

**DRAFT INDIVIDUAL ENVIRONMENTAL REPORT
SUPPLEMENTAL**

WEST BANK AND VICINITY

**GULF INTRACOASTAL WATERWAY (GIWW), HARVEY, AND ALGIERS LEVEES
AND FLOODWALLS / HERO CANAL LEVEE AND EASTERN TIE-IN**

PLAQUEMINES PARISH, LOUISIANA

SUPPLEMENTAL IER #12/13 WATERLINE



**US Army Corps
of Engineers®**

December, 2010

TABLE OF CONTENTS

TITLE	PAGE
1. INTRODUCTION.....	1
1.1 PRIOR REPORTS.....	1
2. ALTERNATIVES.....	5
2.1 DESCRIPTION OF THE ALTERNATIVES.....	5
3. AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES..	8
3.1 ENVIRONMENTAL SETTING.....	8
3.2 SIGNIFICANT RESOURCES.....	13
3.3 SOCIOECONOMICS RESOURCES.....	20
3.4 ENVIRONMENTAL JUSTICE.....	23
3.5 HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE.....	24
4. CUMULATIVE IMPACTS.....	24
5. SELECTION RATIONALE.....	30
6. COORDINATION AND CONSULTATION.....	30
6.1 PUBLIC INVOLVEMENT.....	30
6.2 AGENCY COORDINATION.....	31
7. MITIGATION.....	34
8. COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS.	35
9. CONCLUSIONS.....	38
9.1 INTERIM DECISION.....	38
9.2 PREPARED BY.....	38
9.3 LITERATURE CITED.....	39

LIST OF TABLES

Table 1: Significant Resources in Project Study Area.....	13
Table 2: Noise Level Data.....	20
Table 3: HSDRRS Impacts and Compensatory Mitigation to be Completed.....	26
Table 4: IERS #12/13 Preparation Team.....	39

LIST OF FIGURES

Figure 1: IERS #12/13 Project Alignment.....	7
Figure 2a: Photograph of residential area along Bergeron Dr.....	9
Figure 2b: Photograph of Wooded Area at North/South end of Bergeron Dr.....	10
Figure 2c: Photograph of Parish Easement and WPA Canal.....	11
Figure 2d: Photograph of Walker Rd ROW.....	12

LIST OF APPENDICES

Appendix A: List of Acronyms and Definitions of Common Terms	
Appendix B: Public Comment and Responses Summary	
Appendix C: Members of Interagency Environmental Team	
Appendix D: Interagency Correspondence	
Appendix E: 404 (b)(1) evaluation	
Appendix F: Link to IER #12 and IER #13	

1.0 INTRODUCTION

The U.S. Army Corps of Engineers (USACE), Mississippi Valley Division, New Orleans District (CEMVN), has prepared this Supplemental Individual Environmental Report #12/13 Waterline (IERS # 12/13) to evaluate the potential impacts associated with the proposed project modification to the original IER #12 and IER #13 projects West Bank and Vicinity (WBV), Hero Canal Levee and Eastern Tie-in and GIWW, Harvey, and Algiers Levees and Floodwalls areas. Since IER #12 and IER #13 were completed a project feature has been added. This Supplemental IER (IERS) contains changes to the original plan which include the actions associated with placing a waterline from Hwy 23 to the West Closure Complex (WCC). The term “100-year level of risk reduction,” as it is used throughout this document, refers to a level of protection that reduces the risk of hurricane surge and wave-driven flooding that the New Orleans metropolitan area experiences by a 1 percent chance each year. The proposed action is located in Plaquemines Parish near New Orleans, Louisiana.

IERS #12/13 has been prepared in accordance with the National Environmental Policy Act of 1969 (NEPA) and the Council on Environmental Quality’s (CEQ) Regulations (40 CFR §1500-1508), as reflected in the USACE Engineering Regulation, ER 200-2-2. The execution of alternative arrangements, in lieu of the traditional Environmental Assessment or Environmental Impact Statement, is provided for in ER 200-2-2, Environmental Quality (33 CFR §230) and pursuant to the CEQ NEPA Implementation Regulations (40 CFR §1506.11). The alternative arrangements can be found at www.nolaenvironmental.gov, and are herein incorporated by reference.

The CEMVN implemented Alternative Arrangements on March 13, 2007, under the provisions of the CEQ Regulations for Implementing the NEPA (40 CFR §1506.11). This process was implemented in order to expeditiously complete environmental analysis for any changes to the authorized system and the 100-year level of the Hurricane and Storm Damage Risk Reduction System (HSDRRS), formerly known as the Hurricane Protection System (HPS), authorized and funded by Congress and the Administration. The proposed actions are located in southeastern Louisiana and are part of the Federal effort to rebuild and complete construction of the HSDRRS in the New Orleans Metropolitan area as a result of Hurricanes Katrina and Rita.

On February 18, 2009, the CEMVN Commander signed the Decision Record for IER #12. On December 4, 2009, the CEMVN Commander signed the Decision Record for IER #13 and the Addendum to IER #13. IER #12 and IER #13 are incorporated by reference into this supplemental document. Copies of the documents and other supporting information are available upon request or at www.nolaenvironmental.gov. This supplemental document has been prepared to address the proposed modification to the Government’s approved plan.

1.1 PRIOR REPORTS

A number of studies and reports in the proposed project area have been prepared by the USACE, other Federal, state and local agencies, research institutions, and individuals. Pertinent studies, reports and projects prepared prior to June 2009 are discussed below. All other relevant reports are listed in IER #12 and #13 and are incorporated herein by reference.

West Bank and Vicinity Relevant Reports:

- On November 20, 2010, the CEMVN Commander signed a Decision Record on the Addendum to Draft IER Supplemental #12 entitled “GIWW, Harvey and Algiers Levees

and Floodwalls, Jefferson, Orleans and Plaquemines Parishes, Louisiana”. The document was prepared to evaluate the potential impacts associated with the temporary closure of the Belle Chase Tunnel.

- From September 3, 2010 to October 2, 2010 the CEMVN released for public review a Draft IER Supplemental #12 entitled “GIWW, Harvey and Algiers Levees and Floodwalls, Jefferson, Orleans and Plaquemines Parishes, Louisiana”. The document was prepared to evaluate the potential impacts associated with the use of the Site N borrow site for disposal. During the public review time frame some modifications were made resulting in the preparation on an Addendum to the report, which also was released for a 30-day public comment period.
- On February 3, 2009, the CEMVN Commander signed a Decision Record on IER #25 entitled “Government Furnished Borrow Material, Orleans, Plaquemines and Jefferson Parishes, Louisiana.” The document was prepared to evaluate the potential impacts associated with the actions taken by the USACE as a result of excavating borrow areas for use in construction of the HSDRRS.
- On January 21, 2009, the CEMVN Commander signed a Decision Record on IER #17, entitled “Company Canal Floodwall, Jefferson Parish, Louisiana.” The proposed action includes providing 100-year level of risk reduction in the project area.
- On December 4, 2009, the CEMVN Commander signed a Decision Record on IER #13, entitled “Hero Canal Levee and Eastern Tie-In, Plaquemines Parish, Louisiana.” The proposed action includes providing 100-year level of risk reduction in the project area.
- On February 18, 2009, the CEMVN Commander signed a Decision Record on IER #12, entitled “Gulf Intracoastal Waterway (GIWW), Harvey and Algiers Levees and Floodwalls, Jefferson, Orleans, and Plaquemines Parishes, Louisiana.” The proposed action includes providing 100-year level of risk reduction in the project area.
- On October, 20 2008, the CEMVN Commander signed a Decision Record on IER #26 entitled “Pre-Approved Contractor Furnished Borrow Material #3, Jefferson, Plaquemines, and St. John the Baptist Parishes, Louisiana, and Hancock County, Mississippi.” The document was prepared to evaluate the potential impacts associated with the actions taken by commercial contractors as a result of excavating borrow areas for use in construction of the HSDRRS.
- On August 26, 2008, the CEMVN Commander signed a Decision Record on IER #14, entitled “Westwego to Harvey, Levee Jefferson Parish, Louisiana.” The document was prepared to examine the potential environmental impacts associated with the proposed construction and maintenance of 100-year level of risk reduction along the WBV, Westwego to Harvey Levee project area.
- On June 12, 2008, the CEMVN Commander signed a Decision Record on IER #15, entitled “Lake Cataouatche Levee, Jefferson Parish, Louisiana.” The proposed action includes providing 100-year level of risk reduction in the project area.
- On May 30, 2008, the CEMVN Commander signed a Decision Record on IER #22 entitled “Government Furnished Borrow Material, Plaquemines and Jefferson Parishes, Louisiana.” The document was prepared to evaluate the potential impacts associated

with the actions taken by the USACE as a result of excavating borrow areas for use in construction of the HSDRRS.

- On May 6, 2008, the CEMVN signed a Decision Record on IER #23 entitled “Pre-Approved Contractor Furnished Borrow Material #2, St. Bernard, St. Charles, Plaquemines Parishes, Louisiana, and Hancock County, Mississippi.” The document was prepared to evaluate the potential impacts associated with the actions taken by commercial contractors as a result of excavating borrow areas for use in construction of the HSDRRS.
- On February 21, 2008, the CEMVN Commander signed a Decision Record on IER #18 entitled “Government Furnished Borrow Material, Jefferson, Orleans, Plaquemines, St. Charles, and St. Bernard Parishes, Louisiana.” The document was prepared to evaluate the potential impacts associated with the actions taken by the USACE as a result of excavating borrow areas for use in construction of the HSDRRS.
- On February 14, 2008, the CEMVN Commander signed a Decision Record on IER #19 entitled “Pre-Approved Contractor Furnished Borrow Material, Jefferson, Orleans, St. Bernard, Iberville, and Plaquemines Parishes, Louisiana, and Hancock County, Mississippi.” The document was prepared to evaluate the potential impacts associated with the actions taken by commercial contractors as a result of excavating borrow areas for use in construction of the HSDRRS.
- In July 2006, the CEMVN Commander signed a Finding of No Significant Impact (FONSI) on EA #433 entitled, “USACE Response to Hurricanes Katrina & Rita in Louisiana.” The document was prepared to evaluate the potential impacts associated with the actions taken by the USACE as a result of Hurricanes Katrina and Rita.
- On August 23, 2005, the CEMVN Commander signed a FONSI on EA #422 entitled “Mississippi River Levees – West Bank Gaps, Concrete Slope Pavement Borrow Area Designation, St. Charles and Jefferson Parishes, Louisiana.” The report investigates the impacts of obtaining borrow material from various areas in Louisiana.
- On February 22, 2005, the CEMVN Commander signed a FONSI on EA #306A entitled “West Bank Hurricane Protection Project – East of the Harvey Canal, Floodwall Realignment and Change in Method of Sector Gate.” The report discusses the impacts related to the relocation of a proposed floodwall moved because of the aforementioned sector gate, as authorized by the LPV Project.
- On May 5, 2003, the CEMVN Commander signed a FONSI on EA #337 entitled “Algiers Canal Alternative Borrow Site.”
- On June 19, 2003, the CEMVN Commander signed a FONSI on EA #373 entitled “Lake Cataouatche Levee Enlargement.” The report discusses the impacts related to improvements to a levee from Bayou Segnette State Park to Lake Cataouatche.
- On May 16, 2002, the CEMVN Commander signed a FONSI on EA #306 entitled “West Bank Hurricane Protection Project - Harvey Canal Sector Gate Site Relocation and Construction Method Change.” The report discusses the impacts related to the relocation of a proposed sector gate within the Harvey Canal, as authorized by the LPV Project.
- On August 30, 2000, the CEMVN Commander signed a FONSI on EA #320 entitled “West Bank Hurricane Protection Features.” The report evaluates the impacts associated

with borrow sources and construction options to complete the Westwego to Harvey Canal Hurricane Protection Project.

- On August 18, 1998, the CEMVN Commander signed a FONSI on EA #258 entitled “Mississippi River Levee Maintenance - Plaquemines West Bank Second Lift, Fort Jackson Borrow Site.”
- The final EIS for the WBV, East of Harvey Canal, Hurricane Protection Project was completed in August 1994. A Record of Decision (ROD) was signed by the CEMVN Commander in September 1998.
- The final EIS for the WBV, Lake Cataouatche, Hurricane Protection Project was completed. A ROD was signed by the CEMVN Commander in September 1998.
- In December 1996, the USACE completed a post-authorization change study entitled, “Westwego to Harvey Canal, Louisiana Hurricane Protection Project Lake Cataouatche Area, EIS.” The study investigated the feasibility of providing hurricane surge protection to that portion of the west bank of the Mississippi River in Jefferson Parish between Bayou Segnette and the St. Charles Parish line. A Standard Project Hurricane (SPH) level of risk reduction was recommended along the alignment followed by the existing non-Federal levee. The project was authorized by Section 101 (b) of the WRDA of 1996 (P.L. 104-303) subject to the completion of a final report of the Chief of Engineers, which was signed on 23 December 1996.
- On January 12, 1994, the CEMVN Commander signed a FONSI on EA #198 entitled, “West Bank of the Mississippi River in the Vicinity of New Orleans, LA, Hurricane Protection Project, Westwego to Harvey Canal, Jefferson Parish, Louisiana, Proposed Alternate Borrow Sources and Construction Options.” The report evaluates the impacts associated with borrow sources and construction options to complete the Westwego to Harvey Canal Hurricane Protection Levee.
- In August 1994, the CEMVN completed a feasibility report entitled “WBV (East of the Harvey Canal).” The study investigated the feasibility of providing hurricane surge protection to that portion of the west bank of metropolitan New Orleans from the Harvey Canal eastwards to the Mississippi River. The final report recommends that the existing West Bank Hurricane Project, Jefferson Parish, Louisiana, authorized by the WRDA of 1986 (P.L. 99-662), approved November 17, 1986, be modified to provide additional hurricane protection east of the Harvey Canal. The report also recommends that the level of risk reduction for the area east of the Algiers Canal deviate from the National Economic Development Plan’s level of risk reduction and provide protection for the SPH. The Division Engineer’s Notice was issued on September 1, 1994. The Chief of Engineer’s report was issued on 1 May 1995. Preconstruction, engineering, and design was initiated in late 1994 and is continuing. The WRDA of 1996 authorized the project.
- On March 20, 1992, the CEMVN Commander signed a FONSI on EA #165 entitled “Westwego to Harvey Canal Disposal Site.”
- In February 1992, the USACE completed a reconnaissance study entitled “West Bank Hurricane Protection, Lake Cataouatche, Louisiana.” The study investigated the feasibility of providing hurricane and storm damage risk reduction to that portion of the west bank of the Mississippi River in Jefferson Parish, between Bayou Segnette and the St. Charles Parish line. The study found a 100-year level of risk reduction to be economically justified based on constructing a combination levee/ sheetpile wall along

the alignment followed by the existing non-Federal levee. Due to potential impacts to the Westwego to Harvey Canal project, the study is proceeding as a post-authorization change.

- On June 3, 1991, the CEMVN Commander signed a FONSI on EA #136 entitled “West Bank Additional Borrow Site between Hwy 45 and Estelle PS.”
- On March 15, 1990, the CEMVN Commander signed a FONSI on EA #121 entitled “West Bank Westwego to Harvey Changes to EIS.” The report addresses the impacts associated with the use of borrow material from Fort Jackson for LPV construction. The material was used for constructing the second lift for the Plaquemines West Bank levee upgrade, as part of LPV construction.
- IER #29 entitled “LPV Hurricane Protection – South Point to GIWW Levee Enlargement” was signed by the CEMVN Commander on June 12, 1987. The report discusses the impacts associated with the enlargement of the GIWW.
- In December 1986, the USACE completed a Feasibility Report and EIS entitled, “West Bank of the Mississippi River in the Vicinity of New Orleans, LA.” The report investigates the feasibility of providing hurricane surge protection to that portion of the west bank of the Mississippi River in Jefferson Parish between the Harvey Canal and Westwego, and down to the vicinity of Crown Point, Louisiana. The report recommends implementing a plan that would provide SPH level of risk reduction to an area on the west bank between Westwego and the Harvey Canal north of Crown Point. The project was authorized by the WRDA of 1986 (P.L. 99-662). Construction of the project was initiated in early 1991.

On October 16, 1985, the Environmental Protection Agency (EPA) signed a Final Determination concerning the Bayou aux Carpes Site in Jefferson Parish pursuant to Section 404(c) of the Clean Water Act (CWA). The authority for this determination was given to the Administrator of the EPA under the CWA (33 USC, 1251 et eq).

2.0 ALTERNATIVES

2.1 DESCRIPTION OF THE ALTERNATIVES

No Action

Under the no action alternative, the Government-approved action, as described in IER #12 and IER #13, would be constructed. IER #12 and IER #13 are incorporated by reference into this supplemental document.

Proposed Action

The proposed action consists of a modification to the no action alternative. This modification consists of placing a 16,000 linear ft, 12inch (in) diameter waterline from the east end of Bergeron Dr to the WCC to provide the water necessary for operating and maintaining the WCC as well as for supplying water for extinguishing fires near the WCC should they occur. The waterline would be capped at the beginning of Bergeron Dr and the Plaquemines Parish Government (PPG) would tie the waterline into the PPG 16 inch waterline that parallels the west side of Highway 23 at Bergeron Drive (Dr). It is the intent of this project to provide a fire

hydrant in the area of the WCC project to facilitate firefighting of the immediate area surrounding the WCC. The waterline would be turned over to the Local Sponsor under the same authority that requires turnover of the WCC to the Local Sponsor. The Local Sponsor would perform O&M responsibilities for the waterline. The scope of this IERS # 12/13 is defined by the authorities for the WBV project as discussed in section 1.2 of the final IER #12.

The proposed action is being broken into two sections within this document. Section 1 is the portion that runs from the east end of Bergeron Dr in a westerly direction to the end of Bergeron Dr. At the end of Bergeron Dr the waterline would cross a drainage ditch and travel down an existing PPG drainage easement, and finally would cross the drainage canal (WPA Canal) at Landfill Street (St) to Walker Rd (figures 1-2c). Construction/installation of section 1 would occur via directional drilling under the length of Bergeron Dr. and the remaining portion would occur within the existing PPG drainage easement. Section 2 is the portion that runs across and down Walker Rd to the WCC (figures 1 and 2d). Section 2 construction/installation would take place entirely within the existing Walker Rd right of way (ROW) and within the existing WCC ROW.



Figure 1. IERS #12/13 Project alignment

The first portion of the project would be constructed using the directional drill method to install the waterline underneath Bergeron Dr. to minimize impacts to the residents living on Bergeron Dr. Beyond Bergeron Dr., a trench would be excavated of adequate depth and width to safely install the waterline. Excavation would normally be between 3 feet (ft) and 6 ft deep and up to 20 ft wide at the top. The most likely excavation would be 4 ft deep by 2 ft wide.

The new waterline would be 12 in diameter PVC or HDPE pipe installed within the trench in accordance with the USACE technical specifications. Crossings over canals and under roadways would be accomplished using industry accepted methods for crossings in accordance with USACE technical specifications. All taps, hydrants, and valves would be installed in accordance with the USACE technical specifications. Above ground crossings would be accomplished with ductile iron or other suitable material.

Upon completion of the pipeline placement operation, the trench would be backfilled with material in accordance with the USACE technical specifications. Excavated material would be returned to the trench from which it was removed and compacted according to USACE technical specifications.

Upon completion of the trench backfill operations, the site would be restored to the original grades with an adjustment for settlement. Impacted areas within the construction ROW would be allowed to naturally re-vegetate to pre-construction conditions. Driveways and other areas in front of residential homes would not be disturbed by construction activities. If unexpected disturbance does occur, these elements would be replaced and seed or sod would be placed to re-establish turf.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 ENVIRONMENTAL SETTING

Section 1 consists of a residential neighborhood (figure 2a), a wooded area (figure 2b), and the WPA Canal (figure 2c). The residential area consists of previously disturbed roadways and lawns including mowed grass and some large oak trees. All large trees would be avoided. The wooded area consists of species such as willow, Chinese tallow, various pines, oaks, and gum. The proposed trench site is within the PPG Drainage Easement and is atop a cleared ridge along the WPA Canal. The WPA Canal sustains some wetland species such as cattail and alligator weed. The WPA Canal would be avoided until the waterline crosses it at the intersection of Walker Rd and Landfill St.

Section 2 of the proposed action falls within the Walker Rd ROW and the IER #12 footprint. The ROW consists of the previously impacted Walker Rd with grasses on the north side of the road and such species as willow, Chinese tallow, and elderberry along the south side of the road (figure 2d).



Figure 2a. Photograph of residential area along Bergeron Drive



Figure 2b. Photograph of Wooded Area at West end of Bergeron Drive



Figure 2c. Photograph of Parish Easement and WPA Canal



Figure 2d: Photograph of Walker Rd ROW

3.2 SIGNIFICANT RESOURCES

This section identifies the significant resources located in the vicinity of the proposed action, and describes in detail those resources that would be impacted, directly, indirectly or cumulatively by the alternatives. Direct impacts are those that are caused by the action taken and occur at the same time and place (40 CFR §1508.8(a)). Indirect impacts are those that are caused by the action and are later in time or further removed in distance, but are still reasonably foreseeable (40 CFR §1508.8(b)). Cumulative impacts are those impacts on the environment which result from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts are also discussed in Section 4.

The resources described in this section are those recognized as significant by laws, executive orders, regulations, and other standards of Federal, state, or regional agencies and organizations; technical or scientific agencies, groups, or individuals; and the general public. Further detail on the significance of each of these resources can be found by contacting the CEMVN, or on www.nolaenvironmental.gov, which offers information on the ecological and human value of these resources, as well as the laws and regulations governing each resource. Search for “Significant Resources Background Material” in the web site’s digital library for additional information. Table 1 shows those significant resources found within the project area, and notes whether they would be impacted by the proposed action analyzed in this IERS.

Existing conditions for significant resources were discussed in IER #12 and IER #13 and are incorporated by reference. Additional discussion is provided for those resources where the proposed project modification incorporates an area that has differing existing conditions than what is described in IER #12 and IER #13.

**Table 1
Significant Resources in Project Study Area**

Significant Resource	Impacted	Not Impacted
Air Quality	X	
Water Quality	X	
Upland Resources		X
Aquatic Habitat	X	
Fish and Wildlife	X	
Wetlands	X	
Threatened and Endangered Species		X
Recreational Resources		X
Aesthetic Resources		X
Cultural Resources		X
Farmland		X

3.2.1 Air Quality

Discussion of Impacts

No Action

Under the no action alternative, the Government's approved action as discussed in IER #12 and IER #13 would be constructed. Consequently, direct, indirect, and cumulative impacts to air quality would not differ from those previously described in IER #12 and IER #13.

Proposed Action

Direct, Indirect, and Cumulative

Under the proposed action for both sections there would be further increase in direct, indirect, and cumulative impacts to air quality through emissions from construction equipment and due to the increase in construction durations. The proposed action would contribute minimally to the cumulative reduction of air quality, but such losses would be anticipated to be localized and temporary.

3.2.2 Water Quality

Discussion of Impacts

No Action

Under the no action alternative, the Government's approved action as discussed in IER #12 and IER #13 would be constructed. Consequently, direct, indirect, and cumulative impacts to water quality would not differ from those described in IER #12 and IER #13.

Proposed Action

Direct

With the implementation of the proposed action, temporary increases in turbidity and sediment disturbance during the installation of the waterline across the WPA Canal would be expected. These turbidity and sediment impacts would be anticipated to be local, temporary and would remain in the vicinity of construction.

Indirect and Cumulative

No indirect or cumulative impacts to water quality would be expected.

3.2.3 Upland Resources/Non-Wetland Resources

No Action

Under the no action alternative, the Government's approved action as discussed in IER #12 and IER #13 would be constructed. Consequently, direct, indirect, and cumulative impacts to upland resources would not differ from those described in IER #12 and IER #13.

Proposed Action

Direct, Indirect, and Cumulative

With the implementation of the proposed action, there would be no impacts to upland resources as none exist in the immediate project area.

3.2.4 Aquatic Habitat

Existing Conditions

The WPA Canal is a freshwater drainage canal that runs parallel to the PPG drainage easement. The WPA Canal sustains such plant species as alligator weed and cattail.

Discussion of Impacts

No Action

Under the no action alternative, the Government's approved action as discussed in IER #12 and IER #13 would be constructed. Consequently, direct, indirect, and cumulative impacts to aquatic habitat would not differ from those described in IER #12 and IER #13.

Proposed Action

Direct

Approximately 1200 ft², less than half an acre, of aquatic habitat would be directly impacted by the proposed action. The impacts would be due to the placement of the waterline across the WPA Canal. This action would include placement of the waterline within the canal and placement of material to protect and stabilize the waterline.

Indirect

Indirect impacts to aquatic habitat would include increased local turbidity, vibration, and subsurface noise. These impacts would occur at the installation and stabilization area.

Cumulative

Potential cumulative impacts to aquatic habitat primarily involve the loss of open water. The impacts evaluated for the proposed action would be less than half of an acre. This would contribute minimally to the aquatic habitat impacts of the overall HSDRRS project. Aquatic habitat impacts of the overall HSDRRS project have the potential to be significant. To date, approximately 231 acres of open water impacts have been identified in previous IERs and are summarized in table 2.

3.2.5 Fish and Wildlife

Discussion of Impacts

No Action

Under the no action alternative, the Government's approved action, as discussed in IER #12 and IER #13, would be constructed. Consequently, direct, indirect, and cumulative impacts to fish and wildlife would not differ from those described in IER #12 and IER #13.

Proposed Action

Direct

Under the proposed action there would be minimal temporary impacts to fish and wildlife due to the removal of approximately 14,900 ft² of wooded habitat at the end of Bergeron Dr and disturbance to approximately 1200 ft² aquatic habitat where the waterline would cross the WPA Canal. Mobile species would be expected to leave the area but would return after construction is complete.

Indirect

Indirect effects would include disturbance to fish and wildlife species due to noise, vibration, and turbidity, which could cause mobile species to leave the area until construction is complete.

Cumulative

Because of the goal of completing the HSDRRS construction activities by June 2011, numerous construction activities in the IERS #12/13 project area would be underway concurrently. This would result in temporary cumulative effects to fish and wildlife. Permanent effects to fish and wildlife would occur from the loss of both wetland and terrestrial habitat associated with the construction of the overall HSDRRS project and would contribute to the cumulative loss of fish and wildlife habitat. To date, impacts to approximately 870 acres of bottomland hardwood (BLH) and another 1,454 acres of wetlands have been identified for the construction of the proposed HSDRRS features (table 2). Compensatory mitigation for these habitat losses will be discussed in separate mitigation IERs.

3.2.6 Wetlands

Existing Conditions

Approximately 33 acres of non-wet BLH falls within the PPG drainage easement, the Walker Rd ROW, and the Utility Servitude. The species within the BLH include willow, Chinese tallow, various pines, oaks, and gum. Also within the PPG drainage easement are approximately 2.5 acres of fringe wetlands bordering the WPA Canal. These wetlands consist of species such as alligator weed and cattail.

Discussion of Impacts

No Action

Under the no action alternative, the Government's approved action, as discussed in IER #12 and IER #13, would be constructed. Consequently, direct, indirect, and cumulative impacts to wetlands would not differ from those described in IER #12 and IER #13.

Proposed Action

Direct

With the implementation of the proposed action approximately 14,900 ft², less than half an acre, of BLH at the end of Bergeron Dr would be impacted. This area consists of immature trees and shrubs and would be expected to re-vegetate on its own. Approximately 1,200 ft² of fringe wetlands along the bank of the WPA Canal would be impacted. These impacts would be temporary and construction related.

Indirect

No indirect impacts to wetlands would be expected.

Cumulative

To date, the clearing, grubbing, or filling of approximately 1,454 acres of wetlands has been identified for the construction of the proposed HSDRRS features (table 3). Construction of the HSDRRS project features would cumulatively impact wetlands. Compensatory mitigation for these habitat losses will be discussed in separate mitigation IERs. Additionally, other authorized Federal flood control projects including Morganza to the Gulf, Larose to Golden Meadow, and Plaquemines Parish West Bank non-Federal levee construction would likely impact wetlands because these flood control projects are designed to provide flood damage risk reduction from coastal storm events, and as such, the alignments are located in the wetland/non-wetland

interfaces. Additionally, it is expected that non-Federal flood control projects and regional private development would continue to occur and cause some wetlands impact.

3.2.7 Threatened and Endangered Species

Discussion of Impacts

No Action

Under the no action alternative, the Government's approved action, as discussed in IER #12 and IER #13, would be constructed. Consequently, direct, indirect, and cumulative impacts to threatened and endangered species would not differ from those described in IER #12 and IER #13.

Proposed Action

Direct, Indirect, and Cumulative

The proposed action would have no effect on protected species as none have been identified in the vicinity of the project.

3.2.8 Recreational Resources

Discussion of Impacts

No Action

Without implementation of the proposed action, the originally selected plans, as discussed in IER #12 and IER #13, would be constructed. Consequently, direct, indirect, and cumulative impacts on recreational resources would not differ from those described in IER #12 and IER #13.

Proposed Action

Direct, Indirect, and Cumulative Impacts

The area containing the proposed waterline is not used for recreational purposes. Therefore, direct, indirect, and cumulative impacts to recreational resources would not differ from those described in IER #12 and IER #13.

3.2.9 Aesthetic (Visual) Resources

Existing Conditions

The project area is within the Mississippi Alluvial Plain's Southern Holocene Meander Belts ecoregion; its bottomland forests have been mostly cleared and extensively modified for agriculture, flood control, and navigation. The project area's flat topography is accentuated by drainage canals that divide land cleared for various uses. Land use includes single family residential housing, maritime related industry surrounding the Hero Canal, and excavated borrow areas found along Walker Rd. Water resources consist of the GIWW and various fragmented bayous and ponds that appear to be water filled borrow areas

Discussion of Impacts

No Action

Under the no action alternative, the placement of a 12 in diameter waterline from Hwy 23 to the WCC 100-year level of flood risk reduction construction would not occur. The direct, indirect, and cumulative impacts to visual resources would not differ from those described in IER #12 and IER #13.

Proposed Action

Direct, Indirect, and Cumulative Impacts

Under the proposed action alternative, no foreseen long term direct, indirect, or cumulative impacts to visual resources would occur because of the placement of a 12 in diameter waterline from Hwy 23 to the WCC 100-year level of flood risk reduction construction. Most of the proposed project area is visually remote and lacks significant distinctive visual qualities. After placement of the waterline, the areas disturbed during construction would be expected to re-vegetate and return to their prior conditions.

3.2.10 Cultural Resources

Existing Conditions

Records on file at the Louisiana Division of Archaeology and the New Orleans District indicate that the closest previously recorded archaeological sites to the project area are 16PL115, 16PL168, and 16PL169. None of these sites extend to the currently proposed project area.

In 1991, R. Christopher Goodwin and Associates, Inc. investigated land alongside the northern edge of the western portion of the proposed project area. No cultural resources were found in the survey (Hicks et al. 1991). Earth Search, Inc. conducted another survey along a proposed right of way extension along Peters Road in 2004 (Stanton et al. 2004). This survey crossed the IER #12 project area at Bayou Barataria and the GIWW. No archaeological sites or significant standing structures were recorded. Earth Search, Inc. conducted a third survey of a proposed borrow site directly south of the proposed project alignment, in 2007. No cultural resources were identified (Harlan and Nolan 2007).

In letters sent to the State Historic Preservation Officer (SHPO) and Indian Tribes dated August 6, 2010, the New Orleans District provided project documentation, evaluated cultural resources potential in the project area, and found that the proposed actions would have no impact on cultural resources. The SHPO, the Seminole Tribe of Florida, and the Alabama Coushatta concurred with our "no historic properties affected" finding in letters dated September 2, 2010, August 25, 2010, and August 26, 2010, respectively. No other Indian Tribes responded to our request for comments. Section 106 consultation for the proposed action is concluded. However, if any unrecorded cultural resources are determined to exist within the proposed project boundaries, then no work would proceed in the area containing these cultural resources until a New Orleans District archaeologist has been notified and final coordination with the SHPO and Indian Tribes has been completed.

Discussion of Impacts

No Action

Under the no action alternative, the placement of a 12 in diameter waterline from Hwy 23 to the WCC 100-year level of flood risk reduction construction would not occur. The direct, indirect, and cumulative impacts to cultural resources would not differ from those described in IER #12 and IER #13.

Proposed Action

Direct

Unexpected cultural resources could be damaged when the waterline is constructed. However, a full records search and previous investigations strongly suggest that no unexpected cultural resources exist.

Indirect and Cumulative

Construction of this waterline would have no indirect or cumulative impacts on cultural resources.

3.2.11 Farmland

Existing Conditions

Within NEPA evaluations, the USACE must consider the protection of the nation's significant/important agricultural lands from irreversible conversion to uses that result in their loss as an environmental or essential food production resource. The Farmland Protection Policy Act (FPPA), 7 USC 4201 et seq., and the U.S. Department of Agriculture's (USDA) implementing procedures (7 CFR § 658) require Federal agencies to evaluate the adverse effects of their actions on prime and unique farmland, including farmland of statewide and local importance.

Discussion of Impacts

No Action

Without implementation of the proposed action, the originally selected plans, as discussed in IER #12 and IER #13, would be constructed. Consequently, direct, indirect, and cumulative impacts to prime and unique farmlands would not differ from those described in the original IER #12 and IER #13.

Proposed Action

Direct, Indirect, and Cumulative

The actions necessary to implement the proposed project would not involve conversion of, or otherwise cause direct, indirect, or cumulative effects to prime, unique, or important U.S. farmland.

3.2.12 Noise

Discussion of Impacts

No Action

Under the no action alternative, the Government's approved action, as discussed in IER #12 and IER #13, would be constructed. Consequently, direct, indirect, and cumulative impacts to noise would not differ from those described in IER #12 and IER #13.

Proposed Action

Direct, Indirect, and Cumulative

Because the proposed action adds additional construction activities to the previously approved plan, additional noise impacts would occur. The noise would be associated with construction equipment such as bulldozers, excavators, backhoes, directional drills and/or chainsaws working on the construction of the waterline and would be minimal and temporary. A work week would consist of 7 days and a work day would be from approximately 6:00 AM to 6:00 PM.

Based on data from the Federal Highway Administration, the average conversation measures 60 decibels (dB), a shouted conversation at 90dB and 130 dB is the threshold of physical pain. Table 2 lists the decibels for the equipment that would be used for construction of the proposed waterline.

Table 2: Noise Level Data

Equipment	Lmax dB at a 50 foot distance
Bulldozer	85
Excavator	85
Backhoe	80
Chainsaw	85
*Directional Drill	82

Source: FHWA 2007. * Florida Highway Department

SOCIOECONOMICS

3.3.1 Displacement of Population and Housing

Discussion of Impacts

No Action

Under the no action alternative, there would be no source of the water necessary for operating the West Closure Complex (WCC) as well as for extinguishing any fires that may occur. It is the intent of this project to facilitate firefighting in the immediate area surrounding the GIWW WCC. If constructed, the waterline would be turned over to Plaquemines Parish and if the Parish chose to do so, it could be incorporated into the municipal system, which would not occur under the no action alternative. Any fires occurring under the no action plan that could have been contained under the proposed action plan increase the potential for displacement of population and housing under the no action scenario.

Proposed Action

Direct, Indirect and Cumulative

Under the proposed action, residents in the area could potentially benefit from the installation of the additional fire hydrant, which would diminish fire risk resulting from the operation and maintenance of the WCC described in IER #12. The proposed fire hydrant would be located near the WCC. The proposed action could also have the potential to diminish the displacement of population and housing resulting from any fire threat that could occur during the operation and maintenance of the WCC as described in IER #12.

3.3.2 Impacts to Employment, Business, and Industrial Activity

Discussion of Impacts

No Action

Under the no action alternative, the Government's approved action, as discussed in IER #12 and IER #13, would be constructed. Beyond the impacts described in IER #12 and IER #13, businesses within the project area would not experience an incremental benefit by having an additional fire hydrant in the area. Relative to the proposed action, the no action alternative may

potentially subject the business nearest to the project site to a higher risk from fire resulting from the operation and maintenance of the WCC as described in IER #12. Any fires occurring under the no action plan that could have been contained under the proposed action plan increase the potential damage costs to the business as well as possible closures or relocation. There is only one business in the near vicinity, therefore employment, business, and industry impacts would not differ significantly from those described in IER #12 and IER #13.

Proposed Action

Direct, Indirect, and Cumulative

Under the proposed action, construction of the waterline may marginally impact a business in the area. The waterline would run along Walker Rd., which also runs adjacent to the business' property. As described in IER #12, the business' main access is currently on Walker Rd, which was altered from its original location due to the relocation of East Bayou Rd. Consequently, this business may be impacted by a temporary increase in traffic congestion during construction, which may diminish accessibility as well as visibility. The level of direct impacts depends on whether there may be temporary, partial road closures. For those partial road closures that may occur on Walker Rd., the affected business has an alternative entrance off of East Bayou Rd, thus impacts would be minor as well as temporary.

3.3.3 Availability of Public Facilities and Services

Discussion of Impacts

No Action

Under the no action alternative, there would be no provision of the water necessary for operating and maintaining the WCC as well as for extinguishing fires that may occur. It is the intent of this project to facilitate firefighting of the immediate area surrounding the GIWW West Closure Complex. If a fire were to result directly from operation and maintenance, the no action plan would put the surrounding community at a greater risk from fire relative to having the firefighting capabilities within close proximity to the project site.

Proposed Action

Direct, Indirect, and Cumulative

Under the proposed action, Public Facilities and Services could marginally benefit from the incremental addition to the municipal water system. Upon completion of the final project, the waterline would be turned over to Plaquemines Parish. If the parish chooses to, they could utilize the waterline to expand the community's water service to areas not currently served, thus positively impacting public facilities and services beyond the temporal scope of the project. During construction it is not anticipated that there would be any disruption or negative impacts in the use of public facilities or services as a result of the waterline project.

3.3.4 Effects on Transportation

Discussion of Impacts

No Action

Under the no action alternative, the Government's approved action, as discussed in IER #12 and IER #13, would be constructed. Consequently, the transportation impacts would not differ significantly from those described in IER #12 and IER #13.

Proposed Action

Direct, Indirect, and Cumulative

Under the proposed action, there may be some insignificant direct transportation impacts. The waterline would be installed underneath Bergeron Dr using a single drilling location. As such, construction would be contained to concentrated location on Bergeron Dr., which would limit transportation impacts. At present, there are approximately 10 to 12 homes on each side of Bergeron Dr., several with multiple vehicles, as well as the additional vehicles that would be present due to the project; parking and congestion may be slightly impacted during construction. Access to homes would not be denied, but residents may have to find alternative parking locations. Currently, no road closures would be anticipated.

3.3.5 Disruption of Desirable Community and Regional Growth

Discussion of Impacts

No Action

Under the no action alternative, the Government's approved action, as discussed in IER 12 and IER 13, would be constructed. Consequently, the community and regional growth impacts would not differ significantly from those described in IER #12 and IER #13.

Proposed Action

Direct, Indirect, and Cumulative

Under the proposed action, no significant impacts to community and regional growth would be expected to occur beyond what is described within IER #12 and IER #13.

3.3.6 Impacts to Tax Revenues and Property Values

Discussion of Impacts

No Action

Under the no action alternative, the Government's approved action, as discussed in IER #12 and IER #13, would be constructed. Consequently, the tax revenue and property value impacts would not differ significantly from those described in IER #12 and IER #13.

Proposed Action

Direct, Indirect, and Cumulative

Under the proposed action, no significant impacts to tax revenues and property values would be expected to occur beyond what is described within IER #12 and IER #13.

3.3.7 Changes in Community Cohesion

Discussion of Impacts

No Action

Under the no action alternative, the Government's approved action, as discussed in IER #12 and IER #13 would be constructed. Consequently, the community cohesion impacts would not differ significantly from those described in IER #12 and IER #13.

Proposed Action

Direct, Indirect, and Cumulative

Under the proposed action, no significant impacts to community cohesion would be expected to occur beyond what is described in IER #12 and IER #13.

3.4 ENVIRONMENTAL JUSTICE

Existing Conditions

The project area of potential affect (APE) is primarily uninhabited open agriculture land with a few residential streets located within the APE. According to the 2000 U.S. Census, and per requirements of Executive Order 12898 (E.O. 12898), it has been determined that the IER 12 WCC area is not a minority community with minorities comprising 32.1 percent of its population and not a low-income area with 15.1 percent of its population below the poverty level. It is unlikely that the IER 12 WCC area is an environmental justice area of concern.

Discussion of Impacts

No Action

Under the no action alternative, the Government's approved action, as discussed in IER #12 and IER #13 would be constructed. Consequently, the impacts to EJ would not differ from those discussed in IER #12 and IER #13.

Proposed Action

Direct

Under the proposed action, no direct impacts on human health or environmental effects and no disproportional impacts on minority or low income populations within the study area would occur.

Indirect

Under the proposed action no indirect impacts on human health or environmental effects within the study area would occur.

Cumulative

There would be no adverse cumulative impacts on minority and/or low-income communities as none have been identified within the study area per 2000 U.S. Census information and requirements of E.O. 12898. Additional impacts of the proposed action would be the additive combination of impacts to minority and/or low-income and non-minority and non-low income communities by other Federal, state, local, and private efforts. There would be no disproportionate direct impacts on any minority or low-income populations. Rather, the IER #12 WCC would contribute toward achieving and sustaining a coastal ecosystem that would support and protect the environment, local economy, and culture of the region.

3.5 HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE (HTRW)

Existing Conditions

The general IERS 12/13 project vicinity has been heavily industrialized for more than fifty years, and numerous Recognized Environmental Conditions (RECs) were identified. Many of the RECs were included due to the lack of specific information on various properties. There were drums and Above-Ground-Storage fuel tanks (ASTs) at many of the properties surveyed in the IERS 12/13 project area. None of the indentified RECs are present within the proposed water line alignment and no RECs were found within the project work area. There is a low probability of encountering HTRW during the course of this project.

Discussion of Impacts

No Action

Under the no action alternative, the Government's approved action, as discussed in IER #12 and IER #13, would be constructed. Consequently, direct, indirect, and cumulative impacts due to HTRW would not differ from those described in IER #12 and IER #13.

Proposed Action

Direct, Indirect, and Cumulative

With implementation of the proposed action no direct, indirect, or cumulative impacts due to HTRW would be expected. This conclusion is based on the Environmental Site Assessments completed for IER #12 and IER #13 and a field inspection, conducted on July 2, 2010, of the work area. No evidence of RECs was found along the proposed waterline alignment.

4. CUMULATIVE IMPACTS

NEPA requires a Federal agency to consider not only the direct and indirect impacts of a proposed action, but also the cumulative impact of the action. A cumulative impact is defined as "the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions (40 CFR§1508.7)."

Cumulative impacts can result from individually minor, but collectively significant actions taking place over a period of time. These actions include on- or off-site projects conducted by

government agencies, businesses, or individuals that are within the spatial and temporal boundaries of the actions considered in this IERS.

As indicated previously, in addition to this IERS, the CEMVN is preparing a draft CED that will describe the work completed and the work remaining to be constructed. The purpose of the draft CED will be to document the work completed by the USACE on a system-wide scale. The draft CED will describe the integration of individual IERs into a systematic planning effort. Additionally, the draft CED will contain updated information for any IER that had incomplete or at the time it was posted for public review. The Draft CED to be released in 2011 will address overall cumulative impacts and the future operation, maintenance, repair, replacement and rehabilitation requirements that have been finalized at that time. Additional documents will be prepared to provide updates to cumulative impacts as well as information about additional commitments (i.e. long term monitoring and analysis of the Bayou Aux Carpes and Inner Harbor Navigation Canal project areas) as monitoring or additional NEPA documents are completed. The discussion provided below describes an overview of other actions, projects, and occurrences that may contribute to the cumulative impacts previously discussed.

Without implementation of the proposed action the functionality of the WCC would be compromised. Providing the WCC portion of the WBV with the 100-year level of risk reduction would contribute to the protection of life and to the reduction of physical and environmental damage. Significant flooding often results in contamination of drinking water supplies, dispersion of HTRW, and dispersion of large quantities of solid waste that require clean up and disposal. Experience has shown that vast quantities of debris (e.g., homes, vehicles, mobile homes, etc.) and sediment must be collected and hauled away after a flooding event. Hauling the collected debris to a local municipal landfill requires significant transportation and involves large quantities of solid waste that fill available landfill space. Providing the 100-year level of risk reduction significantly reduces the probability that these environmental consequences of flooding would be incurred.

Negative effects associated with implementation of the proposed action that could contribute cumulatively with the effects of other projects include temporary construction-related increases in truck traffic, noise and vibration, vehicle and equipment emissions, and localized temporary degradation of water quality. The total loss of habitat related to the implementation of all actions under all of the IERs has not yet been compiled, but the current totals are presented in table 2. When available, the loss from IERS # 12/13 will be included in the total cumulative loss. The positive cumulative effects of implementing the proposed action include the temporary expansion of the local economy through the influx of construction-related expenditures.

The WBV project extends approximately 66 miles in length from the Western Tie-in to the Hero Canal Levee and Eastern Terminus in Belle Chasse (IERs # 1-17). The LPV Project (IERs # 1 through 11) extends an even larger distance protecting the East Bank of New Orleans. The construction-related negative effects as well as the positive consequences (e.g., spending in the local economy) resulting from providing the 100-year level of hurricane damage risk reduction for these projects may potentially represent the largest cumulative environmental consequences in the New Orleans region for the next 4 to 7 years.

Table 3. : HSDRRS Impacts and Compensatory Mitigation to be Completed

IER	Parish	Side	Non-wet	Non-wet	BLH	BLH	Swamp	Swamp	Marsh	Marsh	Water
			<i>acres</i>	<i>AAHUs</i>	<i>acres</i>	<i>AAHUs</i>	<i>acres</i>	<i>AAHUs</i>	<i>acres</i>	<i>AAHUs</i>	<i>acres</i>
1 LaBranche Levee	St. Charles	Protected	-	-	-	-	137.50	73.99	-	-	-
		Flood	-	-	11.33	8.09	143.57	110.97	-	-	
1 Supplemental LaBranche Levee	St. Charles	Protected	-	-	-	-	-	-	-	-	-
		Flood	-	-	-	-	-	-	-	-	
2 West Return Floodwall	St. Charles, Jefferson	Protected	-	-	-	-	-	-	-	-	75.00
		Flood	-	-	-	-	-	-	17.00	9.00	
3 Jefferson Lakefront Levee	Jefferson	Protected	-	-	-	-	-	-	-	-	26.40
		Flood	-	-	-	-	-	-	-	-	
4 Orleans Lakefront Levee	Orleans	Protected	-	-	-	-	-	-	-	-	-
		Flood	-	-	-	-	-	-	-	-	
5 Lakefront Pump Stations	Jefferson, Orleans	Protected	-	-	-	-	-	-	-	-	3.20
		Flood	-	-	-	-	-	-	-	-	
6 Citrus Lands Levee	Orleans	Protected	-	-	-	-	-	-	-	-	6.90
		Flood	-	-	-	-	-	-	0.00	-	
7 Lakefront Levee	Orleans	Protected	-	-	151.70	79.30	-	-	100.40	36.80	106.00
		Flood	-	-	30.00	11.90	-	-	70.00	37.20	

IER	Parish	Side	Non-wet	Non-wet	BLH	BLH	Swamp	Swamp	Marsh	Marsh	Water
			<i>acres</i>	<i>AAHUs</i>	<i>acres</i>	<i>AAHUs</i>	<i>acres</i>	<i>AAHUs</i>	<i>acres</i>	<i>AAHUs</i>	<i>acres</i>
7 Supplemental Lakefront Levee	Orleans	Protected	-	-	17.30	9.90	-	-	18.60	6.10	-
		Flood	-	-	2.80	0.30	-	-	56.00	29.80	
8 Bayou Bienvenue/ Dupre Structures	St. Bernard	Protected	-	-	-	-	-	-	-	-	0.30
		Flood	-	-	-	-	-	-	-	-	
9 Caenarvon Floodwall	St. Bernard	Protected	-	-	-	-	-	-	-	-	-
		Flood	10.00	4.65	1.16	0.66	-	-	1.90	1.20	
10 Chalmette Loop	St. Bernard	Protected	-	-	38.32	16.44	-	-	106.55	57.31	95.00
		Flood	-	-	35.31	15.22	-	-	323.04	209.94	
11 Tier 2 Borgne IHNC	Orleans, St. Bernard	Protected	-	-	-	-	-	-	-	-	-
		Flood	-	-	15.00	2.59	-	-	122.00	24.33	
11 Tier 2, Pontchartrain IHNC	Orleans, St. Bernard	Protected	-	-	-	-	-	-	-	-	7.00
		Flood	-	-	-	-	-	-	-	-	
12 GIWW, Harvey, Algiers	Jefferson, Orleans, Plaquemines	Protected	-	-	251.70	177.3	-	-	-	-	-
		Flood	-	-	2.30	1.90	74.90	38.50	-	-	
13 Hero Canal, Eastern Terminus	Plaquemines	Protected	-	-	13.00	7.80	-	-	-	-	-
		Flood	-	-	19.00	10.59	39.00	28.87	-	-	
14	Jefferson	Protected	-	-	45.00	30.00	-	-	-	-	-

IER	Parish	Side	Non-wet	Non-wet	BLH	BLH	Swamp	Swamp	Marsh	Marsh	Water
			<i>acres</i>	<i>AAHUs</i>	<i>acres</i>	<i>AAHUs</i>	<i>acres</i>	<i>AAHUs</i>	<i>acres</i>	<i>AAHUs</i>	<i>acres</i>
Westwego to Harvey Levee		Flood	-	-	45.50	18.58	29.75	17.02	-	-	
14 Supp. Westwego to Harvey Levee	Jefferson	Protected	-	-	-	-	-	-	-	-	-
		Flood	-	-	-	-	42.00	24.00	-	-	-
15 Lake Cataouatche Levee	Jefferson	Protected	-	-	23.50	6.13	-	-	-	-	-
		Flood	-	-	3.60	1.35	-	-	-	-	-
16 Western Tie-in	Jefferson, St. Charles	Protected	-	-	-	-	-	-	-	-	-
		Flood	-	-	-	-	-	-	137.80	66.30	-
16 Supplemental Western Tie-in	Jefferson, St. Charles	Protected	-	-	-	-	-	-	-	-	-
		Flood	-	-	79.10	37.26	-	-	-	-	-
17 Company Canal Floodwall	Jefferson	Protected	-	-	5.50	2.69	-	-	-	-	-
		Flood	-	-	-	-	19.00	17.09	-	-	-
18 GFBM	Jefferson, Orleans, Plaquemines, St. Bernard, St. Charles	Protected	379.30	152.32	-	-	-	-	-	-	-
		Flood	-	-	-	-	-	-	-	-	-
19 CFBM	Hancock County, MS; Iberville, Jefferson, Orleans, Plaquemines, St. Bernard	Protected	-	-	-	-	-	-	-	-	-
		Flood	-	-	-	-	-	-	-	-	-
22 GFBM	Jefferson, Plaquemines	Protected	244.69	118.54	-	-	-	-	-	-	-
		Flood	-	-	-	-	-	-	-	-	-

IER	Parish	Side	Non-wet	Non-wet	BLH	BLH	Swamp	Swamp	Marsh	Marsh	Water
			<i>acres</i>	<i>AAHUs</i>	<i>acres</i>	<i>AAHUs</i>	<i>acres</i>	<i>AAHUs</i>	<i>acres</i>	<i>AAHUs</i>	<i>acres</i>
23 CFBM	Hancock County, MS; Plaquemines, St. Bernard, St. Charles	Protected	-	-	-	-	-	-	-	-	-
		Flood	-	-	-	-	-	-	-	-	-
25 GFBM	Jefferson, Orleans, Plaquemines	Protected	933.00	284.00	-	-	-	-	-	-	-
		Flood	-	-	-	-	-	-	-	-	-
26 CFBM	Jefferson, Plaquemines, St. John the Baptist; Hancock County,	Protected	-	-	-	-	-	-	-	-	-
		Flood	-	-	-	-	-	-	-	-	-
28 GFBM	Jefferson, Plaquemines, St. Bernard	Protected	19.94	8.45	-	-	-	-	-	-	-
		Flood	-	-	-	-	-	-	-	-	-
29 CFBM	Orleans, St. Tammany, St. John the Baptist	Protected	107.30	48.60	-	-	-	-	-	-	-
		Flood	-	-	-	-	-	-	-	-	-
30 CFBM	St. Bernard and St. James; Hancock, MS	Protected	225.00	189.40	-	-	-	-	-	-	-
		Flood	-	-	-	-	-	-	-	-	-
32 CFBM	Ascension, Plaquemines, St. Charles	Protected	202.10	97.43	-	-	-	-	-	-	-
		Flood	-	-	-	-	-	-	-	-	-
Totals		Protected	1772.03	708.32	545.52	329.22	137.50	73.99	225.55	100.21	00.00
		Flood	10.00	4.65	323.80	163.33	350.02	237.30	740.54	388.42	230.99
		Both	178.03	712.97	869.32	492.55	487.52	311.29	966.09	488.63	230.99

- Not applicable to the IER or number impacted is 0 GFBM: Government Furnished Borrow Material // CFBM: Contractor Furnished Borrow Material

5. SELECTION RATIONALE

On the basis of the assessment of potential environmental impacts presented in this IERS and the evaluation of feasibility based on the engineering effectiveness, economic efficiency, and environmental and social acceptability criteria, the proposed action is selected and is environmentally preferred.

The CEQ regulations for implementing NEPA require that the Record of Decision (ROD) for an environmental impact statement specify "the alternative or alternatives which were considered to be environmentally preferable" (40 CFR §1505.2(b)). This has generally been interpreted to mean the alternative that would promote the national environmental policy as expressed in NEPA's Section 101 (CEQ's "Forty Most-Asked Questions," 46 Federal Register, 18026, March 23, 1981). Ordinarily, this means the alternative that causes the least damage to the biological and physical environment; it also means the alternative that best protects, preserves, and enhances historic, cultural, and natural resources.

The proposed action for IERS #12/13 presents an engineering-effective, cost-efficient, environmentally-preferable selection to the alternative. Taking no action, although avoiding the direct effects from construction of the waterline, may lead to indirect effects from potential fires to area residences and businesses, and associated costs for clean up due to lack of water for fire protection and the inability to operate the WCC properly.

The proposed action was selected because it would simultaneously (1) provide the necessary water source for the proper functioning of the WCC (2) minimize impacts to residential, commercial, and industrial properties by staying within existing easements and ROWs, and (3) have the least environmental impacts.

6. COORDINATION AND CONSULTATION

6.1 PUBLIC INVOLVEMENT

Extensive public involvement has been sought in preparing IER #12 and IER #13. Proposed Federal projects analyzed by IERs were publicly disclosed and described in the Federal Register on March 13, 2007, (72 FR 11337) and on the website www.nolaenvironmental.gov. The public has been able to provide verbal comments during the meetings and written comments after each meeting in person, by mail, and via the www.nolaenvironmental.gov website. A project-specific public meeting will be held during the 30 day public review period for this IERS.

Since this project could potentially include unavoidable adverse impacts to jurisdictional wetlands under Section 404 of the Clean Water Act, a 404 public notice is being made available to the public and other interested parties on the www.nolaenvironmental.gov website. The 404 public notice is being advertised concurrently with the 30-day period for this IERS.

Draft IER #12 was distributed for the 30-day public review of January 5, 2009, to February 11, 2009. Draft IER #13 was distributed for the 30-day public review of April 3, 2009, to June 1, 2009. This IERS will be released for public review and comment. A public meeting specific to the proposed action will be held during the 30 day public review period. Comments received during this public meeting will be considered part of the official record. After the expiration of the public comment period the CEMVN Commander will make a decision on the proposed action. The decision will be documented in the IERS Decision Record.

6.2 AGENCY COORDINATION

Preparation of this IERS has been coordinated with appropriate Congressional, Federal, state, and local interests, as well as environmental groups and other interested parties. An interagency environmental team was established for this project in which Federal and state agency staff played an integral part in the project planning of the project (members of this team are listed in appendix C). This interagency environmental team was integrated with the CEMVN Project Delivery Team to assist in the planning of this project and to complete a mitigation determination of the potential direct and indirect impacts of the proposed action. Monthly meetings with resource agencies were also held concerning this and other CEMVN IER projects. Project specific discussion of the proposed IERS #12/13 project took place during the June 2010, July 2010, and September 2010 interagency environmental team meetings. The following agencies, as well as other interested parties, received copies of the draft IERS:

- U.S. Department of the Interior, Fish and Wildlife Service
- U.S. Department of the Interior, National Park Service
- U.S. Environmental Protection Agency, Region VI
- U.S. Department of Commerce, National Marine Fisheries Service
- U.S. Natural Resources Conservation Service, State Conservationist
- Advisory Council on Historic Preservation
- Governor's Executive Assistant for Coastal Activities
- Louisiana Department of Wildlife and Fisheries
- Louisiana Department of Natural Resources, Coastal Management Division
- Louisiana Department of Natural Resources, Coastal Restoration Division
- Louisiana Department of Environmental Quality
- Louisiana State Historic Preservation Officer

The U.S. Fish and Wildlife Service (USFWS) has reviewed the proposed action and in a letter dated August 2, 2010, stated that the USFWS is unaware of any known threatened or endangered species under its jurisdiction in the proposed project area. National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) has received a copy of the IERS for their review of the proposed action to ensure compliance with Section 305 of the Magnuson-Stevens Fishery Conservation and Management Act and the Fish and Wildlife Coordination Act.

In their November 8, 2007 correspondence, the NMFS Protected Resources Division provided a list of threatened and endangered species under their jurisdiction in Louisiana. Based on that information, the CEMVN made a determination of no effect for species under NMFS jurisdiction. In addition, Essential Fish Habitat (EFH) has not been designated for the proposed project area, so no coordination on EFH is required (NMFS, 2009).

In compliance with the Coastal Zone Management Act, the CEMVN has coordinated with the Louisiana Department of Natural Resources (LDNR) for consistency with the Louisiana Coastal Resource Program (LCRP) and the Consistency Determination was issued on October 26, 2010. A copy of the Consistency Determination is included in appendix D.

A Water Quality Certification has been received from the Louisiana Department of Environmental Quality (LDEQ) by letter dated August 31, 2010, (appendix D). An Air Quality certification is being coordinated with LDEQ through the 30-day public review period associated with IERS #12/13.

Section 106 of the National Historic Preservation Act, as amended, requires consultation with SHPO and Native American tribes. SHPO reviewed the proposed action and determined that it

would not adversely affect any cultural resources by letter dated September 2, 2010. Eleven Federally recognized tribes that have an interest in the region were given the opportunity to review and comment on the proposed action. The Seminole Tribe of Florida and the Alabama Coushatta Tribe of Texas concurred with our "no historic properties affected" finding in letters dated August 25, 2010, and August 26, 2010 respectively.

The USFWS reviewed the proposed action in accordance with the Fish and Wildlife Coordination Act and prepared a draft Coordination Act Report including recommendations for IERS #12/13 dated September 15, 2010. A final report will be prepared after the 30-day review period. All comments related to USFWS trust resources have been addressed and/or resolved. The USFWS also provided programmatic recommendations, in the "Draft Fish and Wildlife Coordination Act Report for the Individual Environmental Reports (IER), Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4)" in November 2007. At that time the uncertainties in the design of several projects prohibited a complete evaluation of the impacts to fish and wildlife species and the reporting responsibilities under Section 2(b) of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended: 16 U.S.C. 661 et seq.). Therefore, a subsequent final supplemental report will be provided by the USFWS at a later date. The draft (programmatic) Fish and Wildlife Coordination Act Report for the IERS, dated November 2007, can be accessed through the www.nolaenvironmental.gov website.

The USFWS' programmatic recommendations applicable to this project will be incorporated into project design studies to the extent practicable, consistent with engineering and public safety requirements. The USFWS' programmatic recommendations applicable to this project, and the CEMVN's response to them, are listed below:

Recommendation 1: Flood protection and ancillary features such as staging areas and access roads should be designed and positioned so that destruction of wetlands and non-wet bottomland hardwoods are avoided or minimized to the greatest extent possible.

CEMVN Response 1: Concur.

Recommendation 2: The Corps [USACE] should fully compensate for any unavoidable losses of wetland habitat or non-wet bottomland hardwoods caused by project features.

CEMVN Response 2: The USACE shall provide mitigation for impacts to wetland habitat or non-wet bottomland hardwoods caused by project features.

Recommendation 3: If a proposed project feature is changed significantly or is not implemented within one year of the date of this report, the Corps [USACE] should reinstate coordination with each office to ensure that the proposed project would not adversely affect any Federally listed threatened or endangered species or their habitat.

CEMVN Response 3: Concur.

Recommendation 4: Adverse impacts to bald eagle nesting locations and wading bird colonies should be avoided through careful design of project features and timing of construction. A qualified biologist should inspect the proposed work site for the presence of undocumented wading bird nesting colonies and bald eagles during the nesting season (i.e., February 16 through October 31 for wading bird nesting colonies, and October through mid-May for bald eagles).

CEMVN Response 4: Concur. A USACE biologist will inspect the site for undocumented wading bird nesting colonies and bald eagles prior to construction and during the nesting season.

Recommendation 5: To minimize disturbance to colonies containing nesting wading birds (i.e., herons, egrets, night-herons, ibis, and roseate spoonbills), anhingas, and/or cormorants, all activity occurring within 1,000 feet of a rookery should be restricted to the non-nesting period (i.e., September 1 through February 15, exact dates may vary within this window depending on species present). In addition, we recommend that on-site contract personnel be informed of the need to identify colonial nesting birds and their nests, and should avoid affecting them during the breeding season.

CEMVN Response 5: Concur.

Recommendation 6: If a bald eagle nest is discovered within or adjacent to the proposed project area, then an evaluation should be performed to determine whether the project is likely to disturb nesting bald eagles. That evaluation may be conducted on-line at: <http://www.fws.gov/southeast/es/baldeagle>. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary and those results should be forwarded to this office.

CEMVN Response 6: Concur.

Recommendation 7: Forest clearing associated with project features should be conducted during the fall or winter to minimize impacts to nesting migratory birds, when practicable.

CEMVN Response 7: This recommendation will be considered in the design of the project to the greatest extent practicable.

Recommendation 8: Forested areas cleared for staging areas and temporary construction zones should be managed for invasive species (i.e., Chinese tallow tree) after the completion of the project.

CEMVN Response 8: Acknowledged. Impacts to forested areas for staging that would be allowed to re-vegetate after construction is complete, will be assessed as a temporary impact and mitigated in kind by the CEMVN.

Recommendation 9: Acquisition, habitat development, maintenance and management of mitigation lands should be allocated as first-cost expenses of the project, and the local project-sponsor should be responsible for operational costs. If the local project-sponsor is unable to fulfill the financial mitigation requirements for operation, then the Corps [USACE] should provide the necessary funding to ensure mitigation obligations are met on behalf of the public interest.

CEMVN Response 9: Construction of the project features are cost shared between the Government and non-Federal sponsor. However, costs for operation, maintenance, repair, replacement, and rehabilitation will be the responsibility of the non-Federal sponsor.

Recommendation 10: Further detailed planning of project features (e.g., Design Documentation Report, Engineering Documentation Report, Plans and Specifications, or other similar documents) should be coordinated with the Service, NMFS, LDWF, EPA, NPS, and the Louisiana Department of Natural Resources (LDNR). The Service should be provided an opportunity to review and submit recommendations on the all work addressed in those reports.

CEMVN Response 10: Concur.

Recommendation 11: If mitigation lands are purchased for inclusion within Federally of State managed lands, those lands must meet certain requirements; therefore the land manger of that management area should be contacted early in the planning phase regarding such requirements.

CEMVN Response 11: Concur.

Recommendation 12: Any proposed change in mitigation or augmentation features or plans should be coordinated in advance with the Service, NMFS, LDWF, EPA and LDNR.

CEMVN Response 12: Concur.

7. MITIGATION

Mitigation for unavoidable impacts to the human and natural environment described in this and other IERs will be addressed in separate mitigation IERs. The CEMVN has partnered with Federal and state resource agencies to form an interagency mitigation team that is working to assess and verify these impacts, and to look for potential mitigation sites in the appropriate hydrologic basin. This effort is occurring concurrently with the IER planning process in an effort to complete mitigation work and construct mitigation projects expeditiously. As with the planning process of all other IERs, the public will have the opportunity to give input about the proposed work. These mitigation IERs will, as described in Section 1 of this IER, be available for a 30-day public review and comment period.

Quantitative analysis utilizing existing methodologies for water resource planning has identified the acreages and habitat type for the direct or indirect impacts of implementing the proposed action. Thirty-three acres have been identified that would require compensatory mitigation.

The methodology being utilized in determining appropriate mitigation, which would include no net loss of wetland values, is the interagency Wetland Value Assessment (WVA). The WVA computes the Average Annualized Habitat Units (AAHUs) lost by project implementation. The AAHUs are converted to acres needed to meet the nation's no-net-loss of wetlands policy once the mitigation site is selected.

14,900 ft² of bottomland hardwoods would be impacted by this project such that mitigation for 0.12 AAHUs would be required. CEMVN would provide compensatory mitigation for this habitat loss. Compensatory mitigation for habitat losses associated with HSDRRS construction will be discussed in separate mitigation IERs.

A complementary comprehensive mitigation IER or IERs will be prepared documenting and compiling these unavoidable impacts and those for all other proposed actions within the HSDRRS that are being analyzed through other IERs. Mitigation planning is being carried out for groups of IERs, rather than within each IER, so that large mitigation efforts could be taken rather than several smaller efforts, thus increasing the relative economic and ecological benefits of the mitigation effort. The forthcoming mitigation IER will implement compensatory mitigation as early as possible. All mitigation activities will be consistent with standards and policies established in appropriate Federal and state laws and USACE policies and regulations.

8. COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

Construction of the proposed action would not commence until the proposed action achieves environmental compliance with all applicable laws and regulations, as described below.

Environmental compliance for the proposed action would be achieved upon coordination of this IERS with appropriate agencies, organizations, and individuals for their review and comments; USFWS and NMFS confirmation that the proposed action would not adversely affect any threatened or endangered species or require completion of Endangered Species Act Section 7 consultation; LDNR concurrence with the determination that the proposed action is consistent, to the maximum extent practicable, with the LCRP; receipt of a Water Quality Certification from the State of Louisiana; public review of the Section 404(b)(1) Public Notice and signature of the Section 404(b)(1) Evaluation; coordination with the Louisiana SHPO; receipt and acceptance or resolution of all Fish and Wildlife Coordination Act recommendations; and receipt and acceptance or resolution of all EFH recommendations.

Executive Order (E.O.) 11988. E.O. 11988, Floodplain Management, addresses minimizing or avoiding adverse impacts associated with the base floodplain unless there are no practicable alternatives. It also involves giving public notice of proposed actions that may affect the base floodplain. The proposed action would not accelerate development of the floodplain for the following reasons: development of the study area is more closely related to access routes and the need for affordable housing space than flooding potential and conditions conducive for development were established initially when the area was levied and forced drainage was initiated in the middle 1960s.

Executive Order 11990. E.O. 11990, Protection of Wetlands, has been important in project planning.

Consistency with Coastal Zone Management (CZM) Program. The CEMVN has determined that additions associated with the construction and maintenance of 100-year level of risk reduction along the WBV, WCC, are consistent to the maximum extent practicable, with the guidelines of the State of Louisiana's approved Coastal Zone Management Program. A CZM consistency determination was prepared and provided to the LDNR. The consistency determination, C20100293, was dated October 26, 2010. The consistency letter of approval from the LDNR completes the consistency requirements.

Clean Air Act. The original 1970 Clean Air Act (CAA) authorized the USEPA to establish National Ambient Air Quality Standards (NAAQS) to limit levels of pollutants in the air. USEPA has promulgated NAAQS for six criteria pollutants: sulfur dioxide (SO₂), nitrogen dioxide (NO₂), carbon monoxide (CO), ozone, lead, and particulate matter (PM-10). All areas of the United States must maintain ambient levels of these pollutants below the ceilings established by the NAAQS; any area that does not meet these standards is considered a "non-attainment" area (NAA). The 1990 Amendments require that the boundaries of serious, severe, or extreme ozone or CO non-attainment areas located within Metropolitan Statistical Areas (MSAs) or Consolidated Metropolitan Statistical Areas (CMSAs) be expanded to include the entire MSA or CMSA unless the governor makes certain findings and the Administrator of the USEPA concurs. Consequently, all urban counties included in an affected MSA or CMSA, regardless of their attainment status, will become part of the NAA. The project is located in Plaquemines Parish, which is classified as an attainment area; therefore NAAQS are not applicable to this project.

Clean Water Act. The Clean Water Act (CWA; 33 U.S.C. 1251-1387; Act of June 30, 1948, as amended) is a very broad statute with the goal of maintaining and restoring waters of the United

States. The CWA authorizes water quality and pollution research, provides grants for sewage treatment facilities, sets pollution discharge and water quality standards, addresses oil and hazardous substances liability, and establishes permit programs for water quality, point source pollutant discharges, ocean pollution discharges, and dredging or filling of wetlands. The intent of the CWA's §404 program and its §404(b)(1) "Guidelines" is to prevent destruction of aquatic ecosystems including wetlands, unless the action will not individually or cumulatively adversely affect the ecosystem. Section 404(b)(1) guidelines were used to evaluate the discharge of dredged or fill material for adverse impacts to the aquatic ecosystem. The proposed project complies with the requirements of the guidelines. The LDEQ Water Quality Certification letter, WQC 090128-01/AI 162810/CER20100001, dated August 31, 2010, completes the certification process.

Endangered Species Act. The Endangered Species Act (16 U.S.C. 1531-1543; P.L. 93-205, as amended) was enacted in 1973 to provide for the conservation of species that are in danger of extinction throughout all or a significant portion of their range. "Species" is defined by the Act to mean either a species, a subspecies, or, for vertebrates (*i.e.*, fish, reptiles, mammals, etc.) only, a distinct population. No threatened or endangered species or their critical habitat would be impacted by the proposed action. The USFWS concurred with the CEMVN's determination in their letter dated August 2, 2010.

Fish and Wildlife Coordination Act. The Fish and Wildlife Coordination Act (16 U.S.C. 661-666c; Act of March 10, 1934, as amended) requires that wildlife, including fish, receive equal consideration and be coordinated with other aspects of water resource development. This is accomplished by requiring consultation with the USFWS and NMFS whenever modifications are proposed to a body of water and a Federal permit or license is required. This consultation determines the possible harm to fish and wildlife resources, and the measures that are needed to both prevent the damage to and loss of these resources, and to develop and improve the resources, in connection with water resource development. NMFS submits comments and recommendations to Federal licensing and permitting agencies, and to Federal agencies conducting construction projects on the potential harm to living marine resources caused by proposed water development projects, and suggests recommendations to prevent harm. The USFWS provided the "Draft Fish and Wildlife Coordination Act Report for the Individual Environmental Reports (IER), Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4)" in November 2007 (USFWS, 2007). To fulfill the responsibilities of the Fish and Wildlife Coordination Act, the USFWS will provide a post-authorization final supplemental 2(b) report to the draft programmatic report. A draft project-specific Coordination Act Report was received from USFWS by letter dated September 15, 2010. A final report will be prepared after the 30-day public review period. All comments regarding USFWS trust resources have been resolved.

Migratory Bird Treaty Act. The Migratory Bird Treaty Act of 1918 (MBTA) is the domestic law that affirms, or implements, the United States' commitment to four international conventions with Canada, Japan, Mexico, and Russia for the protection of shared migratory bird resources. The MBTA governs the taking, killing, possessing, transporting, and importing of migratory birds, their eggs, parts, and nests. The taking of all migratory birds is governed by the MBTA's regulation of taking migratory birds for educational, scientific, and recreational purposes and requiring harvest to be limited to levels that prevent over-utilization. Section 704 of the MBTA states that the Secretary of the Interior is authorized and directed to determine if, and by what means, the taking of migratory birds should be allowed and to adopt suitable regulations permitting and governing taking. The MBTA prohibits the taking, possessing, importing, exporting, transporting, selling, purchasing bartering, or offering for sale, purchase or barter, of any migratory bird, their eggs, parts, and nests, except as authorized under a valid permit (50 CFR §21.11). The USFWS addressed compliance with this Act in the "Draft Fish and Wildlife

Coordination Act Report for the IER, Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4)” in November 2007 (USFWS, 2007). To fulfill the responsibilities of the Fish and Wildlife Coordination Act, the USFWS will provide a post-authorization final supplemental 2(b) report to the draft programmatic report.

National Environmental Policy Act. The NEPA (42 U.S.C. 4321-4347; Pub. L. 91-190, as amended) requires Federal agencies to analyze the potential effects of a proposed Federal action that would significantly affect historical, cultural, or natural aspects of the environment. It specifically requires agencies to use a systematic, interdisciplinary approach in planning and decision-making, to insure that environmental values may be given appropriate consideration, and to provide detailed statements on the environmental impacts of proposed actions including: (1) any adverse impacts; (2) alternatives to the proposed action; and (3) the relationship between short-term uses and long-term productivity. The agencies use the results of this analysis in decision-making. The preparation of this IER is a part of compliance with NEPA.

National Historic Preservation Act. Congress established the most comprehensive national policy on historic preservation with the passage of the National Historic Preservation Act of 1966 (NHPA). In this act, historic preservation was defined to include "the protection, rehabilitation, restoration and reconstruction of districts, sites, buildings, structures, and objects significant in American history, architecture, archaeology, or culture." The act led to the creation of the National Register of Historic Places, a file of cultural resources of national, regional, state, and local significance. The act also established the Advisory Council on Historic Preservation (the Council), an independent Federal agency responsible for administering the protective provisions of the act. The major provisions of the NHPA are Sections 106 and 110. Both sections aim to ensure that historic properties are appropriately considered in planning Federal initiatives and actions. Section 106 is a specific, issue-related mandate to which Federal agencies must adhere. It is a reactive mechanism that is driven by a Federal action. Section 110, in contrast, sets out broad Federal agency responsibilities with respect to historic properties. It is a proactive mechanism with emphasis on ongoing management of historic preservation sites and activities at Federal facilities. Coordination of this project with SHPO fulfills the requirements to comply with the NHPA, and the SHPO letter dated September 2, 2010, concludes this process.

9. CONCLUSION

9.1 PROPOSED DECISION

The proposed action would require placement of approximately 16,000 linear ft of waterline/pipe, Section 1 would begin near Hwy 23, run underneath Bergeron Dr, across a drainage ditch at the end of Bergeron Dr, down an existing PPG drainage easement, and finally cross the drainage canal (WPA Canal) at Landfill St to Walker Rd (figure 1). Section 2 would begin at Walker Rd and run down the Walker Rd ROW to the WCC (figure 2).

The CEMVN has assessed the environmental impacts of the proposed action and has determined that the proposed action would have the following impacts:

- Short-term impact to air quality from heavy equipment and trucks used during the 11 month construction period. Construction along Bergeron Dr would be approximately one week.
- Short-term direct impact to water quality in the WPA Canal from construction and the placement of the pipeline into the WPA Canal,
- Short-term disturbance to nearby residence and wildlife from construction noise and vibration,
- temporary loss of 14,900 ft² of BLH (clearing, grubbing, excavation and filling),
- Disturbance of 600 ft² of aquatic habitat,
- Temporary construction related traffic delays on Bergeron Dr and Walker Rd.

9.2 Prepared By

The point of contact and responsible manager for the preparation of this IERS is Tammy Gilmore, CEMVN. The address of the preparers is: U.S. Army Corps of Engineers, New Orleans District; Planning, Programs, and Project Management Division, CEMVN-PM; P.O. Box 60267; New Orleans, Louisiana 70160-0267. Table 5 lists the preparers of the various sections and topics in this IERS.

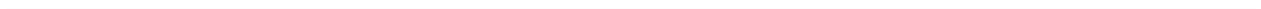
Table 4. IERS #12/13 Preparation Team

Environmental Team Leader	Sandy Stiles, CEMVN
Environmental Manager	Tammy Gilmore, CEMVN
Sr. Project Manager	Kevin Wagner, CEMVN
Review	Aven Bruser CEMVN – Office of Counsel
Review	Thomas Keevin, CEMVS - Independent Technical Review
HTRW	J. Christopher Brown, CEMVN
Cultural Resources	Paul Hughbanks, CEMVN
Recreational Resources	Andrew Perez, CEMVN
Aesthetic Resources	Richard Radford, CEMVN
Environmental Justice	Jerica Richardson CEMVN
Economics	Crystal Braun, CEMVN
Technical Editor	Jennifer Darville, CEMVN

9.3 LITERATURE CITED

- Council on Environmental Quality (CEQ). 1997. Environmental Justice Guidance Under the National Environmental Policy Act. Executive Office of the President. Washington, D.C.
- Department of the Army, Corps of Engineers, New Orleans District. 2009. Final Individual Environmental Report – GIWW, Harvey, and Algiers Levees and Floodwalls, Jefferson, Orleans and Plaquemines Parishes, Louisiana, IER#12, February 18, 2009.
- . 2009. Final Individual Environmental Report – Hero Canal Levee and Eastern Tie-In, Plaquemines Parish, Louisiana, IER#13, December 4, 2009.
- Executive Office of the President (Executive Order). 1994. Federal Actions to Address Environmental Justice in Minority Population and Low-Income Populations. Executive Order 12898, 59 Fed. Reg. 7629.
- Harlan, David, and Stuart Nolan. 2007. *Reconnaissance Survey of the Proposed West Bank N Borrow Area, Plaquemines Parish, Louisiana*. Earth Search, Inc. Submitted to U.S. Army Corps of Engineers, New Orleans District.
- Hinks, Stephen, William P. Athens, Ralph Draughn, Jr., Susan Barrett Smith, and Paul Heinrich. 1991. *Cultural Resources Investigations for the Westbank Hurricane Protection Project, Plaquemines and Jefferson Parishes, Louisiana*. R. Christopher Goodwin and Associates, Inc. Submitted to U.S. Army Corps of Engineers, New Orleans District.
- Stanton, Travis, Michael Godzinski, and Rhonda L. Smith. 2004. *Intensive Cultural Resources Survey of the Peters Road Extension, Engineers Road to Louisiana Highway 23, Plaquemines and Jefferson Parishes, Louisiana*. Earth Search, Inc., New Orleans.
- Wells, Douglas. 2008. *Management Summary: Reconnaissance Survey of the Belle Chasse to Harvey-Westwego Segment (IER #12), West Bank and Vicinity Hurricane Protection Levee, Jefferson, Orleans, and Plaquemines Parishes, Louisiana*. Coastal Environments, Inc. Submitted to U.S. Army Corps of Engineers, New Orleans District.

APPENDICES



APPENDIX A - LIST OF ACRONYMS AND DEFINITIONS OF COMMON TERMS

AAHUs	Annual Average Habitat Units
AD	Anno Domini
ASTM	American Society for Testing and Materials
BFI	Browning-Ferris Industries Landfill
BLH	Bottomland Hardwood Forest
BNSF	Burlington Northern Santa Fe
BOD	Biological Oxygen Demand
CED	Comprehensive Environmental Document
CEMVN	Corps of Engineers, Mississippi Valley Division, New Orleans District
CEQ	The President's Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CFS	Cubic Ft Per Second
CW	Civil Works Program
CWA	Clean Water Act
CY	Cubic Yard
CSMA	Consolidated Metropolitan Statistical Area
CZM	Coastal Zone Management
dBA	Decibels
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EM	Engineering Manual
EO	Executive Order
EPW	Evaluation Of Planned Wetlands
ER	Engineering Regulation
ESA	Environmental Site Assessment
FCU	Functional Capacity Units
FCI	Functional Capacity Index
FEMA	Federal Emergency Management Agency
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FWCA	Fish and Wildlife Coordination Act
DPR	Detailed Project Report
DPR/EA	Detailed Project Report/Environmental Assessment
FHWA	Federal Highway Administration
FONSI	Finding of No Significant Impact
FPPA	Farmland Protection Policy Act
FTA	Federal Transit Administration
FWCA	Fish and Wildlife Coordination Act
HSDRRS	Greater New Orleans Hurricane and Storm Damage Risk Reduction System
HTRW	Hazardous, Toxic, and Radioactive Waste
HPS	Hurricane Protection System
IER	Individual Environmental Report
LCRP	Louisiana Coastal Resources Program
LDEQ	Louisiana Department of Environmental Quality
LDNR	Louisiana Department of Natural Resources
LDWF	Louisiana Department of Wildlife and Fisheries
LPV	Lake Ponchartrain and Vicinity

MBTA	Migratory Bird Treaty Act
ML	Milliliters
MPH	Miles per Hour
MSA	Metropolitan Statistical Area
NAA	Non Attainment Area
NAAQS	National Ambient Air Quality Standards
NAVD	North American Vertical Datum of 1988
NEPA	National Environmental Policy Act
NFIP	National Flood Insurance Program
NHP	Natural Heritage Program
NHPA	National Historic Preservation Act
NMFS	National Marine Fisheries Service
NOAA	National Oceanic and Atmospheric Administration
NPS	National Park Service
NRCS	National Resources Conservation Service
NWR	National Wildlife Refuge
O&M	Operations And Maintenance
OMRR&R	Operations, Maintenance, Repair, Replacement, & Rehabilitation
OSE	Other Social Effects
PA	Programmatic Agreement
PDT	Project Delivery Team
PL	Public Law
PPA	Project Partnering Agreements
PSI	Pounds Per Square Inch
P&G	Economic and Environmental Principles and Guidelines for Water and Related Land Resources Implementation Studies
RCRA	Resource Conservation and Recovery Act
REC	Recognized Environmental Condition
RED	Regional Economic Development
ROD	Record of Decision
ROW	Right-of-Way
SCORP	State Comprehensive Outdoor Recreation Plan
SHPO	State Historic Preservation Officer
SIP	State Implementation Plan
SPH	Standard Project Hurricane
TMDL	Total Maximum Daily Load
USACE	United States Army Corps Of Engineers
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish And Wildlife Service
USGS	United States Geological Survey
VOC	Volatile Organic Compounds
WBV	West Bank and Vicinity
WRDA	Water Resources Development Act
WVA	Wetlands Value Assessment

APPENDIX B - PUBLIC COMMENT AND RESPONSE SUMMARY

TO BE ADDED AFTER 30 DAY PUBLIC REVIEW PERIOD



APPENDIX C - MEMBERS OF INTERAGENCY ENVIRONMENTAL TEAM

Kyle Balkum	Louisiana Dept. of Wildlife and Fisheries
Catherine Breaux	U.S. Fish and Wildlife Service
Mike Carloss	Louisiana Dept. of Wildlife and Fisheries
David Castellanos	U.S. Fish and Wildlife Service
Frank Cole	Louisiana Department of Natural Resources
Greg Ducote	Louisiana Department of Natural Resources
John Ettinger	U.S. Environmental Protection Agency
David Felder	U.S. Fish and Wildlife Service
Michelle Fischer	U.S. Geologic Survey
Deborah Fuller	U.S. Fish and Wildlife Service
Mandy Green	Louisiana Department of Natural Resources
Jeffrey Harris	Louisiana Department of Natural Resources
Richard Hartman	NOAA National Marine Fisheries Service
Brian Heimann	Louisiana Dept. of Wildlife and Fisheries
Jeffrey Hill	NOAA National Marine Fisheries Service
Christina Hunnicutt	U.S. Geologic Survey
Barbara Keeler	U.S. Environmental Protection Agency
Kirk Kilgen	Louisiana Department of Natural Resources
Tim Killeen	Louisiana Department of Natural Resources
Brian Lezina	Louisiana Dept. of Wildlife and Fisheries
Brian Marks	Louisiana Dept. of Wildlife and Fisheries
Ismail Merhi	Louisiana Department of Natural Resources
David Muth	U.S. National Park Service
Clint Padgett	U.S. Geologic Survey
Jamie Phillippe	Louisiana Dept. of Environmental Quality
Molly Reif	U.S. Geologic Survey
Kevin Roy	U.S. Fish and Wildlife Service
Manuel Ruiz	Louisiana Dept. of Wildlife and Fisheries
Reneé Sanders	Louisiana Department of Natural Resources
Angela Trahan	U.S. Fish and Wildlife Service
Nancy Walters	U.S. Fish and Wildlife Service
David Walther	U.S. Fish and Wildlife Service
Patrick Williams	NOAA National Marine Fisheries Service

APPENDIX D – INTERAGENCY CORRESPONDENCE

BOBBY JINDAL
GOVERNOR



ROBERT D. HARPER
SECRETARY

State of Louisiana
DEPARTMENT OF NATURAL RESOURCES
OFFICE OF COASTAL MANAGEMENT

October 26, 2010

Joan M. Exnicios
Chief, New Orleans Environmental Branch
Corps of Engineers- New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

RE: **C20100293**, Coastal Zone Consistency
New Orleans District, Corps of Engineers
Direct Federal Action
IER 12/13 Waterline Supplemental, Westbank and Vicinity Hurricane Levee Project,
Jefferson, Orleans and Plaquemines Parish, Louisiana

Dear Ms. Exnicios:

The above referenced project has been reviewed for consistency with the Louisiana Coastal Resources Program in accordance with Section 307 (c) of the Coastal Zone Management Act of 1972, as amended. The project, as proposed in this application, is consistent with the LCRP. If you have any questions concerning this determination please contact Brian Marcks of the Consistency Section at (225) 342-7939 or 1-800-267-4019.

Sincerely yours,

A handwritten signature in blue ink, appearing to read "Gregory J. DuCote".

Gregory J. DuCote
Administrator
Interagency Affairs/Field Services Division

GJD/JDH/bgm

cc: Tammy Gilmore, COE-NOD
David Butler, LDWF
Jason Smith, Jefferson Parish
Charles Allen III, Orleans Parish
Albertine Kimble, Plaquemines Parish
Frank Cole, OCM FI



United States Department of the Interior



FISH AND WILDLIFE SERVICE
646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506

September 15, 2010

Colonel Edward R. Fleming
District Commander
U.S. Army Corps of Engineers
Post Office Box 60267
New Orleans, Louisiana 70160-0267

Dear Colonel Fleming:

Please reference the Draft Individual Environmental Report (IER), Supplemental for the "Hero Canal Levee and Eastern Tie-in/Gulf Intracoastal Waterway (GIWW), Harvey, and Algiers Levees and Floodwalls" in Jefferson, Orleans, and Plaquemines Parishes, Louisiana (IER # 12/13 Waterline Supplemental). That Supplemental IER is being prepared under the approval of the Council on Environmental Quality (CEQ) to obtain compliance with the National Environmental Policy Act of 1969 (83 Stat. 852, as amended; 42 U.S.C. 4321- 4347) and is authorized Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4), and Public Law 110-28, U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007 (5th Supplemental). Those laws authorized the Corps of Engineers (Corps) to upgrade two existing hurricane protection projects (i.e., Westbank and Vicinity of New Orleans and Lake Pontchartrain and Vicinity) in the Greater New Orleans area in southeast Louisiana to provide 100-year hurricane protection. This draft report provides planning objectives and recommendations to minimize project impacts to fish and wildlife resources.

The U.S. Fish and Wildlife Service (Service) provided a November 26, 2007, Draft Programmatic Fish and Wildlife Coordination Act (FWCA; 48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) report that addresses the hurricane protection improvements authorized in Supplemental 4, a February 18, 2009, FWCA Report that provided recommendations specific to IER 12, and a November 24, 2009, FWCA Report that provided recommendations specific to IER 13. Since those reports the Corps has proposed to construct a 12-inch diameter waterline necessary for the operation and maintenance of the West Closure Complex (WCC). This letter supplements our previous reports and addresses the change in the selected plan. However, this report does not constitute the report of the Secretary of the Interior as required by Section 2(b) of the FWCA. This report has been provided to the Louisiana Department of Wildlife and Fisheries and the National Marine Fisheries Service; their comments will be incorporated into our final report.

**TAKE PRIDE[®]
IN AMERICA** 

The project area is located in northern Plaquemines Parish within the Mississippi River Deltaic Plain of the Lower Mississippi River Ecosystem. Higher elevations occur on the natural levees of the Mississippi River and its distributaries. Developed lands are primarily associated with natural levees, but extensive wetlands have been leveed and drained to accommodate residential, commercial, and agricultural development. Federal, State, and local levees have been installed for flood protection purposes, often with negative effects on adjacent wetlands. The Mississippi River and the GIWW are prominent landscape features, as are extensive oil and gas industry access channels and pipeline canals. Extensive wetlands and associated shallow open waters dominate the landscape outside the flood control levees.

Habitat types in the study area include forested wetlands (i.e., bottomland hardwoods in varying successional stages and/or swamps), non-wet bottomland hardwoods, marsh, open water, and developed areas. Due to development and a forced-drainage system, the hydrology of most of the forested habitat within the levee system has been altered. The forced-drainage system has been in operation for many years, and subsidence is evident throughout the areas enclosed by levees.

In accordance with the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), on August 2, 2010, the Service concurred with the Corps determination that the proposed project will have no effect on Federally-listed threatened or endangered species. No further consultation will be required unless there are changes in the scope or location of the project, or construction has not been initiated within one year. If the project has not been initiated within one year, follow-up consultation should be accomplished with this office prior to making expenditures for construction. If the scope or location of the proposed work is changed, consultation should occur as soon as such changes are made.

As previously mentioned, the Service has provided FWCA Reports for the authorized hurricane protection project. Those reports contain a thorough discussion of the significant fish and wildlife resources (including habitats) that occur within the study area. For brevity, that discussion is incorporated by reference herein but the following information is provided to supplement the previously mentioned reports and provide specific recommendations regarding the proposed change in plans.

The proposed project includes construction of a 12-inch diameter waterline from Louisiana Highway 23 to the WCC. The waterline would be constructed within the existing Plaquemines Parish Government drainage easement and the Walker Road and WCC rights-of-way. Excavation for a 12-inch diameter waterline is typically between 3 to 6 feet deep and up to 20 feet wide at the top. For this project excavation is expected to be 4-feet deep by 2-feet wide. Upon completion of the trench, backfill operations would restore the site to the original grades with an adjustment for settlement. Non-wetland impacted areas within the construction right-of-way would be allowed to naturally re-vegetate to pre-construction conditions. According to the Draft IER, approximately 33 acres of bottomland hardwood forested habitat could potentially be impacted by the proposed action under a worst case scenario; however, impacts will likely be minimized once final designs are completed.

Implementation of the preferred alternative has the potential to directly impact 33 acres of

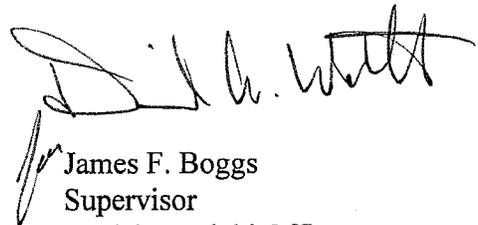
hydrologically-altered (i.e., non-wet) bottomland hardwood habitat. According to our Habitat Assessment Methodology (HAM) analysis the preferred alternative would result in the direct loss of 12 average annual habitat units (AAHUs), of bottomland hardwood forest (Appendix A). Further explanation of the assumptions affecting habitat suitability (i.e., quality) index (HSI) values for each target year for impacts to bottomland hardwood habitat are available for review at the Service's Lafayette, Louisiana, field office. Once designs are finalized, the HAM analysis can be revised to more accurately reflect revised impacts. Mitigation for unavoidable losses of non-wet bottomland hardwoods caused by project features will be evaluated through a complementary comprehensive mitigation IER.

SERVICE POSITION AND RECOMMENDATIONS

The Service does not object to the construction of the proposed project provided recommendations presented in our FWCA Reports, noted above, are incorporated into future project planning and implementation, and the Corps fully compensate for any unavoidable losses of wetland habitat or non-wet bottomland hardwoods caused by project features.

Should you or your staff have any questions regarding this letter and our attached report, please contact Angela Trahan (337/291-3137) of this office.

Sincerely,



James F. Boggs
Supervisor
Louisiana Field Office

cc: National Marine Fisheries Service, Baton Rouge, LA
EPA, Dallas, TX
LA Dept. of Wildlife and Fisheries, Baton Rouge, LA
LA Dept. of Natural Resources, CMD, Baton Rouge, LA
LA Office of Coastal Protection and Restoration, Baton Rouge, LA

APPENDIX A
HABITAT ASSESSMENT MODEL

MEMORANDUM

DATE: September 9, 2010

TO: File IER 12/13 Supplemental Waterline

FROM: Angela Trahan

SUBJECT: Determination of Habitat Variables for IER 12 WVA, Mid-Successional Hydrologically-Altered BLH Habitat Assessment (PF01Ad)

LOCATION: Waterline Installation along Bergeron Drive and Walker Road from Louisiana Hwy 23 to the West Closure Complex on Algiers Canal Eastbank

Soils in the area are poorly drained with limited slope. Historically these areas were swamps nourished by Mississippi River floodwaters. Isolated by flood protection systems and drained by pumps, these areas have transitioned to bottomland hardwoods with sugarberry, red maple, and green ash as the dominant overstory species. Traces of elm, cypress, and sweetgum were observed within the study area. This area is expected to continue to succeed into a late-successional stage BLH. Hardwood species are present within and adjacent to the surveyed areas. Field site data sheets available upon request.

FWOP Conditions:

WVA Data obtained for the Walker Road Borrow Pits and IER 12, East of Algiers WVA were used to determine FWOP Conditions.

Variable V₁ – Tree species association

Class 4: Mast/edible seed producing trees constitutes greater than 50 % of over story trees and hard mast is less than 20 %. The three areas are generally a mid-successional BLH. Red maple is the common species at all plot sites; green ash is also present at a majority of the sites. Live oak and dogwood was observed in the midstory of one site. Sugarberry was also present in the midstory. One site had a mature water oak adjacent to the plot. Tree species association should continue to transition through the mid successional BLH stage through TY 20 with sugarberry and sweetgum dominating. The presence of live oak and water oak indicates that by TY 50 the area will be in the late successional BLH stage (i.e., Class 5).

Variable V₂ – Stand Maturity

Dbh data was taken in the field and future diameters were projected using U.S. Forest Service growth rates. Projected growth rate data sheets available upon request.

Variable V₃ – Understory/Midstory

There is some understory and midstory variability throughout this area, which provides quality resting, foraging, nesting and nursery habitat for wildlife as well as support invertebrates. To account for the variability, the percentage of understory and midstory of the different areas was averaged and those values analyzed throughout the project life. It is expected that the understory and midstory will continue to be optimal throughout TY 20. By TY 50 canopy closure should prevail and understory/midstory would

consequently decrease.

TY	Understory	Midstory
(FWOP) 0	80	17
1	80	17
20	30	60
50	45	40

Variable V₄ – Hydrology

Class 2 – This area is within the existing flood protection and forced drain system; as a result the water table has been lowered and habitat has been removed from natural flooding events. Hydrology is still influenced by seasonal rainfall events.

Variable V₅ – Size of Contiguous Forested Area

63% of the ROW is a Class 1 (0-5 ac) and 37% of the ROW is Class 4 (400 ac). Using a weighted average, the size of the contiguous forested area is a Class 3.

Variable V₆ –Surrounding Land Use within 0.5 mile radius

Values were determined using ArcMap. A half-mile buffer was applied to the IER 12 pump station area and percentage of land use was calculated. (Surrounding Land -Use map- upon request).

Surrounding Land use	%
Development	11
Open Water	15
Pasture	14
Forest/Marsh	60

Development is ongoing within the hurricane protection levees; therefore, the Service has assumed that, for this specific IER, project-induced development within enclosed wetlands would be insignificant

Open water and open land habitats are define in the WVA- Surrounding land Use variable as pasture and considered to have the same SI.

Variable V₇ –Disturbance

A moderately used navigation channel (GIWW) is within 100 feet of the project area. Type Class = 2/Distance Class 1 = 0.50

FWP Conditions:

Installation of the waterline could temporarily impact up to 33 acres of bottomland hardwood habitat within the flood protection system. These wildlife habitats areas are under great development pressure (i.e., urban sprawl) due to their location within a flood protection system. Wildlife utilizing these areas will be forced into adjacent remaining forested habitats.

After construction [Target Year (TY) 1] the area will be restored to the original grade and is expected to revegetate. At TY 2 the area is expected to begin forest succession with the initial colonization of herbs, forbs and grasses and scrub-shrub vegetation in the initial stages. Wildlife should begin to re-colonize the area after construction is complete. The period of analysis was for 50 years. Therefore, TYs 0, 1, 2, and 50 were used in the analysis.

COMMUNITY HABITAT SUITABILITY MODEL Bottomland Hardwoods

Project..... IER 12_13 Waterline Temporary

Acres: 33

Condition: Future With Project

Variable		TY 0		TY 1		TY 2				
		Class/Value	SI	Class/Value	SI	Class/Value	SI			
V1	Species Assoc.	Class	4	0.80	Class	1		Class	1	
V2	Maturity (input age or dbh, not both)	Age			Age			Age	1	0.00
		dbh	17.8	0.85	dbh	0.1	0.00	dbh		
V3	Understory / Midstory	Understory %	80		Understory %	0		Understory %	100	0.80
		Midstory %	17	0.83	Midstory %	0		Midstory %	0	0.10
V4	Hydrology	Class	2	0.50	Class	2	0.50	Class	2	0.60
V5	Forest Size	Class	3	0.60	Class	0		Class	3	0.10
V6	Surrounding Land Use	Values %			Values %			Values %		
	Forest / marsh		60	0.72		60	0.72		60	0.72
	Abandoned Ag		29			29			29	
	Pasture / Hay									
	Active Ag		11			11			11	
	Development									
V7	Disturbance	Class			Class			Class		
	Type	Class	2	0.26	Class	2	0.26	Class	2	0.26
	Distance	Class	1		Class	1		Class	1	
		HSI = 0.69		HSI = 0.02		HSI = 0.04				

Project..... IER 12_13 Waterline Temporary
FWP

Variable		TY 50		TY		TY				
		Class/Value	SI	Class/Value	SI	Class/Value	SI			
V1	Species Assoc.	Class	4	0.80	Class			Class		
V2	Maturity (input age or dbh, not both)	Age	48	0.96	Age			Age		
		dbh			dbh			dbh		
V3	Understory / Midstory	Understory %	20		Understory %			Understory %		0.70
		Midstory %	60	0.80	Midstory %			Midstory %		0.90
V4	Hydrology	Class	2	0.50	Class			Class		
V5	Forest Size	Class	3	0.60	Class			Class		
V6	Surrounding Land Use	Values %			Values %			Values %		
	Forest / marsh		60	0.72						
	Abandoned Ag		29							
	Pasture / Hay									
	Active Ag		11							
	Development									
V7	Disturbance	Class			Class			Class		
	Type	Class	2	0.26	Class			Class		
	Distance	Class	1		Class			Class		
		HSI = 0.71		HSI =		HSI =				

COMMUNITY HABITAT SUITABILITY MODEL

Bottomland Hardwoods

Project..... IER 12_13 Waterline Temporary

Acres:

33

Condition: Future Without Project

Variable		TY 0		TY 1		TY 20				
		Class/Value	SI	Class/Value	SI	Class/Value	SI			
V1	Species Assoc.	Class 4	0.80	Class 4	0.80	Class 4	0.80			
V2	Maturity (input age or dbh, not both)	Age dbh 17.8	0.85	Age dbh 18.08	0.87	Age dbh 18.27	0.89			
V3	Understory / Midstory	Understory % 80 Midstory % 17	0.83	Understory % 80 Midstory % 17	0.83	Understory % 30 Midstory % 60	0.95	0.80	0.80	1.00
V4	Hydrology	Class 2	0.50	Class 2	0.50	Class 2	0.50			
V5	Forest Size	Class 3	0.60	Class 3	0.60	Class 3	0.60			
V6	Surrounding Land Use	Values % 60 29 11	0.72	Values % 60 29 11	0.72	Values % 60 29 11	0.72			
V7	Disturbance Type	Class 2 Class 1	0.26	Class 2 Class 1	0.26	Class 2 Class 1	0.26			
		HSI = 0.69		HSI = 0.70		HSI = 0.71				

Project..... IER 12_13 Waterline Temporary
FWP

Variable		TY 50		TY		TY				
		Class/Value	SI	Class/Value	SI	Class/Value	SI			
V1	Species Assoc.	Class 5	1.00	Class		Class				
V2	Maturity (input age or dbh, not both)	Age dbh 21.19	1.00	Age dbh		Age dbh				
V3	Understory / Midstory	Understory % 45 Midstory % 40	1.00	Understory % Midstory %		Understory % Midstory %		1.00	1.00	
V4	Hydrology	Class 2	0.50	Class		Class				
V5	Forest Size	Class 3	0.60	Class		Class				
V6	Surrounding Land Use	Values % 60 29 11	0.72	Values %		Values %				
V7	Disturbance Type	Class 2 Class 1	0.26	Class Class		Class Class				
		HSI = 0.79		HSI =		HSI =				



DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

Regional Planning and
Environmental Division South
New Orleans Environmental Branch

Mr. James F. Boggs
Field Supervisor
U.S. Fish and Wildlife Service
646 Cajundome Blvd - Suite 400
Lafayette, Louisiana 70506

This project has been reviewed for effects to Federal trust resources under our jurisdiction and currently protected by the Endangered Species Act of 1973 (Act). The project, as proposed,
 Will have no effect on those resources
 Is not likely to adversely affect those resources.
 This finding fulfills the requirements under Section 7(a)(2) of the Act.

Deborah A. Fuller Aug 2, 2010
Acting Supervisor
Louisiana Field Office
U.S. Fish and Wildlife Service

SUBJECT: Request for re-initiation for Endangered Species Act (ESA) Coordination for an addition to Individual Environmental Report (IER) #12 titled Gulf Intracoastal Waterway (GIWW), Harvey, and Algiers Levees and Floodwalls Jefferson, Orleans and Plaquemines Parishes, Louisiana and IER #13 Hero Canal Levee and Eastern Tie-In, Plaquemines Parish, Louisiana.

Dear Mr. Boggs:

The U.S. Army Corps of Engineers (USACE) is conducting investigations and preparing National Environmental Policy Act (NEPA) compliance documentation for the proposed addition to the above levee project. This documentation describes the addition to the design of project features previously described in IERs #12 and #13. Coordination was conducted for IER #12 and IER #13 in November 2006 and March 2009 respectively. IER #12 was released for public review on 05 January 2009 and extended to 11 February 2009. IER #13 was released for public review on 03 April 2009 and extended to 01 June 2009. The Decision Record for IER #12 was signed on February 18, 2009 and IER #13 on December 04, 2009. The U.S. Fish and Wildlife Service (USFWS) in their letters dated November 26, 2007 (IER #12) and March 9, 2009 (IER #13), indicated that the proposed action would not adversely impact any known threatened or endangered species or their critical habitat. Since IERs #12 and #13 were prepared, an addition to the project design has been proposed. Additional impacts will occur due to this project change including the need for an expanded project area. Due to this project design change we are re-initiating ESA coordination.

IER 12/13 Waterline Supplemental

The project area is located in Plaquemines Parish, Louisiana. The proposed addition is described in the Enclosure.

Based on review of existing data it is the opinion of CEMVN that the completion of this work will have no effect on listed species or critical because neither is found in the project area.

OPTIONAL FORM 88 (7-90)

FAX TRANSMITTAL

of pages - 2

To <i>Tammy Guilmore</i>	From <i>Angela Trahan</i>
Dept/Agency <i>Corps Planning</i>	Phone # 337-291-3137
Fax # 504-862-2088	Fax # 337-291-8139

BOBBY JINDAL
GOVERNOR



PEGGY M. HATCH
SECRETARY

State of Louisiana
DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

AUG 31 2010

U.S. Army Corps of Engineers- New Orleans District
CEMVN-PM-RS
P.O. Box 60267
New Orleans, LA 70160-0267

Attention: Tammy Gilmore

RE: Water Quality Certification (WQC 090128-01/AI 162810/CER 20100001)
Individual Environmental Reports (IER's) #12 & 13 Supplemental
Plaquemines Parish

Dear Ms. Gilmore:

The Department has reviewed your application for the installation of a waterline, in the vicinity of Belle Chasse, Louisiana.

The requirements for Water Quality Certification have been met in accordance with LAC 33:IX.1507.A-E. Based on the information provided in your application, we have determined that the placement of the fill material will not violate the water quality standards of Louisiana provided for under LAC 33:IX.Chapter 11. Therefore, the Department has issued a Water Quality Certification.

Sincerely,

A handwritten signature in black ink, appearing to read "Melvin C. Mitchell, Sr.", with a large, stylized flourish at the end.

Melvin C. Mitchell, Sr.
Administrator
Water Permits Division

MCM/jjp



Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

318-473-7751
318-473-7626

August 20, 2010

Ms. Tammy Gilmore
U.S. Army Corps of Engineers
Planning, Programs, and Project Management Division
Environmental Planning and Compliance Branch
CEMVN-PM-R
P.O. Box 60267
New Orleans, LA 70160-0267

Re: IER 12/13 Waterline Supplemental
WCC Waterline
Plaquemines Parish, Louisiana

Ms. Gilmore;

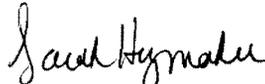
In response to your request for a completed Form AD-1006, Farmland Conversion Impact rating, for the activities associated with the WCC waterline construction, my staff has reviewed the FPPA farmland classification of each of the soils within the project and the rules and regulations of the Farmland Protection Policy Act (FPPA)—Subtitle I of Title XV, Section 1539-1549.

Your letter of request states, "Construction/installation of Section 1 would take place entirely within the existing PPG drainage easement. ... Section 2 construction/installation would take place within the existing Walker Rd right of way (ROW) and within the existing WCC ROW." If all construction/installation will take place within existing rights-of-way, then exception 4 on the attached FPPA Fact Sheet can be cited to certify the activities associated with this project are exempt from the rules and regulations of the Farmland Protection Policy Act (FPPA)—Subtitle I of Title XV, Section 1539-1549. The NRCS is responding using that assumption. If this assumption is incorrect, please let us know. We will reevaluate our findings.

Please be aware than Form NRCS-CPA-106, Farmland Conversion Impact Rating for Corridor Type Projects, is required for project involving linear corridors. Form NRCS-CPA-106, with sections I – V completed, is attached for your use.

IER 12/13 Waterline Supplemental
August 20, 2010
Page 2

Should you have questions regarding this determination or require additional information, please contact Jerry J. Daigle, State Soil Scientist, at (318) 473-7757 or jerry.daigle@la.usda.gov.

 **ACTING FOR**
Kevin D. Norton
State Conservationist

Enclosure

cc: Michael C. Trusclair, District Conservationist, NRCS, Boutte, LA

CORRIDOR - TYPE SITE ASSESSMENT CRITERIA

The following criteria are to be used for projects that have a linear or corridor - type site configuration connecting two distant points, and crossing several different tracts of land. These include utility lines, highways, railroads, stream improvements, and flood control systems. Federal agencies are to assess the suitability of each corridor - type site or design alternative for protection as farmland along with the land evaluation information.

- (1) How much land is in nonurban use within a radius of 1.0 mile from where the project is intended?
More than 90 percent - 15 points
90 to 20 percent - 14 to 1 point(s)
Less than 20 percent - 0 points
 - (2) How much of the perimeter of the site borders on land in nonurban use?
More than 90 percent - 10 points
90 to 20 percent - 9 to 1 point(s)
Less than 20 percent - 0 points
 - (3) How much of the site has been farmed (managed for a scheduled harvest or timber activity) more than five of the last 10 years?
More than 90 percent - 20 points
90 to 20 percent - 19 to 1 point(s)
Less than 20 percent - 0 points
 - (4) Is the site subject to state or unit of local government policies or programs to protect farmland or covered by private programs to protect farmland?
Site is protected - 20 points
Site is not protected - 0 points
 - (5) Is the farm unit(s) containing the site (before the project) as large as the average - size farming unit in the County ?
(Average farm sizes in each county are available from the NRCS field offices in each state. Data are from the latest available Census of Agriculture, Acreage or Farm Units in Operation with \$1,000 or more in sales.)
As large or larger - 10 points
Below average - deduct 1 point for each 5 percent below the average, down to 0 points if 50 percent or more below average - 9 to 0 points
 - (6) If the site is chosen for the project, how much of the remaining land on the farm will become non-farmable because of interference with land patterns?
Acreage equal to more than 25 percent of acres directly converted by the project - 25 points
Acreage equal to between 25 and 5 percent of the acres directly converted by the project - 1 to 24 point(s)
Acreage equal to less than 5 percent of the acres directly converted by the project - 0 points
 - (7) Does the site have available adequate supply of farm support services and markets, i.e., farm suppliers, equipment dealers, processing and storage facilities and farmer's markets?
All required services are available - 5 points
Some required services are available - 4 to 1 point(s)
No required services are available - 0 points
 - (8) Does the site have substantial and well-maintained on-farm investments such as barns, other storage building, fruit trees and vines, field terraces, drainage, irrigation, waterways, or other soil and water conservation measures?
High amount of on-farm investment - 20 points
Moderate amount of on-farm investment - 19 to 1 point(s)
No on-farm investment - 0 points
 - (9) Would the project at this site, by converting farmland to nonagricultural use, reduce the demand for farm support services so as to jeopardize the continued existence of these support services and thus, the viability of the farms remaining in the area?
Substantial reduction in demand for support services if the site is converted - 25 points
Some reduction in demand for support services if the site is converted - 1 to 24 point(s)
No significant reduction in demand for support services if the site is converted - 0 points
 - (10) Is the kind and intensity of the proposed use of the site sufficiently incompatible with agriculture that it is likely to contribute to the eventual conversion of surrounding farmland to nonagricultural use?
Proposed project is incompatible to existing agricultural use of surrounding farmland - 10 points
Proposed project is tolerable to existing agricultural use of surrounding farmland - 9 to 1 point(s)
Proposed project is fully compatible with existing agricultural use of surrounding farmland - 0 points
-

Fact Sheet

Farmland Classification:

The Farmland Protection Policy Act (FPPA)—Subtitle I of Title XV, Section 1539-1549 final rules and regulations were published in the Federal Register on June 17, 1994. These rules state that projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a Federal agency or with assistance from a Federal agency. For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forest land, pastureland, cropland, or other land, but not water or urban built-up land.

NRCS policy clarifies the Rule by stating that activities not subject to FPPA include:

- (1) Federal permitting and licensing
- (2) Projects planned and completed without the assistance of a Federal agency
- (3) Projects on land already in urban development or used for water storage
- (4) Construction within an existing right-of-way purchased on or before August 4, 1984
- (5) Construction for national defense purposes
- (6) Construction of on-farm structures needed for farm operations
- (7) Surface mining, where restoration to agricultural use is planned
- (8) Construction of new minor secondary structures such as a garage or storage shed.



DEPARTMENT OF THE ARMY
NEW ORLEANS DISTRICT, CORPS OF ENGINEERS
P.O. BOX 60267
NEW ORLEANS, LOUISIANA 70160-0267

REPLY TO
ATTENTION OF:

August 6, 2010

Regional Planning and
Environmental Division, South
New Orleans Environmental Branch
Attn: CEMVN-PDR-RN

Mr. Phil Boggan
Deputy State Historic Preservation Officer
Department of Culture, Recreation, and Tourism
P.O. Box 44247
Baton Rouge, Louisiana 70804

The proposed undertaking will have no adverse effect on historic properties. This effect determination could change should new information come to our attention.

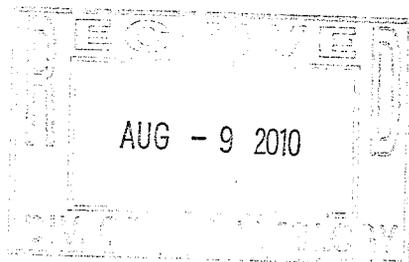
Phil Boggan 9-2-10
Phil Boggan Date
Deputy State Historic Preservation Officer

RE: Request to Continue Consultation Under Section 106 of the National Historic Preservation Act for West Bank and Vicinity Project (WBV-90), Hurricane and Storm Damage Risk Reduction System (HSDRRS), Harvey and Algiers Levee and Floodwalls, Individual Environmental Report #12 (IER #12), and Hero Canal Levee and Eastern Terminus, Individual Environmental Report #13 (IER #13), Plaquemines Parish, Louisiana.

Dear Mr. Boggan:

The U.S. Army Corps of Engineers, Mississippi Valley Division, New Orleans District (CEMVN) is amending the Area of Potential Effects (APE) for the projects currently being studied under IER #12 and IER #13. The project APE's are being expanded to include the proposed construction of a 12" diameter waterline from its eastern point near Highway 23 westward to the GIWW West Closure Complex (WCC) as shown in the attached maps.

The waterline will tie into the Plaquemines Parish 16" waterline that parallels the west side of Highway 23 at Bergeron Dr. The waterline will provide the water necessary for operating and maintaining the West Closure Complex as well as for supplying water for extinguishing fires near the WCC should they occur. It is the intent of this project to provide fire hydrants in the area of the project to facilitate fire fighting of the immediate area surrounding the GIWW West Closure Complex. The waterline will be installed in a trench to be excavated for its containment. The most likely trench excavation dimensions will be 4' deep by 2' wide, although some variations are possible depending on exact location and situation.



SEMINOLE TRIBE OF FLORIDA
TRIBAL HISTORIC PRESERVATION OFFICE

TRIBAL HISTORIC
PRESERVATION OFFICE

SEMINOLE TRIBE OF FLORIDA
AH-TAH-THI-KI MUSEUM

34725 WEST BOUNDARY ROAD
CLEWISTON, FL 33440

PHONE: (863) 983-6549
FAX: (863) 902-1117



TRIBAL OFFICERS

CHAIRMAN

MITCHELL CYPRESS

VICE CHAIRMAN

RICHARD BOWERS JR.

SECRETARY

PRISCILLA D. SAYEN

TREASURER

MICHAEL D. TIGER

Paul Hughbanks
Department of the Army
New Orleans District Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160-0267

THPO#: 006631

August 25, 2010

Subject: IER #12 and IER #13 Expansion of the APE for Waterline Placement in Plaquemines Parish, Louisiana

Dear Mr. Hughbanks,

The Seminole Tribe of Florida's Tribal Historic Preservation Office (STOF-THPO) has received the New Orleans District Corps of Engineers' correspondence concerning the aforementioned project. The STOF-THPO has no objection to your findings at this time. However, the STOF-THPO would like to be informed if cultural resources that are potentially ancestral or historically relevant to the Seminole Tribe of Florida are inadvertently discovered during the construction process. We thank you for the opportunity to review the information that has been sent to date regarding this project. Please reference **THPO-006631** for any related issues.

We look forward to working with you in the future.

Sincerely,

Direct routine inquiries to:

Willard Steele
Tribal Historic Preservation Officer
Seminole Tribe of Florida

Anne Mullins
Compliance Review Supervisor
annemullins@semtribe.com

JLP:am



ALABAMA-COUSHATTA TRIBE OF TEXAS

571 State Park Rd 56 • Livingston, Texas 77351 • (936) 563-1100

August 26, 2010

Paul Hughbanks
New Orleans District, Corps of Engineers
Attn: CEMVN-PM-R
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Dr. Hughbanks:

On behalf of Mikko Oscola Clayton Sylestine and the Alabama-Coushatta Tribe, our appreciation is expressed on your efforts to consult us regarding the amended Area of Potential Effect for Individual Environmental Reports #12 and #13 in Plaquemines Parish.

Our Tribe maintains ancestral associations within Louisiana despite the absence of written records to completely identify Tribal activities, villages, trails, or grave sites. However, it is our objective to ensure significances of Native American ancestry, especially of the Alabama-Coushatta Tribe, are administered with the utmost attention.

Upon review of your August 6, 2010 submission, no impacts to religious, cultural, or historical assets of the Alabama-Coushatta Tribe of Texas should occur in conjunction with this proposal. We concur with the "no historic properties affected" recommendation and request adherence to your Inadvertent Discovery Clause in the event of occurrence.

Should you require additional assistance, please do not hesitate to contact us.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Bryant J. Celestine".

Bryant J. Celestine
Historic Preservation Officer

APPENDIX E - 404 (b)(1) EVALUATION

Section 404(b)(1) Evaluation

The following short form 404(b)(1) evaluation follows the format designed by the Office of the Chief of Engineers, (OCE). As a measure to avoid unnecessary paperwork and to streamline regulation procedures while fulfilling the spirit and intent of environmental statutes, New Orleans District is using this format for all proposed project elements requiring 404 evaluation, but involving no significant adverse impacts.

PROJECT TITLE: Supplemental IER #12/13 Waterline (IERS #12/13)

PROJECT DESCRIPTION.

As part of the Gulf Intracoastal Waterway (GIWW), Harvey, and Algiers Levees and Floodwalls Jefferson, Orleans and Plaquemines Parishes, Louisiana West Closure Complex, WBV- 90, the Corps of Engineers proposes to construct a 12" diameter waterline from near Highway (Hwy) 23 to the project site as shown below in Figures 5 and 6. Total length of the pipeline would be slightly longer than 3 miles. The proposed waterline alignment would run through areas covered in both IERs #12 and #13, hence the supplement to both documents. The waterline would tie into the Plaquemines Parish 16" waterline that parallels the west side of Highway 23 at Bergeron Dr via a Plaquemines Parish Government (PPG) installed stub-out. The waterline would provide the water necessary for operating and maintaining the WCC as well as for supplying water for extinguishing fires near the WCC should they occur. It is the intent of this project to provide fire hydrants in the area of the project to facilitate firefighting of the immediate area surrounding the WCC. Upon completion of the construction, the waterline would be turned over to the Local Sponsor for potential incorporation into the PPG municipal water system.

The proposed action consists of an addition to the original actions described in IERs #12 and #13. The addition includes placing a 12" diameter waterline from Hwy 23 to the WCC to provide the water necessary for operating and maintaining the WCC as well as for supplying water for extinguishing fires near the WCC should they occur. The proposed action is being broken into two sections within this document. Section 1 is the portion that runs from Hwy 23 down Bergeron Drive (Dr) across a drainage ditch at the end of Bergeron Dr down an existing PPG drainage easement and finally crossing the drainage canal (WPA Canal) at Landfill Street (St) to Walker Road (Rd) (Figure 5). Construction/installation of Section 1 would take place entirely within the existing PPG drainage easement. Section 2 is the portion that runs across and down Walker Rd. to the WCC (Figure 6). Section 2 construction/installation would take place within the existing Walker Rd right of way (ROW) and within the existing WCC ROW.

A trench would be excavated of adequate depth and width to safely install the waterline. Excavation would normally be between 3' and 6' deep and up to 20' wide at the top. The most likely excavation would be 4' deep by 2' wide.

The new waterline would be 12" diameter polyvinyl chloride (PVC) or high density polyethylene (HDPE) pipe installed within the trench in accordance with the Corps of Engineers (COE) technical specifications. Crossings over canals and under roadways would be accomplished using industry accepted methods for crossings in accordance with COE technical specifications. All taps, hydrants, and valves would be installed in accordance with the COE technical specifications. Above ground crossings would be accomplished with ductile iron or other suitable material.

Upon completion of the pipeline placement operation, the trench would be backfilled with material in accordance with the COE technical specifications, Excavated material would be

returned to the trench from which it was removed and compacted according to COE technical specifications.

Upon completion of the trench backfill operations, the site would be restored to the original grades with an adjustment for settlement. Non-wetland Impacted areas within the construction ROW would be allowed to naturally re-vegetate to pre-construction conditions. Driveways and other relocated elements would be replaced by others. Areas in front of residential homes disturbed by construction activities would be seeded or sod placed to re-establish turf.



Figure 1. IERS 12/13 Waterline Alignment

Existing Conditions:

Section 1:

The portion of the existing PPG drainage easement that the proposed action falls within is approximately 15 acres. Along Bergeron Dr the habitat that would be impacted consists of the previously disturbed roadway and lawns including mowed grass and some large oak trees (Figure 2).

At the end of Bergeron Dr the PPG easement enters a forested area with a drainage canal (WPA Canal). The forested area consists of species such as willow, Chinese tallow, various pines, oaks and gum (Figure 3). The WPA Canal sustains some wetland species such as cattail and alligator weed (Figure 4).



Figure 2: Photo of Bergeron Drive and PPG 60 foot easement



Figure 3: Photo of WPA Canal and PPG 100 foot Easement



Figure 4: Photo of WPA Canal and Fringe Wetland

Section 2:

Once across Walker Rd the proposed action would take place within the Walker Rd ROW and would comprise approximately 33 acres. This ROW consists of the previously impacted Walker Rd, grasses on the north side of the road and such species as willow, Chinese tallow and elderberry along the south side of the road (Figure 5). At the end of Walker Rd. the proposed action would enter the existing ROW of the WCC which has been previously impacted and documented in IER #12.



Figure 5: Photo of Walker Road and the vegetated border

Impacts:

Less than half of an acre of the previously disturbed habitat along Bergeron Dr. would be impacted. All large trees would be avoided. Less than half an acre (approximately 14,900 ft²) of bottomland hardwood habitat and 600 ft² of fringe wetland habitat would be impacted by the proposed action. The WPA Canal would be avoided until the waterline crosses it at the intersection of Walker Rd and Landfill St. where approximately 1,200 ft² of open water would be impacted.

Table 1: Total Impacts by Habitat Type

Habitat Type	Approx Feet²
Previously Disturbed Habitat	9,725
Bottomland Hardwoods	14,900
Open Water	1,200
Wetlands	600

1. Review of Compliance (§230.10 (a)-(d)).

Preliminary¹

Final²

A review of this project indicates that:

a. The discharge represents the least environmentally damaging practicable alternative and if in a special aquatic site, the activity associated with the discharge must have direct access or proximity to, or be located in the aquatic ecosystem to fulfill its basic purpose (if no, see section 2 and information gathered for environmental assessment alternative);

YES	NO*	YES	NO
-----	-----	-----	----

b. The activity does not appear to: (1) violate applicable state water quality standards or effluent standards prohibited under Section 307 of the Clean Water Act; (2) jeopardize the existence of Federally listed endangered or threatened species or their habitat; and (3) violate requirements of any Federally designated marine sanctuary (if no, see section 2b and check responses from resource and water quality certifying agencies);

FOR (1) ONLY

YES	NO*	YES	NO
-----	-----	-----	----

c. The activity will not cause or contribute to significant degradation of waters of the United States including adverse effects on human health, life stages of organisms dependent on the aquatic ecosystem, ecosystem diversity, productivity and stability, and recreational, esthetic, and economic values (if no, see section 2);

YES	NO*	YES	NO
-----	-----	-----	----

d. Appropriate and practicable steps have been taken to minimize potential adverse impacts of the discharge on the aquatic ecosystem (if no, see section 5).

YES	NO*	YES	NO
-----	-----	-----	----

2. Technical Evaluation Factors (Subparts C-F).

N/A Not Significant Significant*

a. Physical and Chemical Characteristics of the Aquatic Ecosystem (Subpart C).

- (1) Substrate impacts.
- (2) Suspended particulates/turbidity impacts.
- (3) Water column impacts.
- (4) Alteration of current patterns and water circulation.
- (5) Alteration of normal water fluctuations/hydroperiod.
- (6) Alteration of salinity gradients.

	X	
	X	
	X	
	X	
	X	
	X	

b. Biological Characteristics of the Aquatic Ecosystem (Subpart D).

- (1) Effect on threatened/endangered species and their habitat.
- (2) Effect on the aquatic food web.
- (3) Effect on other wildlife (mammals, birds, reptiles, and amphibians).

x		
	x	
	x	

c. Special Aquatic Sites (Subpart E).

- (1) Sanctuaries and refuges.
- (2) Wetlands.
- (3) Mud flats.
- (4) Vegetated shallows.
- (5) Coral reefs.
- (6) Riffle and pool complexes.

x		
x		
x		
x		
x		
x		

d. Human Use Characteristics (Subpart F).

- (1) Effects on municipal and private water supplies.
- (2) Recreational and commercial fisheries impacts.
- (3) Effects on water-related recreation.
- (4) Esthetic impacts.
- (5) Effects on parks, national and historical monuments, national seashores, wilderness areas, research sites, and similar preserves.

x		
	x	
	x	
x		
x		

3. Evaluation of Dredged or Fill Material (Subpart G).³

a. The following information has been considered in evaluating the biological availability of possible contaminants in dredged or fill material.

- (1) Physical characteristics x
- (2) Hydrography in relation to known or anticipated sources of contaminants x
- (3) Results from previous testing of the material or similar material in the vicinity of the project x
- (4) Known, significant sources of persistent pesticides from land runoff or percolation
- (5) Spill records for petroleum products or designated (Section 311 of CWA) hazardous substances x
- (6) Other public records of significant introduction of contaminants from industries, municipalities, or other sources x
- (7) Known existence of substantial material deposits of substances which could be released in harmful quantities to the aquatic environment by man-induced discharge activities
- (8) Other sources. See references below.....

Appropriate references:

- a. United States Army Corps of Engineers (USACE) 2009a. *Final Phase II ESA Report, Limited Phase II ESA and Additional Sampling, Proposed Dredge Areas – Algiers Canal, Jefferson and Plaquemines Parishes, Louisiana.*
http://www.nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=12.
- b. USACE 2009b. *Individual Environmental Report, GIWW, Harvey, and Algiers Levees and Floodwalls, Jefferson, Orleans, and Plaquemines Parishes, Louisiana, IER #12.*
http://www.nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=12.
- c. United States Army Corps of Engineers (USACE) 2008a. *Limited Phase II Environmental Assessment (Soil Sampling), Potential Sector Gate Locations, Algiers and Hero Canals, Jefferson and Plaquemines Parishes, Louisiana.*
http://nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=13.
- d. USACE 2008b. *Final Phase I Environmental Site Assessment, IER 13, Walker Road and Highway 23, Oakville, Plaquemines Parishes, Louisiana.*
http://nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=13.
- e. USACE 2006a. *Final Site Activities and Soil Classification Report, Phase II Environmental Site Assessment, Oakville Levee Extension, Plaquemines Parishes, Louisiana.* http://nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=13.
- f. USACE 2006b. *Phase I Environmental Site Assessment Report, West Bank Hurricane Protection Project – East of Harvey Canal, Plaquemines Parishes, Louisiana.*
http://nolaenvironmental.gov/projects/usace_levee/IER.aspx?IERID=13.
- g. US EPA, Section 404(b)(1) Guidelines for Specification of Disposal Sites for Dredged or Fill Material, July 2004: <http://www.epa.gov/owow/wetlands/pdf/40cfrPart230.pdf>

b. An evaluation of the appropriate information in 3a above indicates that there is reason to believe the proposed dredge or fill material is not a carrier of contaminants, or the material meets the testing exclusion criteria.

YES

NO*

4. Disposal Site Delineation (§230.11(f)).

a. The following factors, as appropriate, have been considered in evaluating the disposal site.

(1) Depth of water at disposal site	x
(2) Current velocity, direction, and variability at disposal site	x
(3) Degree of turbulence	x
(4) Water column stratification	x
(5) Discharge vessel speed and direction	_____
(6) Rate of discharge	_____
(7) Dredged material characteristics (constituents, amount, and type of material, settling velocities)	x
(8) Number of discharges per unit of time	_____
(9) Other factors affecting rates and patterns of mixing (specify)	_____

b. An evaluation of the appropriate factors in 4a above indicates that the disposal site and/or size of mixing zone are acceptable.

5. Actions to Minimize Adverse Effects (Subpart H).

All appropriate and practicable steps have been taken, through application of the recommendations of §230.70-230.77 to ensure minimal adverse effects of the proposed discharge.

YES NO*

6. Factual Determination (§230.11).

A review of appropriate information as identified in items 2-5 above indicates that there is minimal potential for short- or long-term environmental effects of the proposed discharge as related to: YES NO*

- b. Water circulation, fluctuation and salinity (review sections 2a, 3, 4, and 5). YES NO*
- c. Suspended particulates/turbidity (review sections 2a, 3, 4, and 5) YES NO*
- d. Contaminant availability (review sections 2a, 3, and 4). YES NO*
- e. Aquatic ecosystem structure and function (review sections 2b and c, 3, and 5). YES NO*
- f. Disposal site (review sections 2, 4, and 5). YES NO*
- g. Cumulative impact on the aquatic ecosystem. YES NO*
- h. Secondary impacts on the aquatic ecosystem. YES NO*

YES NO*

*A negative, significant, or unknown response indicates that the project may not be in compliance with the Section 404(b)(1) Guidelines.

¹Negative responses to three or more of the compliance criteria at this stage indicates that the proposed projects may not be evaluated using this "short form procedure". Care should be used in assessing pertinent portions of the technical information of items 2a-d, before completing the final review of compliance.

²Negative responses to one of the compliance criteria at this stage indicates that the proposed project does not comply with the guidelines. If the economics of navigation and anchorage of Section 404(b)(2) are to be evaluated in the decision-making process, the "short form" evaluation process is inappropriate.

³If the dredged or fill material cannot be excluded from individual testing, the "short form" evaluation process is inappropriate.

7. Evaluation Responsibility.

a. Water Quality input provided by: Stephen T. Servay

Position: Chemist

Date: 10 September 2010

b. This evaluation was reviewed by: Rodney F. Mach

Position: Supervisory Hydraulic Engineer, HN

Date: 15 September 2010

c. Biological input provided by: Tammy Gilmore

Position: Biologist

Date: 20 October 2010

8. Findings

a. The proposed disposal site for discharge of dredged or fill material complies with the Section 404(b)(1) guidelines X

b. The proposed disposal site for discharge of dredged or fill material complies with the Section 404(b)(1) guidelines with the inclusion of the following conditions _____

c. The proposed disposal site for discharge of dredged or fill material does not comply with the Section 404(b)(1) guidelines for the following reason(s):

(1) There is a less damaging practicable alternative _____

(2) The proposed discharge will result in significant degradation of the aquatic ecosystem _____

(3) The proposed discharge does not include all practicable and appropriate measures to minimize potential harm to the aquatic ecosystem _____

Date: _____

Chief, New Orleans Environmental Branch

APPENDIX F – IER #12 and IER #13

Located at

www.nolaenvironmental.gov