of risk reduction for the 1 percent exceedence surge event and to meet hydraulic design requirements for certification criteria under the National Flood Insurance Program.

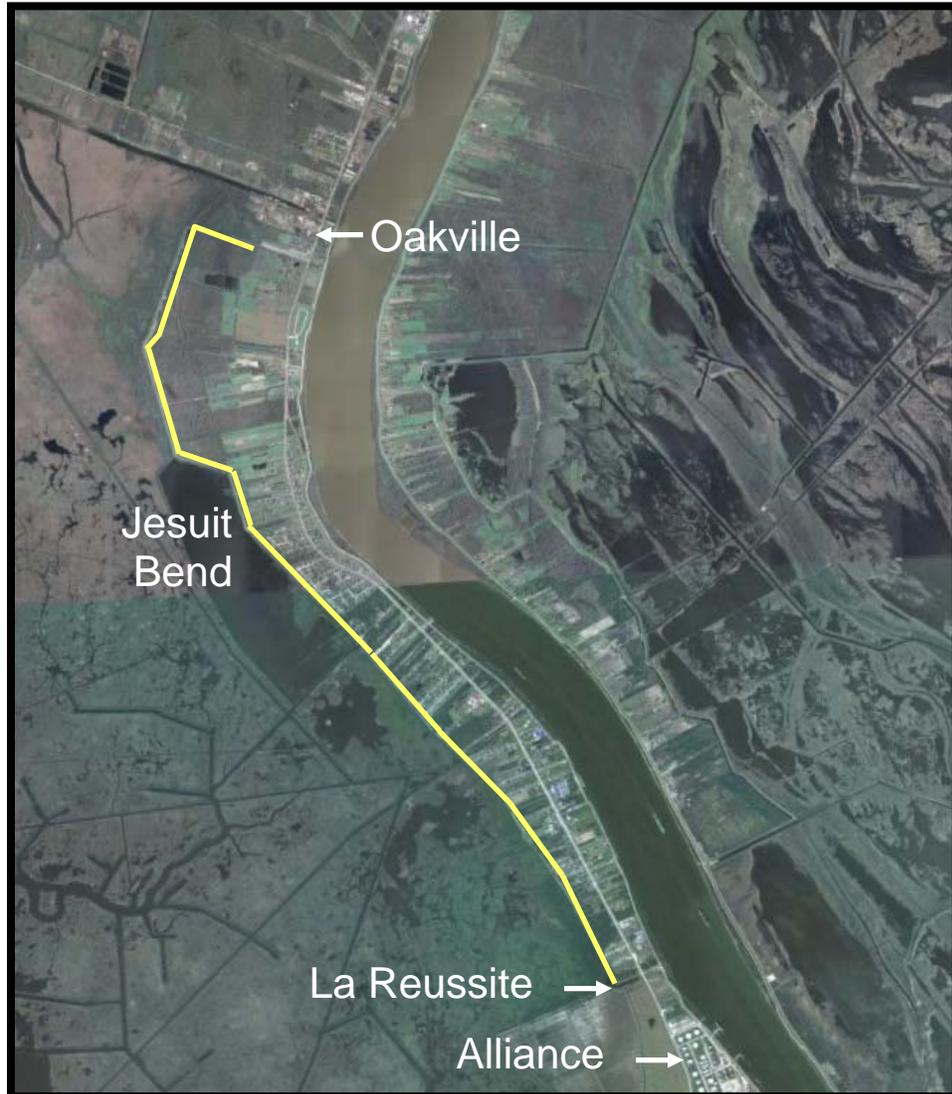


Figure 5. Oakville to La Reussite Portion of the Existing Plaquemines Parish Non-Federal Levee

The relatively small area east of the existing Plaquemines Parish non-Federal Levee and the exposure of a long levee length allow for wave overtopping to fill the polders within a few hours when surge levels are still below the levee crest. Steady overflow which occurs when surge levels exceed the levee crest elevation can fill the polder even faster, within tens of minutes depending upon surge levels. The rates of overtopping from a 1% annual chance of exceedence surge level event are greatly in excess of the accepted HSDRRS design guidelines, and the existing Plaquemines Parish non-Federal Levees are susceptible to breaching under these types of overtopping conditions.

Any increase in levee crest elevation reduces the risk of overtopping that may occur due to a surge event. Hydraulic modeling done to determine the necessary levee elevation is not complete at this time; but, preliminary analysis indicates raising the existing Plaquemines Parish non-Federal Levee to approximately El. 9 would meet current authorized elevations in the northern end when the WBV HSDRRS is in place. These existing Plaquemines Parish non-Federal Levees, when Federalized, are expected to provide risk reduction approaching approximately a 2 percent annual chance of exceedence surge elevation and associated waves (50-year return period). For a 2 percent annual chance of exceedence surge level, there is a 78% chance that such a storm surge will be exceeded once in a person's lifetime (lifetime assumed to be 75 years).

Other Levee Projects

Concurrent with the WBV Eastern Tie-in project, the CEMVN is pursuing a project to incorporate 32 miles of existing Plaquemines Parish non-Federal Levees, and construct 2 miles from the ground up, into the NOV. The CEMVN has authorization and appropriations to complete this project. As a part of the ongoing environmental compliance process, the CEMVN is prepared to evaluate a Locally Preferred Plan (LPP) at the request of the State of Louisiana, Office of Coastal Protection and Restoration that could result in the existing Plaquemines Parish non-Federal Levees in the northern area of the NFL project area to be raised to an elevation that would meet the design elevation sufficient to meet 1 percent annual chance of exceedence surge standards. Construction of this project with or without inclusion of an LPP could substantially reduce the risk of property damage below Oakville. Appropriate engineering and environmental compliance analysis will be undertaken as necessary when LPP alternatives have been identified.

Updated technical analyses and more sophisticated examination of the Mississippi River Levee system has revealed additional system improvements are required to complete the HSDRRS for 100-year risk reduction (1 percent annual chance of exceedence risk reduction). The figures provided show the location (Figure 6) and extent (Figure 7) of the anticipated improvements.

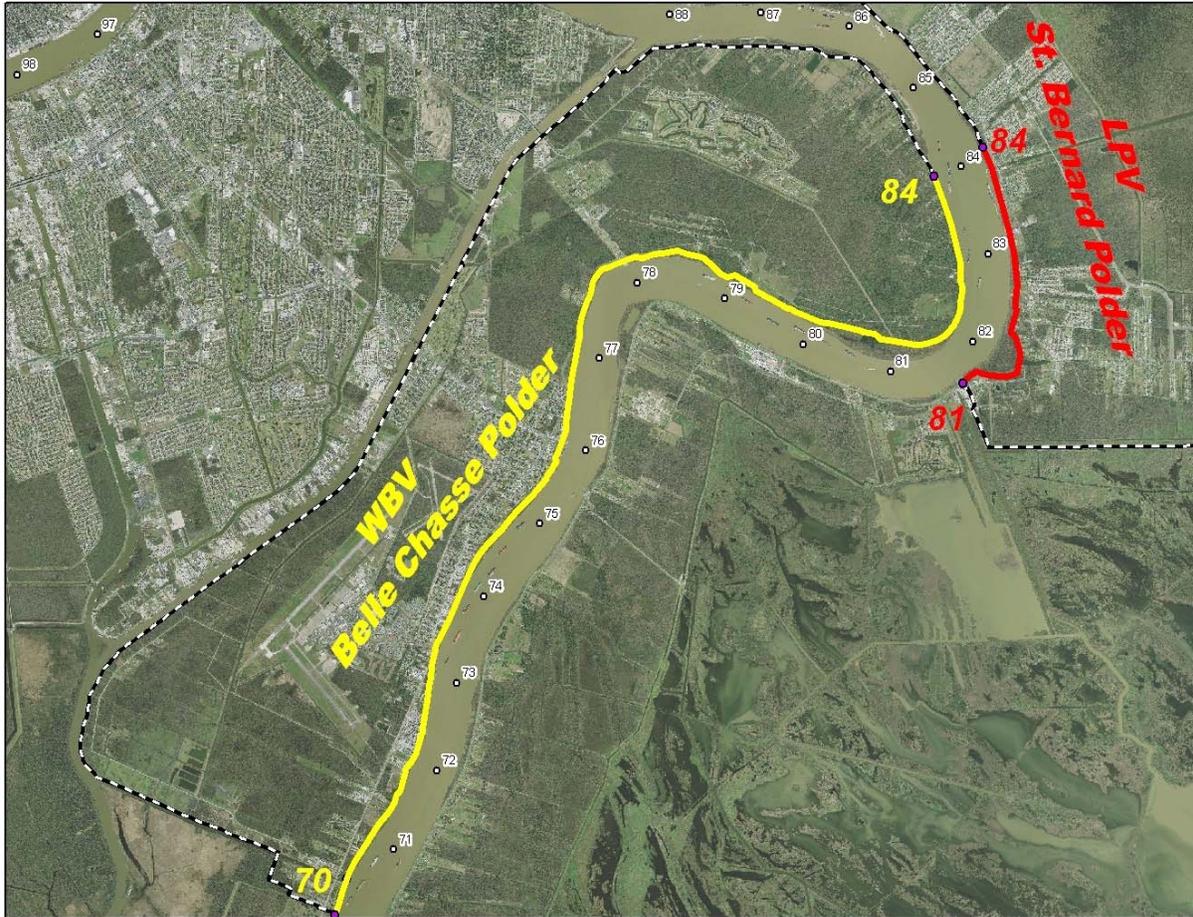


Figure 6. Proposed Work Area on MRL in Belle Chasse and St. Bernard Polders
(Oakville is at river mile marker 70, and river mile marker numbers are approximate)

Applying this new information means that improvements (upsized earthen or T-wall levees) are required to portions of the MRL that are co-located with the HSDRRS system:

- 14 miles of Mississippi River Levee on the west bank within the West Bank & Vicinity system, at the lower end of the Belle Chasse polder with a required increase in existing levee elevations of 3.5 feet at mile 70, diminishing to no increase needed at mile 84.
- 3 miles of Mississippi River Levee on the east bank within the Lake Pontchartrain & Vicinity (LPV) system at the lower end of the St. Bernard polder, with a required increase in existing levee elevations of about 0.5 feet.

Design Considerations

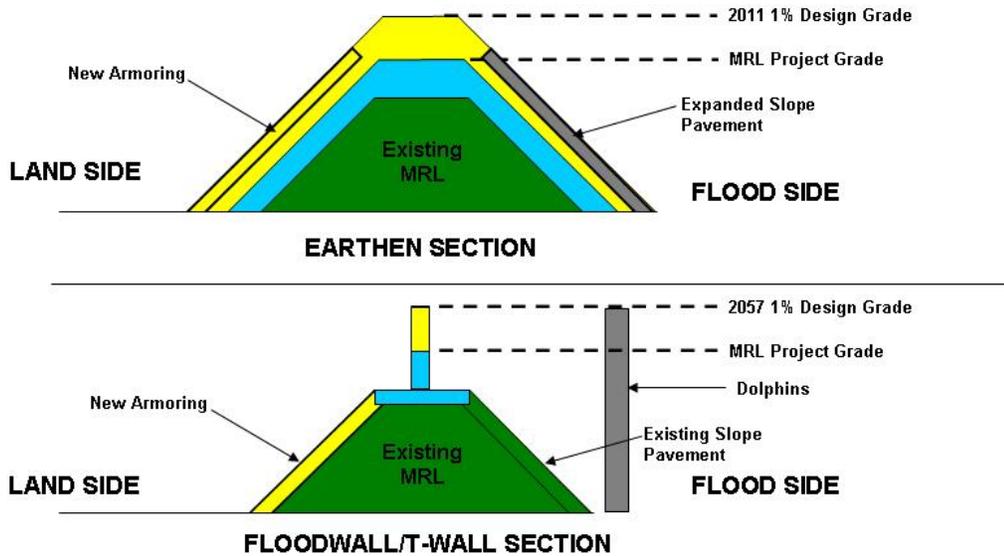


Figure 7. Potential MRL Design Considerations/Upsizing Requirements

The USACE will perform the necessary engineering and environmental analyses in the coming months to determine required designs. The USACE continues to be committed to provide a 100-year system for the Belle Chasse polder by June 2011 through a combination of engineered advanced measures and permanent measures.

Section 3 Response to Substantive Comments

The New Orleans District Commander determined that three comments received during the draft IER #13 public comment period were substantive. The comments and responses issues are included in this section.

Substantive Comment 1a: Is there an increased risk of flooding to the areas south of the WBV Belle Chasse polder associated with increased storm surge as a result of constructing the West Bank and Vicinity Project, including the portion described in draft IER #13?

For purposes of this analysis, the construction of the proposed action is defined as the incremental elevations above the previously authorized WBV project features. Analyses indicate that the WBV project may slightly increase the 1 percent annual chance-of-occurrence storm surge levels south of Oakville, by amounts of up to a few tenths of foot (i.e., up to several inches). The general trend is for the WBV storm surge increase to decrease the further distance south of the WBV projects one is. Differences south of Myrtle Grove/Alliance area are negligible. The small increased risk of flooding due to wave overtopping, which is attributable to the WBV project, exists primarily for lesser surge events, where the surge level is well below the top of the levee. In light of the low levee crest elevations, 5 to 7 ft, higher surge levels such as the 1 percent exceedence event surge level events can overwhelm the existing Plaquemines Parish non-Federal Levee system and completely flood the interior polder, regardless of any added increase in surge levels induced by the WBV project.

The West Closure Complex (WCC) gate component of the proposed hurricane and storm damage reduction system prevents surge from entering the Harvey and Algiers canals. The volume of water that is prevented from entering the canals remains outside the levee/gate system in the vicinity of the gate, thereby locally increasing water levels by a small amount. As a hurricane center moves through the region, winds shift; as they do and winds blow from the west, this small added volume of water can be pushed toward the east against the existing Plaquemines Parish non-Federal Levees south of Oakville, causing a slight increase there as well. The exact amount of the increase varies depending upon location. For example, areas where the levee alignment has a corner that naturally forms a pocket in which water can accumulate, the increase will be greater than in areas where the levee is straight and without such pockets. Increases also depend upon the characteristics of the hurricane (track, intensity, size, forward speed).

Results of storm surge model runs with and without the WBV proposed action in place indicate the local differences in peak surge to be in the range of -0.6 ft to 0.9 ft in the immediate vicinity of Oakville to La Reussite, for the set of storms that was simulated. The difference in peak surge diminishes to 0 to 0.1 ft. approximately 8 miles south of Oakville. Differences south of Myrtle Grove/Alliance are negligible. Results of an analysis of wave modeling with and without the WBV proposed action in place indicate wave heights can vary between -0.2 and 0.4 ft

All waters discharged into the Harvey and Algiers canals flows south out of the area via the Gulf Intracoastal Waterway (GIWW) into the Baratavia Basin. The WCC includes a pump station

designed to discharge 20,000 cfs and utilizes the Algiers and Harvey Canals as a detention basin. The construction of the WCC pump station does not increase the volume of stormwater discharge to the area south of the GIWW.

The small increased risk of storm surge impacting communities within the existing Plaquemines Parish non-Federal Levee system is being considered in setting the design elevation of the levees which are to be raised under authorization of the NOV project. The assessments described above remain the same with or without a flood gate or ramp constructed across Hwy 23 in Oakville.

Substantive Comment 1b: Is there an increased risk of flooding to the areas south of the WBV Belle Chasse polder associated with increased storm surge as a result of constructing a floodgate across Hwy 23 as proposed in draft IER #13?

A structure (floodgate or ramp) constructed at Hwy 23 does not induce flooding in the area south of the Belle Chasse polder during tropical events or rain events. Interior flood waters south of the Belle Chasse polder would need to reach elevation 5 ft before any water could flow north into the Belle Chasse polder based upon current land elevations at Hwy 23 in Oakville. Since the existing Plaquemines Parish non-Federal Levees have crest elevations of 5 to 7 ft, it is likely that a significant amount of interior flooding in the Oakville to La Reussite polder would occur during greater surge and wave events, such as a 1 percent annual chance of exceedence event, due to wave overtopping and perhaps steady flow over the existing Plaquemines Parish non-Federal Levee. If the gate structure were not in place, flood water due to overtopping and breaching of the existing Plaquemines Parish non-Federal Levee could flow north, into the Belle Chasse polder, but at a flow rate that is much less than the water entering the area through and over the existing Plaquemines Parish non-Federal Levee. Model results shows this process occurs for large events that completely overwhelm and flood the polder behind the existing Plaquemines Parish non-Federal Levee. With a structure in place, the water overtopping the existing Plaquemines Parish non-Federal Levees would not flow north into the Belle Chasse polder. However, with or without a structure in place, the Oakville to La Reussite polder is overwhelmed and fills to capacity.

Substantive Comment 2: What is the impact to interior drainage (including rainfall runoff) in the areas south of the proposed Hwy. 23 floodgate (e.g., Ollie Canal and Pumping Station) as a result of the draft IER #13 proposed action?

As stated previously, the proposed Hwy 23 floodgate would have no impact on the drainage in the interior of Oakville or the area south of the floodgate. Additionally, gravity drainage into Ollie Canal would only occur during non-tropical rainfall events. The proposed 150 cfs pump station would direct rainwater to the floodside of the system during tropical events, thus lessening the volume of water currently flowing to Ollie Canal during a tropical event. There are three key changes to the drainage situation that were analyzed by industry standard hydraulic analysis methods that determine the effects of the proposed action. The three key changes are listed and explained below:

- **Runoff in the Interior of Oakville:** An analysis of the drainage area that would be captured by the proposed levee and floodgate shows that up to 5 cubic feet per second (cfs) of flow would be added to the interior runoff discharge in Oakville (Figure 8). This is a result of redirecting rain water accumulated between Hwy 23 and the Mississippi River Levee to the outfall drainage structure located in the southeast corner of the project area. This is an insignificant increase when compared to the peak internal drainage flow of about 240 cfs from a 10 percent annual chance of exceedence rain event.

EASTERN TIE-IN: OAKVILLE EXISTING DRAINAGE

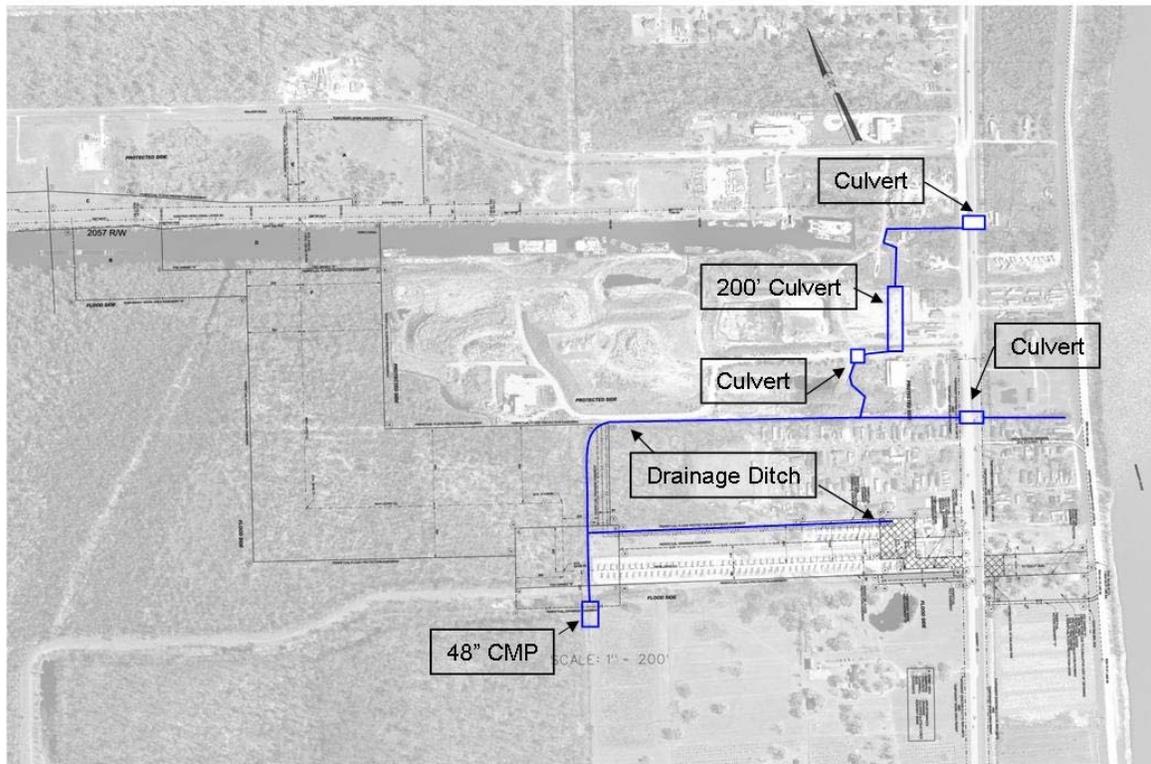


Figure 8. Existing Interior Drainage in the Vicinity of Oakville

- **Increase in Gravity Drain Flow (effects on the interior of Oakville):** The existing 48 inch corrugated metal pipe located on the southern side of the project area can carry about 95 cfs for the design storm. The proposed 4 ft x 4 ft box culvert can carry 120 cfs for the same storm (Figure 9). For the interior of Oakville, this means that no additional ponding would occur as a result of the replaced gravity drain. The peak stage in the Oakville area for the 10 percent annual change of exceedence event would be lowered by less than 1/10 of a foot as a result of this proposed change.

- Increase in Gravity Drain Flow (to Ollie Canal and the Ollie Pump Station): The flow increase through the proposed gravity drain (when compared to the existing pipe) would have a negligible effect on the area exterior of Oakville, which drains through Ollie Canal to the Ollie Pump Station. Although the peak rain water flow through the gravity drain increases by 25 cfs, the Ollie Pump Station is designed to handle a much greater flow, and therefore, the stage in the canal is estimated to only increase a minor 1/100 of a foot. Plaquemines Parish has indicated that the Ollie Canal Pump Station as designed can accommodate up to a 50 percent annual chance of exceedence rain event.

EASTERN TIE-IN: OAKVILLE PROPOSED DRAINAGE

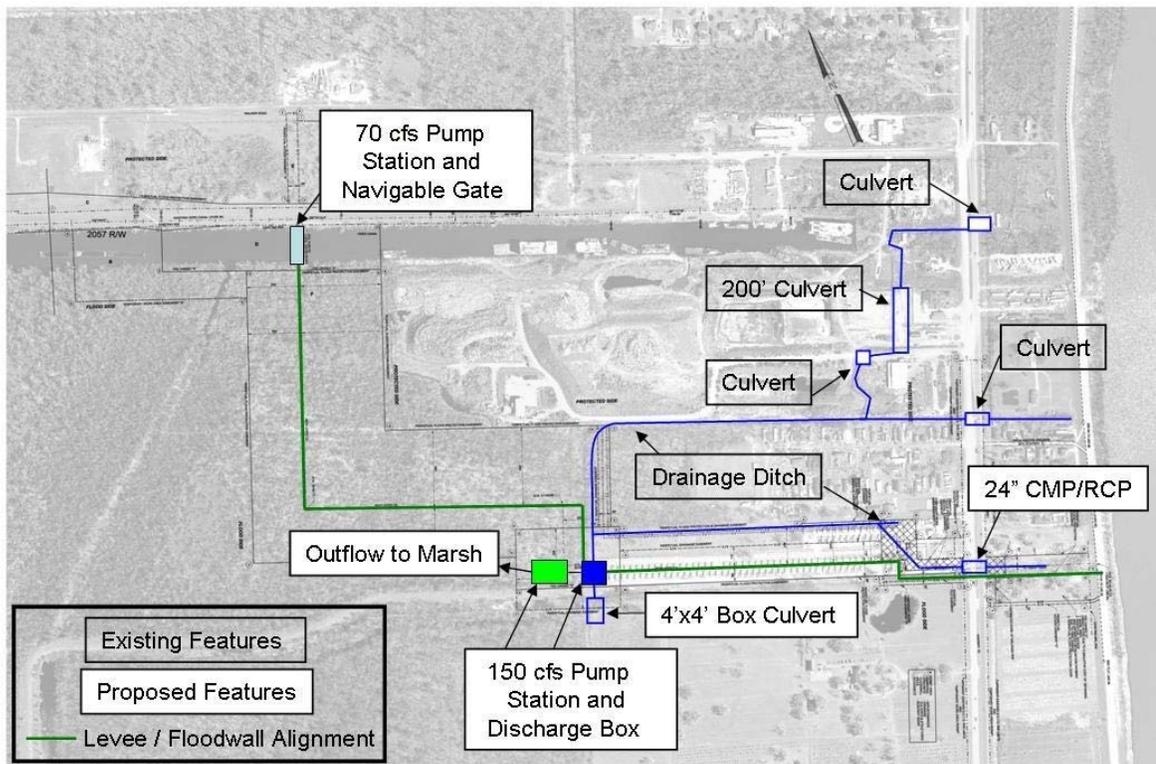


Figure 9. Proposed Interior Drainage in the Vicinity of Oakville

Substantive Comment 3: How will the draft IER #13 proposed action affect property values and flood insurance prices south of the WBV Belle Chasse polder?

Property values in Plaquemines Parish south of Oakville would not be adversely affected solely due to the addition of a gated structure to the WBV project. In contrast, the WBV project in its entirety, insofar as it lowers flood risk, would tend to increase property values on the protected side and place these properties at a competitive advantage in the real estate market over those south of Oakville. Therefore, on a relative basis of perception, the WBV project when viewed as

a whole could be expected to affect property values south of Oakville, as would occur in other developed areas that lie beyond the alignment. Further, since neither the proposed Hwy 23 structure nor the WBV project is expected to significantly increase flood risk in the area south of Plaquemines, no adverse consequences to property values are expected as it relates to actual changes in flood risk.

More than creating a negative aesthetic impact, a gated structure could indeed heighten the awareness of both buyers and sellers of the fact that communities south of Oakville are located outside of the WBV project area. If the gated structure serves to simply remind those who are already aware of the different levels of risk reduction on either side of the alignment, however onerous that reminder is, then there is little basis to conclude that the willingness to buy or sell property at a given price will significantly change. However, if the gated structure serves to inform those who are not at all aware that there are, or will be, different levels of risk reduction on either side of the alignment, then there is indeed a basis to conclude that property values may change. In this case, the visible gated structure informs more participants in the real estate market and their willingness to buy and sell at given prices adjusts to reflect this information. The degree to which property values would change to account for this effect depends upon the proportion of those future participants in the real estate market that are unaware of the relative flood risks within Plaquemines Parish or the west bank. While no customized surveys are available that specifically targets this question, it is unlikely, given the amount of public exposure on the topic of coastal flooding in Plaquemines Parish, that a significant portion of individuals who enter the real estate market in this area are lacking for information relative to flood risk. It is important to note that irrespective of any impacts associated with a visible gated structure, the contemporaneous incorporation into the Federal system of the existing Plaquemines Parish non-Federal Levees extending from Oakville to St. Jude would effectively reduce flood risk to the area and, consequently, could increase property values.

National flood insurance will continue to be available regardless of the actions of the CEMVN. Unlike homeowners insurance that covers damages through wind and fire, flood insurance is available only through the Federal government through the National Flood Insurance Program. The NFIP is administered by the Flood Insurance Administration, an agency of Federal Emergency Management Agency. Plaquemines Parish joined the National Flood Insurance Program in 1985. As long as the parish enforces flood plain management ordinances established by the program, no one in the parish will ever be refused a flood insurance policy.

Flood insurance premiums (or rates) are published every year by the FIA. Rates often change annually, and can do so simply because the overall cost to cover future claims is expected to increase, not because flood risk itself necessarily increases. However, the FIA periodically conducts flood studies for a community to determine changes in flood risk as expressed through the advisory base flood elevation which corresponds to the flood stage with a one percent annual chance of occurrence, that is, the 100-year flood. Flood risk may increase over time due to natural processes, such as relative sea level rise, subsidence, and changes in the frequency and intensity of storms. Flood risk may decrease due to mitigation measures taken by local, state, and Federal agencies such as the construction of levees, improvement of drainage (including pump stations) or creating water storage areas in more remote areas.

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The proposed WBV project would not significantly increase flood stages or flood risk within the existing Plaquemines Parish non-Federal Levee system south of the proposed action. As stated previously, the ABFEs are in the range of 8 ft within the subject communities. ABFEs would not be expected to change unless the risks to the area were significantly reduced.

Section 4 Alternative Evaluation

The proposed action as described in draft IER #13 involved a floodgate crossing for Hwy 23. The USACE held public meetings on April 29, 2009 and May 4, 2009 where some residents south of the system objected to a floodgate crossing, primarily because of perceived socioeconomic concerns such as a negative visual division of the parish, property value decrease, and flood insurance increase. Property value and flood insurance impacts from the construction of a floodgate were analyzed by subject matter experts and not expected to be adverse. The District Commander directed staff to look for options to minimize the visual impact of the barrier. Additionally, LaDOTD voiced concerns with the construction of a floodgate at Hwy 23 (see Appendix B). During the time that additional analysis was being done to answer the substantive comments received during the draft IER #13 comment period, the analysis of structures for crossing Hwy 23 was refined. Several alternatives for various types of closures were considered. All feature lengths are approximate at this point in the design process.

Alternatives Eliminated from Further Consideration

Transition Levees

The transition levees alternative would require that the WBV levees be extended south to create a pocket where potential flood waters would be reduced to the point that a 1 percent annual chance of exceedence surge level would not create flooding into the Belle Chasse polder. Analysis showed that the transition levees would need to be extended to at least La Reussite. Transition levees were not a better engineering or lesser cost solution than a structure at Hwy 23. Additionally, transition levees were found to be an impractical solution and eliminated because an open system could not be accredited for 1 percent exceedence risk reduction.

Ramp South of Oakville

Moving the ramp south of Oakville several thousand feet was considered to eliminate the potential impacts to the adjacent properties just south of Oakville. It was determined that this option was not a practicable alternative due to additional levee improvements needed, the resulting human and natural environmental impacts, increased costs, and delays in design and construction.

Ramp at Oakville

During a field trip on June 26, 2009 with CEMVN, Coastal Protection and Restoration Authority (CPRA), LaDOTD, and Plaquemines Parish personnel the ramp option at Oakville was discussed as a possible way to mitigate some concerns with floodgates. LaDOTD supported that option by offering design exceptions, such as not requiring guard rails on the elevated portion of the ramp to make the ramp at Oakville alternative feasible within the available project footprint. The evaluation criteria considered during the planning process revealed several adverse impacts associated with building an earthen ramp alone.

An earthen ramp alone could not provide the required elevations required to achieve 1 percent exceedence event risk reduction for a 50 year period of analysis. Analysis showed that the maximum elevation the road could be raised to is El. 11.5. Based upon this analysis, a floodgate

structure would be required to be constructed across the ramp in approximately ten years due to subsidence and projected sea level rise to provide for continued accreditation of the WBV project. Although LaDOTD has stated a preference for ramps and bridges over gates, neither of those two alternatives is feasible from a constructability, community cohesion, or financial standpoint. There is not enough space to build a bridge or a ramp with the proper safety features due to the road's close proximity to the MRL, residential homes, and businesses, and the railroad without impacting residents or businesses. An earthen ramp in the Oakville area would also have negative impacts on community cohesion and pose public safety concerns within the Oakville community.

Alternatives to the Proposed Action

Four alternatives were developed for analysis, the ramp/floodgate, invisible floodwall, roller gate and swing gate. Design refinements were made after the May 4, 2009 public meeting, such as gate widths, removable center posts and guardrails lengths to address LaDOTD concerns and perceived aesthetic concerns by people living south of the proposed Hwy 23 crossing. The design for all alternatives includes a bypass road for emergency and authorized vehicles once the gates are closed.

Each of the floodgate alternatives requires a pile founded slab across the highway and grading of the highway surface to an approximate elevation of El. 6 to provide an even surface for the gate seals. The design elevation for all three gates crossing the highway is El. 14, and would be achieved at completion of construction in each case. All feature lengths are in linear feet and are approximate at this stage in the design process.

Combination Ramp and Floodgate

An earthen ramp and stoplog combination could provide risk reduction for the WBV Belle Chasse polder.

The earthen ramp would be constructed to a design elevation of approximately El. 11.5 by 2011 in order to meet the accreditation goal and would be raised to El. 14 by construction of a 2.5 ft stoplog gate at its crest. The earthen ramp would be approximately 1,400 feet long, have 4H:1V side slopes (3H:1V side slopes at its crest on the east side to accommodate the railroad tracks), with 8 ft wide outside shoulders, two 12 ft wide travel lanes in each direction (four lanes total), 2 ft wide inside shoulders, Jersey barriers separating northbound from southbound lanes, and would require sloped driveway extensions into Captain Larry's, Peters Road, and three residences (Figure 10).



Figure 10. Combination Ramp and Floodgate Alternative Rendering

A traditional T-wall structure would be constructed to tie into the earthen levee west of Captain Larry's and extend 450 ft east to the crest of the ramp. At the crest a 124 ft stoplog gate would be constructed across the travel lanes. The stoplog gate would tie into a concrete column which would provide a closure for the railroad swing gate as well. The railroad swing gate would extend 25 ft across the tracks and tie into 70 ft of T-wall floodwall. That floodwall would transition to the earthen levee portion of WBV 9a, which ties into the Mississippi River Levee.

All four lanes of Hwy 23 traffic would remain open for each hurricane season for approximately 10 years, when the stoplog floodwall would need to be installed.

The stoplog floodwall would be required to increase the level of risk reduction of the earthen ramp from El. 11.5 to the required El. 14. This proposed stoplog floodwall would block Hwy 23. The ramp and stoplog floodwall component are both needed to satisfy the 2057 design requirements. The stoplog component would consist of aluminum or steel tubular logs, approximately 8 ft to 12 ft long and approximately 6 inches to 12 inches high, spanning between removable wide-flanged steel or aluminum columns embedded in covered recesses in the sill plate and stacked to El. 14. It is projected that the construction of the stoplog would take 24 operator hours, calculated at 6 hours with 1 crew of 4 men. For operability, the stoplogs would need to be installed across most of Hwy 23, shutting down the evacuation route for southern Plaquemines Parish, at some advance time due to the labor-intensive efforts required and to assure installation crew safety due to wind speeds as hurricanes approach the area.

This alternative would require no guardrail on outside of travel lanes, but would require 1400 ft of Jersey barrier in between the southbound and northbound lanes.

There is the potential for issues with maintenance of the ramp approaches as settlement occurs during the life of the project, especially with the stoplog gate sill as a hard point at the crest. Additionally, stoplogs would need to be stored in a secured facility and installation could be onerous, with the potential for installation errors. The Jersey barriers would require traffic to pass up destinations located on the opposite side of Hwy 23. Drivers would need to make a U-turn at crossovers located beyond the barriers to each their destination. Another design concern would be the potential for growth in the construction duration due to the additional earthwork and the increased complexity of utility relocations that would need to be performed.

Invisible Floodwall

This alternative is a constructible stoplog (“invisible floodwall”) type closure structure across Hwy 23. The invisible floodwall would be assembled by the non-Federal sponsor (CPRA) to a design elevation of El. 14 when a storm event approaches the Louisiana coastline.

A traditional T-wall structure would be constructed to tie into the earthen levee west of Captain Larry’s and would extend 285 ft east where it would tie into the invisible floodwall portion of the alignment. The invisible floodwall would extend 175 ft east to the edge of the Hwy 23 southbound travel lane. The floodwall would extend 70 ft across Hwy 23. Another 95 ft of invisible floodwall would extend across the railroad tracks towards the MRL and tie into 30 ft of traditional T-wall. The T-wall would transition to an earthen levee and terminate at the MRL. The area where the invisible floodwall would be constructed would be graded to provide an even foundation for the floodwall. A pile founded sill plate with recesses and cover plates to support the columns would be constructed along the length of the invisible floodwall (Figure 11).

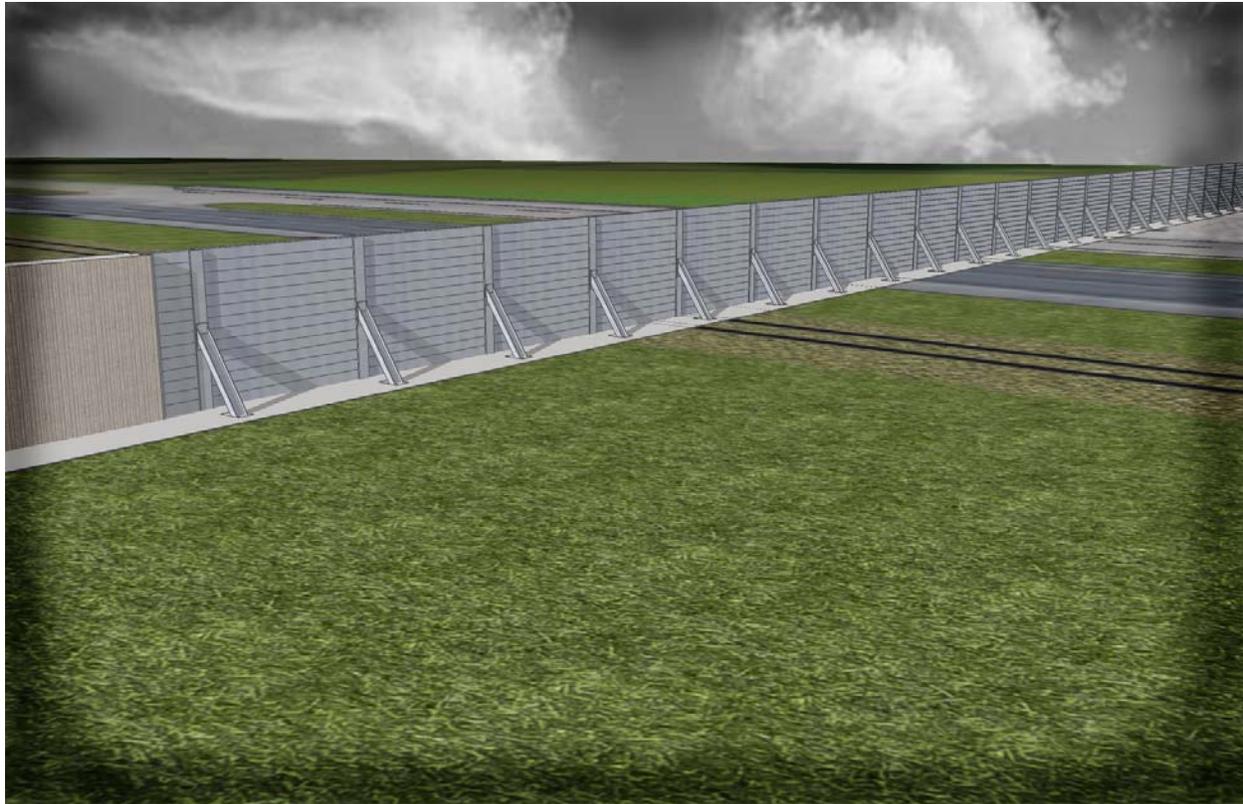


Figure 11. Invisible Floodwall Alternative Rendering (Southbound View)

The original concept for the invisible floodwall consisted of tubular aluminum stoplogs which were 12 ft long and weighed about 215 pounds each with 28 kicker supports on each side, and 28 removable posts/columns placed in the recesses in the pile founded slab below the removable roadway sill plate. It was estimated that 280 operator hours would be required to construct this design. An effort to reduce assembly time identified a revised design which uses 240 feet of single panel steel sections to be assembled to the highway travel lanes and 100 feet of the light weight aluminum stoplogs across the highway travel lanes. The steel sections would be longer and heavier requiring the use of heavy lift equipment, such as light-duty cranes and/or off-road forklifts, to assemble the stoplogs.

Prior to an event, placement of the steel panels would begin from the floodwall to the highway travel lanes. It is expected that a three operator crews could complete this task in two days for a total of 72 operator hours. Approximately thirty six hours prior to an event the southbound lane would be closed with the aluminum stoplogs. It is estimated the four sections would require 40 operator hours to assemble. Approximately eighteen hours prior to an event the northbound lanes would be closed with the aluminum stoplogs. Again, it is estimated the four sections would require 40 operator hours to assemble. The steel panel and aluminum stoplog design would require about 150 operator hours to close. The entire system must be secured to prevent vandalism or theft of the assembled components.

A permanent building, approximately 30 ft x 30 ft, would be constructed on the protected side of the system in the near vicinity of the closure and would serve as a secured storage building for the aluminum stoplogs, sections, and supports.

The benefit of this option is that it would reduce the perceived visual impact for travelers along the Hwy 23 corridor during daily travel when a storm event is not approaching. During non-storm events, exclusion of rigid obstructions within the Hwy profile on either side of the roadway, which would be required with the other gate alternatives, would minimize the potential for direct vehicular collisions with an obstruction and minimize the potential maintenance required for guardrails as well as many of the visual impacts of the steel swing or roller gate alternatives.

The invisible floodwall structure would require installation well in advance of a hurricane due to labor-intensive efforts required for assembly and a larger potential for installation errors would exist. This would be the first storm surge floodwall of its kind and this alternative has the greatest potential for theft.

Roller Gate

The roller gate alternative would begin at the earthen levee west of Captain Larry’s. 450 ft of El. 14 traditional T-wall that would be constructed eastward and terminate 40 feet west of the Hwy 23 southbound travel lanes. Two 65 ft roller gates would be stored on the flood side of the T-wall, and when closed would extend across Hwy 23 and tie into a permanent storage column 24 feet west of the northbound travel lane. A 25 ft swing gate would be constructed to cross the railroad tracks and tie into 70 ft of traditional T-wall. The T-wall would transition to the earthen levee which would tie into the MRL (Figure 12).

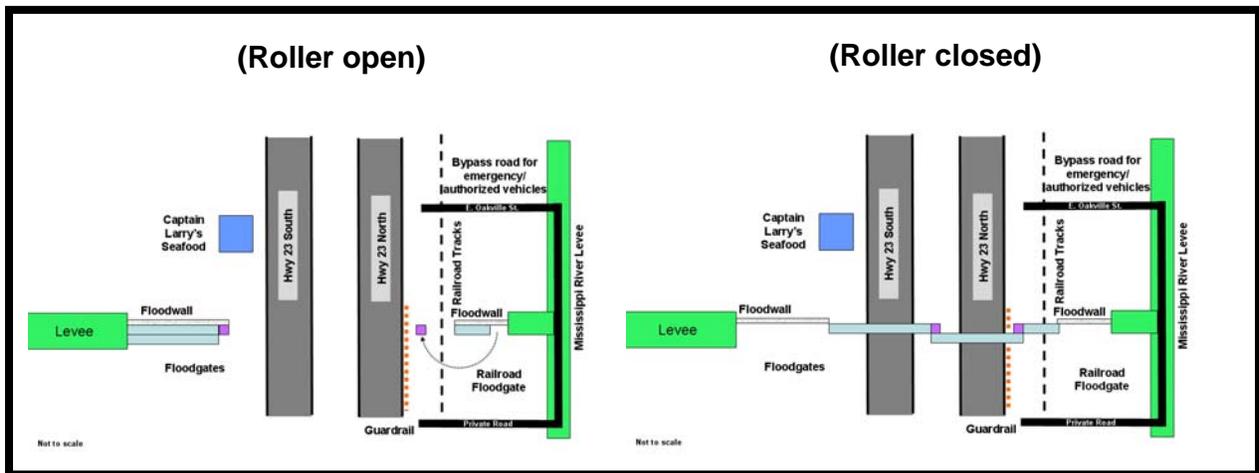


Figure 12. Roller Gate Alternative Diagram

The steel gates would roll from the west side of Hwy 23 on a track to the east side of the highway. The gates would be built to a design elevation of El. 14, highway sill at El. 6. The roller gates could be closed by 2 people with a winch in less than four hours. This design allows

the flexibility to close the gate within a safe timeframe to allow the only Plaquemines Parish evacuation route to stay open longer and still ensure operator safety as hurricanes approach the area.



Figure 13. Roller Gate Alternative Rendering

This alternative requires no guardrail on the southbound land and approximately 200 ft of guardrail on northbound lane. A small portion would be removable to allow for gate closure.

The gates would be stored parallel to the floodwall on the flood side. Reflectors on the gates and columns would lower the likelihood of a motorist driving into the gate (Figure 13). This type of gate is similar to other floodgates operated in the system and can be operationally compared to the New Orleans Marina roller gate near Lake Pontchartrain.

Proposed Action

Swing Gate

The swing gate alternative would begin at the earthen levee west of Captain Larry's. It would include 450 ft of El. 14 traditional T-wall that would be constructed eastward and terminate 19 feet west of the Hwy 23 southbound travel lanes. A 55 ft swing gate with an attached storage column would swing from the T-wall across the southbound travel lanes and the attached storage column would be secured in a recess within the pile founded slab. Another 55 ft swing gate would swing across the northbound travel lanes from a permanent storage column set back 16 feet from the roadway and attach to that same storage column. A 25 ft swing gate would be

constructed to cross the railroad tracks and tie into 70 ft of traditional T-wall. The T-wall would transition to the WBV 9a earthen levee which would tie into the MRL (Figure 14).

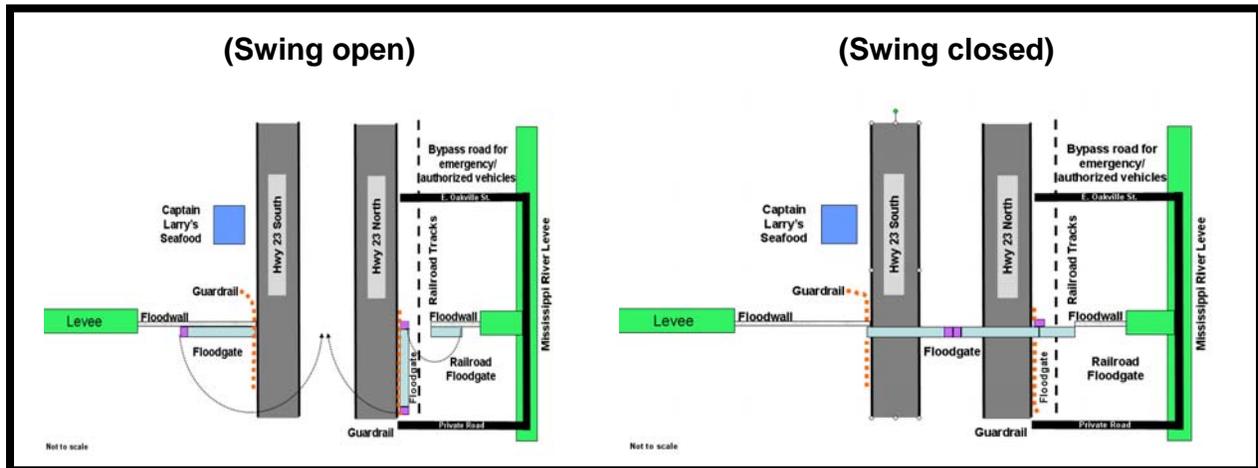


Figure 14. Swing Gate Alternative Diagram

The swing gates would close over a pile founded slab across Hwy 23 to form an effective seal. The gates would be built to a design elevation of El. 14, highway sill at El. 6. The southbound swing gate would be closed manually. The northbound swing gate would be closed with a hydraulic motor or if required, manually, by 2 people in less than four hours. This design allows the flexibility to close the gate within a safe timeframe to allow the only Plaquemines Parish evacuation route to stay open longer and still ensure operator safety as hurricanes approach the area.

This alternative requires approximately 100 LF of guardrail along the southbound lane and 185 LF along the northbound lane. A portion on each side will be removable to accommodate closing the gate.

The southbound gate would be stored parallel to the floodwall on the flood side (Figure 15). The northbound gate would be stored parallel to Hwy 23 due to the railroad track limiting storage position options. Reflectors on the gates and columns would lower the likelihood of a motorist driving into the gate. This type of gate is similar to other swing gates operated in the system and can be operationally compared to the swing gates on Peters Road in the French Quarter near the Aquarium of the Americas.



Figure 15. Swing Gate Alternative Rendering

Section 5 Public Meetings

Public meetings focused on the draft IER #13 proposed actions were held on April 29, 2009 at the St. Paul’s Benevolent Association Hall in Oakville, LA and on May 4, 2009 at the Belle Chasse Auditorium in Belle Chasse, LA. The meeting formats included an overview of draft IER #13. The meetings also included a discussion of a proposed project to incorporate certain Plaquemines Parish non-Federal Levees into the New Orleans to Venice Hurricane Protection Project. The public was then given the opportunity to comment by speaking at the meeting, providing written comments, submitting postage paid comment cards by mail, or using the www.nolaenvironmental.gov website. In addition to CEMVN staff, approximately 152 people attended the April 29, 2009, meeting in Oakville and approximately 379 people attended the May 4, 2009, meeting in Belle Chasse. Summary notes of the two meetings are included as Appendix A. The CEMVN hosted a workshop on September 19, 2009, to provide the public with an opportunity to review and comment on four alternatives for crossing Hwy 23. At the workshop the public was also invited to participate in a meeting to discuss the authorized and funded incorporation of certain existing Plaquemines Parish non-Federal Levees into the existing New Orleans to Venice Hurricane Protection Project.

In addition to the two public meetings held during the IER #13 public comment period and the workshop in September 2009, 31 public meetings were held between February 2007 and September 2009 where the WBV Eastern Tie-in project was discussed. Table 1 is a list of the public meetings held by the CEMVN in relation to the work planned in Plaquemines Parish. Additional information on these public meetings can be obtained by visiting the www.nolaenvironmental.gov website.

In addition to the public meetings, the CEMVN has provided a public website, www.nolaenvironmental.gov, since 2007, where information on the various HSDRRS projects can be obtained. Additionally, CEMVN news releases, public notices in local newspapers, and mail outs have been routinely disseminated since 2007 to provide the opportunity for members of the public to become informed and educated on the WBV Eastern Tie-in project.

Table 1. Public Meetings for Plaquemines Parish Projects

DATE	VENUE
Feb.12, 2007	Alario Center (Alternative Arrangements)
Feb. 12, 2007	UNO Lindy Boggs (Alternative Arrangements)
Feb. 13, 2007	Pontchartrain Center (Alternative Arrangements)
Mar. 27, 2007	Dougie V’s Restaurant (scoping)
Mar. 27, 2007	Woodland Plantation (scoping for incorporation of existing Plaquemines Parish non-Federal Levees (NFL) into the existing NOV project).

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Mar. 28, 2007	Westwego City Council (scoping)
Mar. 28, 2007	Belle Chasse Middle School (scoping for incorporation of existing Plaquemines Parish non-Federal Levees (NFL) into the existing NOV project).
Mar. 29, 2007	American Legion (scoping)
Apr. 3, 2007	Our Lady of Holy Cross College (scoping)
Apr. 4, 2007	Chalmette (scoping)
Apr. 5, 2007	Jefferson Parish Regional Library (scoping)
Apr. 10, 2007	Belle Chasse Auditorium (scoping)
Apr. 11, 2007	Avalon Hotel (scoping)
Apr. 12, 2007	National WWII Museum (scoping)
Jun. 5, 2007	Our Lady of Holy Cross
Jul. 17, 2007	Belle Chasse Auditorium
Oct. 23, 2007	Belle Chasse Auditorium
Nov. 1, 2007	Pontchartrain Center (NGO/public meeting)
Feb. 19, 2008	NP Trist Middle School
Mar. 13, 2008	Our Lady of Holy Cross
Mar. 25, 2008	Ehret High School
Apr. 3, 2008	St. Paul's Benevolent Association Hall
May 22, 2008	Our Lady of Holy Cross
Aug.4, 2008	St. Paul's Benevolent Association Hall
Aug. 21, 2008	Our Lady of Holy Cross
Dec. 9, 2008	Harvey Fire Station
Jan. 8, 2009	St. Paul's Benevolent Association Hall
Jan. 28, 2009	Woodland Plantation (update on status of incorporation of existing Plaquemines Parish non-Federal Levees (NFL) into the existing NOV project).
Apr. 29, 2009	St. Paul's Benevolent Association
May 4, 2009	Belle Chasse Auditorium
September 19, 2009	Belle Chasse High School

**scoping denotes a meeting to inform the public of upcoming projects and the NEPA process involved.*

Section 6 Conclusion

The ramp and floodgate alternatives were developed by the Project Delivery Team and an Alternative Evaluation Process (AEP) was first held on July 10, 2009. Several closure alternatives were presented and considered for the Hwy 23 crossing as a part of the AEP, including a combination ramp and floodgate, roller gates, and swing gates. At that meeting the Project Delivery Team for the WBV Eastern Tie-in project, some of whom are listed in Table 2, determined that a floodgate option was the best solution and provided a recommendation to the District Commander for his consideration. The team determined that the ramp option was unfavorable for many reasons including the questionable safety of vehicles using the highway if design exceptions were granted, interrupted cohesion of the Oakville community by the ramp and required Jersey barrier median, and economic impacts to the businesses on the Hwy in the vicinity of the ramp.

A second AEP was held on October 20, 2009 to evaluate the ramp with floodgate combination, swing gate, roller gate, and the invisible floodwall alternatives for the Hwy 23 crossing. The process again identified the swing gate as the recommended proposed action. The ramp was not selected for similar reasons as discussed during the first AEP. The roller gate was not selected due to track operability issues impacting reliability. The invisible floodwall was eliminated because of risk and reliability concerns due to the assembly effort required.

On October 21, 2009 the Project Delivery Team recommended the swing gate alternative to the District Commander as the proposed action to be identified in the draft IER #13 Addendum. The New Orleans District Commander concurred with the Project Delivery Team's recommendation.

Upon completion of a 30-day public comment period for this draft Addendum, the CEMVN District Commander will review and consider the information presented in draft IER #13, the Draft IER #13 Addendum, as well as comments received during both public review periods, and the public meetings and make a decision on the recommended proposed action.

Table 2. Detailed List of Preparers

Environmental Team Leader	Gib Owen, CEMVN
Environmental Manager	Getrisc Coulson, CEMVN
Project Manager	Ted Carr, CEMVN
Senior Project Manager	Julie Vignes, CEMVN
Assistant District Counsel	Rita Trotter, CEMVN
Economics Team Leader	Keven Lovetro, CEMVN
Hydraulics Branch Chief	Nancy Powell, CEMVN
Hydraulics Section Chief	Stacey Frost, CEMVN
Hydraulic Engineer	Keely Crowder, CEMVN

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Hydraulic Engineer	John Beockmann, CEMVS
Engineering Control	Jennifer Vititoe, CEMVN
Project Engineer	Paul Hoge, CEMVN
Professional Engineer	Christopher Dunn, CEMVN
Project Engineer	Carl Niemitz, CEMVN
Project Engineer	Leslie Campbell, CEMVN
Project Engineer	Kerry Lowman, CEMVN

**The point of contact and responsible manager for the preparation of the draft IER #13 Addendum is Joan Exnicios, CEMVN. The address of the preparers is: U.S. Army CEMVN of Engineers, New Orleans District; Planning, Programs, and Project Management Division, CEMVN-PM; P.O. Box 60267; New Orleans, Louisiana 70160-0267.*