



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

REPLY TO  
ATTENTION OF

Planning, Programs, and  
Project Management Division  
Environmental Planning  
and Compliance Branch

**Decision Record**

Individual Environmental Report # 25  
Government Furnished Borrow Material # 3  
Orleans, Jefferson, and Plaquemines Parishes, Louisiana

IER # 25

Description of Proposed Action. The U.S. Army Corps of Engineers (USACE), Mississippi Valley Division, New Orleans District (CEMVN) proposes to approve four potential borrow areas to be used under the Government Furnished borrow material program to supply levee building material to the CEMVN projects in the New Orleans Metropolitan Area. The proposed borrow areas are located in Orleans, Jefferson and Plaquemines Parishes, Louisiana. Upon approval of these four sites, any suitable materials found at them could be utilized to complete levee or floodwall projects for the proposed Greater New Orleans Hurricane and Storm Damage Risk Reduction System (HSDRRS).

On 8 December 2008, Draft Individual Environmental Report # 25 (IER # 25) and public notice for the subject project were distributed to the public, and comments were solicited. State Representative Robert Billiot of Waggaman, Louisiana contacted the CEMVN on 29 December 2008 to request a public meeting to discuss the proposed action, specifically the proposed Westbank D and Westbank E borrow areas. In accordance with NEPA Alternative Arrangements for the HSDRRS, a meeting was scheduled for 12 January 2009, and the end of the comment period was extended from 7 January to 12 January 2009.

Comments were received from a governmental agency, Indian tribe, and citizens (appendix B). A series of public meetings discussing proposed HSDRRS projects, including proposed borrow sites, have been held since March 2007. Additionally, the aforementioned requested public meeting was held on 12 January 2009 in Waggaman, Louisiana (appendix B).

Factors Considered in Determination. The CEMVN has assessed the impacts of the proposed action on significant resources in the proposed project area, including jurisdictional wetlands, non-jurisdictional bottomland hardwood forest (BLH), non-wetland/upland resources, prime and unique farmland, fisheries, wildlife, threatened and endangered (T&E) species, cultural resources, recreational resources, noise quality, air quality, water quality, transportation, aesthetics, environmental justice, and socioeconomic resources. Data gaps in the transportation analysis are being addressed through a study, and will be discussed in future IERs when the information becomes available.

Mitigation. It has been determined that the proposed action would not impact any jurisdictional wetlands. The proposed action would impact approximately 284 Average Annual Habitat Units (AAHUs) of non-jurisdictional BLH, the mitigation for which would be addressed in future IERs.

All non-jurisdictional BLH forest impacts were assessed in cooperation with the U.S. Fish and Wildlife Service (USFWS) and the CEMVN under the requirements of the National Environmental Policy Act, the Fish and Wildlife Coordination Act, and Section 906 (b) of the Water Resources Development Act of 1986. The impacts for the proposed action are shown in Table 1.

Table 1: BLH AAHUs of Mitigation Needed

<b>Proposed Borrow Area</b>	<b>Parish</b>	<b>BLH Impacted (acres)</b>	<b>AAHUs Impacted</b>
Stumpf Phase 1	Orleans	318	88
Stumpf Phase 2	Orleans	519	143
Tac Carrere	Plaquemines	17.7	12.1
Westbank E Phase 1	Jefferson	25.1	13.1
Westbank E Phase 2	Jefferson	53.2	27.8
Total		933	284

Note: Mitigation values may decrease because of further geotechnical evaluation of proposed borrow areas (i.e., acreage with unsuitable soils will not be impacted).

Mitigation IERs will be prepared documenting and compiling the unavoidable impacts discussed in each IER. The mitigation IERs will implement compensatory mitigation as early as possible. All mitigation activities will be consistent with standards and policies established in the Clean Water Act Section 404 and the appropriate USACE policies and regulations governing this activity.

Environmental Design Commitments. It is recommended that, where practical, the proposed borrow areas be designed and constructed with gradual side slopes, irregular shapes, islands, and aesthetic improvements.

The CEMVN is continuing to coordinate with the USFWS on implementation of the recommendations laid out in the borrow selection Planning-Aid Letter (letter dated 7 August 2006, appendix D), programmatic Coordination Act Report (CAR) (letter dated 26 November 2007, appendix D), and the IER # 25 CAR (draft CAR dated 8 October 2008, final CAR dated 9 January 2009, appendix D). The recommendations set forth in the CARs, and the CEMVN's responses, are found on pg. 64-65 of IER # 25.

There is a bald eagle nest in the vicinity of the Westbank D and Westbank E sites. Construction contractors will be prohibited from conducting any activity during eagle nesting months within a zone of 660 feet from the nest so as to avoid impacting the eagle nest during nesting months. Bald eagles nest in Louisiana from October through mid-May.

The Louisiana State Historic Preservation Officer (SHPO) requests that if any unrecorded cultural resources are determined to exist within the proposed borrow areas, then no work will proceed in the area containing these cultural resources until a CEMVN staff archeologist has been notified and final coordination with the SHPO and interested Tribal Historic Preservation Officers has been completed.

Agency & Public Involvement. Governmental agencies, non-governmental organizations, and citizens were engaged throughout the preparation of IER # 25. Agency staff from the USFWS, National Marine Fisheries Service (NMFS), Environmental Protection Agency, U.S. Geologic Survey, National Park Service, Louisiana Department of Environmental Quality, Louisiana

Department of Natural Resources, and Louisiana Department of Wildlife and Fisheries (LDWF) are part of an interagency team that has and will continue to have input throughout the HSDRRS planning process (appendix C).

There have been over 100 public meetings since March 2007 about proposed HSDRRS work. Borrow issues have been discussed at most meetings, and a "borrow handout" has been available at all meetings since July 2007. The CEMVN sends out public notices in local newspapers, news releases (routinely picked up by television and newspapers in stories and scrolls), and mail notifications to stakeholders for each public meeting. In addition, [www.nolaenvironmental.gov](http://www.nolaenvironmental.gov) was set up to provide information to the public regarding proposed HSDRRS work. The CEMVN also maintains a list of interested stakeholders that are notified by e-mail of the meetings. Public meetings will continue throughout the planning process.

Five verbal comments and seven written comments were received during the public review period for IER # 25. Copies are enclosed in the final IER (appendix B). The verbal comments, three letters, and three e-mails came from members of the public. A letter came from each the National Marine Fisheries Service (NMFS) and the Jena Band of Choctaw Indians.

Comments Received:

1. NMFS, letter dated 18 December 2008
2. Jena Band of Choctaw Indians, letter dated 23 December 2008
3. Ms. Christiane Ascani, verbal comment received 27 December 2008
4. Representative Robert Billiot, District 83, verbal comment received 29 December 2008
5. Mr. George Peterson, Vice President of the S1 Civic Association, verbal comment received 31 December 2008
6. Ms. Lucille Serpas, verbal comment received 2 January 2009
7. Ms. Larue Williams, verbal comment received 2 January 2009
8. Mr. George David Loeb, Jr., written comment dated 5 January 2009
9. Mr. Ned Pitre, e-mail comment received 6 January 2009
10. Mr. Stephen F. Stumpf, e-mail comment received 7 January 2009
11. Mr. Kelly Hagggar, e-mail comment received 12 January 2009
12. A.J. Ward, River Birch, Inc. and Highway 90, LLC, written comment dated 12 January 2009

Additionally, the following 20 people commented at the public meeting held on 12 January 2009 in Waggaman, Louisiana:

1. Mr. Keith Kiraly
2. Mr. Larry Palmisano, West Bank Drainage Superintendent
3. Mr. William Roper
4. Ms. Jeanie Rentz
5. Ms. Jeanie Holley
6. Mr. Richard Robichaux
7. Mr. Todd Klock
8. Mr. John Schlombrocht
9. Mr. Jim Barse
10. Mr. Vincent Vastola
11. Mr. Marion Phillips
12. Mr. George Peterson
13. Mr. Vic Culpepper
14. Unidentified person

15. Mr. Bernard Menge
16. Mr. Landry Camendelle Jr.
17. Ms. Kathy Haggar
18. Mr. William Roper
19. Mr. Paul Salassi
20. Representative Robert E. Billiot

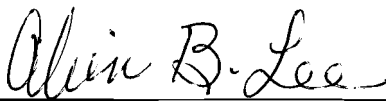
Decision. The CEMVN Environmental Planning and Compliance Branch has assessed the potential impacts on the human environment of the proposed action described in this IER, and has performed a review of the comments received during the public review period for the draft IER. Furthermore, all practicable means to avoid or minimize adverse environmental effects have been incorporated into the recommended plan. It has been determined that the proposed borrow areas do not contain any jurisdictional wetlands. The compensatory mitigation for impacts to approximately 284 AAHUs of non-jurisdictional BLH will be addressed in a separate IER specifically written for mitigation implementation. The public interest of the Greater New Orleans area will be best served by implementing the selected plan as described in IER # 25 in accordance with the environmental considerations discussed previously.

The CEMVN will prepare a Comprehensive Environmental Document (CED) that may contain additional information related to IER # 25 that becomes available after the execution of the final IER. The CED will provide a final mitigation plan, a comprehensive cumulative impacts analysis, and any additional information that addresses outstanding data gaps in the IERs.

I have reviewed IER # 25, and have considered agency recommendations and comments received from the public during the scoping phase and comment periods. I find the recommended plan fully addresses the objectives as set forth by the Administration and Congress in the 3<sup>rd</sup>, 4<sup>th</sup>, and 5<sup>th</sup> Supplemental Appropriations.

The plan is justified, in accordance with environmental statutes, and it is in the public interest to construct the actions as described in this document.

3 Feb 09  
Date

  
\_\_\_\_\_  
Alvin B. Lee  
Colonel, U.S. Army  
District Commander

# **FINAL INDIVIDUAL ENVIRONMENTAL REPORT**

## **GOVERNMENT FURNISHED BORROW MATERIAL # 3**

### **ORLEANS, JEFFERSON, AND PLAQUEMINES PARISHES, LOUISIANA**

**IER # 25**



**US Army Corps  
of Engineers®**

**FEBRUARY 2008**

# TABLE OF CONTENTS

TITLE	PAGE
1. INTRODUCTION.....	6
1.1 PURPOSE AND NEED FOR THE PROPOSED ACTION.....	7
1.2 AUTHORITY FOR THE PROPOSED ACTION .....	7
1.3 PRIOR REPORTS .....	8
1.4 INTEGRATION WITH OTHER IERS .....	15
1.5 PUBLIC CONCERNS.....	15
1.6 DATA GAPS AND UNCERTAINTIES.....	16
2. ALTERNATIVES.....	16
2.1 ALTERNATIVES DEVELOPMENT AND PRELIMINARY SCREENING CRITERIA .....	16
2.2 DESCRIPTION OF THE ALTERNATIVES.....	19
2.3 PROPOSED ACTION.....	19
2.4 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION.....	30
3. AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES.....	31
3.1 ENVIRONMENTAL SETTING .....	31
3.2 SIGNIFICANT RESOURCES .....	34
3.2.1 Jurisdictional Wetlands.....	35
3.2.2 Non-Jurisdictional Bottomland Hardwood Forest.....	37
3.2.3 Non-Wetland Resources/Upland Resources.....	38
3.2.4 Prime and Unique Farmland.....	39
3.2.5 Wildlife.....	40
3.2.6 Threatened and Endangered Species .....	41
3.2.7 Cultural Resources.....	42
3.2.8 Recreational Resources.....	45
3.2.9 Air Quality .....	45
3.2.10 Water Quality.....	46
3.2.11 Transportation.....	47
3.2.12 Aesthetic (Visual) Resources.....	49
3.3 SOCIOECONOMIC RESOURCES.....	50
3.3.1 Noise.....	50
3.3.2 Population and Housing, Business and Industry, Property Values, Public Facilities and Services.....	50
3.3.3 Health and Safety, Flood Control and Hurricane Protection .....	52
3.3.4 Employment, Income, and Local Tax Base.....	53
3.3.5 Community Growth .....	54
3.3.6 Community Cohesion .....	54
3.4 ENVIRONMENTAL JUSTICE .....	56
3.5 HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE.....	59
4. CUMULATIVE IMPACTS.....	61
5. SELECTION RATIONALE.....	62
6. COORDINATION AND CONSULTATION.....	63
6.1 PUBLIC INVOLVEMENT .....	63
6.2 AGENCY COORDINATION .....	63
7. MITIGATION.....	65
8. COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS.....	69
9. CONCLUSIONS.....	69
9.1 FINAL DECISION.....	69
9.2 PREPARED BY.....	69
9.3 LITERATURE CITED.....	70

## LIST OF TABLES

<b>TITLE</b>	<b>PAGE</b>
Table 1: Significant Resources in Project Study Area.....	35
Table 2: Jurisdictional Wetland Acreage Avoided .....	36
Table 3: Prime and Unique Farmland Soils Present .....	39
Table 4: USFWS T&E Concurrence.....	42
Table 5: Summary of Section 106 of NHPA Correspondence and Date of Concurrence Letter with CEMVN’s “Finding of No Adverse Effect to Historic Properties” .....	44
Table 6: LDNR Coastal Zone Consistency Determination Concurrence .....	64
Table 7: BLH Impacts from Proposed Action .....	66
Table 8. HSDRRS Impacts and Compensatory Mitigation to be Completed.....	67

## LIST OF FIGURES

<b>FIGURE</b>	<b>TITLE</b>	<b>PAGE</b>
Figure 1:	Proposed Borrow Areas.....	20
Figure 2:	Stumpf Phase 1 and Phase 2.....	20
Figure 3:	Westbank D, Westbank E Phase 1 and Phase 2 .....	21
Figure 4:	Tac Carrere .....	21
Figure 5:	Stumpf Phase 1 Proposed Borrow Area (1 of 2).....	23
Figure 6:	Stumpf Phase 1 Proposed Borrow Area (2 of 2).....	24
Figure 7:	Stumpf Phase 2 Proposed Borrow Area.....	25
Figure 9:	Westbank E Phase 1 Proposed Borrow Area .....	27
Figure 10:	Westbank E Phase 2 Proposed Borrow Area .....	28
Figure 11:	Tac Carrere Proposed Borrow Area .....	29



## **LIST OF APPENDICES**

- Appendix A: List of Acronyms and Definitions of Common Terms
- Appendix B: Public Comments
- Appendix C: Members of Interagency Environmental Team
- Appendix D: Interagency Correspondence
- Appendix E: CEMVN Borrow Area Index Map

# 1. INTRODUCTION

The U.S. Army Corps of Engineers (USACE) Mississippi Valley Division, New Orleans District (CEMVN), has prepared this Individual Environmental Report # 25 (IER # 25) to evaluate the potential impacts associated with the possible excavation of four Government Furnished borrow areas. The proposed action areas are located in southeastern Louisiana (figure 1). The term “borrow” is used in the fields of construction and engineering to describe material that is dug in one location for use at another location. The CEMVN is proposing to use suitable borrow material for construction of the proposed Hurricane and Storm Damage Risk Reduction System (HSDRRS).

IER # 25 has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 and the Council on Environmental Quality’s Regulations (40 CFR §1500-1508), as reflected in the USACE Engineering Regulation, ER 200-2-2. The execution of an IER, in lieu of a traditional Environmental Assessment (EA) or Environmental Impact Statement (EIS), is provided for in ER 200-2-2, Environmental Quality (33 CFR §230) Procedures for Implementing the NEPA and pursuant to the Council on Environmental Quality (CEQ) NEPA Implementation Regulations (40 CFR §1506.11). The Alternative Arrangements can be found at [www.nolaenvironmental.gov](http://www.nolaenvironmental.gov), and are herein incorporated by reference.

The CEMVN implemented Alternative Arrangements on 13 March 2007, under the provisions of the Council on Environmental Quality 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 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 in 2005.

The Draft IER was distributed for a public review and comment period on 7 December 2008. A stakeholder contacted the CEMVN on 29 December 2008 to request a public meeting to discuss the proposed action, specifically the proposed Westbank D and Westbank E borrow areas. In accordance with NEPA Alternative Arrangements for the Greater New Orleans Hurricane and Storm Risk Reduction System (HSDRRS), a meeting was scheduled for 12 January 2009, and the comment period was extended from 7 January to 12 January 2009. Comments were received during the public review and comment period from Federal resource agencies and citizens (appendix B).

The CEMVN District Commander reviewed public and agency comments, and interagency correspondence. The District Commander’s decision on the proposed action is documented in the IER Decision Record.

Four potential Government Furnished borrow areas investigated by the CEMVN Borrow Project Delivery Team (PDT) are discussed in this IER. The goal of the PDT is to acquire suitable borrow material needed for HSDRRS improvements. The CEMVN’s engineers currently estimate that over 75,000,000 cubic yards of suitable material are required to improve Federal and non-Federal levee and floodwall projects. Borrow areas investigated in this IER could potentially provide approximately 9 million cubic yards of suitable material for levee and floodwall projects.

Due to the importance of providing safety to the citizens of southeastern Louisiana, and the amount of borrow needed to supply levee projects for the HSDRRS, multiple borrow IERs are being prepared as potential borrow site information becomes available.

## **1.1 PURPOSE AND NEED FOR THE PROPOSED ACTION**

The purpose of the proposed action is to consider and disclose the environmental impacts of four potential borrow sites. The completed HSDRRS would lower the risk of harm to citizens and damage to infrastructure during a storm event. The safety of people in the region is the highest priority of the CEMVN. The proposed action resulted from the need to provide a total of over 75,000,000 cubic yards of suitable clay for HSDRRS projects that include the completion and improvement of hurricane protection levees in southeastern Louisiana. Raising levee elevations and the completion of levees requires the excavation of material from borrow areas necessary for project construction to ensure authorized levels of flood protection for local communities.

The term “100-year level of risk reduction,” as it is used throughout this document, refers to a level of risk reduction which reduces the risk of hurricane surge and wave driven flooding that the New Orleans Metropolitan Area has a 1 percent chance of experiencing each year.

## **1.2 AUTHORITY FOR THE PROPOSED ACTION**

The authority for the proposed action was provided as part of a number of hurricane protection projects spanning southeastern Louisiana, including the Lake Pontchartrain and Vicinity (LPV) Hurricane Protection Project and the West Bank and Vicinity (WBV) Hurricane Protection Project. Congress and the Administration granted a series of supplemental appropriations acts following Hurricanes Katrina and Rita to repair and upgrade the project systems damaged by the storms. The supplemental appropriations acts gave additional authority to the USACE to construct HSDRRS projects.

The LPV project was authorized under the Flood Control Act of 1965 (Public Law [P.L.] 89-298, Title II, Sec. 204) which amended, authorized a “project for hurricane protection on Lake Pontchartrain, Louisiana ... substantially in accordance with the recommendations of the Chief of Engineers in House Document 231, Eighty-ninth Congress.” The original statutory authorization for the LPV Project was amended by the Water Resources Development Acts (WRDA) of 1974 (P.L. 93-251, Title I, Sec. 92); 1986 (P.L. 99-662, Title VIII, Sec. 805), 1990 (P.L. 101-640, Sec. 116), 1992 (P.L. 102-580, Sec. 102), 1996 (P.L. 104-303, Sec. 325), 1999 (P.L. 106-53, Sec. 324), and 2000 (P.L. 106-541, Sec. 432); and Energy and Water Development Appropriations Acts of 1992 (PL 102-104, Title I, Construction, General), 1993 (PL 102-377, Title I, Construction, General), and 1994 (PL 103-126, Title I, Construction, General).

The Westwego to Harvey Canal Hurricane Protection Project was authorized by the WRDA of 1986 (P.L. 99-662, Section 401(b)). The WRDA of 1996 modified the project and added the Lake Cataouatche Project and the East of Harvey Canal Project (P.L. 104-303, Section 101(a)(17) & P.L. 104-303, 101(b)(11)). The WRDA 1999 combined the three projects into one project under the West Bank and Vicinity Hurricane Protection Project (P.L. 106-53, Section 328).

The Department of Defense, Emergency Supplemental Appropriations to Address Hurricanes in the Gulf of Mexico, and Pandemic Influenza Act of 2006 (3rd Supplemental - P.L. 109-148, Chapter 3, Construction, and Flood Control and Coastal Emergencies) authorized accelerated completion of the project and restoration of project features to design elevations at 100 percent Federal cost. The Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery of 2006 (4th Supplemental - P.L. 109-234, Title II, Chapter 3, Construction, and Flood Control and Coastal Emergencies) authorizes construction of a 100-year level of risk

reduction; the replacement or reinforcement of floodwalls; and the construction of levee armoring at critical locations. Additional Supplemental Appropriations include the U.S. Troop Readiness, Veterans' Care, Katrina Recovery, and Iraq Accountability Appropriations Act, 2007 H.R. 2206 (pg. 41-44) Title IV, Chapter 3, Flood Control and Coastal Emergencies, (5<sup>th</sup> Supplemental), General Provisions, Sec. 4302.

### **1.3 PRIOR REPORTS**

A number of studies and reports on water resources development in the proposed project area have been prepared by the USACE, other Federal, state, and local agencies, research institutes, and individuals. Pertinent studies, reports and projects are discussed below:

#### Lake Pontchartrain and Vicinity Hurricane Protection Project

- On 20 October 2008, the CEMVN 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 GNOSDRRS.
- On 21 October 2008, the CEMVN signed a Decision Record on IER # 11 Tier 2 Borgne entitled “Improved Protection on the Inner Harbor Navigation Canal, Tier 2 Borgne Orleans and St. Bernard Parishes, Louisiana.” The document was prepared to evaluate the potential impacts associated with constructing a surge barrier on Lake Borgne.
- On 25 July 2008, the CEMVN signed a Decision Record on IER # 3, entitled “Lake Pontchartrain and Vicinity, Lakefront Levee, Jefferson Parish, Louisiana.” The proposed action includes raising approximately nine and a half miles of earthen levees, completing upgrades to foreshore protection, replacing two floodgates, and completing fronting protection modifications to four existing pump stations in Jefferson Parish, Louisiana.
- On 18 July 2008, the CEMVN signed a Decision Record on IER # 2, entitled “LPV, West Return Floodwall, Jefferson and St. Charles Parishes, Louisiana.” The proposed action includes replacing over 17,900 linear feet of floodwalls in Jefferson and St. Charles Parishes, Louisiana.
- On 9 June 2008, the CEMVN signed a Decision Record on IER # 1, entitled “Lake Pontchartrain and Vicinity, La Branche Wetlands Levee, St. Charles Parish, Louisiana.” The proposed action includes raising approximately nine miles of earthen levees, replacing over 3,000 feet of floodwalls, rebuilding or modifying four drainage structures, closing one drainage structure, and modifying one railroad gate in St. Charles Parish, Louisiana.
- On 30 May 2008, the CEMVN 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 GNOSDRRS.
- On 6 May 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 GNOSDRRS.

- On 14 March 2008, the CEMVN signed a Decision Record on IER # 11 (Tier 1) entitled "Improved Protection on the Inner Harbor Navigation Canal, Orleans and St. Bernard Parishes, Louisiana." The document was prepared to evaluate potential impacts associated with building navigable and structural barriers to prevent storm surge from entering the Inner Harbor Navigation Canal from Lake Pontchartrain and/or the Gulf Intracoastal Waterway-Mississippi River Gulf Outlet-Lake Borgne complex. Two Tier 2 documents discussing alignment alternatives and designs of the navigable and structural barriers, and the impacts associated with exact footprints, are being completed.
- On 21 February 2008, the CEMVN 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 GNOSDRRS.
- On 14 February 2008, the CEMVN 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 GNOSDRRS.
- In July 2006, the CEMVN signed a Finding of No Significant Impact (FONSI) on an 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 30 October 1998, the CEMVN signed a FONSI on EA # 279 entitled "Lake Pontchartrain Lakefront, Breakwaters, Pump Stations 2 and 3." The report evaluates the impacts associated with providing fronting protection for outfall canals and pump stations. It was determined that the action would not significantly impact resources in the immediate area.
- On 2 October 1998, the CEMVN signed a FONSI on EA # 282 entitled "LPV, Jefferson Parish Lakefront Levee, Landside Runoff Control: Alternate Borrow." The report investigates the impacts of obtaining borrow material from an urban area in Jefferson Parish. No significant impacts to resources in the immediate area were expected.
- On 2 July 1992, the CEMVN signed a FONSI on EA # 169 entitled "LPV, Hurricane Protection Project, East Jefferson Parish Levee System, Jefferson Parish, Louisiana, Gap Closure." The report addresses the construction of a floodwall in Jefferson Parish to close a "gap" in the levee system. The area was previously leveed and under forced drainage, and it was determined that the action would not significantly impact the already disturbed area.

- On 22 February 1991, the CEMVN signed a FONSI on EA # 164 entitled “LPV Hurricane Protection – Alternate Borrow Area for the St. Charles Parish Reach.” The report addresses the impacts associated with the use of borrow material from the Mississippi River on the left descending back in front of the Bonnet Carré Spillway Forebay for LPV construction.
- On 30 August 1990, the CEMVN signed a FONSI on EA # 163 entitled “LPV Hurricane Protection – Alternate Borrow Area for Jefferson Parish Lakefront Levee, Reach III.” The report addresses the impacts associated with the use of a borrow area in Jefferson Parish for LPV construction.
- On 2 July 1991, the CEMVN signed a FONSI on EA # 133 entitled “LPV Hurricane Protection – Alternate Borrow at Highway 433, Slidell, Louisiana.” The report addresses the impacts associated with the excavation of a borrow area in Slidell, Louisiana for LPV construction.
- On 12 September 1990, the CEMVN signed a FONSI on EA # 105 entitled “LPV Hurricane Protection – South Point to Gulf Intracoastal Waterway, A. V. Keeler and Company Alternative Borrow Site.” The report addresses the impacts associated with the excavation of a borrow area in Slidell, Louisiana for LPV construction.
- On 12 March 1990, the CEMVN signed a FONSI on EA # 102 entitled “LPV Hurricane Protection – 17th Street Canal Hurricane Protection.” The report addresses the use alternative methods of providing flood protection for the 17<sup>th</sup> Street Outfall Canal in association with LPV activity. Impacts to resources were found to be minimal.
- On 4 August 1989, the CEMVN signed a FONSI on EA # 89 entitled “LPV Hurricane Protection, High Level Plan - Alternate Borrow Site 1C-2B.” The report addresses the impacts associated with the excavation of a borrow area along Chef Menteur Highway, Orleans Parish for LPV construction. The material was used in the construction of a levee west of the Inner Harbor Navigation Canal.
- On 27 October 1988, the CEMVN signed a FONSI on EA # 79 entitled “LPV Hurricane Protection – London Avenue Outfall Canal.” The report investigates the impacts of strengthening hurricane protection at an existing the London Avenue Outfall Canal.
- On 21 July 1988, the CEMVN signed a FONSI on EA # 76 entitled “LPV Hurricane Protection – Orleans Avenue Outfall Canal.” The report investigates the impacts of strengthening hurricane protection at the Orleans Avenue Outfall Canal.
- On 26 February 1986, the CEMVN signed a FONSI on EA # 52 entitled “LPV Hurricane Protection – Geohegan Canal.” The report addresses the impacts associated with the excavation of borrow material from an extension of the Geohegan Canal for LPV construction.
- Supplemental Information Report (SIR) # 25 entitled “LPV Hurricane Protection – Chalmette Area Plan, Alternate Borrow Area 1C-2A” was signed by the CEMVN on 12 June 1987. The report addresses the used of an alternate contractor furnished borrow area for LPV construction.

- SIR # 27 entitled “LPV Hurricane Protection – Alternate Borrow Site for Chalmette Area Plan” was signed by the CEMVN on 12 June 1987. The report addresses the use of an alternate contractor furnished borrow area for LPV construction.
- SIR # 28 entitled “LPV Hurricane Protection – Alternate Borrow Site, Mayfield Pit” was signed by the CEMVN on 12 June 1987. The report addresses the use of an alternate contractor furnished borrow area for LPV construction.
- SIR # 29 entitled “LPV Hurricane Protection – South Point to GIWW Levee Enlargement” was signed by the CEMVN on 12 June 1987. The report discusses the impacts associated with the enlargement of the GIWW.
- SIR # 30 entitled “LPV Hurricane Protection Project, Jefferson Lakefront Levee” was signed by the CEMVN on 7 October 1987. The report investigates impacts associated with changes in Jefferson Parish LPV levee design.
- SIR # 17 entitled “LPV Hurricane Protection – New Orleans East Alternative Borrow, North of Chef Menteur Highway” was signed by the CEMVN on 30 April 1986. The report addresses the use of an alternate contractor furnished borrow area for LPV construction.
- SIR # 22 entitled “LPV Hurricane Protection – Use of 17<sup>th</sup> Street Pumping Station Material for LPHP Levee” was signed by the CEMVN on 5 August 1986. The report investigates the impacts of moving suitable borrow material from a levee at the 17<sup>th</sup> Street Canal in the construction of a stretch of levee from the Inner Harbor Navigation Canal to the London Avenue Canal.
- SIR # 10 entitled “LPV Hurricane Protection, Bonnet Carré Spillway Borrow” was signed by the CEMVN on 3 September 1985. The report evaluates the impacts associated with using the Bonnet Carré Spillway as a borrow source for LPV construction, and found that “no significant adverse effect on the human environment.”
- In December 1984, an SIR to complement the Supplement to final EIS on the LPV Hurricane Protection project was filed with the U.S. Environmental Protection Agency (USEPA).
- The final EIS for the LPV Hurricane Protection Project, dated August 1974. A Statement of Findings was signed by the CEMVN on 2 December 1974. Final Supplement I to the EIS, dated July 1984, was followed by a Record of Decision (ROD), signed by CEMVN on 7 February 1985. Final Supplement II to the EIS, dated August 1994, was followed by a ROD signed by CEMVN on 3 November 1994.
- A report entitled “Flood Control, Mississippi River and Tributaries,” published as House Document No. 90, 70<sup>th</sup> Congress, 1<sup>st</sup> Session, submitted 18 December 1927, resulted in authorization of a project by the Flood Control Act of 1928. The project provided comprehensive flood control for the lower Mississippi Valley below Cairo, Illinois. The Flood Control Act of 1944 authorized the USACE to construct, operate, and maintain water resources development projects. The Flood Control Acts have had an important impact on water and land resources in the proposed project area.

## West Bank and Vicinity Hurricane Protection Project

- On 21 January 2009, the CEMVN signed a Decision Record on IER # 17, entitled “Company Canal Floodwall, Jefferson Parish, Louisiana.” The document was prepared to evaluate construct and maintain a 100-year level of risk reduction along the Westbank and Vicinity, Company Canal Floodwall from the Bayou Segnette State Park to the New Westwego Pumping Station.
- On 20 October 2008, the CEMVN 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 GNOSDRRS.
- On 26 August 2008, the CEMVN 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.
- On 12 June 2008, the CEMVN signed a Decision Record on IER # 15, entitled “Lake Cataouatche Levee, Jefferson Parish, Louisiana.” The proposed action includes constructing a 100-year level of risk reduction in the project area.
- On 30 May 2008, the CEMVN 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 GNOSDRRS.
- On 6 May 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 GNOSDRRS.
- On 21 February 2008, the CEMVN 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 GNOSDRRS.
- On 14 February 2008, the CEMVN 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 GNOSDRRS.



- In July 2006, the CEMVN signed a FONSI on an 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 23 August 2005, the CEMVN 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 22 February 2005, the CEMVN 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 5 May 2003, the CEMVN signed a FONSI on EA # 337 entitled “Algiers Canal Alternative Borrow Site.”
- On 19 June 2003, the CEMVN 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 16 May 2002, the CEMVN 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 30 August 2000, the CEMVN 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 18 August 1998, the CEMVN 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 ROD was signed by the CEMVN in September 1998.
- The final EIS for the WBV, Lake Cataouatche, Hurricane Protection Project was completed. A ROD was signed by the CEMVN 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 investigates 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 12 January 1994, the CEMVN signed a FONSI on an 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 investigates 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 1 September 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 20 March 1992, the CEMVN 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 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. 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 3 June 1991, the CEMVN signed a FONSI on EA # 136 entitled “West Bank Additional Borrow Site between Hwy 45 and Estelle PS.”
- On 15 March 1990, CEMVN 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 life for the Plaquemines West Bank levee upgrade, as part of LPV construction.
- 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.

#### **1.4 INTEGRATION WITH OTHER IERS**

In addition to this IER, the CEMVN is preparing a draft Comprehensive Environmental Document (CED) that will describe the work completed and remaining to be constructed. The purpose of the draft CED will be to document the work completed by the CEMVN on a system-wide scale. The draft CED will describe the integration of individual IERS into a systematic planning effort. Overall cumulative impacts, a finalized mitigation plan, and future operations and maintenance requirements will also be included. Additionally, the draft CED will contain updated information for any IER that had incomplete or unavailable data at the time it was posted for public review.

The draft CED will be available for a 60-day public review period. The document will be posted on [www.nolaenvironmental.gov](http://www.nolaenvironmental.gov), or can be requested by contacting the CEMVN. A notice of availability will be mailed/e-mailed to interested parties advising them of the availability of the draft CED for review. Additionally, a notice will be placed in national and local newspapers. Upon completion of the 60-day review period all comments will be compiled and appropriately addressed. Upon resolution of any comments received, a final CED will be prepared, signed by the District Commander, and made available to any stakeholders requesting a copy.

Compensatory mitigation for unavoidable impacts associated with this and other proposed HSDRRS projects will be documented in forthcoming mitigation IERS, which are being written concurrently with all other IERS.

#### **1.5 PUBLIC CONCERNS**

The public has had the opportunity to give input about proposed HSDRRS work throughout the planning process through a number of outlets (i.e., public meetings, written comments, [www.nolaenvironmental.gov](http://www.nolaenvironmental.gov)). IER # 18, IER # 19, IER # 22, IER # 23, and IER # 26 are IERS that discuss the impacts of borrow excavation related to the HSDRRS. These documents contain public comments regarding borrow issues (appendix B – all documents). These documents are available at [www.nolaenvironmental.gov](http://www.nolaenvironmental.gov), or upon request.

A public meeting regarding the proposed action described in this IER was held at the request of a stakeholder on 12 January 2009 in Waggaman, Louisiana. Minutes from this meeting can be found in appendix B.

Letters, e-mails, and verbal comments were received from stakeholders during the public review and comment period for Draft IER # 25 (appendix B). Main concerns expressed by these comments include the proposed action's impact on transportation, aesthetic resources, safety, and future development. Some concerns centered around the safety of children at the Norbert Rillieux Elementary School, which is located nearby to the Westbank E Phase 2 site.

According to the results of focus groups held by Unified New Orleans Plan (UNOP) the public places very high priority on storm protection. The public wants a 100-year or higher level of risk reduction from storm events. Borrow excavation is an integral part of upgrading hurricane protection in the New Orleans Metropolitan Area. Some members of the public feel that the remaining land left in coastal parishes should not be excavated. Some members of the public feel that the borrow areas should be backfilled; the CEMVN

has determined that backfilling utilized Government Furnished borrow areas is not feasible. The public is concerned about impacting wetlands; the CEMVN is currently avoiding all jurisdictional wetlands as other reasonable alternatives are being investigated (see section 2.1). The public is concerned about truck haulers causing traffic congestion. The public is concerned about safety issues during and after the borrow area is excavated. Landowners are concerned about the USACE using their privately-owned property as a source of borrow material.

## **1.6 DATA GAPS AND UNCERTAINTIES**

At the time of submission of this report, geotechnical evaluations have not been completed for all of the proposed borrow areas. Final selection and/or footprints of borrow areas could vary based on these evaluations. Borrow area footprints would be decreased in the case of negative geotechnical findings; areas not included in this investigation would be discussed in subsequent IERs.

Transportation impacts and routes for the delivery of borrow material have not been determined, as it currently is uncertain to which HSDRRS construction sites each proposed borrow area would provide material. Large quantities of material would be delivered to HSDRRS construction sites, as well as to other ongoing flood protection projects in the area. This could have localized short-term impacts to transportation corridors that can not be quantified at this time. The CEMVN is completing a transportation study to determine any impacts associated with the transporting of material to construction sites. This analysis will be discussed in the CED once it is completed.

Details on environmental justice impacts from the proposed borrow areas will be analyzed when further project planning data become available at conclusion of small group neighborhood focus meetings and will be included in the CED.

Noise impacts are not fully known at this time, since some of the sites may never be used. The effects of the proposed action on noise levels are discussed in section 3.3.1. Once noise impacts are fully determined the analysis will be discussed in the CED.

Air impacts from the excavation of proposed borrow areas are not fully known at this time, and additional or cumulative air impacts will be discussed in the CED.

Cumulative visual impacts from the excavation of the proposed borrow areas are unknown at this time as the borrow area selection and excavation process is ongoing; the impacts will be discussed in the CED.

Some construction schedules are changing or not known at this time.

## **2. ALTERNATIVES**

### **2.1 ALTERNATIVES DEVELOPMENT AND PRELIMINARY SCREENING CRITERIA**

NEPA requires that in analyzing alternatives to a proposed action a Federal agency consider an alternative of “No Action.” Likewise, Section 73 of the WRDA of 1974 (PL 93-251) requires Federal agencies to give consideration to non-structural measures to reduce or prevent flood damage. Since this IER deals with Government Furnished borrow

material there are no nonstructural alternatives. Non-structural alternatives will be evaluated in the IERs dealing directly with the construction of the HSDRRS.

The CEMVN is pursuing three avenues of obtaining the estimated amount of borrow material needed for HSDRRS construction. The three avenues that are being pursued by the CEMVN to obtain borrow material are Government Furnished (the Government acquires rights to property), Pre-Approved Contractor Furnished (a CEMVN levee construction contractor works in partnership with a landowner to provide suitable pre-approved borrow material from the landowner's property), and Supply Contract (a landowner or corporation delivers a pre-specified amount of suitable borrow material to a designated location for use by a CEMVN levee construction contractor). Two of the avenues being pursued (Pre-Approved Contractor Furnished and Supply Contract) allow a private individual or corporation to propose a site where borrow material could come from. It is possible that some of the Government Furnished, Contractor Furnished, and Supply Contract sources of borrow material may come from anywhere in the United States. IER # 18 and IER # 22 discussed Government Furnished borrow alternatives. Pre-Approved Contractor Furnished borrow areas were discussed in IER # 19, IER # 23, and IER # 26. This IER discusses potential Government Furnished borrow areas. An additional IER(s) will discuss potential Supply Contract alternatives. Additional borrow IERs will be prepared as future potential Government Furnished and Pre-Approved Contractor Furnished borrow areas are identified.

The U.S. Fish and Wildlife Service (USFWS) supports the CEMVN's prioritization selection of potential borrow areas in the following order: existing commercial areas, upland sources, previously disturbed/manipulated wetlands within a levee system, and low-quality wetlands outside a levee system (appendix D). USFWS recommended that prior to utilizing borrow areas, every effort should be made to reduce impacts by using sheetpile and/or floodwalls to increase levee heights wherever feasible. The USFWS also recommended the following protocol be adopted and utilized to identify borrow sources in descending order of priority:

1. "Permitted commercial sources, authorized borrow sources for which environmental clearance and mitigation have been completed, or non-functional levees after newly constructed adjacent levees are providing equal protection.
2. Areas under forced drainage that are protected from flooding by levees, and that are:
  - a) non-forested (e.g., pastures, fallow fields, abandoned orchards, former urban areas and non-wetlands;
  - b) wetland forests dominated by exotic tree species (i.e., Chinese tallow) or non-forested wetlands (e.g., wetland pastures), excluding marshes;
  - c) disturbed wetlands (e.g., hydrologically altered, artificially impounded).
3. Areas that are outside a forced drainage system and levees, and that are:
  - a) non-forested (e.g., pastures, fallow fields, abandoned orchards, former urban areas) and non-wetlands;
  - b) wetland forests dominated by exotic tree species (i.e., Chinese tallow) or non-forested wetlands (e.g., wetland pastures), excluding marshes;

c) disturbed wetlands (e.g., hydrologically altered, artificially impounded).”

The USFWS is currently assisting the CEMVN in meeting this protocol.

The HSDRRS includes the completion and raising of storm protection levees in southeastern Louisiana. Raising levee elevations and completion of levees requires the excavation of material from borrow areas for use in project construction. As part of construction the following methods shall be followed:

- Numerous utilities, including electrical services, gas lines, telephone poles and lines, storm drainpipes, subdrain lines, and storm drain catch basins, would be avoided or relocated.
- The access routes and land would be cleared using bulldozers and excavators. Woody debris would be stockpiled on-site and placed in the area once excavation is completed or in some cases the material may be removed to an approved landfill.
- Silt fencing would be installed around the perimeter of the borrow area to control runoff, as per Best Management Practices (BMPs).
- Construction contractors would be responsible for obtaining National Pollutant Discharge Elimination System (NPDES) permits, if applicable, and implementing BMPs, including standard USACE storm water prevention requirements at all borrow area locations, as well as complying with all other Federal, state, and local laws, regulations, and ordinances.
- In most cases, excavation of the borrow areas would commence from the back of the areas to the access road to provide adequate space for staging haul trucks and stockpiled material.
- To make optimum use of available material, excavation should begin at one end of the borrow area and be made continuous across the width of the areas to the allowed borrow depths to provide surface drainage to the low side of the borrow area as excavation proceeds. During this process the overburden (topsoil that lays on top of suitable borrow material) would be stockpiled.
- The excavation activities shall be long enough to provide the required quantity of material, and shall be accomplished in such manner that all available material within the required width to full depth will be utilized when possible.
- Upon completion of excavation, site restoration will include placing the stockpiled overburden back into the area and grading the slopes to the specified cross-section figure shown in the borrow area management plan.
- If additional overburden is available at the areas, it would be used to create gradual side slopes, islands, and smooth out corners within the borrow area to enhance wildlife and fishery habitat. The Environmental Design Considerations for Main Stem Levee Borrow Areas Along the Lower Mississippi River Report 4: Part V, incorporated by reference, and the CEMVN operating procedures will be basic guidelines referred to when designing the borrow areas. However, the full depth of the borrow area should be excavated according to the borrow area management plan for the approved borrow area to minimize impacts to the human and natural environment.

## **2.2 DESCRIPTION OF THE ALTERNATIVES**

Four alternatives were considered. These included the no action, the proposed action, use of Pre-Approved Contractor Furnished Borrow Material, and use of borrow material from a Supply Contract.

No Action. Under the no action alternative the proposed borrow areas would not be used by the CEMVN. The borrow areas listed in the proposed action would not be excavated. HSDRRS levee and floodwall projects would be built to authorized levels using Government and Pre-Approved Contractor Furnished borrow sites described in IER # 18, IER # 19, IER # 22, IER # 23, IER # 26 or other sources as yet to be identified.

Proposed Action. The proposed action consists of excavating the four proposed borrow areas discussed in Section 2.3. For Government Furnished borrow material, the Government acquires the rights to a property, from which suitable borrow material is used for construction of the HSDRRS.

Pre-Approved Contractor Furnished Borrow Material. Pre-Approved Contractor Furnished borrow alternatives area options that are discussed in IERs # 19, IER # 23, and IER # 26, as well as future borrow IERs. A CEMVN levee construction contractor would work in partnership with a landowner to provide suitable pre-approved borrow material from the landowner's property. Sources of Pre-Approved Contractor Furnished borrow material may come from anywhere in the United States.

Supply Contract Borrow Material. The Supply Contract would allow a private individual(s) or corporation(s) to deliver a pre-specified amount of suitable borrow material from an area(s) anywhere in the United States where suitable borrow material could come from. The individual(s) or corporation(s) would deliver the borrow material to a designated location for use by a CEMVN construction contractor. Supply Contract borrow alternatives may be discussed in future IERs.

Without knowing the exact location(s) of this area(s) it is impossible to know the effects excavation of this borrow material would have on significant resources discussed in this document. IER(s) relating to Supply Contract-furnished material will be released independent of IER # 25, and as such no further discussion of Supply Contract Borrow Material will be done in this document.

## **2.3 PROPOSED ACTION**

The proposed action (preferred alternative) consists of potentially excavating all suitable material from the proposed four borrow areas (figure 1). In order to meet the borrow needs of the HSDRRS, personnel from the CEMVN Project Management, Engineering, Real Estate, Office of Counsel, Relocations, and Environmental branches established a Borrow Project Delivery Team. This team worked closely with other CEMVN elements (Hurricane Protection Office, Protection and Restoration Office, and Regulatory Functions Branch) to accomplish its mission. The team's goal is to locate and procure high quality clay borrow sources suitable for levee and floodwall construction in such a way as to be least damaging to both the natural and human environments within the proposed borrow areas.

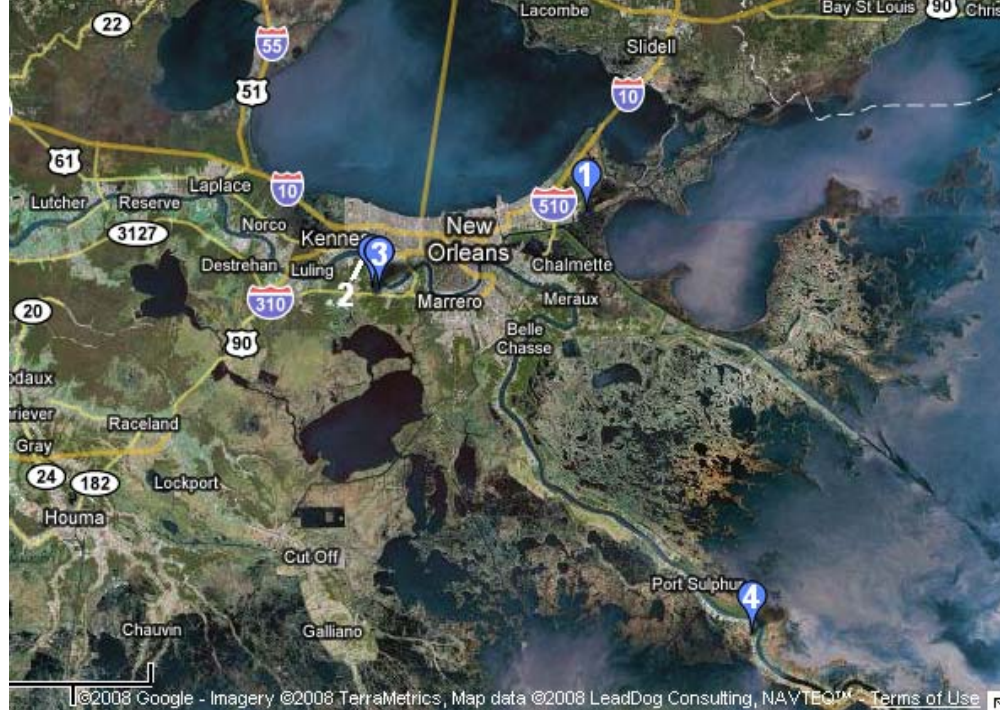


Figure 1: Proposed Borrow Areas

1: Stumpf Phase 1 & 2 / 2: Westbank D / 3: Westbank E Phase 1 & 2 / 4: Tac Carrere



Figure 2: Stumpf Phase 1 and Phase 2





Figure 3: Westbank D, Westbank E Phase 1 and Phase 2



Figure 4: Tac Carrere

The team investigated and completed environmental coordination on the proposed borrow areas and is currently investigating others. When an area was proposed for CEMVN borrow procurement, Real Estate personnel acquired right-of-entry to investigate the property. A map of the site was forwarded to the Regulatory Functions Branch for a jurisdictional wetland determination. The proposed borrow area was revised as necessary to avoid jurisdictional wetlands. A CEMVN Archaeologist completed a preliminary, in-office survey of mapped cultural resource sites to detect any obvious cultural resources within the proposed borrow area. A CEMVN Biologist completed an in-office survey of aerial photos of the area to determine if the potential area raised Coastal Zone Management (CZM) issues based on location or if there were other obvious environmental issues that could be detected from aerial photography. The Biologist also coordinated with the USFWS to ensure the proposed area would not adversely affect threatened or endangered (T&E) species or their critical habitat.

Once the team completed a preliminary site approval, a site visit was conducted. The field team typically consisted of a Project Manager, Biologist, Geologist, Archeologist, and Hazardous, Toxic, and Radioactive Waste (HTRW) Investigator. The area was visually inspected for the presence of obvious HTRW issues and cultural resources. If no HTRW concerns or cultural resources were observed, the area was cleared to proceed with geotechnical borings to identify soil characteristics.

The proposed action consists of removing all suitable material from the following four borrow areas. Excavation would have no effect on cultural resources, threatened and endangered species or their critical habitat. All HTRW issues would be avoided.

- The Stumpf site is comprised of two areas (Phase 1 and 2) that are located on Industrial Parkway in Orleans Parish (figure 2). The Phase 1 proposed borrow area is 300 acres with two 3-acre access corridors. The proposed Phase 2 borrow area is 515 acres with a 2-acre and .9-acre access corridor (figure 2).
- The Westbank D area is located north of Highway 90 in Jefferson Parish (figure 3). The proposed borrow area is 56 acres.
- The Westbank E site is comprised of two areas (Phase 1 and 2) that are located on Live Oak Lane in Jefferson Parish (figure 3). The Phase 1 proposed borrow area is 103 acres with two 3-acre access corridors. The proposed Phase 2 borrow area is 69 acres with a 1.1-acre and .85-acre access corridor.
- The Tac Carrere area is located on Highway 23 in Plaquemines Parish, Louisiana (figure 4). The proposed borrow area is 27 acres with two 1.3-acre access corridors.

Some of the proposed borrow areas have a designated stockpile area delineated. If additional material is needed for levee construction the stockpile areas may be utilized as a borrow source rather than impacting new areas. If the proposed borrow areas or portions of them are not able to be used as a borrow source they may be used as stockpile sites.



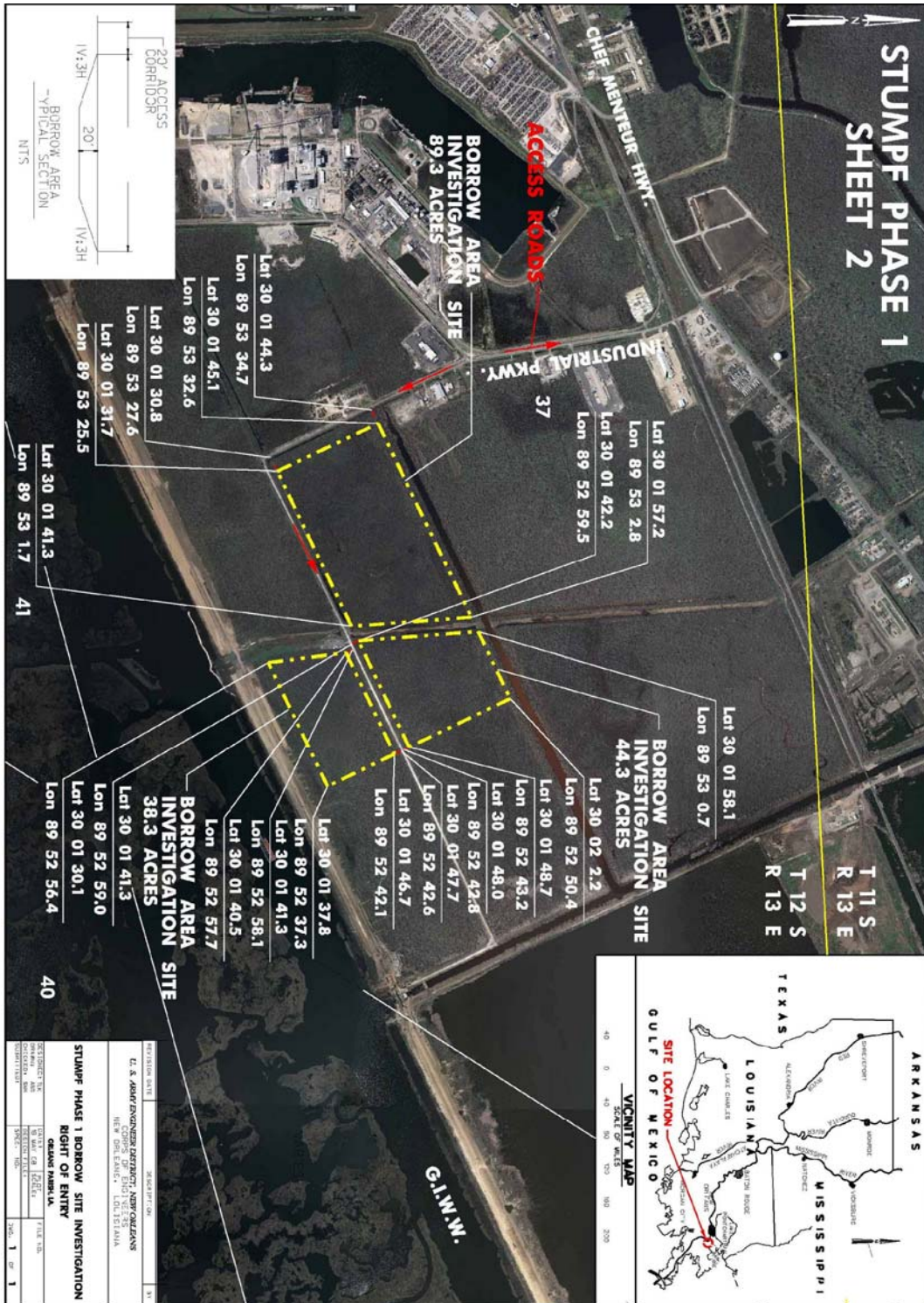


Figure 6: Stump Phase 1 Proposed Borrow Area (2 of 2)

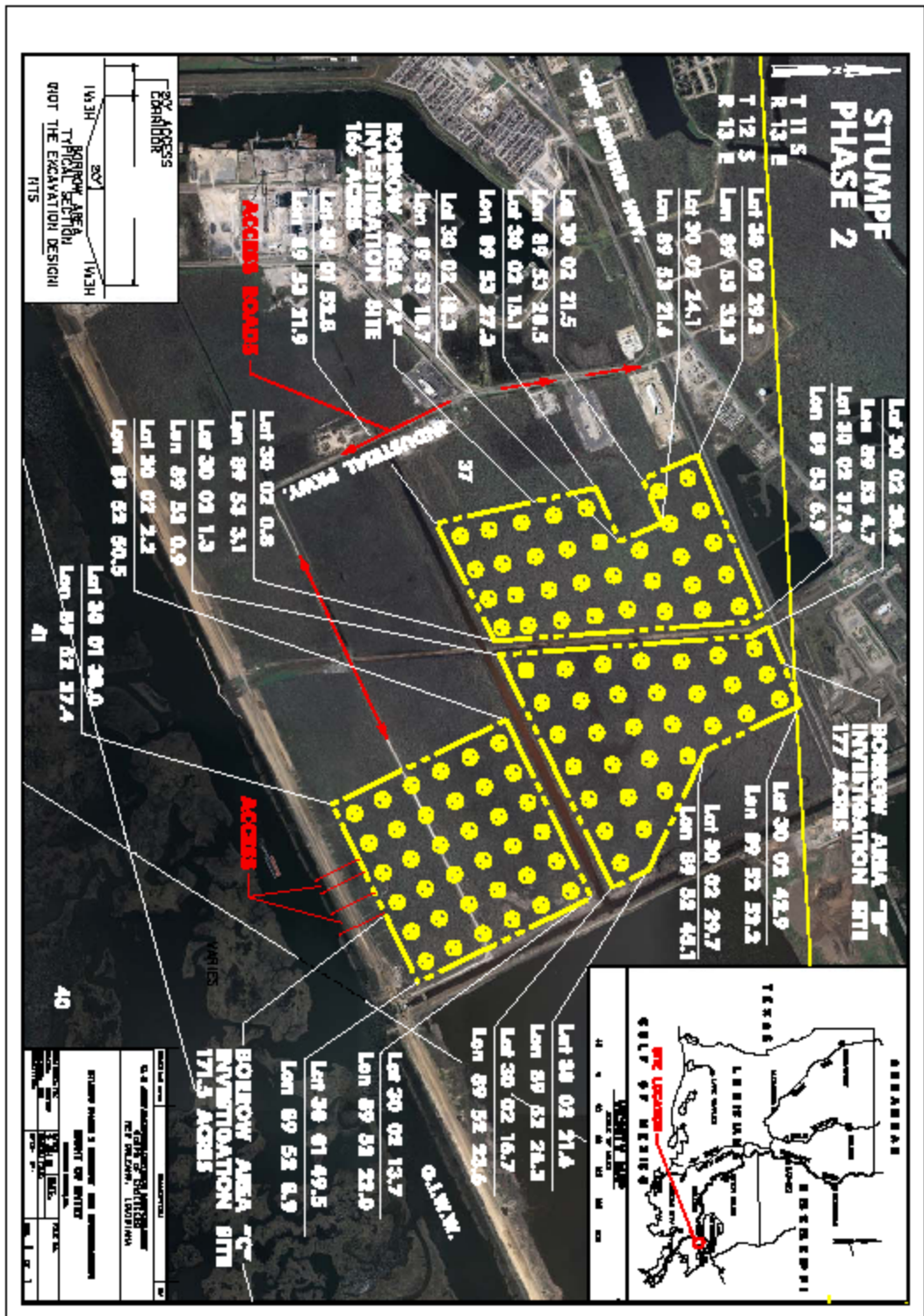


Figure 7: Stumpf Phase 2 Proposed Borrow Area

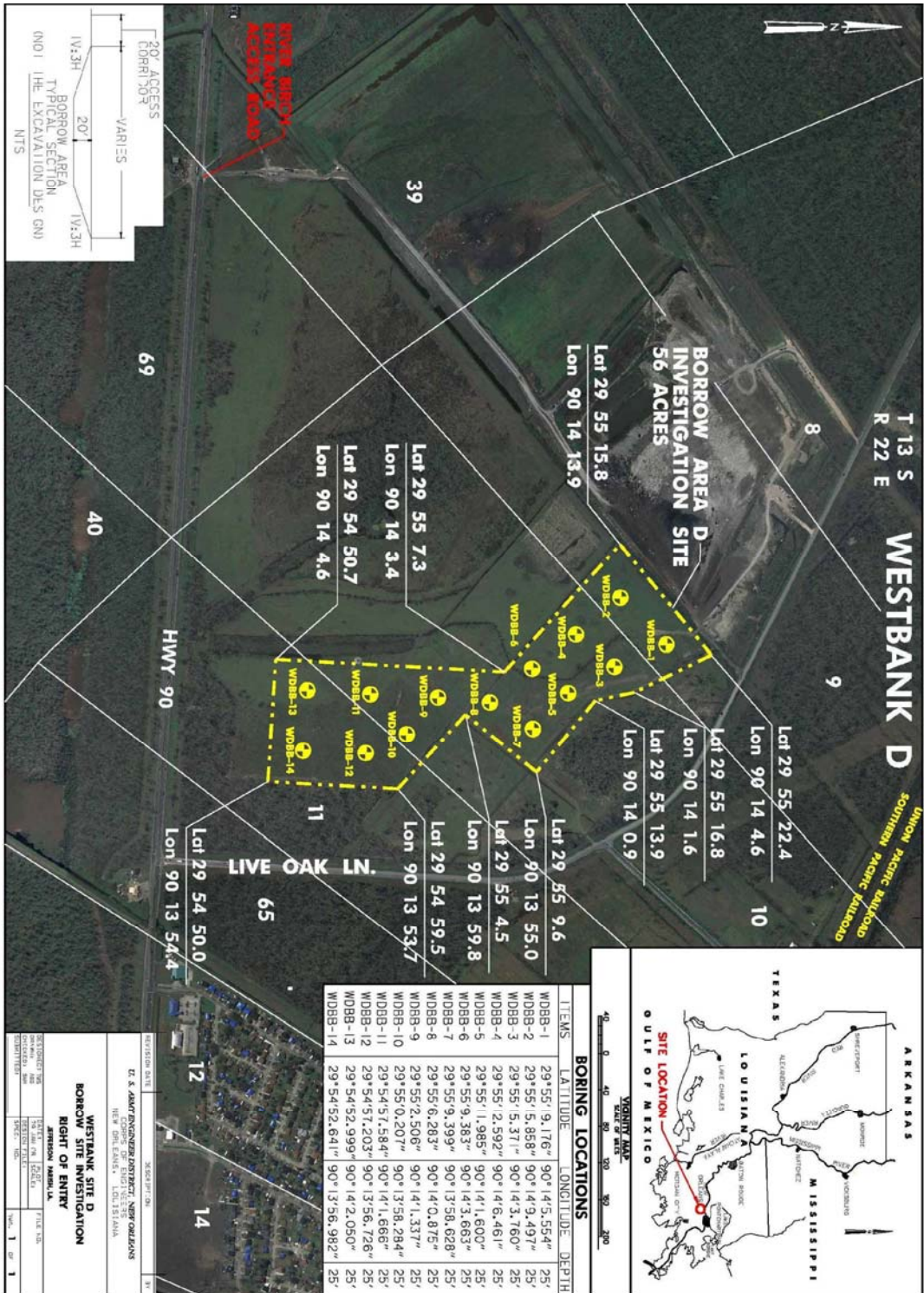


Figure 8: Westbank D Proposed Borrow Area

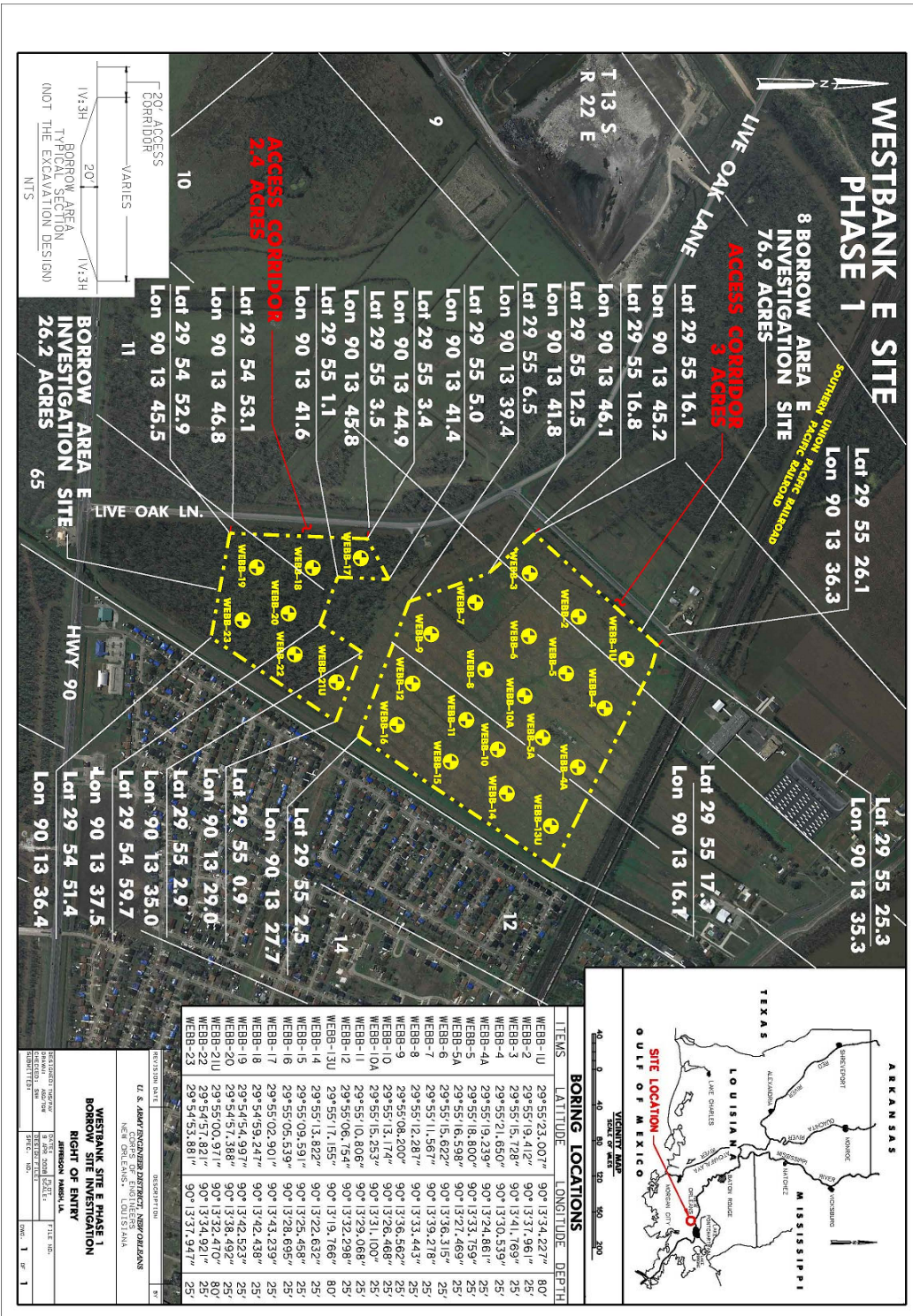


Figure 9: Westbank E Phase 1 Proposed Borrow Area

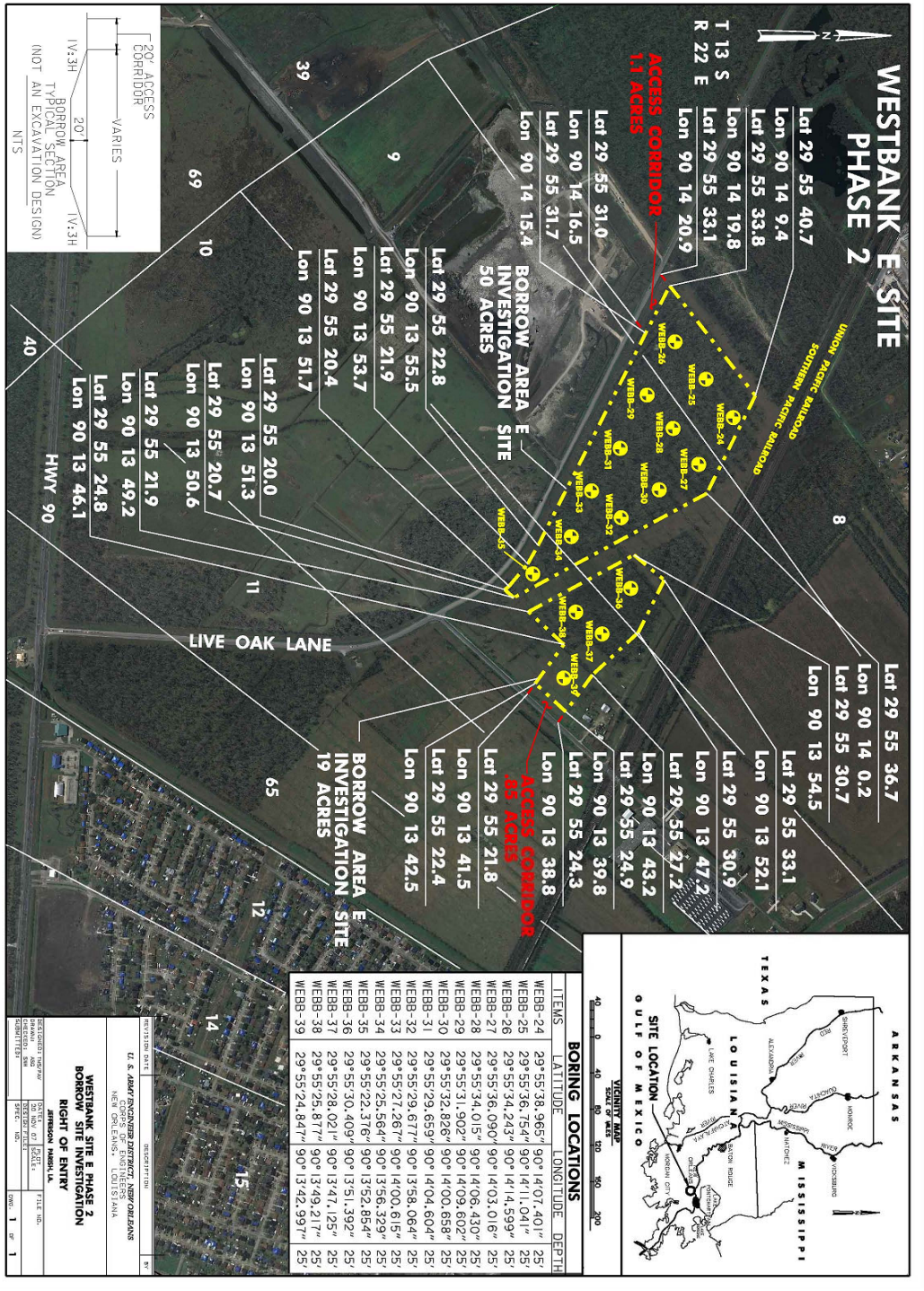


Figure 10: Westbank E Phase 2 Proposed Borrow Area



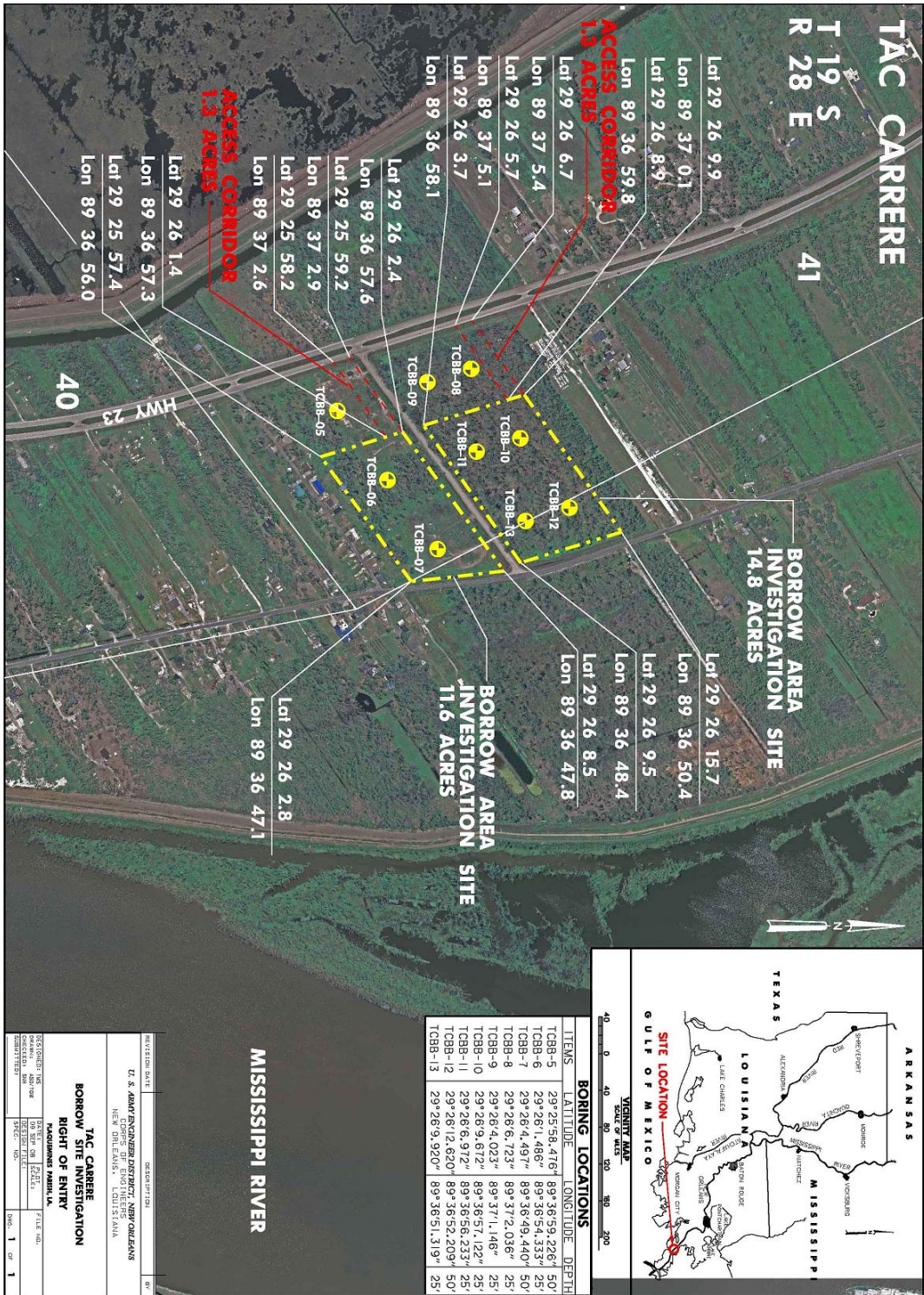


Figure 11: Tac Carrere Proposed Borrow Area

## 2.4 ALTERNATIVES ELIMINATED FROM FURTHER CONSIDERATION

The other alternatives to the proposed action that were considered were the no action, the proposed action, use of Contractor Furnished Borrow Material, and use of borrow material from a Supply Contract. These alternatives are described in Section 2.2.

The following investigated areas were deemed unsuitable by the CEMVN for HSDRRS activities:

- Hickey borrow area: The proposed borrow area is located on Lake Hermitage Rd. in Plaquemines Parish. This 400 acre area was investigated, but declined due to the entire site being wetlands with the exception of the road. The CEMVN may be forced to reconsider this area at some point in the future should there be an inadequate quantity of suitable borrow material for construction of the HSDRRS, after it has exhausted its search for reasonable and practicable non-wetland sites. Refer to CEMVN selection prioritization of potential borrow areas (Section 2.1), and USFWS guidance (appendix D).
- Westbank J: The proposed 281 acre borrow area is located on Peters Road in Jefferson Parish. The Phase 1 Environmental Site Assessment (ESA) indicated that a portion of the site was a former landfill. The ESA also discussed other recognized environmental conditions on the property so the site was not investigated any further.

Several 55 gallon drums (contents unknown) were observed at the commercial-industrial properties adjacent to the southwest corner of the subject site. The drums appeared to be in poor condition. There was also an above-ground storage tank (AST), of approximately 500-gallons capacity, containing diesel fuel. The AST appeared to be in poor condition and was not in secondary containment.

Two sheet metal buildings were observed along the interior of the site. One building, which appeared to be an abandoned machine or maintenance shop, contained several 55 gallon and 5 gallon containers. The drums were in poor condition and were located on a concrete slab inside the building. The other building was empty except for some small debris and an abandoned vehicle.

A pole mounted transformer (PMT) lay on the ground, just off the access road. The outer casing of the PMT was broken open, and the ballast was lying on the ground. PMTs typically contain poly-chlorinated biphenyls (PCBs), which are hazardous to human health. The soil around the transformer was stained and possessed a sweet, piney odor that is associated with PCBs.

A small drainage ditch was located in the central portion of the site. A sheen was observed on the water in the ditch and evidence of significant dumping was noted in the vicinity.

According to the SONRIS database, there are two plugged and abandoned wells on the site; however the wells were not accessible during the site visits.

The LDEQ-EDMS identified a former landfill (The Metroplex Landfill) that was located on Peters Road. According to documents obtained from LDEQ, the landfill was not lined and did not have any groundwater or surface water monitoring systems. The landfill is bordered to the west by Murphy Canal, which

would allow contaminants from the landfill to come into contact with the site. The information obtained from LDEQ did not include a map with the exact landfill location; however aerial photographs indicated that the landfill was located in the northern portion of the site

The following table shows the location of suspected RECs, in Degrees and Decimal Minutes:

Drum	29 50.837	90 3.309
Transformer	29 50.860	90 3.243
Drum 2	29 50.974	90 3.100
Building	29 51.038	90 3.138
Ditch	29 51.034	90 2.991

- Wallick: The proposed area is located on Patterson Rd. in Orleans Parish. The area was investigated, but declined because the relatively small size of the property makes it infeasible to use the site as a source of Government Furnished borrow material.
- City Cathedral: The proposed area is located on Patterson Rd. in Orleans Parish. The area consists of approximately 5.8 acres. The area was investigated, but declined due to geotechnical analysis.
- Krentrel: The proposed borrow area is located on Judge Perez in St. Bernard Parish. This 34 acre area was investigated, but declined due to a gas pipeline right-of-way and mixed wetlands.

### **3. AFFECTED ENVIRONMENT & ENVIRONMENTAL CONSEQUENCES**

#### **3.1 ENVIRONMENTAL SETTING**

The proposed borrow areas described in this report are located in Jefferson, Orleans, and Plaquemines parishes, Louisiana. The study area is bounded to the north by Lake Pontchartrain, to the west by the town of Waggaman and to the east by Michoud, Louisiana. The area is bordered to the south by an extensive marsh system that provides a barrier between the cities within these parishes and county, and the Gulf of Mexico. Louisiana’s coastal plain remains the largest expanse of coastal wetlands in the contiguous United States.

The Stumpf Phase 1 area is located in an industrial area on Industrial Parkway in Orleans Parish. The Westbank D area is located adjacent to a construction and demolition (C&D) landfill and the Westbank E Phase 1 and 2 sites are located to the west by a C&D landfill and to the east by a residential subdivision across a drainage canal. The Tac Carrere area is located in rural area of Plaquemines Parish.

#### **Fauna and Flora**

The Louisiana Coastal Plain area contains an extraordinary diversity of estuarine habitats that range from narrow natural levee and beach ridges to expanses of bottomland

hardwood (BLH) forest, forested swamps and fresh, brackish, saline marshes, and pasture lands. The wetlands support various functions and values, including commercial fisheries, harvesting of furbearers, recreational fishing and hunting, ecotourism, critical wildlife habitat (including threatened and endangered species), water quality improvement, navigation and waterborne commerce, flood control, and buffering protection from storms.

Terrestrial animals that may inhabit some of the proposed borrow areas include nutria, muskrat, raccoon, mink, and otter, which are harvested for their furs. White-tailed deer, feral hogs, rabbits, various small mammals, and a variety of birds, reptiles, amphibians, and mosquitoes also occur in the study area. Forests, wetlands, BLH, and pastures may be found in some of the proposed borrow areas. Agricultural crops grown in the vicinity of some of the proposed borrow areas include citrus fruits and truck crops.

### **Soils**

The USACE Hurricane and Storm Damage Reduction System Design Guidelines, of which the below-stated soil standards are a part, are reviewed and updated as necessary to ensure that the Corps is constructing the safest levees possible. Changes to the guidelines are reviewed and approved by USACE experts at the local, regional and headquarters level; additional reviews are completed by academia and private individuals who are recognized experts in their fields. Additionally, the guidelines being utilized by the CEMVN have been reviewed by members of the Interagency Performance Evaluation Team (IPET). The design guidelines may be updated from time to time to respond to new engineering analysis of improved technology, innovative processes, or new data.

The term “borrow” is used in the fields of construction and engineering to describe material that is dug in one location for use at another location. The term “suitable” as it relates to borrow material discussed in this document is defined as meeting the following current criteria after placement as levee fill:

- Soils classified as clays (CH or CL) are allowed as per the Unified Soils Classification System;
- Soils with organic contents greater than 9 percent are not allowed;
- Soils with plasticity indices (PI) less than 10 are not allowed;
- Soils classified as silts (ML) are not allowed;
- Clays will not have more than 35 percent sand content.

### Clay Specifications

The earthen clay material shall be naturally occurring or Contractor blended. Addition of lime, cement, or other soil amendments for any reason is not permitted. Soil that is classified in accordance with ASTM D2487 and the Unified Soil Classification System as CH and CL are suitable. Soil classified as ML shall be considered unsuitable; however, minor amounts of ML may be suitably blended with CH or CL to formulate a material that classifies as a CL as per ASTM D2487. Soil must be free from masses of organic matter, sticks, branches, roots, and other debris, including hazardous and regulated solid wastes. Soil from a Contractor-supplied earthen clay material source may not contain excessive amounts of wood; however, isolated pieces of wood will not be considered objectionable in the embankment provided their length does not exceed 1 foot, their cross-sectional area is less than four (4) square inches, and they are distributed throughout the fill. Not more than 1% (by volume) of objectionable material shall be contained in clay material ordered by the Government. Pockets and/or zones of wood shall not be acceptable. Material consisting of greater than 35% sands (by dry weight) or materials with a Plasticity Index (PI) of less than 10 will not be accepted as well as

material having an organic content exceeding 9% by weight. Under no circumstances shall frozen earth, snow, or ice in the material be considered acceptable.

The geotechnical analysis shall consist of the following:

A Geotechnical Report stamped and signed by a licensed civil engineer with a specialization in geotechnical engineering certifying that the proposed source contains suitable material meeting the specifications outlined in our Soil Boring Factsheet.

The Geotechnical Report must consist of a summary and conclusion section in the main body of the report with any supporting data attached separately. The licensed engineer shall determine the sub-surface investigations required. These investigations could include but are not limited to soil borings, test sites, or cone penetrometer tests.

Investigations shall be spaced according to the geotechnical engineer's sub-surface evaluation and be representative of the entire proposed source. The licensed engineer's test plan must provide a comprehensive sampling to at least 5 feet below the bottom of the proposed excavation.

All soil samples must be classified in accordance with the Unified Soil Classification system. See below for required soil testing. The supporting data attached to the geotechnical report shall be comprehensive and include as a minimum all field logs, soil sampling and testing results and a detailed investigation location map with the location of the potential borrow source and all investigation locations superimposed. The soil investigation locations must include latitudes and longitudes for plotting purposes.

Laboratory Tests shall include:

1. Soil classification shall be performed in accordance with the Unified Soil Classification System and ASTM D 2487.
2. Atterberg Limits Test shall be performed in accordance with ASTM D 4318.
3. Determination of moisture content shall be performed in accordance with ASTM D 2216 or ASTM D 4643.
4. Determination of organic content shall be performed in accordance with ASTM D 2974, Method C.
5. Control compaction curves shall be established in accordance with ASTM D 698 (Standard Proctor Compaction Tests). A control compaction curve is required for each soil type from each source. Where material is blended and stockpiled, a control compaction curves will be required for each resulting blend of material and will be utilized in lieu of those required for the "unblended materials".
6. Sand Content shall be determined by- 200 wash in accordance with ASTM D-1140.

Test Procedures for Borings shall include:

1. A moisture content determination shall be made and recorded on all samples classified as (CH), (CL), and (ML) at no less than 2 foot intervals.
2. For (CH), (CL), and (ML) soils, Atterberg Limits and Organic Content Testing (ASTM D 2974, Method C), is required every 5 feet (minimum).

3. Samples with moisture contents at 70% or higher or having a Liquid Limit of 70 or higher must be tested for organic content for that sample as well as for a sample 2 feet above and 2 feet below that sample.
4. Sand content tests will be required for samples that classify as CL (with a PI greater than 10) and for all clay samples (CH and CL) with greater than 10% coarse grain materials estimated by visual classification for 2 or more consecutive feet.
5. Sand content tests shall be limited to one test every 5 feet of sampling and shall conform to ASTM D1140-00 (#200 sieve required).
6. Sand content tests will be required for samples that classify as a ML, but limited to one test every 5 feet of sampling.  
The resulting classification, plasticity, water content, and organic content determinations and borrow area boring logs with GPS readings at the boring locations have been or will be analyzed for potential borrow use by the CEMVN to determine the suitability of the soil. Geotechnical testing and soil analysis is ongoing at some of the areas, so it is possible that the area of suitable acreage may decrease as results are finalized.

#### Government Furnished Sites

For Government furnished borrow sites, the Corps of Engineers will conduct site visits, perform soil borings and testing, acquire all pertinent environmental clearances, and be responsible for borrow material excavations. Using this method, the landowner simply provides the New Orleans District with a signed right-of-entry (ROE) form and the district takes care of the rest.

#### Contractor Furnished Sites

For Contractor Furnished borrow sites, individual landowners are responsible for soil boring and testing and acquiring state and Federal environmental clearances. Upon completing all required tasks, the landowner will submit a complete package to New Orleans District for approval. After this approval, the borrow site will be placed on the Approved Government Contractor list. Agreements will solely be between private entities, and at no point in time will the landowner have an agreement with New Orleans District. Additionally, there are no guarantees that the landowner will ever sell borrow material for the HSDRRS levees.

#### Supply Contract

The Government may secure borrow material through a supply contractor that would deliver material to the construction site and/or stockpile area for placement by the construction contractor. For supply contracts, borrow sites, individual bidders are responsible for soil boring and testing and acquiring state and federal environmental clearances. Upon completing all required tasks, the landowner will submit a complete package to New Orleans District for approval when requested as per a contract Request form Proposal. Sites will be evaluated and if approved, the bidders will be allowed to participate in the supply contract process.

### **3.2 SIGNIFICANT RESOURCES**

This section contains a list of the significant resources located in the vicinity of the proposed action, and describes in detail those resources that would be impacted, directly or indirectly, 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 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](http://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 website’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 any of the alternatives.

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

<b>Significant Resource</b>	<b>Impacted</b>	<b>Not Impacted</b>
Jurisdictional Wetlands		X
Non-Jurisdictional Bottomland Hardwood Forest	X	
Non-Wetland Resources/Upland Resources	X	
Prime and Unique Farmland	X	
Wildlife	X	
Threatened and Endangered Species		X
Cultural Resources		X
Recreational Resources		X
Noise	X	
Air Quality	X	
Water Quality	X	
Aesthetics	X	
Socioeconomics	X	
Transportation	X	

### **3.2.1 Jurisdictional Wetlands**

#### Existing Conditions

At this time, the CEMVN is working diligently to avoid impacts to jurisdictional wetlands (as defined by Section 404 of the Clean Water Act) associated with providing borrow material for authorized and 100-year HSDRRS construction. The CEMVN selection prioritization of potential borrow areas (section 2.1), as well as USFWS guidance (appendix D), relating to impacts to jurisdictional wetlands are and will continue to be followed. The CEMVN will coordinate with governmental agencies and the public if jurisdictional wetland may be impacted during future proposed borrow activities.

The CEMVN Regulatory Functions Branch delineated jurisdictional wetlands during initial investigations of potential borrow areas. Jurisdictional wetland areas will be avoided if the site is used as a source for suitable borrow material. Five of the areas described in this document contain wetland areas. Two areas (Hickey and Krentrel) were eliminated from further consideration due to their wetland habitats. The borrow area management plans for Tac Carrerre, Westbank D, and Stumpf Phase 1 and Phase 2 were revised to avoid jurisdictional wetland areas. Wetland acreages avoided are shown in Table 2.

**Table 2: Jurisdictional Wetland Acreage Avoided**

Proposed Borrow Area	Parish	Initial Area Investigated (acres)	Jurisdictional Wetlands Present (acres)	Jurisdictional Wetlands Avoided (acres)	Size After Jurisdictional Wetland Avoidance (acres)
Hickey	Plaquemines	400	400	400	0
Krentrel	St. Bernard	34	Mixed 34	Mixed 34	0
Westbank D	Jefferson	229	Mixed 173	Mixed 173	56
Stumpf Phase 1	Orleans	402	Sec.404 waters 102.2	Sec. 404 waters 102.2	300
Stumpf Phase 2	Orleans	693	Sec.404 wetlands and waters 178.4	Sec. 404 wetlands and waters 178.4	515
Tac Carrere	Plaquemines	112	Mixed 56.7	Mixed 56.7	55.3

Mixed: Impractical to excavate without disturbing the wetlands

During initial investigations, a jurisdictional wetland determination from the CEMVN Regulatory Functions Branch was completed for each potential borrow area. The four potential areas described in this document do not contain jurisdictional wetlands.

- The CEMVN jurisdictional wetland determination MVN-2005-3661-53 dated 14 January 2008, at the proposed Westbank D borrow area indicated some jurisdictional wetlands are located on the site and the wetlands would be avoided.
- The CEMVN jurisdictional wetland determination (e-mail) dated 16 August 2007, at the proposed Westbank E borrow area indicated no jurisdictional wetlands are located on the site.
- The CEMVN jurisdictional wetland determination MVN-2001-1280 dated 29 March 2001, at the proposed Stumpf Phase 1 borrow area indicated some jurisdictional wetlands and Sec. 404 waters (canals) are located on the site. The jurisdictional wetland determinations MVN-2005-3661 dated 06 May 2008 and MVN-1998-2856 dated 03 June 1998 at the proposed Stumpf Phase 2 borrow area indicated some jurisdictional wetlands and Sec. 404 waters (canals) are located on the site. The jurisdictional wetlands and Sec. 404 waters would be avoided.
- The CEMVN jurisdictional wetland determination MVN-2005-3661-50 dated 15 January 2008, at the proposed Tac Carrere borrow area indicated some jurisdictional wetlands are located on the site and the wetlands would be avoided.

The jurisdictional wetland habitat types found near the proposed borrow areas may include pasture wetland, cypress swamps, and pine flatwoods. Jurisdictional wetlands contain hydrophytic vegetation, hydric soils, and hydrology indicators. Pasture wetlands are comprised of soft rushes, flat sedges, smartweed, alligator weed, and other wetland grasses. Cypress swamp areas are dominated by bald cypress and tupelo gum. A variety of birds utilize these areas for nesting, breeding, brooding, and as perches.

### Discussion of Impacts

#### No Action

With implementation of this alternative, no direct, indirect, or cumulative impacts to jurisdictional wetlands through the CEMVN's actions would occur at the proposed



borrow areas. HSDRRS projects would be built to authorized levels using Government and/or Contractor Furnished borrow areas described in IER # 18, IER # 19, IER # 22, IER # 23, IER # 26 or other sources as yet to be identified (e.g., other potential Government Furnished or Pre-Approved Contractor borrow areas; Supply Contract).

#### Proposed Action

With implementation of the proposed action, no direct, indirect, or cumulative impacts to jurisdictional wetlands would occur since the borrow areas described in this document are non-wetland. Suitable material from the areas would be used on Federal HSDRRS projects. Any jurisdictional wetland areas outside of the areas would be avoided. The areas would be converted to ponds and small lakes if water is retained, or to vegetated areas if water is not retained. It is expected that either type of area would attract a variety of wildlife including birds, reptiles, amphibians, and small mammals.

The borrow area management plan of the proposed Stumpf Phase 1 and Phase 2 borrow areas would show a 100 foot vegetated buffer along the canals designated as Section 404 waters. Canal crossings shall be constructed in such a way to maintain the existing hydrology in the area. BMPs would be implemented to ensure no indirect impacts to the canal.

### **3.2.2 Non-Jurisdictional Bottomland Hardwood Forest**

#### Existing Conditions

Non-jurisdictional BLH forests are comprised of dominant species such as hackberry, Chinese tallow tree, pecan, American elm, live oak, water oak, green ash, bald cypress, black willow, box elder, and red maple. Some understory species include dewberry, elderberry, ragweed, Virginia creeper, and poison ivy. A variety of birds utilize these hardwoods for nesting, breeding, brooding, and as perches. Hard mast (nuts) and soft mast (samaras, berries) provide a valuable nutritional food source for birds, mammals, and other wildlife species. Non-jurisdictional BLH forests lack one or more of the following criteria to be considered a Clean Water Act Section 404 jurisdictional wetland: hydrophytic vegetation, hydric soils, and/or wetland hydrology (USACE 1987). Manmade ditches, canals, and/or pumping stations are present at some of the proposed borrow areas.

- The Stumpf Phase 1 and Phase 2 areas were historically wetlands. The area was later leveed, and a pumping station was added for drainage management. The sites were converted to a scrub/shrub habitat. Recently, Chinese tallow trees have overrun the sites. The Stumpf Phase 1 area includes 300 acres of forested area, comprised of 1-2 inch diameter at breast height (dbh) Chinese tallow trees. The Stumpf Phase 2 area includes 515 acres of forested area, comprised of 1-2 inch dbh Chinese tallow trees.
- There are no non-jurisdictional BLH forests within the proposed Westbank D area.
- The Westbank E Phase 1 and Phase 2 areas includes 79.4 acres of forested area, comprised of red maple, box elder, pecan, Chinese tallow tree, hackberry, and live oaks.
- The Tac Carrere area contains 17.7 acres of injured live oaks.

## Discussion of Impacts

### No Action

With implementation of this alternative, there would be no direct, indirect, or cumulative impacts to BLH through the CEMVN actions at the proposed borrow areas. HSDRRS projects would be built to authorized levels using Government and/or Contractor Furnished borrow areas described in IER # 18, IER # 19, IER # 22, IER # 23, IER # 26 or other sources as yet to be identified (e.g., other potential Government Furnished or Pre-Approved Contractor borrow areas; Supply Contract).

The USFWS Habitat Assessment Methodology (HAM) projected that the Stumpf Phase 1 and Phase 2 sites would succeed into a non-jurisdictional BLH forest within the 50 year project life with the No Action alternative. The Westbank E Phase 1 and 2 sites are projected to continue to progress into a more mature non-jurisdictional BLH forest. The Tac Carrere site is projected to continue as a live oak community.

### Proposed Action

With implementation of the proposed action, there would be direct and indirect impacts to BLH forest. Mature trees would be cut down with the use of chainsaws or pushed down with bulldozers and excavators. Saw logs could be sold to a mill and younger trees could be processed into pulp wood for paper products. Woody debris leftover would be cleaned up and all berms would be leveled to eliminate hydrologic impacts. Once excavated, the area would no longer be viable for silviculture practices, and some wildlife habitat would be removed. The area would be converted to ponds and small lakes if water is retained, or by vegetation and woody plants if water is not retained. It is expected that either type of area would attract a variety of wildlife including birds, reptiles, amphibians, and small mammals.

This office has assessed the environmental impacts of the proposed action, and has determined that the proposed action would have unavoidable impacts to a total of 942.1 acres and 284 Average Annualized Habitat Units (AAHUs) of non-jurisdictional BLH. (Habitat Units represent a numerical combination of habitat quality [Habitat Suitability Index] and habitat quantity [acres] within a given area at a given point in time. AAHUs represent the average number of Habitat Units within any given year over the project life for a given area.) These values were assessed using the HAM to estimate the likely future habitat quality and quantity of the site.

Mitigation for unavoidable impacts to non-jurisdictional BLH is discussed in section 6, and will be described under a separate IER.

The excavation of 942.1 acres of non-jurisdictional bottomland hardwoods would contribute to the cumulative loss of these bottomland hardwood resources within the HSDRRS.

### **3.2.3 Non-Wetland Resources/Upland Resources**

#### Existing Conditions

Some species identified in the non-wet pasture areas include Johnson grass, yellow bristle grass, annual sumpweed, arrow-leaf sida, vasey grass, and Brazilian vervain. The scrub/shrub areas are comprised of Chinese tallow tree, eastern false-willow, wax myrtle, giant ragweed, dew berry, elderberry, red mulberry, pepper vine, and dog-fennel.

The areas listed below show representative vegetation found in the pasture and scrub/shrub areas.

- The Stumpf Phase 1 and 2 sites do not contain any upland areas.

- The Westbank D site is 56 acres of maintained pasture land.
- The remainder non-forested land at the Westbank E Phase 1 and 2 site is 96.6 acres of maintained pasture land.
- The remainder non-forested land at the Tac Carrere site is 8.7 acres of maintained pasture land.

Discussion of Impacts

No Action

With implementation of this alternative, no direct, indirect, or cumulative impacts to non-wetland resources/upland resources through the CEMVN’s actions would occur at the proposed borrow areas. HSDRRS projects would be built to authorized levels using potential Government and/or Pre-Approved Contractor Furnished borrow areas described in IER # 18, IER # 19, IER # 22, IER # 23, IER # 26 or other sources as yet to be identified.

Proposed Action

With implementation of the proposed action, direct impacts to non-wetland resources/upland resources would occur from clearing and excavation. Some indirect effects are expected from water accumulating and creating ponds and small lakes. The pasture areas would no longer provide grasses for herbivores such as deer, rabbits, and cattle. Some scrub/shrub areas may develop around the borrow area perimeters in time. Borrow areas that remain dry would be expected to be colonized by vegetation and woody plants, which could offset some habitat loss.

**3.2.4 Prime and Unique Farmland**

Existing Conditions

Four borrow areas contain prime and unique soils according to the National Resources Conservation Service (NRCS) (table 3).

**Table 3: Prime and Unique Farmland Soils Present**

Site Name	Parish	Soil map unit(s)	Prime Farmland	Acres of Prime and Unique Farmland
Stumpf Phase 1 and 2	Orleans	Schriever clay	Yes	29.7
Westbank D	Jefferson	Schriever silty clay loam	Yes	52.6
		Vacherie silt loam		
Westbank E Phase 1 and 2	Jefferson	Vacherie silt loam	Yes	110
		Cancienne silty loam clay		
		Schriever silty clay loam		
		Schriever clay		
Tac Carrere	Plaquemines	Schriever clay	Yes	29

## Discussion of Impacts

### No Action

With implementation of this alternative, no direct, indirect, or cumulative impacts to prime and unique farmland through the CEMVN's actions would occur at the proposed borrow areas. HSDRRS projects would be built to authorized levels using Government and/or Contractor Furnished borrow areas described in IER # 18, IER # 19, IER # 22, IER # 23, IER # 26 or other sources as yet to be identified (e.g., other potential Government Furnished or Pre-Approved Contractor borrow areas; Supply Contract).

### Proposed Action

With implementation of the proposed action, the acreages of prime and unique farmlands shown in Table 3 would be directly impacted at Stumpf Phase 1 and Phase 2, Westbank D, Westbank E Phase 1 and Phase 2, and Tac Carrere. The proposed borrow areas would be cleared and excavated. Removing soils from these proposed borrow areas would result in a direct permanent loss of prime and unique farmlands, and the areas would no longer be available for farming. Indirect effects from construction would be from the proposed borrow areas filling with water and converting to ponds or small lakes. Borrow areas that do not retain water would probably not be able to produce food and fiber crops. The land would no longer provide grasses for herbivores such as deer, rabbits, or cattle.

The excavation of 221.3 acres of prime and unique farmland resources would contribute to the cumulative loss of these prime farmland resources within the HSDRRS.

## **3.2.5 Wildlife**

### Existing Conditions

The study area contains a great variety of mammals, birds, reptiles, and amphibians. Species inhabiting the area include nutria, muskrat, mink, otter, raccoon, white-tailed deer, skunks, rabbits, squirrels, armadillos, and a variety of smaller mammals. Wood ducks and some migratory waterfowl may be present during winter.

Non-game wading birds, shore birds, and sea birds including egrets, ibis, herons, sandpipers, willets, black-necked stilts, gulls, terns, skimmers, grebes, loons, cormorants, and white and brown pelicans are found in the project vicinity. Various raptors such as barred owls, red-shouldered hawks, northern harriers (marsh hawks), American kestrel, and red-tailed hawks may be present. Passerine birds in the areas include sparrows, vireos, warblers, mockingbirds, grackles, red-winged blackbirds, wrens, blue jays, cardinals, and crows. Many of these birds are present primarily during periods of spring and fall migrations. The areas may also provide habitat for the American alligator, salamanders, toads, frogs, turtles, and several species of poisonous and nonpoisonous snakes. The area currently provides suitable breeding habitat for various species of mosquitoes.

The bald eagle is a raptor that is found in various areas throughout the United States and Canada as well as throughout the study area. Bald eagles are Federally protected under the Bald Eagle Protection Act of 1940. The bald eagle feeds on fish, rabbits, waterfowl, seabirds, and carrion (Ehrlich et al. 1988). The main basis of the bald eagle diet is fish, but they will feed on other items such as birds and carrion depending upon availability of the various foods. Eagles require roosting and nesting habitat, which in Louisiana consists of large trees in fairly open stands (Anthony et al. 1982). Bald eagles nest in Louisiana from October through mid-May. Eagles typically nest in bald cypress trees

near fresh to intermediate marshes or open water in the southeastern parishes. There is a bad eagle nest in the vicinity of the Westbank D and Westbank E Phase 1 and 2 sites.

### Discussion of Impacts

#### No Action

With implementation of this alternative, no direct, indirect, or cumulative impacts to wildlife through the CEMVN's actions would occur at the proposed borrow areas. HSDRRS projects would be built to authorized levels using Government and/or Contractor Furnished borrow areas described in IER # 18, IER # 19, IER # 22, IER # 23, IER # 26 or other sources as yet to be identified (e.g., other potential Government Furnished or Pre-Approved Contractor borrow areas; Supply Contract).

#### Proposed Action

With implementation of the proposed action, direct impacts from wildlife displacement would occur when the Stumpf Phase 1 and Phase 2, Westbank D, Westbank E Phase 1 and Phase 2, and Tac Carrere areas are excavated. The areas may be converted to ponds and small lakes. Aquatic vegetation may colonize the shallow littoral edge of the areas, and wildlife (otters, alligators, raccoons, wading birds, and ducks) adapted to an aquatic environment would be expected to expand their range into the new waterbodies. A variety of plant species may colonize adjacent to the water that could provide important wildlife habitat utilized for nesting, feeding, and cover. Any areas that remain dry would be expected to be colonized by vegetation and woody plants, which could offset some habitat loss. The dense vegetation could attract a variety of wildlife including birds, reptiles, amphibians, and small mammals. While the borrow areas have the potential to become mosquito breeding areas, the amount of surface acres of water is considered to be small compared to surrounding wetlands. However, local parish mosquito control programs, not the CEMVN, are responsible for mosquito control.

As noted in the final USFWS Coordination Act Report (appendix D), there is bald eagle nest in the vicinity of the Westbank D and Westbank E sites. A portion of the Westbank E site was removed as a borrow source to avoid the 660-foot eagle nest buffer zone. A portion of the Westbank D site is within 660 feet of a bald eagle's nest. There is a bald eagle nest in the vicinity of the Westbank D and Westbank E sites. Construction contractors will be prohibited from conducting any activity during eagle nesting months within a zone of 660 feet from the nest so as to avoid impacting the eagle nest during nesting months.

Wildlife resources in the New Orleans Metropolitan Area are experiencing a cumulative loss due to a number of activities (e.g., residential and commercial development, wetland loss, borrow excavation, highway construction). Excavation of the proposed borrow areas would contribute to this loss.

### **3.2.6 Threatened and Endangered Species**

#### Existing Conditions

The brown pelican may be in the vicinity of the proposed borrow areas. It is a year-round resident that typically forages on fish throughout the study area. In winter, spring, and summer, nests are built in mangrove trees or other shrubby vegetation, although occasional ground nesting may occur. Small coastal islands and sand bars are typically used as loafing areas and nocturnal roosting areas. There are no known T&E species, or critical habitats, located on any of the proposed borrow areas.

## Discussion of Impacts

### No Action

With implementation of this alternative, no direct, indirect, or cumulative impacts to T&E species through the CEMVN's actions would occur at the proposed borrow areas. HSDRRS projects would be built to authorized levels using Government and/or Contractor Furnished borrow areas described in IER # 18, IER # 19, IER # 22, IER # 23, IER # 26 or other sources as yet to be identified (e.g., other potential Government Furnished or Pre-Approved Contractor borrow areas; Supply Contract).

### Proposed Action

Under the proposed actions, no direct, indirect, or cumulative effects would be predicted to protected species or their critical habitat as a result of implementing the proposed actions.

The USFWS concurred with the CEMVN that excavation of the proposed borrow areas are not likely to adversely affect T&E species or their critical habitat (table 4).

**Table 4: USFWS T&E Concurrence**

<b>Proposed Borrow Area</b>	<b>USFWS Concurrence</b>
Stumpf Phase 1	10 April 2008
Stumpf Phase 2	21 May 2008
Westbank D	25 April 2008
Westbank E Phase 1 & 2	25 April 2008
Tac Carrere	10 April 2008

### **3.2.7 Cultural Resources**

#### Existing Conditions

CEMVN's selection of Government Furnished Borrow areas seeks to avoid adverse impacts to historic properties. Cultural resource investigations of the proposed borrow areas reveal the presence of both prehistoric and historic sites in the general vicinity of the proposed borrow areas. Prehistoric archaeological sites, such as shell middens, hunting and gathering camps, habitation sites, villages and mounds sites, tend to be located on active and abandoned distributary channel levee complexes, major beach ridges, on older stable portions of the delta, and in association with freshwater marshes. Similarly, historic period sites, such as forts, plantations, and industrial places tend to be located on levees and waterways. The geologic processes associated with the Mississippi River including delta lobe formation, meander progressions, and alluvial sedimentation from floods greatly influence site location and preservation. For example, the geologic progression of the Mississippi River delta lobes suggests that the earliest archaeological sites in the region date to the Poverty Point Phase (1700 – 500 B.C.) (Wiseman et al 1979). In addition, flood sedimentation buries and preserves some sites, while channel erosion and subsidence obliterate other sites.

Cultural resources investigations of the four proposed borrow areas include reconnaissance surveys and Phase I cultural resource surveys. Researcher's geared their investigations toward identifying known and previously unrecorded historic properties within proposed borrow areas and the areas of potential effect (APE). Background research for each proposed borrow area involved reviewing known resources within the area, identifying soil and geomorphologic characteristics, and assessing the existing conditions. This information was used to assess the likelihood that archaeological sites could be present within a proposed borrow area. A reconnaissance survey of the

proposed Stumpf borrow area (Harlan and Godzinski 2008) updates an earlier Phase I archaeological survey (Castille and Reeves 1982). Phase I archaeological surveys of the proposed Tac Carrere, Westbank D, and Westbank E borrow areas (Harlan and Smith 2008a, 2008b) investigate the likelihood and presence of unrecorded archaeological sites.

For the most part, the proposed borrow areas lie within drained backswamp (Westbank D, E, Tac Carrere, and Stumpf). While these environments were utilized for resource extraction during prehistoric and historic times, there is little evidence of occupation in these locations. Consequently, the likelihood for the presence of undiscovered cultural sites within these proposed borrow areas remains low. Portions of the Westbank E proposed borrow area include the natural levee of the Mississippi River. While natural levee soils present a high probability for the presence of prehistoric and historic sites, the cultural resource survey of Westbank E confirms the absence of cultural sites from the proposed borrow area.

The effects of the proposed action to cultural resources in close vicinity to the proposed borrow areas were also taken into account. The remains of an historic sugar mill were identified within the area originally investigated for the Westbank E borrow area. In order to avoid impacts to the sugar mill remains, a protective buffer zone was placed around this archaeological site and the area was eliminated from further consideration for borrow. Therefore, this archaeological site will be preserved in place and the excavation of the proposed Westbank E will not affect this site.

Section 106 of the National Historic Preservation Act of 1966, as amended, consultation included correspondence with the State Historic Preservation Officer (SHPO) and Indian Tribes that have an interest in the region (table 5). Taken together, the results of these investigations revealed that no known sites eligible for listing on or listed on the National Register of Historic Places properties exist within the proposed borrow areas or will be affected by the proposed development.

### Discussion of Impacts

#### No Action

Without implementation of the proposed action, no direct, indirect, or cumulative impacts to cultural resources are anticipated. Any undiscovered or unreported cultural resources or traditional cultural properties will remain intact and in their current state of preservation. The burial or subsidence of historic land surfaces will continue in the current pattern. There is no reason to believe that no action will have any direct positive or negative impacts to cultural resources.

#### Proposed Action

No known archaeological sites, historic structures, or other cultural sites exist with the proposed Tac Carrere, Westbank D, Westbank E, or Stumpf borrow areas. Therefore, with implementation of the proposed action, any undiscovered cultural resources may be damaged during borrow excavation and construction operations. In the unlikely event that cultural resources are identified during borrow excavation then work in the vicinity would cease. The Corps would consult with the Louisiana SHPO and Indian Tribes pursuant to 36 CFR § 800.13 to resolve adverse affects to a cultural resource. However, it is unlikely that such direct impacts would occur because cultural resource surveys have been completed in order to identify cultural resources within the proposed borrow area. In addition, no indirect or cumulative impacts are anticipated for cultural resources.

**Table 5: Summary of Section 106 of NHPA Correspondence and Date of Concurrence Letter with CEMVN’s “Finding of No Adverse Effect to Historic Properties”**

**Table 5. Summary of Section 106 of NHPA correspondence.**

Borrow Pit Name	Parish	CEMVN letter date	SHPO	Chitimacha Tribe of Louisiana	Mississippi Band of Choctaw Indians	Choctaw Nation of Oklahoma	Alabama Coushatta Tribe of TX	Caddo Nation of OK <sup>1</sup>	Coushatta Tribe of LA	Jena Band of Choctaw Indians	Quapaw Tribe of OK	Seminole Nation of OK	Seminole Tribe of FL	Tunica-Biloxi Tribe of LA
Tac Carrere	Plaquemines	3/25/08	4/23/08	4/9/08	4/30/08*	4/3/08	4/30/08*	4/30/08*	4/30/08*	4/30/08*	4/30/08*	4/30/08*	4/30/08*	4/30/08*
Westbank D	Jefferson	4/18/08	5/7/08	5/23/08*	5/23/08*	5/23/08*	5/23/08*	5/23/08*	5/23/08*	5/23/08*	5/23/08*	5/23/08*	5/23/08*	5/23/08*
Westbank E Phase 1 & 2	Jefferson	4/18/08	5/7/08	5/23/08*	5/23/08*	5/23/08*	5/23/08*	5/23/08*	5/23/08*	5/23/08*	5/23/08*	5/23/08*	5/23/08*	5/23/08*
Stumpf Phase 1 & 2	Orleans	5/9/08	6/11/08	6/13/08*	6/13/08*	6/13/08*	6/13/08*	6/13/08*	6/13/08*	6/13/08*	6/13/08*	6/13/08*	6/13/08*	6/13/08*

Tribe consults on projects in Louisiana only.

\* Response date reflects the end of the 30 day comment period. No response implies concurrence with a “Finding of no adverse effect” as per 36 CFR 800.5(c)(1).

\* Response date reflects the end of the 30 day comment period. No response implies concurrence with Federal effect determination as per 36 CFR 800.3(c)(4).



### **3.2.8 Recreational Resources**

#### Existing Conditions

This resource is institutionally significant because of the Federal Water Project Recreation Act of 1965, as amended, and the Land and Water Conservation Fund Act of 1965, as amended. Recreational resources are technically significant because of the high economic value of recreational activities and their contribution to local, state, and national economies. Recreational resources are publicly significant because of the high value that the public places on fishing, hunting, and boating, as measured by the large number of fishing and hunting licenses sold in Louisiana, and the large per-capita number of recreational boat registrations in Louisiana.

The region in which the proposed actions are to take place is rich with recreation resources. The four specific sites studied in this IER (Stumpf Phase 1 and 2, Westbank D, Westbank E Phase 1 and 2, and Tac Carrere) may have some recreational potential, but contain no existing recreational infrastructure or specific features and are not open to public access. The Stumpf Phase 1 site is located approximately one mile west of and 1,200 feet north of the eastern most boundary of the Bayou Sauvage National Wildlife Refuge. The Stumpf Phase 2 site shares a boundary line with the eastern most edge of the Bayou Sauvage National Wildlife Refuge. The areas south/southeast of Tac Carrere and east/southeast of Westbank E sites have residences within 250 feet across a drainage canal.

#### Discussion of Impacts

##### No Action

Without the proposed action, there should be no direct, indirect, or cumulative impacts to recreation resources at the proposed borrow areas. HSDRRS projects would be built to authorized levels using Government and/or Contractor Furnished borrow areas described in IER # 18, IER # 19, IER # 22, IER # 23, IER # 26 or other sources as yet to be identified (e.g., other potential Government Furnished or Pre-Approved Contractor borrow areas; Supply Contract).

##### Proposed Action

The excavation of the Stumpf Phase 1 and 2, Westbank D, Westbank E Phase 1 and 2, and Tac Carrere proposed borrow areas will not directly, indirectly or cumulatively impact recreation resources in the region. The Bayou Sauvage National Wildlife Refuge will not be impacted by the excavation of the Stumpf Phase 1 and 2 proposed borrow areas due to the distance between the refuge and the proposed borrow areas. In some cases, depending on how the end site is left, the habitat may be suitable to support some recreational activities, i.e. wildlife viewing and fishing. However, these sites are not open to public access.

### **3.2.9 Air Quality**

#### Existing Conditions

As of June 15, 2005, the 1-hour ozone standard for the New Orleans Metropolitan Area (Orleans, Jefferson, St. Bernard, St. Charles, and Plaquemines parishes) was revoked and replaced by an 8-hour standard. The New Orleans area is currently in attainment of the 8-hour ozone standard and all other critical pollutant National Ambient Air Quality Standards (NAAQS) as established by the Clean Air Act. The parishes listed above are currently in attainment of all NAAQS. This classification is the result of area-wide air quality modeling studies.

## Discussion of Impacts

### No Action

With implementation of this alternative no direct, indirect, or cumulative impacts to air quality through the CEMVN's actions would occur at the proposed borrow areas. HSDRRS projects would be built to authorized levels using Government and/or Contractor Furnished borrow areas described in IER # 18, IER # 19, IER # 22, IER # 23, IER # 26 or other sources as yet to be identified (e.g., other potential Government Furnished or Pre-Approved Contractor borrow areas; Supply Contract).

### Proposed Action

With implementation of the proposed action, there would be direct short-term impacts to air quality that would result from the excavation of the Stumpf Phase 1 and 2, Westbank D, Westbank E Phase 1 and 2, and Tac Carrere borrow areas controlled by proper BMPs. Air quality impacts would be limited to those produced by heavy equipment, and suspended dust particles generated by bulldozing, dumping, and grading. Operation of construction equipment and support vehicles would generate volatile organic compounds (VOCs), particulate matter (PM) 10, PM 2.5, nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), ozone (O<sub>3</sub>) and sulfur oxides (SO<sub>x</sub>) emissions from diesel engine combustion. The construction equipment and haul trucks should have catalytic converters and mufflers to reduce exhaust emissions. During the construction of the proposed project, routine maintenance of all vehicles and other construction equipment would be implemented to ensure that emissions are within the appropriate design standards.

Dust suppression methods would be implemented to minimize dust emissions. Air emissions from the proposed action would be temporary and should not significantly impair air quality in the region. Emissions associated with the proposed actions would be temporary and should not significantly impair air quality in the region. Due to the short duration of excavation, any increases or impacts on ambient air quality are expected to be short-term and minor and are not expected to cause or contribute to a violation of Federal or state ambient air quality standards.

Cumulative air impacts from the excavation of Stumpf Phase 1 and 2, Westbank D, Westbank E Phase 1 and 2, and Tac Carrere proposed borrow areas are unknown at this time and the air impacts will be discussed in the CED.

## **3.2.10 Water Quality**

### Existing Conditions

The Louisiana Department of Environmental Quality (LDEQ) regulates both point and nonpoint source pollution. Many of the proposed borrow areas are uplands with associated drainage features.

## Discussion of Impacts

### No Action

With implementation of this alternative, no direct, indirect, or cumulative impacts to water quality through the CEMVN's actions would occur at the proposed borrow areas. HSDRRS projects would be built to authorized levels using Government and/or Contractor Furnished borrow areas described in IER # 18, IER # 19, IER # 22, IER # 23, IER # 26 or other sources as yet to be identified (e.g., other potential Government Furnished or Pre-Approved Contractor borrow areas; Supply Contract).

### Proposed Action

Despite the use of BMPs, with implementation of the proposed action there would be some direct impacts from disturbances to water quality in the immediate vicinity of Stumpf Phase 1 and 2, Westbank D, Westbank E Phase 1 and 2, and Tac Carrere proposed borrow areas from sediments getting around silt fencing during high rain events.

The construction contractor would be required to secure all proper Federal, State, and local permits required for potentially impacting water quality. The CEMVN requires that construction BMPs be implemented and followed during the construction phase. A sediment control plan including silt fencing and hay bales would be installed around the perimeter of the proposed borrow areas to control runoff. To make optimal use of available material, excavation would begin at one end of the borrow area and be made continuous across the width of the areas to the required borrow depths, to provide surface drainage to the low side of the borrow area as excavation proceeds. Excavation for semi-compacted fill would not be permitted in water nor shall excavated material be scraped, dragged, or otherwise moved through water. In some cases the borrow areas may need to be drained with the use of a sump pump. Upon abandonment, site restoration would include placing the stockpiled overburden back into the area and grading the slopes to the specified cross-section figures. Abrupt changes in grade should be avoided, and the bottom of the borrow area should be left relatively smooth and sloped from one end to the other. Abrupt changes in borrow area alignment shall be avoided. With the use of BMPs, direct and indirect disturbance of water quality would be temporary, confined, and short lived.

The excavation of Stumpf Phase 1 and 2, Westbank D, Westbank E Phase 1 and 2, and Tac Carrere would contribute to the cumulative losses of water quality within the region.

### **3.2.11 Transportation**

#### Existing Conditions

Additional information on the potential impacts associated with transporting borrow material is being developed by the CEMVN, and will be discussed in the CED. This is a known data gap (section 1.6).

The following is a listing of each proposed borrow area by parish and the sites' proximity to roads and highways.

- Orleans Parish: The proposed 300 acre Stumpf Phase 1 and 515 acre Phase 2 borrow areas are located on Industrial Parkway in Orleans Parish.
- Jefferson Parish: The proposed Westbank D borrow area is located in Avondale, Louisiana on Highway 90. The 56 acre site is located just west of Live Oak Lane. The proposed Westbank E Phase 1 and Phase 2 borrow areas are located on the east side of Live Oak Lane.
- Plaquemines Parish: The proposed Tac Carrere borrow area is located on Highway 23 near Nairn, Louisiana.

## Discussion of Impacts

### No Action

With implementation of this alternative, no direct, indirect, or cumulative impacts to transportation routes through the CEMVN's actions would occur at the proposed borrow areas. HSDRRS projects would be built to authorized levels using Government and/or Contractor Furnished borrow areas described in IER # 18, IER # 19, IER # 22, IER # 23, IER # 26 or other sources as yet to be identified (e.g., other potential Government Furnished or Pre-Approved Contractor borrow areas; Supply Contract).

### Proposed Action

With implementation of the proposed action, construction equipment such as bulldozers and excavators would need to be delivered to the sites, and haul trucks would be entering and exiting the areas on a daily basis during the period of excavation. Direct impacts from truck hauling would temporarily impede vehicle traffic and result in a reduction in the level of service (LOS, a metric describing traffic volume relative to capacity) on some local road segments. Flagmen, signage, cones, barricades, and detours would be used where required to facilitate the movement of heavy equipment and local traffic on affected road segments. The proposed design of all areas would require methods to avoid exposure of adjacent traffic routes and other urban developments. Appropriate measures to ensure safety and facilitate the movement of traffic would be implemented at all approved borrow areas.

- Orleans Parish: The proposed Stumpf Phase 1 and Phase 2 areas are located on Industrial Parkway which bisects Chef Menteur Highway which handles commercial truck fleets delivering goods to the area. If these proposed borrow areas are used, material would more than likely be used for HSDRRS construction sites closest to them, minimizing the disruption of transportation through highly developed areas. Efforts to rebuild the parish are ongoing, but the reduced population has led to reduced traffic volumes. Even with use of these borrow areas road congestion is not expected to be great. Canal crossings shall be constructed in a manner to maintain the natural flow of water. The sites may also be used as a stockpile area and the Intracoastal Waterway could potentially be used to transport borrow to and from the HSDRRS construction sites by barge. The use of these areas could temporarily increase waterway traffic in the Intracoastal Waterway.
- Jefferson Parish: The proposed Westbank D and Westbank E Phase 1 and 2 borrow area material would likely be used on HSDRRS construction sites within the area. Live Oak Boulevard and Willswood Lane are residential streets that may be traveled during excavation activities.
- Plaquemines Parish: The proposed Tac Carrere borrow area is in a rural area, and material excavated would likely be used on HSDRRS construction sites within Plaquemines Parish.

Appropriate measures to ensure safety and facilitate the movement of traffic would be implemented at all potential borrow areas. The current traffic volume at these areas is unknown.

Cumulative transportation impacts from the excavation of Stumpf Phase 1 and 2, Westbank D, Westbank E Phase 1 and 2, and Tac Carrere proposed borrow areas are unknown at this time and the transportation impacts will be discussed in the CED.

### **3.2.12 Aesthetic (Visual) Resources**

#### Existing Conditions

The Stumpf and Westbank D borrow areas contain similar land use patterns (i.e., maritime related industry or existing borrow areas) in the immediate and adjacent areas, and are remote and inaccessible. The Tac Carrere proposed borrow areas is in a rural residential area still recovering from the effects of Hurricane Katrina. Generally, they lack distinct qualities that make them visually significant. However, the Westbank E proposed borrow areas are within a quarter-mile of densely populated residential areas in an urban setting.

#### Discussion of Impacts

##### No Action

With implementation of this alternative, no direct, indirect, or cumulative impacts to visual resources through the CEMVN's actions would occur at the proposed borrow areas. These resources may be impacted by non-Federal actions if the landowner chooses to use the land as a borrow source. HSDRRS projects would be built to authorized levels using potential Government and/or Pre-Approved Contractor Furnished borrow areas described in IER # 18, IER # 19, IER # 22, IER # 23, IER # 26 or other sources as yet to be identified.

##### Proposed Action

With implementation of this alternative, no direct impacts to visual resources through the CEMVN's actions would occur at the proposed borrow areas. Upon completion of excavation, the Environmental Design Considerations for Main Stem Levee Borrow Areas Along the Lower Mississippi River Report 4: Part V, incorporated by reference, and the CEMVN operating procedures will be basic guidelines referred to when designing the borrow areas as positive visual environmental features. For example, during the borrow excavation process any overburden (topsoil that lays on top of suitable borrow material) would be stockpiled. Upon completion of excavation, site restoration may include placing the stockpiled overburden back into the borrow area to create islands and smooth out corners for visual enhancement.

Indirect impacts may occur based on the condition that the borrow areas are left after construction activity. The Westbank E Phase 1 proposed borrow area is adjacent to the Kennedy Heights neighborhood. Currently, borrow areas do not exist in the area and the neighborhood is screened from the proposed Westbank E Phase 1 borrow area by a tree line at the eastern edge of the project area. The viewsheds from the residences along the Capital Dr Area of the Kennedy Heights neighborhood may be exposed to the proposed borrow area if the tree line at the eastern edge of the project area is removed by construction activity; there is the possibility that proposed Westbank E Phase 1 borrow area existence may not be considered as a positive visual environmental feature.

Cumulatively, visual impacts from the excavation of Stumpf Phase 1 and 2, Westbank D, Westbank E Phase 1 and 2, and Tac Carrere proposed borrow areas are unknown at this time as the borrow area selection and excavation process is ongoing; the impacts will be discussed in the CED.

### **3.3 SOCIOECONOMIC RESOURCES**

The focus of this section is to evaluate the relative socioeconomic impacts, if any, of construction activities associated with acquiring borrow material from the previously described areas in the vicinity of the New Orleans Metropolitan Area. This borrow material would be used to construct Federal HSDRRS projects.

#### **3.3.1 Noise**

##### Existing Conditions

The potential borrow areas are located in mostly rural areas, relatively far from the dense development of the New Orleans Metropolitan Area. Therefore, noise impacts on residential populations are largely absent under existing conditions. While the sites are not surrounded by dense development, there are still residential structures in the vicinity of the Westbank E Phase 1 site that may be affected by noise impacts due to construction.

##### Discussion of Impacts

###### No Action

With implementation of this alternative Federal HSDRRS projects would be built to authorized or 100-year levels using materials from Government or Contractor Furnished borrow areas. The future conditions with this alternative would likely require alternative methods reducing the risk from hurricane and storm damage using borrow material from other locations. Under this alternative, there would be no noise impacts at the sites discussed in this report.

###### Proposed Action

With implementation of the proposed alternative there would be adverse noise impacts, especially to residences in the vicinity of the Westbank E Phase 1 site, occurring as a result of the excavation of borrow material. Noise would be created from high-powered machinery and human activities within the project right of way and emanate various distances beyond the construction site until the noise energy dissipates. Because the Stumpf Phase 1 and 2, West bank D, Westbank E Phase 2, and Tac Carrere proposed borrow areas are located in relatively sparsely populated areas, the number of residences and commercial properties exposed to the adverse impacts of noise is minimal. There is greater potential, however, for noise impacts to be generated by construction vehicles and personal vehicles for contract laborers that may require the use of public roads and highways for access to construction sites. However, these impacts would only be present during the excavation period. No permanent impacts are expected.

#### **3.3.2 Population and Housing, Business and Industry, Property Values, Public Facilities and Services**

##### Existing Conditions

Located within the New Orleans Metropolitan Area, and within non-wetland areas, the proposed borrow areas have more property value than large tracts of adjacent wetlands. The areas indirectly, if not directly, contribute to the local tax base.

Of the three parishes in Louisiana discussed in this report, the specified median value of homes ranged from \$87,300 in Orleans Parish to \$110,100 in Plaquemines Parish. However, all of the sites are on vacant property.

The Westbank D and Westbank E Phase 1 and 2 sites in Jefferson Parish cover 56 and 165 acres, respectively. The sites are within the WBV Project. The Westbank D site is part of a landfill expansion used for construction and demolition debris. The Westbank D site is also used as pasture land, but has no cattle. The Westbank E site is also used as pasture land, and there are cattle present. All of the sites are located within census block group 275.02.6, with a median value for specified owner-occupied housing units of \$53,300.

The Stumpf Phase 1 and 2 areas in Orleans Parish cover 402 acres within the LPV Project. There are some industrial structures on the site, but these will be avoided during excavation. The site is located within census block group 17.33.2, with a median value for specified owner-occupied housing units of \$54,500.

The Tac Carrere site in Plaquemines Parish covers approximately 55 acres within the New Orleans to Venice Hurricane Protection Project. The site is forested and will be cleared for excavation. It is located within census block group 506.1, with a median value for specified owner-occupied housing units of \$195,300.

### Discussion of Impacts

#### No Action

With implementation of this alternative Federal HSDRRS projects would be built to authorized or 100-year levels using materials from Government or Contractor Furnished or other borrow areas. The future conditions with this alternative would likely require alternative methods for improving flood and hurricane protection using borrow material from other locations. No incremental effects on population and housing, business and industry, property values, or public facilities and services, relative to the proposed action, are expected.

#### Proposed Action

The use of the proposed borrow sites will not cause the displacement of any population or housing.

There may be temporary, construction-related impacts to population in the vicinity of the Westbank E Phase 1 and 2 site, due to its proximity to residences along Capitol Drive. There are approximately 300 residences within a one-block vicinity of the proposed site. Excavation and an increased presence of trucks in the vicinity may create noise impacts; in addition to potential minimal, temporary impacts to air quality.

There may be temporary, traffic-related impacts to the businesses on the proposed Stumpf site, in addition, potentially, to others in the area, as a result of excavation. There would be increased congestion as a result of trucks moving borrow material out of the proposed sites.

Property values for the sites themselves may tend to decrease as their potential uses for alternative purposes are diminished in the future. For adjacent properties, the market response with respect to property values is undetermined, though there would appear to be no likelihood that property value could be enhanced.

The impact for future growth opportunities for business and industry in the area is problematic. An open borrow site has fewer opportunities for future development than one that is backfilled. Also, an open borrow site does nothing to enhance the

relative attractiveness of adjacent real estate as opportunities for commercial investment. However, from a market perspective, the competitive disadvantage that the borrow site, and adjacent properties, may be placed when compared to alternative real estate investment opportunities in other markets is measured simply by the cost to backfill. From a practical standpoint, private owners of adjacent properties cannot compel owners of open borrow sites to backfill for the purpose of enhancing property values within the market area in general. For Government furnished borrow the future owners of open borrow sites are likely to be the parishes themselves, serving as local sponsors for the project; therefore, the future disposition of open borrow sites may emerge as a higher priority public issue within the context of a comprehensive economic development master plan. As a result, an impediment, to an undefined degree, though potentially severe, may be introduced to further prospective commercial development.

### **3.3.3 Health and Safety, Flood Control and Hurricane Protection**

#### Existing Conditions

With the exception of the Tac Carrere site, the proposed borrow sites fall within existing hurricane and storm damage risk reduction areas of Orleans, and Jefferson parishes. All parishes in the vicinity have been highly sensitive to flood and hurricane damage, requiring an extensive network of structures, pumping systems, and evacuation routes. The rate in erosion in some areas appears to have declined since the 1960's, but the loss of barrier islands, erosion, and subsidence of wetlands have continued in many areas in close proximity to the project sites. Hurricanes Katrina and Rita, which occurred in August and September of 2005, respectively, created heavy damage that requires an immediate effort to restore existing conditions and reestablish protected areas of the community, whenever possible.

The immediate project sites do not include health and safety facilities providing related services.

#### Discussion of Impacts

##### No Action

With implementation of this alternative, Federal HSDRRS projects would be built to authorized or 100-year levels using materials from Government or Contractor Furnished or other borrow areas. The future conditions with this alternative would likely require alternative methods for improving flood and hurricane protection using borrow material from other locations. Under this alternative there would be no impact to health and safety at the sites discussed in this report.

##### Proposed Action

With implementation of the proposed action, suitable material would be excavated from the proposed borrow areas. This is the procedure used to create most of the storm damage risk reduction infrastructure for the New Orleans Metropolitan Area. Implementation of the sites would be subject to Federal, State, and local safety and health regulations. There would be temporary, construction-related risks to health and safety, but no permanent impacts are expected. However, if borrow sites are not fenced in, then there would be increased adverse effects to health and safety in the vicinity, especially that of young children.

Increased vehicular traffic near the borrow sites during the excavation period may increase the likelihood of accidents. Routine measures related to traffic management



at construction sites are expected to reduce this risk and ensure safety.

With implementation of this alternative, there would be minimal impacts to air and water quality, due to construction. Heavy equipment and excavation of borrow material would cause dust particles to be suspended in the air. In addition, there might be temporary adverse impacts to water quality, though CEMVN will take action to minimize these impacts. Changes in water and air quality would, again, be minimal and only last through the period of excavation.

One potential adverse health impact due to the excavation of borrow material would be an increased mosquito problem. Should water collect in portions of the areas excavated for borrow material, the available area for potential mosquito breeding would be increased. However, mosquito control is part of the responsibility of local parishes, not CEMVN.

Borrow areas that are not backfilled have the potential to create a greater safety hazard to any proximate vehicular traffic compared to a borrow area that is backfilled. This increased hazard would exist for the indefinite future.

No long-term impacts to health and safety facilities are expected as a result of this alternative. However, there may be permanent impacts to health and safety if the borrow sites are not backfilled.

### **3.3.4 Employment, Income, and Local Tax Base**

#### Existing Conditions

All of the proposed sites except for Stumpf Phase 1 and 2 are comprised of pasture land. These sites are used for agricultural purposes to generate income. While the Westbank D site has no cattle present, there are cattle on the Westbank E Phase 1 and 2 sites.

There are some industrial structures on the Stumpf sites that will be avoided during construction. These include a pumping station; an oil and gas pipeline, and a connected oil and gas facility. Additionally, there is a private industrial or commercial business on the site whose property includes a storage yard.

The proposed sites are all within close proximity to urban developments of the New Orleans MSA.

#### Discussion of Impacts

##### No Action

With implementation of this alternative, Federal HSDRRS projects would be built to authorized or 100-year levels using materials from Government or Contractor Furnished or other borrow areas. The future conditions with this alternative would likely require alternative methods for improving flood and hurricane protection using borrow material from other locations. No incremental impacts on employment, income, and local tax base relative to the proposed action are expected.

##### Proposed Action

Most of the sites, except for Stumpf Phase 1 and 2, were previously used as pasture or farmland, and the owners of these businesses may not have returned post-Katrina. However, if borrow material is excavated from these areas with no backfill, then this land will no longer be available for other uses, including farmland. The land will be taken out of commerce, and will no longer have any functional use for producing

income. In addition, because the land will no longer be used to produce income, the size of the local tax base will be decreased.

There are no anticipated disruptions to commercial activities in the areas near the borrow sites. Besides the potential decrease in tax collections because of the loss in income-producing agricultural land, there should be no other disruptions to the local tax base. The exception to this is the possibility that tax collections based on the values of the sites themselves may decline if the values of the properties decline.

### **3.3.5 Community Growth**

#### Existing Conditions

Desirable community and regional growth is considered growth that provides a net increase in benefits to a local or regional economy, social conditions, and the human environment, including water resource development. Similar to other references to social and economic conditions, community and regional growth has been heavily dependent on the unique hurricane and storm damage risk reduction systems created by borrow areas. The proposed project sites are planned to improve flood and hurricane protection.

#### Discussion of Impacts

##### No Action

With implementation of this alternative, Federal HSDRRS projects would be built to authorized or 100-year levels using materials from Government or Contractor Furnished or other borrow areas. The future conditions with this alternative would likely require alternative methods for improving flood and hurricane protection using borrow material from other locations. No incremental impacts with respect to the proposed action are expected.

##### Proposed Action

The proposed project would advance the growth of communities within the GNOHSDDRS by making possible improvements to the hurricane and storm damage risk reduction system. Without strong storm and flood protection, a community's growth will be limited. By advancing the storm damage risk reduction system, confidence and investment in the Greater New Orleans community will increase.

However, since the Tac Carrere site is outside of the HSDRRS, the growth of the area around the site may not necessarily be enhanced by the improvement of the HSDRRS.

Additionally, construction activities will advance community growth by increasing traffic to the areas around the borrow sites. This increased activity will benefit regional businesses, though not necessarily those at the project site.

However, using land for borrow purposes would make that same land unavailable for other uses. This may place the communities around the borrow sites at a competitive disadvantage for increased development and growth. Adjacent property may also be less likely to be developed if land is used for borrow purposes.

### **3.3.6 Community Cohesion**

#### Existing Conditions

Community cohesion refers to the common vision and sense of belonging within a community that is created and sustained by the extensive development of individual

relationships that are social, economic, cultural, and historical in nature. The degree to which these relationships are facilitated and made effective is contingent upon the spatial configuration of the community itself. The functionality of the community owes much to the physical landscape within which it is set. The viability of community cohesion is compromised to the extent to which these physical features are exposed to interference from outside sources.

While the proposed borrow areas are located on unpopulated tracts of land, there may be neighboring residents or businesses who disapprove of the sites being used as sources of borrow materials. However, the proposed project is designed to benefit areas beyond the immediate project sites, and also benefit community cohesion of the larger community of the New Orleans Metropolitan Area, and the nation at large.

Conditions brought about by water resource development can impact community cohesion in different ways. The basic objectives of water resource development have essentially been to provide additional protection through flood control and hurricane protection, improved navigation, environmental restoration, and recreation, through civil works as needed by the local region and the nation. Public involvement with the community is part of this process.

### Discussion of Impacts

#### No Action

With implementation of this alternative, Federal HSDRRS projects would be built to authorized or 100-year levels using materials from Government or Contractor Furnished or other borrow areas. The no action alternative would likely require finding alternative borrow sites in different areas. No incremental impacts with respect to the proposed action are expected.

#### Proposed Action

The impacts of construction are typically adverse, such as noise and traffic congestion. Some effects, though, have both positive and negative impacts. Yet it is difficult to foresee any construction-related impact that enhances community cohesion; such impacts are expected to be either adverse or, at a minimum, neutral.

Impacts on community cohesion are contingent upon the degree to which project construction is expected to encroach upon the physical landscape that directly or indirectly affects the patterns of social interrelationships. In the current analysis, the borrow sites are sufficiently distant from areas of development such that no spatial element of the community is impinged upon and the shared identity of the community materially threatened. This does not mean that adverse impacts, such as degraded aesthetic qualities or foregone economic opportunities, do not occur. Rather, the adverse impacts in other resource areas are not sufficiently large to affect community cohesion. The impact on community cohesion is first demonstrated by identifying a change in the pattern of social interaction, such as diminished contact due to physical separation, impediments to contact, interference in communication, dislocation, or voluntary migration. None of these conditions are present with the current alternative.

Construction-related impacts can be distinguished from project-related outputs, that is, the economic and social consequences that are specifically intended from the project design and that make it worthwhile to pursue. An increase in community cohesion can be seen as a specifically intended output from the project, as represented by the storm damage risk reduction system. This occurs since storm surge protection measure are designed to protect the community from the catastrophic effects of

flooding, preserving the physical integrity of the developed landscape that promotes patterns of social interchange. The alternative presented here increases the level of community cohesion in this instance.

However, since the Tac Carrere site is outside of the HSDRRS, the level of community cohesion in the area around the site may not necessarily be enhanced by the improvement of the HSDRRS.

### **3.4 ENVIRONMENTAL JUSTICE**

Census Block Group statistics from the 2000 Census and ESRI (Environmental Systems Research Institute) estimates were utilized for environmental justice data analysis. Detailed discussion of demographic and income data along with pertinent maps, tables and photographs are available and will be included in the CED.

This analysis is based on six maps for the four borrow areas received from the CEMVN. As the project planning process advances, environmental justice impacts will be analyzed further when additional project planning data become available. Aerial photos were utilized to confirm the presence of habitation in the various project areas, and to analyze potential environmental justice impacts.

#### Existing Conditions

- Stumpf Phase 1 and 2  
Based on a review of satellite imagery, there are no residential areas adjacent to the Stumpf Phase 1 and 2 proposed borrow areas. Approximately 2000 feet east of the site, north of Highway 90, lies the closest residential area, an apartment complex that is currently vacant. This area is located within Census-designated Block Group 17.332, which includes portions of Orleans Parish south of Highway 90 and east of the Industrial Canal. According to the U.S. Census, this Block Group was a low income, minority community in 2000, with 85.7% of the population a minority and 47.9% of the population low income. According to ESRI estimates, the minority and low income population decreased slightly from 2000 to 2007. Based on 2007 estimates, the Block Group likely remains a low income, minority community.
- Westbank D  
The Westbank Site D Borrow Pit is a 56 acre area located 0.2 miles northwest of Highway 90 and Live Oak Boulevard intersection. The West Bank Site D is located in close proximity to the West Bank Site E on the western side of Live Oak Boulevard, and as such, has identical figures for low income and minority populations, both for 2000 and 2007. However, the Westbank Site D is more removed from residential areas than Westbank Site E Phase 1 and 2.
- Westbank E Phase 1  
According to the U.S. Census, this area was a low income and minority community in 2000, with 92.2% of the population a minority and 36.2% of the population low income. According to ESRI estimates, the minority population increased slightly and the low income population decreased from 2000 to 2007. Based on 2007 estimates, it is probable the area remains a low income, minority community.

- Westbank E Phase 2  
According to the U.S. Census, this area was a low income and minority community in 2000, with 92.2% of the population a minority and 36.2% of the population low income. According to ESRI estimates, the minority population increased slightly and the low income population decreased from 2000 to 2007. Based on 2007 estimates, it is probable the area remains a low income, minority community.
- Tac Carrere  
Based on a review of satellite imagery, the borrow site is located in a predominantly rural area with a small residential community immediately south near Pelas Hyman Lane. This area is located within the Census-designated Block Group 506.01, which extends from West Paula Drive to Rosemarie Road, encompassing an area much larger than that of the borrow site. According to the U.S. Census, this Block Group was a low income, non-minority community in 2000, with 29.4% of the population a minority and 25.9% of the population low income.

According to ESRI estimates, the minority population decreased slightly while the low income population increased from 2000 to 2007. Based on 2007 estimates, it is probable the area is currently a low income, non-minority community.

#### Discussion of Impacts

The proposed borrow site areas were evaluated for potential disproportionately high, environmental impacts on minority and/or low-income populations. As the project planning process advances, environmental justice impacts will be analyzed further when additional project planning data become available. Aerial photos were utilized to confirm the presence of habitation in the various project areas, and are utilized in environmental justice analysis.

#### No Action

Under the No Action alternative, HSDRRS projects would be built to authorized levels using Government and/or Contractor Furnished borrow areas described in IER # 18, IER # 19, IER # 22, IER # 23, IER # 26 or other sources as yet to be identified (e.g., other potential Government Furnished or Pre-Approved Contractor borrow areas; Supply Contract). Not using the four proposed borrow areas would not cause disproportionate impacts on any minority or low-income population. Therefore, no environmental justice issues are anticipated for this alternative.

No disproportionate impacts borne by any minority or low-income population would be made by not using the four proposed borrow areas. Therefore, no direct, indirect, or cumulative environmental justice issues are anticipated for this alternative.

#### Proposed Action

The proposed action would benefit all residents of the New Orleans Metropolitan Area equally by providing the material necessary to construct the HSDRRS. Therefore there would be no adverse impacts for environmental justice within this community under the proposed action.

- Stumpf Phase 1 and 2

#### *Direct Impacts.*

Because the project is not within close proximity to residential areas, the Stumpf borrow project will not have direct environmental justice impacts to low income or minority communities.

*Indirect Impacts.*

There would be some minor indirect impacts associated with the borrow activities at the site. There could be temporary noise, air quality and traffic issues because of the construction equipment, material deliveries, and other construction activities. However, the conditions would become normal after the construction.

*Cumulative Impacts.*

Details on cumulative, environmental justice impacts will be analyzed when further project planning data become available at conclusion of environmental justice public meetings and will be included in the CED.

- Westbank D

*Direct Impacts.*

West Bank D is more removed from residential areas than West Bank E, and therefore will have no direct environmental justice impacts from the use of this site as a borrow pit.

*Indirect Impacts.*

West Bank D is more removed from residential areas than West Bank E, and therefore will have no indirect, environmental justice impacts from construction activities in developing this borrow site. There could be temporary noise, air quality and traffic issues because of the construction equipment, material deliveries, and other construction activities. However, the conditions would become normal after the construction.

*Cumulative Impacts.*

Details on cumulative, environmental justice impacts will be analyzed when further project planning data become available at conclusion of environmental justice public meetings and will be included in the CED.

- Westbank E Phase 1

*Direct Impacts.*

The community near the Westbank E Phase 1 site is a low income, minority community. Use of the Westbank E Phase 1 site as a borrow area could result in direct environmental justice impacts due to a possible drop in property values in the immediate vicinity of the proposed borrow area. This could negatively impact the housing market in that area.

*Indirect Impacts.*

There would be some minor indirect impacts associated with the borrow activities at the site. There could be temporary noise, air quality and traffic issues because of the construction equipment, material deliveries, and other construction activities. However, the conditions would become normal after the construction.

*Cumulative Impacts.*

Details on cumulative, environmental justice impacts will be analyzed when further project planning data become available at conclusion of environmental justice public meetings and will be included in the CED.

- Westbank E Phase 2

*Direct Impacts.*

Due to the low income and minority characteristics of the Block Group for this area, and due to presence of residential neighborhood within 2000 ft of the borrow

site, Phase 2 will have some minor direct environmental justice impacts from the use of this site as a borrow pit. Those impacts could also include a negative impact on the housing market in that area from temporary landscaping disturbances due to construction activities.

*Indirect Impacts.*

There would be some minor indirect impacts associated with the borrow activities at the site. There could be temporary noise, air quality and traffic issues because of the construction equipment, material deliveries, and other construction activities. However, the conditions would become normal after the construction.

*Cumulative Impacts.*

Details on cumulative, environmental justice impacts will be analyzed when further project planning data become available at conclusion of environmental justice public meetings and will be included in the CED.

- Tac Carrere

*Direct Impacts.*

Due to the low income, non-minority characteristics of the adjacent community, the use of this borrow site will not exert direct environmental justice impacts due to the distance from the proposed project area.

*Indirect Impacts.* There would be some minor indirect impacts associated with the borrow activities at the site. There could be temporary noise, air quality and traffic issues because of the construction equipment, material deliveries, and other construction activities. However, the conditions would become normal after the construction.

*Cumulative Impacts.*

Details on cumulative, environmental justice impacts will be analyzed when further project planning data become available at conclusion of environmental justice public meetings and will be included in the CED.

Details on cumulative environmental justice impacts from the Stumpf Phase 1 and 2, Westbank D, Westbank E Phase 1 and 2, and Tac Carrere proposed borrow areas will be analyzed when further project planning data become available at conclusion of small group neighborhood focus meetings and will be included in the CED.

### **3.5 HAZARDOUS, TOXIC, AND RADIOACTIVE WASTE**

USACE is obligated under Engineer Regulation 1165-2-132 to assume responsibility for the reasonable identification and evaluation of all Hazardous, Toxic, and Radioactive Waste (HTRW) contamination within the vicinity of the proposed action. ER 1165-2-132 identifies the CEMVN HTRW policy to avoid the use of project funds for HTRW removal and remediation activities. Costs for necessary special handling or remediation of wastes (e.g., Resource Conservation and Recovery Act [RCRA] regulated), pollutants and other contaminants, which are not regulated under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), will be treated as project costs if the requirement is the result of a validly promulgated Federal, State or local regulation.

An ASTM E 1527-05 Phase I ESA was completed for each proposed borrow area. The

Phase I ESA documented the Recognized Environmental Conditions (REC) for the proposed project areas. If a REC cannot be avoided, due to the necessity of construction requirements, the CEMVN may further investigate the REC to confirm presence or absence of contaminants, actions to avoid possible contaminants. Federal, State, or local coordination may be required. Because the CEMVN plans to avoid RECs the probability of encountering HTRW in the project area is low.

A copy of the Phase I ESA referenced below will be maintained on file at the CEMVN office, and is incorporated herein by reference. Copies of these reports are available by requesting them from the CEMVN, or accessing them at [www.nolaenvironmental.gov](http://www.nolaenvironmental.gov).

HTRW Land Use Histories and Phase I HTRW ESAs have been completed for the proposed borrow areas:

- The Phase I ESA for Stumpf Phase 1 (incorporated herein by reference) was completed on 01 May 2008. The investigation revealed no Recognized Environmental Conditions (REC) and one historical REC.
- The Phase I ESA for Stumpf Phase 2 (incorporated herein by reference) was completed on 28 May 2008. This assessment has revealed an historical REC from the former Overnight Transport facility adjacent to the west and one REC from the Recovery One Landfill adjacent to the east. The locations of the RECs were mapped and the areas would be avoided.
- The Phase I ESA for Westbank D (incorporated herein by reference) was completed on 25 February 2008. The site is located adjacent to the River Birch C&D Landfill. The SONRIS database was searched to see the activity associated with oil and gas exploration in the vicinity of the subject site. One producing plugged-and-abandoned well on the southern border of the site was listed as operational between 1964 and 1970. No evidence of this well was observed at the subject site. One plugged-and-abandoned Gas and Condensate well in the central portion of the site, along the western border, was listed as operational between 1965 and 1970. Photographic evidence of this well is located in appendix C of the ESA. This historic site is suspected of potentially negatively impacting the subject site. Soil sampling is recommended at the well sites and also at the northwest corner of the site, where leachate from the landfill may have affected the site. Soil testing would be done before any excavation proceeds. The locations of the RECs were mapped and the areas would be avoided.
- The Phase I ESA for Westbank E (incorporated herein by reference) was completed on 30 January 2008. On-site concerns were noted at a residential site (ASTs and several drums near the barn), in addition to two plugged and abandoned wells, Serial ID 98294 and Serial ID121677. Off-site concerns were noted from the current and historical presence of a landfill located on the southwest adjoining property, and also two plugged and abandoned wells, Serial ID 171374 and 115771. The locations of the RECs were mapped and the areas would be avoided.
- The Phase I ESA for Tac Carrere (incorporated herein by reference) was completed on 03 March 2008. The Phase I ESA did not reveal evidence of RECs in connection with the proposed borrow area. Some trash, an abandoned vehicle, waste auto parts, tires, and building debris were identified. These waste materials



can be easily removed and should not pose any impact to the intended use of the property by CEMVN. No further investigation is necessary.

At all these sites, any suspected REC would be avoided, if possible. If engineering considerations mandate that a REC be disturbed, then additional investigation would be made of the REC, including toxicological testing, if indicated, before any suspected REC would be disturbed. If undiscovered HTRW should be found during the course of the construction, a similar process would be followed: avoid if possible, but if avoidance is not possible then investigation of the situation would follow, including chemical testing of the material in question and evaluation of the test results by a Certified Industrial Hygienist.

#### **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 impacts of the action. Cumulative impact is defined as the “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.

As indicated previously, in addition to this IER, 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 unavailable data at the time it was posted for public review. Overall cumulative impacts and future operations and maintenance requirements will also be included. The discussion provided below describes an overview of other actions, projects, and occurrences that may contribute to the cumulative impacts previously discussed.

Borrow material has been obtained in the past by the CEMVN for HSDRRS and other projects in southeastern Louisiana. The CEMVN has been working at an accelerated schedule to rehabilitate the HSDRRS system after Hurricanes Katrina and Rita, and has a goal of building the system to authorized levels by June 2011. Over 75,000,000 cubic yards of borrow material are estimated to be needed to complete authorized levels of protection. Borrow material will also be needed to perform levee lifts and maintenance for at least 50 years after construction is completed. The CEMVN is in the process of implementing construction projects to raise the hurricane protection levees associated with the Federal LPV, WBV, and New Orleans to Venice (NOV) Hurricane Protection projects to authorized elevations. This includes modifications to flood protection projects not covered by this IER. Levee improvements throughout the LPV and WBV projects would require substantial amounts of borrow material, and some of the borrow areas needed have been identified in this document to provide adequate material in proximity to proposed flood protection projects. In addition to modifying and raising existing structures, three new outfall canal closure structures are proposed at the 17th Street, Orleans Avenue, and London Avenue Outfall Canals in the Orleans East Bank Basin, and a new closure structure is proposed for within the Inner Harbor Navigation Canal area. All of these flood protection projects are currently in the planning and design stages, and impacts from these component projects will be addressed in separate IERs.

Other projects of the CEMVN, such as Morganza to the Gulf, Donaldsonville to the Gulf, Larose to Golden Meadows, Grand Isle non-Federal levees, Plaquemines West Bank non-Federal levees, maintenance of the Mississippi River levees and other ongoing civil works investigations will require suitable borrow material. State and local levee and floodwall construction efforts will require borrow material as well. The Mississippi River and Tributaries Projects will utilize borrow material for levee repairs, replacements, lifts, and berms. Government Furnished borrow areas are also being investigated and utilized to supply large quantities of material for levee and floodwall projects.

The construction of the proposed borrow areas would have short-term cumulative effects on transportation. It is anticipated that over 75,000,000 cubic yards of material would be needed to raise levee elevations regionally to meet the needs of the HSDRRS. The total number of truck trips required or haul routes for the movement of this quantity of material is currently unknown, but cumulative short-term impacts to transportation are expected to occur. Additional information related to transportation impacts is being collected and will be discussed in the CED.

Details on cumulative environmental justice impacts will be analyzed at the conclusion of environmental justice small-group meetings and will be included in the CED.

The extent of land directly and indirectly affected by previous development activities, in combination with the excavation and use of the proposed borrow material for HSDRRS construction, would contribute cumulatively to land alteration and loss in southeastern Louisiana (Proposed Action). After borrow area excavation, the land may be converted to ponds and small lakes. If not backfilled, the land would be made unsuitable for farming, forestry, or urban development in the reasonably foreseeable future. Habitat would be changed to favor aquatic and semi-aquatic species over the terrestrial ones that now occupy the areas. Borrow areas that do not retain water would be colonized by vegetation and woody plants, which would favor terrestrial species. This would attract the same species that are currently found in the areas.

Based on historical human activities and land use trends in southeastern Louisiana, it is reasonable to anticipate that future activities would further contribute to cumulative degradation of land resources. Levee designs are currently being finalized, and the need for borrow may decrease. In the past three years, the estimated need for borrow material has decreased from 100,000,000 cubic yards to 75,000,000.

It is anticipated that through the efforts taken to avoid and minimize effects on the project area and the mandatory implementation of a mitigation plan that functionally compensates unavoidable remaining impacts. The mitigation plan is discussed in section 7.

## **5. SELECTION RATIONALE**

The proposed action consists of excavating the proposed Government Furnished borrow areas in the New Orleans Metropolitan Area that would have no impact on cultural resources and T&E species. This report investigated the potential impacts of this action these resources, and jurisdictional wetlands, BLH, upland resources, fisheries, wildlife, recreational resources, aesthetics, noise, air quality, prime and unique farmland, water quality, transportation, socioeconomics, and environmental justice. There is an identified need for over 75,000,000 cubic yards of borrow material to complete the HSDRRS. Because of this need, the CEMVN will need to investigate acquiring all potentially viable areas for the next few years. Other Government Furnished borrow is an option that was explored in IER # 18 and IER # 22, and more potential areas may be discussed in future

IERs. Pre-Approved Contractor Furnished borrow areas were investigated in IER # 19 and IER # 23, IER # 26, and more potential sites may be discussed in future IERs. Supply Contract borrow options may also be discussed in future IERs. All of this borrow material would be used to complete the HSDRRS, which would lower the risk of harm to citizens and damage to infrastructure during a storm event.

## **6. COORDINATION AND CONSULTATION**

### **6.1 PUBLIC INVOLVEMENT**

Extensive public involvement has been sought in preparing this IER. The HSDRRS projects, including the proposed borrow areas analyzed in this IER, were publicly disclosed and described in the Federal Register on 13 March 2007 and on the website [www.nolaenvironmental.gov](http://www.nolaenvironmental.gov). Scoping for HSDRRS projects were initiated on 12 March 2007, through placing advertisements and public notices in *USA Today* and *The New Orleans Times-Picayune*. Nine public scoping meetings were held throughout the New Orleans Metropolitan Area to explain the scope and process of the Alternative Arrangements for implementing NEPA between 27 March and 12 April 2007, after which a 30-day scoping period was open for public comment submission. Additionally, the CEMVN is hosting monthly public meetings to keep the stakeholders advised of project status. Public input will be provided in appendix B.

Public meetings related to borrow started in July 2007, and will be continuing until the borrow quantities needed are fulfilled.

### **6.2 AGENCY COORDINATION**

Preparation of this IER 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 and alternative analysis phases of the project. Members of this team are listed in appendix C, and correspondence between governmental agencies and the CEMVN will be found in appendix D. This interagency environmental team was integrated with the CEMVN PDT 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 proposed IER projects. The following agencies, as well as other interested parties, received copies of the draft IER:

- 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
- Louisiana 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

LDNR reviewed the proposed action for consistency with the Louisiana Coastal Resource Program (LCRP). All proposed borrow activities discussed in this document were found by LDNR to be consistent with the LCRP (table 6).

**Table 6: LDNR Coastal Zone Consistency Determination Concurrence**

<b>Proposed Borrow Area</b>	<b>LDNR LCRP Consistency Permit Number</b>
Stumpf Phase 1	C20080076
Stumpf Phase 2	C20080336
Westbank D	C20080076
Westbank E Phase 1 and 2	C20070509
Tac Carrere	C20080076

The CEMVN received a draft Coordination Act Report (CAR) from the USFWS on 8 October 2008 (appendix D). Positions and recommendations of the USFWS, in accordance with the Fish and Wildlife Coordination Act, include:

Recommendation 1: “[The CEMVN] and local sponsor shall provide 262 AAHUs to compensate for the unavoidable, project-related loss of forested lands. [USFWS], National Marine Fisheries Service [NMFS], Louisiana Department of Wildlife and Fisheries [LDWF], and [LDNR] should be consulted regarding the adequacy of any proposed alternative mitigation sites.”

CEMVN Response 1: Concur.

Recommendation 2: “The protocol to identify and prioritize borrow sources provided in our August 7, 2006, Planning-aid letter should be utilized as a guide for contractors locating future borrow-sites.”

CEMVN Response 2: Concur.

Recommendation 3: “Any proposed change in borrow site features, locations or plans shall be coordinated in advance with [USFWS], NMFS, LDWF, and LDNR.”

CEMVN Response 3: The CEMVN will coordinate with these agencies.

Recommendation 4: “The projects’ first Project Cooperation Agreement (or similar document) shall include language that includes the responsibility of the local-cost sharer to provide operational, monitoring, and maintenance funds for mitigation features.”

CEMVN Response 4: USACE Project Partnering Agreements (PPAs) do not contain language mandating the availability of funds for specific project features, but require the non-Federal Sponsor to provide certification of sufficient funding for the entire project. Further mitigation components are considered a feature of the entire project. The non-Federal Sponsor is responsible for Operation, Maintenance, Repair, Replacement, and Rehabilitation (OMRR&R) of all project features in accordance with the OMRR&R manual that the Corps provides upon completion of the project.

Recommendation 5: “Forest clearing associated with borrow site preparation should be conducted during the fall or winter to minimize impacts to nesting migratory birds, when practicable.”

CEMVN Response 5: Concur.

Recommendation 6: “Whenever applicable, [USFWS] recommends that [CEMVN] consult the [USFWS]-developed National Bald Eagle Management (NDEM) Guidelines, utilize the interactive webpage at: <http://www.fws.gov/midwest/eagle/guidelines/index.html>, and implement any recommendations suggested. We also ask that [CEMVN] provide a copy of their disturbance determination to our office.”

CEMVN Response 6: Concur.

Recommendation 7: “If a proposed borrow site is changed significantly or excavation is not implemented within 1 year, we recommend that [the CEMVN] reinitiate coordination with this office to ensure that the proposed project would not adversely affect any federally listed threatened or endangered species or their habitat.”

CEMVN Response 7: Concur.

The CEMVN received a final CAR from the USFWS on 9 January 2009 (appendix D). Positions and recommendations of the USFWS, in accordance with the Fish and Wildlife Coordination Act, include:

Recommendation 1: “The Corps has adjusted the Westbank E boundary so that the borrow activities will not encroach upon the recommended zone of no disturbance; however, a portion of the Westbank D borrow site is within 660 feet of the eagle nest. The Service recommends that IER 25 include a discussion of the eagle nest and the steps that the Corps has taken, and will take, to avoid disturbance of the nest and nesting eagles.”

CEMVN Response 1: Concur. A discussion has been added to this IER.

Recommendation 2: “The boundaries of two borrow sites, Westbank E Phase 1 and Stumpf Phase 2, were modified after the Service conducted its Habitat Assessment Methodology (HAM) analyses. The Service has updated the calculation of BLH impacts and Average Annual Habitat Units (AAHU) required for mitigation based on these new site acreages for inclusion in the draft IER 25.”

CEMVN Response 2: These values have been changed in this IER.

## **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.

All potential areas described in this IER were assessed by the USFWS and the CEMVN under NEPA, the Fish and Wildlife Coordination Act, and under Section 906 (b) WRDA 1986 requirements. It has been determined that the proposed borrow areas contain, at most, 933 acres of non-jurisdictional BLH (table 7). The amount of BLH impacted is expected to decrease as geotechnical results are finalized. Compensatory mitigation for these impacts will be completed, as described in future mitigation IERs.

**Table 7: BLH Impacts from Proposed Action**

<b>Proposed Borrow Area</b>	<b>Parish</b>	<b>BLH Impacted (acres)</b>	<b>AAHUs Lost</b>
Stumpf Phase 1	Orleans	318	88
Stumpf Phase 2	Orleans	519	143
Tac Carrere	Plaquemines	17.7	12.1
Westbank E Phase 1	Jefferson	25.1	13.1
Westbank E Phase 2	Jefferson	53.2	27.8
Total		933	284

Table 8 shows the cumulative impacts of all IERs which have been completed as of the date of publication. Further information on mitigation efforts will be available in forthcoming IERs.

**Table 8. HSDRRS Impacts and Compensatory Mitigation to be Completed**

<b>IER</b>	<b>Parish</b>		<b>Non-wet BLH (acres)</b>	<b>Non-wet BLH AAHUs</b>	<b>BLH (acres)</b>	<b>BLH AAHUs</b>	<b>Swamp (Acres)</b>	<b>Swamp AAHUs</b>	<b>Marsh (Acres)</b>	<b>Marsh AAHUs</b>	<b>EFH (Acres)</b>
1 LPV, La Branch Wetlands Levee	St. Charles	Protected Side	-	-	-	-	137.05	73.99	-	-	-
		Flood Side	-	-	11.33	8.09	143.57	110.97	-	-	-
2 LPV, West Return Floodwall	St. Charles, Jefferson	Protected Side	-	-	-	-	-	-	-	-	-
		Flood Side	-	-	-	-	33.40	9.00	-	-	-
3 LPV, Lakefront Levee	Jefferson	Protected Side	-	-	-	-	-	-	-	-	-
		Flood Side	-	-	-	-	-	-	-	-	26
11 11 Tier 2 Borgne IHNC Protection	Orleans, St. Bernard	Protected Side	-	-	-	-	-	-	-	-	-
		Flood Side	-	-	15.00	2.59	-	-	186.00	24.33	-
14 WBV, Westwego to Harvey Levee	Jefferson	Protected Side	-	-	45.00	30.00	-	-	-	-	-
		Flood Side	-	-	45.50	18.58	29.75	17.02	-	-	-
15 WBV, Lake Cataouatche Levee	Jefferson	Protected Side	-	-	23.50	6.13	-	-	-	-	-
		Flood Side	-	-	3.60	1.35	-	-	-	-	-
18 GFBM	Jefferson	Protected Side	29.90	10.62	-	-	-	-	-	-	-
		Flood Side	-	-	-	-	-	-	-	-	-
18 GFBM	Plaquemines	Protected Side	8.00	3.68	-	-	-	-	-	-	-
		Flood Side	-	-	-	-	-	-	-	-	-
18 GFBM	St. Charles	Protected Side	-	-	-	-	-	-	-	-	-
		Flood Side	-	-	-	-	-	-	-	-	-
18 GFBM	Orleans	Protected Side	226.00	68.79	-	-	-	-	-	-	-
		Flood Side	-	-	-	-	-	-	-	-	-
18 GFBM	St. Bernard	Protected Side	74.30	43.59	-	-	-	-	-	-	-
		Flood Side	-	-	-	-	-	-	-	-	-
19 CFBM	Hancock County, MS; Iberville; Orleans; Plaquemines; St. Bernard	Protected Side	-	-	-	-	-	-	-	-	-
		Flood Side	-	-	-	-	-	-	-	-	-
19 CFBM	Jefferson	Protected Side	-	-	-	-	-	-	-	-	-
		Flood Side	-	-	-	-	-	-	-	-	-
22 GFBM	Jefferson	Protected Side	157.76	89.64	-	-	-	-	-	-	-
		Flood Side	-	-	-	-	-	-	-	-	-
22 GFBM	Plaquemines	Protected Side	86.93	28.90	-	-	-	-	-	-	-
		Flood Side	-	-	-	-	-	-	-	-	-
23 CFBM	Hancock County, MS; Plaquemines; St. Bernard; St. Charles	Protected Side	-	-	-	-	-	-	-	-	-
		Flood Side	-	-	-	-	-	-	-	-	-

<b>IER</b>	<b>Parish</b>		<b>Non-wet BLH (acres)</b>	<b>Non-wet BLH AAHUs</b>	<b>BLH (acres)</b>	<b>BLH AAHUs</b>	<b>Swamp (Acres)</b>	<b>Swamp AAHUs</b>	<b>Marsh (Acres)</b>	<b>Marsh AAHUs</b>	<b>EFH (Acres)</b>
25 GFBM	Orleans, Jefferson, and Plaquemines	Protected Side	933	284	0.00	0.00	-	-	-	-	-
		Flood Side	-	-	-	-	-	-	-	-	-
26 CFBM	Hancock County, MS; Jefferson, Plaquemines, and St. John the Baptist	Protected Side	-	-	-	-	-	-	-	-	-
		Flood Side	-	-	-	-	-	-	-	-	-
Totals		Protected Side	531.99	252.92	1014.50	298.13	137.05	73.99	-	-	-
		Flood Side	-	-	75.43	30.61	206.72	136.99	186.00	24.33	26
		Both	531.99	252.92	1089.93	328.74	343.77	210.98	186.00	24.33	26

- Not applicable to the IER or number impacted is 0

GFBM: Government Furnished Borrow Material // CFBM: Contractor Furnished Borrow Material



## **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 will be achieved upon coordination of this IER with appropriate agencies, organizations, and individuals for their review and comments; USFWS and National Marine Fisheries Service confirmation that the proposed action would not adversely affect any T&E species or completion of Endangered Species Act Section 7 consultation (table 4); Louisiana Department of Natural Resources concurrence with the determination that the proposed action is consistent, to the maximum extent practicable, with the LCRP (table 6); coordination with the SHPO (table 5); receipt and acceptance or resolution of all Fish and Wildlife Coordination Act recommendations; and receipt and acceptance or resolution of all Louisiana Department of Environmental Quality comments on the air quality impact analysis documented in the IER. USFWS has determined that no T&E species, or their habitat, would be adversely affected by the proposed action. The Louisiana SHPO has determined that cultural resources would not be adversely impacted by the proposed action.

## **9. CONCLUSIONS**

### **9.1 FINAL DECISION**

The proposed action consists of excavating four borrow areas located in non-jurisdictional wetland areas that would have no significant effect on cultural resources or threatened and endangered species. This office has assessed the environmental impacts of the proposed action upon jurisdictional wetlands, non-wetland/upland resources, fisheries, wildlife, recreational resources, aesthetics, noise, air quality, prime and unique farmland, water quality, environmental and socioeconomic resources. The District Commander's decision on the proposed action is documented in the IER Decision Record.

### **9.2 PREPARED BY**

IER # 25 was prepared by the following individuals. 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.

<b>Preparer</b>	<b>Title</b>	<b>Topic</b>
Michael Brown	Environmental Manager/Biologist	NEPA Compliance
Gib Owen	Environmental Team Leader	
Christopher Brown, Ph.D.	Botanist	HTRW
Thomas Keevin, Ph.D.	Chief, Environmental Branch, St. Louis District,	Internal technical review

	USACE	
Linda Labure	Chief, Real Estate Division	Real Estate Division
Ed Lyon, Ph.D.	Archaeologist	Environmental Justice
Valerie McCormack, Ph.D.	Archaeologist	Cultural Resources
Hope Pollmann	Outdoor Recreation Planner	Recreational Resources
Richard Radford	Landscape Architect	Aesthetic (Visual) Resources
Laura Singer	Regional Economist	Socioeconomic Resources
Danielle Tommaso	Environmental Resources Specialist	Document preparation
Ph.D.: Doctor of Philosophy		

In addition to the above list of preparers, the Borrow PDT consists of the following individuals:

<b>Team Member</b>	<b>Title</b>	<b>CEMVN Office</b>
Soheila Nazarian Holley, P.E.	Senior Project Manager	Protection & Restoration Office
Tutashinda Salaam	Project Manager	Protection & Restoration Office
Teresa King	Project Manager	Protection & Restoration Office
Michael Bourgeois	Supervisory Civil Engineer	Construction Division
Louis Britsch, P.G.	Supervisory Geologist	Geotechnical Branch
Amy Goodlett	Technician	Protection & Restoration Office
Michael Grzegorzewski	Project Engineer	Hurricane Protection Office
Brett Herr	Chief, Regional Projects Branch	Protection & Restoration Office
Janet Keller	Realty Specialist	Real Estate Division
Maurya Kilroy	Assistant District Council	Office of Council
John B. Petitbon, E.I.T.	Civil/Cost Engineer	Cost Engineering Branch
Danny Thurmond	Engineer	Levees Branch
Kim Tullier	Geotechnical Engineer	Geotechnical Branch
Thomas Waguespack	Civil Engineering Senior Technician	Geotechnical Branch
E.I.T.: Engineer in Training P.E.: Professional Engineer P.G.: Professional Geologist		

### 9.3 LITERATURE CITED

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## **APPENDIX A: LIST OF ACRONYMS AND DEFINITIONS OF COMMON TERMS**

APE: Areas of potential effect  
ASTM: American Society of Testing and Materials  
BLH: Bottomland Hardwood (Forest)  
BMP: Best Management Practices  
CAR: Coordination Act Report  
CED: Comprehensive Environmental Document  
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act  
CEQ: Council on Environmental Quality  
Clay Classifications  
    CH: Fat clay  
    CL: lean clay  
    ML: Silt  
CO: Carbon monoxide  
EA: Environmental Assessment  
EIS: Environmental Impact Statement  
ESA: Environmental Site Assessment  
ESRI: Environmental Systems Research Institute  
FONSI: Finding of No Significant Impact  
HSDRRS: Hurricane and Storm Damage Reduction System (aka, Hurricane Protection System)  
HPS: See HSDRRS  
HTRW: Hazardous, Toxic, and Radioactive Waste  
IER: Individual Environmental Report  
IHNC: Inner Harbor Navigation Canal  
IPET: Interagency Performance Evaluation Team  
LCRP: Louisiana Coastal Resource Program  
LDEQ: Louisiana Department of Environmental Quality  
LDNR: Louisiana Department of Natural Resources  
LDWF: Louisiana Department of Wildlife and Fisheries  
LOS: Level of service  
LPV: Lake Pontchartrain and Vicinity Hurricane Protection Project  
MSA: Metropolitan Statistical Area  
NAAQS: National Ambient Air Quality Standards  
NEPA: National Environmental Policy Act  
NO<sub>x</sub>: Nitrogen oxides  
NOV: New Orleans to Venice Hurricane Protection Project  
NPDES: National Pollutant Discharge Elimination System  
O<sub>3</sub>: ozone  
PDT: Project Delivery Team  
PI: Plasticity index  
PL: Public Law  
PM: Particulate matter  
P.L.: Public law  
RCRA: Resource Conservation and Recovery Act  
REC: Recognized environmental condition  
ROD: Record of Decision  
Section 404 (of the Clean Water Act): The Section 404 program for the evaluation of permits for the discharge of dredged or fill material was originally enacted as part of the Federal Water Pollution Amendments of 1972. The Secretary of Army acting through the Chief of Engineers may issue permits, after notice and

opportunity for public hearings for the discharge of dredged or fill material into the navigable waters at specified disposal sites.

SHPO: State Historic Preservation Officer

SIR: Supplemental Information Report

SPH: Standard Project Hurricane

SO<sub>x</sub>: Sulfur oxides

T&E: Threatened or Endangered Species

UNOP: Unified New Orleans Plan

USACE: U.S. Army Corps of Engineers

CEMVN: Mississippi Valley Division, New Orleans District

CEMVK: Mississippi Valley Division, Vicksburg District

USDA: U.S. Department of Agriculture

NRCS: Natural Resources Conservation Service

USFWS: U.S. Fish and Wildlife Service

VOC: Volatile organic compound

WBV: West Bank and Vicinity Hurricane Protection Project

WRDA: Water Resources Development Acts

**APPENDIX B: PUBLIC COMMENT AND RESPONSES  
SUMMARY**



**UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration**

NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office  
263 13<sup>th</sup> Avenue South  
St. Petersburg, Florida 33701

December 18, 2008 F/SER46/GE:jk  
225-389-0508

Mr. Gib Owen  
Environmental Planning and Compliance Branch  
Planning, Programs, and Management Division  
New Orleans District, U.S. Army Corps of Engineers  
Post Office Box 60267  
New Orleans, Louisiana 70160-0267

Dear Mr. Owen:

NOAA's National Marine Fisheries Service (NMFS) has received the draft **Individual Environmental Report (IER) #25** provided by letter from Ms. Elizabeth Wiggins dated December 8, 2008. The draft IER evaluates the potential impacts associated with the possible excavation of four government furnished borrow areas for proposed use as suitable borrow material for construction of the proposed Hurricane and Storm Damage Risk Reduction System in the vicinity of New Orleans, Louisiana.

NMFS has reviewed the draft IER and agrees that none of the borrow sites are located in areas classified as essential fish habitat or supportive of marine fishery resources. As such, we have no comments to provide on the draft IER.

We appreciate the opportunity to review and comment on the draft IER.

Sincerely,

*for* Miles M. Croom  
Assistant Regional Administrator  
Habitat Conservation Division

c:  
FWS, Lafayette  
EPA, Dallas  
LA DNR, Consistency  
F/SER46, Swafford  
Files





# *Jena Band of Choctaw Indians*

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P. O. Box 14 • Jena, Louisiana 71342-0014 • Phone: 318-992-2717 • Fax: 318-992-8244

December 23, 2008

Mr. Gib Owen  
U. S. Army Corps of Engineers  
Planning, Programs, and Project Management Division  
Environmental Planning and Compliance Branch  
P. O. Box 60267  
New Orleans, LA 70160-0267

**RE: DRAFT INDIVIDUAL ENVIRONMENTAL REPORT #25 (IER #25),  
TITLE "GOVERNMENT FURNISHED BORROW MATERIAL #3,  
ORLEANS, JEFFERSON, AND PLAQUEMINES PARISHES,  
LOUISIANA.**

To Whom It May Concern:

Reference is made to your letter, dated December 8, 2008, concerning the above-proposed project.

After thorough review of the documents submitted, it has been determined that there will be no significant impact in regards to the Jena Band of Choctaw Indians.

Should you have any questions, please feel free to call me.

Sincerely,

A handwritten signature in cursive script that reads "Lillie McCormick".

Lillie McCormick  
Environmental Director  
Jena Band of Choctaw Indians  
Ph: 318-992-8258  
Fax: 318-992-8244  
[lmccormickjbc@centurytel.net](mailto:lmccormickjbc@centurytel.net)



**Verbal Comment (Phone Message) Received from Ms. Christiane Ascani,  
29 December 2008**

This is Christiane Ascani of Metairie at [phone number]. I apologize for disturbing you. I, uh, I have this article by Mr. [inaudible] concerning the... dirt. And I do believe that we should stop making more holes in this area. And, uh, these people also want too much money. I would not pay ten thousand dollars for any type for any type of dirt for Mr. Robicheaux, becoming a millionaire. [inaudible] I disagree with that system. Put pressure on the Corps, and I disagree to pay so much money for the dirt. It has to come from some other place. [inaudible] ...the trains there and bring it at the cheapest price possible. It's got to be very good, and the stuff shouldn't be dug close to people, cities. And secondly, you should not cause a landslide and [inaudible] the people who live around there. I'm personally opposed to any kind of hole, or so-called retention pond because where I live there, it doesn't flood and yet they have built what I believe a retention pond as a so-called [inaudible]. I was opposed to it from the beginning. [inaudible] ... and not make it such a big hole that the whole area will be flooded. If we have more water that's coming from the, from the skies normally. Actually, [inaudible] water, rainwater, and we were looking at the prospect and I let you know it was a [inaudible], it was totally [inaudible], it poured down from the sky. [inaudible] ...it's not the same. I was there, I saved my house and I wasn't evacuated during Betsy, and this time I was forced to evacuate by my daughter. But, I came back a week after and I had a roof to repair myself, which I did because nobody was there, and then I have no money too and my son-in-law [inaudible]. It took me a year to fix that. So, I let you know I live there a long time and I think my opinion should count for something. Thank you.

## MEMORANDUM FOR RECORD – Gib Owen

SUBJECT: Summary of Verbal Conversation with State Representative Billiot's, 29 December 08 for a Public Meeting and Extension of the Public Comment Period to IER 25.

1. Background: On 29 December 08 State Representative Billiot contact Gib Owen by phone to check on the status of IER 25. During the conversation Representative Billiot verbally requested a public meeting be held in the area near the Waggaman Playground in Jefferson Parish, Louisiana as soon as possible to discuss the borrow sites discussed in IER 25 in the Waggaman area. Representative Billiot also requested that the comment period be extended by as much as 30 days to allow people in the Waggaman area to become more familiar with the governments proposed action discussed in IER 25.
2. IER 25 public review period was originally 7 December 08 to 6 January 09. Per the alternative NEPA arrangements a public meeting can be requested by any stakeholder during the public comment period, as such a public meeting was set up for 12 January 09 at the Waggaman Playground. Comment period was extended to 12 January 09.
3. Gib Owen contacted Colonel Alvin Lee, New Orleans District Commander via e-mail to relay the request for an extension of the comment period beyond 12 January 09. Colonel Lee responded, approving the extension of the comment period to 12 January 09. He further stated that any requests for additional review time would be considered through the public meeting date.
3. Representative Billiot had first contacted Gib Owen about extending the comment period and holding a public meeting on 18 December 08. He indicated at that time that he had written letters to Senators Landrieu and Vitter asking them to request that the Corps hold a public meeting and extend the public comment period to 7 February 09. At the time of the original contact with Mr. Owen, Representative Billiot stated that he did not wish to formerly request a public meeting; he preferred that the request come through the Federal delegation.

## MEMORANDUM FOR RECORD – Gib Owen

SUBJECT: Summary of Verbal Public Comment Received 31 December 08 in Regards to IER 25.

1. Background: IER 25 public review period is 7 December 08 to 6 January 09. State Representative Billiot requested (29 December 08) that the Corps hold a public meeting in the Waggaman area and extend the IER 25 comment period. Per the alternative NEPA arrangements a public meeting can be requested by any stakeholder during the public comment period, as such a public meeting was set up for 12 January 09 at the Waggaman Playground. Comment period was extended to 12 January 09.

2. 31 December 08 – Verbal comment received from George Peterson, Vice President of the S1 Civic Association. Mr. Peterson called to voice his concerns with using sites designated Westbank D and E in IER 25 as government furnished borrow areas. He voiced concerns with safety of local children (drowning hazard), future economic growth of the area, additional landfills in the area, and temporary traffic impacts in the Waggaman area. Mr. Peterson expressed his opinion that sufficient borrow could be obtained from borrow sites already approved by digging them deeper than 20 feet. Mr. Peterson stated that he was not against the levee project or against obtaining borrow to build the levees, he just felt there were better alternative. Mr. Peterson also voiced an opinion that levees were not the solution, that restoration of coastal areas and barrier islands should be a priority. Mr. Peterson also felt that excess military hardware could be used in the Gulf to knock down storm surge. Mr. Peterson explained that there should be a cooling system installed in the Gulf that allows certain quadrants of the Gulf to be cooled quickly (48 hours) so that the strength of a hurricane in the Gulf could be negated.

3. Gib Owen explained to Mr. Peterson that the public meeting had been scheduled per Representative Billiot's request and that the public comment period had been extended to 12 January 09. Mr. Owen explained that notifications of the meeting and extended comment period would be sent out via a mass mailing postcard, posted to nolaenvironmental.gov, and that a new release would be prepared and sent out to the public and local media outlets. Mr. Peterson was promised an electronic copy of the postcard would be sent to him as soon as they were ready to be mailed out.

MEMORANDUM FOR RECORD – Gib Owen

SUBJECT: Summary of Verbal Public Comments Received 2 January 09 in Regards to IER 25.

1. Background: IER 25 public review period is 7 December 08 to 6 January 09. State Representative Billiot requested (29 December 08) that the Corps hold a public meeting in the Waggaman area and extend the IER 25 comment period. Per the alternative NEPA arrangements a public meeting can be requested by any stakeholder during the public comment period, as such a public meeting was set up for 12 January 09 at the Waggaman Playground. Comment period was extended to 12 January 09.

2. 2 January 09 – Verbal comments received from two separate stakeholders, Lucille Serpas and Larue Williams on 2 January 09. Ms. Serpas and Williams called separately during the day to express there opinion against digging borrow sites in the Waggaman area.

3. Ms. Serpas felt that borrow sites in the Waggaman area would weaken the Mississippi River Levee and that the resulting waterbody once excavation was complete would become an area for mosquito development.

4. Ms. Williams expressed her concern against the proposed borrow sites because there are already too many landfills in the area. Her assumption is that the sites would possibly be turned into landfills once the material was removed. Ms. Williams felt that the borrow sites posed a safety hazard and an eyesore to the local citizens.

Gib Owen took both calls and accepted the information given as verbal comments to IER 25.

5 January 2009

MR GIB OWENS  
US ARMY CORP of ENGINEERS

SIR: PLEASE SEND IER #12 ENTITLED "GULF, HARVEY AND ALGERS  
LEVEES FLOODWALLS", AND NOTE THE COMMENTS BELOW, ETC.

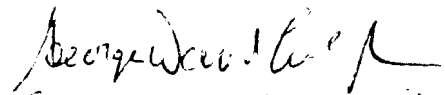
COMMENT

THE PEOPLE OF THIS NEW ORLEANS AREA HAVE CHOSEN  
BY THEIR OWN FREE WILL AND VOLITION TO BUILD HOMES  
AND BUSINESSES UPON LAND THAT IS AT OR BELOW SEA  
LEVEL AND SUSCEPTIBLE TO PERIODIC AND FORESEEABLE  
FUTURE TROPICAL CYCLONES. NOT ONE PENNY OF TAX DOLLARS  
GENERATED BY THOSE OUTSIDE THE AREA SHOULD BE EXPENDED  
ON ANY FURTHER PROJECTS INVOLVING LEVEES, WALLS, PUMPS  
AND ALIKE. AND PERHAPS ALL EFFORTS WILL FAIL IN ANY  
CASE SHOULD NEW ORLEANS BE HIT DIRECTLY BY ANY  
HURRICANE WITH STRONG STORM SURGE AND HEAVY RAIN.

MY FEELING IS THAT TAX MONEY WOULD BE BETTER SPENT  
ON INVESTIGATING CASES OF INJUSTICE, WHERE PERSONS WHO  
ARE INNOCENT LANGUISH IN PRISONS AS THE RESULT OF  
OBVIOUS POLICE AND PROSECUTORIAL MISCONDUCT.

HEREFORE IN ADDITION TO HAVING MY OPINION MADE  
PART OF THE RECORD REGARDING FURTHER FUTURE FLOOD  
CONTROL EFFORTS IN NEW ORLEANS I RESPECTFULLY ASK  
THAT THIS LETTER BE REFERRED TO THE UNITED STATES  
JUSTICE DEPARTMENT SO THAT THESE RESPONSIBLE FOR  
CLEARLY SPREAD CONSPIRATORIAL PERJURY AND  
SUBORNATION CAN BE BROUGHT TO JUSTICE, RESTORING  
CONFIDENCE IN OUR SYSTEM AND NATION AS A WHOLE.

THANK YOU.

  
GEORGE D. LOEB JR 192124

-----Original Message-----

From: ned pitre [mailto:[nedpitre@hotmail.com](mailto:nedpitre@hotmail.com)]

Sent: Tuesday, January 06, 2009 8:31 PM

To: MVN Environmental

Subject: Gil Owens -- IER #25 -- Public Comments

January 6, 2008

Gib Owens, PM-RS  
U.S. Army Corp of Engineers  
PO Box 60267  
New Orleans, LA 70160-0267

RE: Complaint and Concern about IER #25, Government Furnished Borrow  
Material #3

Dear Mr. Owen:

I left a message for you today, but as we were not able to speak, I  
felt it in order that I communicate in written form.

While I support the Corp of Engineers for their varied years of service  
and accomplished missions in this area, I am very concerned about the  
deficiencies of the Draft Individual Environmental Report, especially  
concerning the Tac Carrere site in Plaquemines Parish which is located  
extremely close to property I will hopefully call home soon.

Concerns exist in Section 3.2.6. -- Threat and Endangered Species in  
that said draft did not provide an adequate research and investigation  
on specific endangered species and projects impact on such in the Tac  
Carrere proposed site. Simple research has indicate the existence of  
the following endangered species in the Tac Carrere area -- Louisiana  
Black Bear, American Burying Beetle, Whooping Crane, Eskimo Curlew,  
Balk Eagle, Mississippi Gopher Frog, Heelsplitter, Jaguar, Pink Mucket,  
Panther, Pearlshell, Pipping Plover, Green Sea Turtle, Hawksbill Sea  
Turtle, Kemps Ridley Sea Turtle, Leatherback Sea Turtle, Loggerhead Sea  
Turtle, Gulf Sturgeon, Pallid Sturgeon, Gopher Tortoise, Ringed Map  
Turtle, and Back-Capped Vireo. Most of these endangered area species  
were not mentioned, and it could be assumed not researched in this  
draft for adverse impact. This complaint and deficiency should be  
completely research and said results should be made of this draft.

Another major deficiency of this draft lies in the conclusion section  
of this draft which states this office has assessed the environmental  
impacts of the proposed action upon jurisdictional wetlands, water  
quality, environmental and socioeconomic resources. One should beg to  
differ on this assumption statement the Corp makes. It is my  
conclusion that said assessments were not validly done.

This draft seems to overlook important USGS published research that  
satellite data indicate Hurricane Katrina caused substantial marsh loss  
in Plaquemines parishes. This land loss potentially further reduces  
natural protection from future storms. USGS also indicates that  
Louisiana has already lost about 1,900 square miles of costal land,  
primarily marshes land of which and that Plaquemines has lost almost  
16% of its land area between 1956 to 2004.

Noting the above, obvious conclusion is that the Corps has lost its objectivity in not appearing to have used a common sense, postulation approach in forming an opinion that, carte blanche, borrow pits ARE detrimental to this portion of Plaquemine Parish. The Corps attempt to borrow without replacement of extraction would certainly add to the deterioration of this fragile and ego-sensitive wet land area.

Along this same train of thought, the Corps, in its own published reports indicates that the 8th highest ranking source of costal loss is borrow pits. With this in mind, it behooves me to the conclusion of the Corp that borrow pits poses virtually no impact to land loss in this fragile Nairn area.

Testimony before the U.S. Senate Committee on Environmental and Public Works by a local Parish official indicated that area wetlands provide flood control, natural hurricane protection and natural filtration systems to protect water quality. In fact, Americas wetlands located in Louisiana have been called the hardest-working, the most productive and the greatest wetlands on earth. But these wetlands are disappearing at the rate of 40 square miles a year. Thats 80% of the nations total coastal wetland loss occurring in the nations most important and productive wetlands. Without protection, these wetlands are not only vulnerable theyre gone.

Considering the above meaningful testimony before this reputable committee and of the eco-sensitivity of this lower Plaquemines Parish region around Nairn, it confuses me as to the varied conclusion and the Corp recommendations that this proposed borrow pit should be allowed to happen!

No mentioned was relayed in this draft about mitigation on said excavation project. Matter of fact, the media has reported no funding has been authorized for replacing and redevelopment of the property in or around said project. As I understand the Corps scope of this borrow project, it can only be concluded that there will be permanent damage to the area and community and that said damage will not be replaced or minimization by any Corps action; I find this fact very troubling.

This environmental report doesnt seem to mentioned or discuss obvious fact that borrow pits can create noise and dust, and if not properly regulated, can prove to be an environmental hazard. Nothing was mentioned in the draft about such environmental concern nor was any mitigation mention in this area.

Matter of fact, this draft fails to address the very important issue of mitigation as it appears this phase of the borrow process doesnt even suggest funding for replacement of excavated material. Projects such as borrow pits, without corrective damage and means of mitigation should be of grave concern to the area, The common sense approach shared by most conservationist certainly come to the basic and simple conclusion that borrow pits do cause eco-damage. And basically this area of Plaquemines has had more than its fare share of natural resource development eco damage. I feel this lack of addressing of mitigation by the Corp again provides ill-sighted assessment of the negative environmental consequences of this project.

The Corps statement that said borrow area would not impact cultural resources is also questionable. Noting that this area in Plaquemines Parish has a disproportionate amount of Cajun, Creole and Native American minority populations as well as minority culture, any negative impact to this population sensitive area, which borrow pits do seem to contribute, would certainly be detrimental for the continuance of these diminishing population segments in this area as well as its culture.

The Corp should take note that valid borrow pits applications appear to require borrow area to be screened to determine if sufficient high ground (non-wetland) exists from which soils for the project may be obtained. It is this writers opinion that the Corps was not motivated to this view. If so, alternatives to this Narin site would have been researched, viewed, found and recommended by the Corp as a better sight than impacting this eco-sensitive Plaquemines site.

Professional concern should exist in this area of eco-damage in that borrow pits that are located near wetland, as is the Nairn proposed site, act as long term drainage sinks by crating hydraulic gradients such that seepage is predominantly from the wetland to the pit. Without proper monitoring of this common occurrence, potential eco-damage cannot be monitored. No such monitoring provision appears in the draft nor does this concern seem to be addressed by the Corp concerning in this specific eco-fragile area.

Likewise, locals have recunted of the past natural resource mining in or very near the propose Plaquemines Parish site. This non-reporting of said mining activity also seems to be void in IRE #25 as a source of possible "eco" concern.

In general, I am very disappointed in the Corps decision to have a borrow pit in the Narin area and would like this Corps' final draft to take account the few issues raised in this correspondence and would somehow hope that this project could be halted immediately for an alternative site.

Contrary to the very limited research time I was able to devote to this matter and very limited data resources available to me in this matter, I still think this project is very wrong for the Nairn area in so many different ways.

As this matter is important, your prompt attention to this matter is necessary and appreciated.

If necessary, feel free to contact me at either (504)348-8100 or (504) 650-7700 (C).

Cordially,

Ned Pitre  
PO Box 122  
Gretna, LA 70054-0122



-----Original Message-----

From: Stephen F. Stumpf [mailto:[stumper@durrhc.com](mailto:stumper@durrhc.com)]

Sent: Wednesday, January 07, 2009 7:36 PM

To: MVN Environmental

Subject: Comment re IER#25

Dear USACE New Orleans District Office representatives,

This comment is provided by, and on behalf of, the owners of the proposed borrow area referred to as "Stumpf Phase 1" and "Stumpf Phase 2" in the U.S. Corps of Engineers' (USACE) Mississippi Valley Division, New Orleans District (CEMVN) Individual Environmental Report # 25 (IER # 25).

Specifically, the owners understand that the New Orleans District of USACE is interested in acquiring, from the owners, a signed right-of-entry (ROE) form for Stumpf Phase 1 and Stumpf Phase 2. The owners further understand that the New Orleans District Office of USACE expects to use the ROE for a period up to 3 years on Stumpf Phase 1 and Stumpf Phase 2.

Additionally, the owners expect to be fairly compensated for the use of their property. This should include a fair market value for the clay, a fair market value for the anticipated 3-year use of the property, a fair market value for the necessary maintenance of the borrow pits after USACE concludes the project and, the fair market value for any diminution of value to the property as a whole resulting from the excavation of the borrow pits.

In closing, the owners are hopeful they can assist USACE in reaching the goal of completing and improving the hurricane protection levees in southeastern Louisiana. We look forward to further discussing these issues with the New Orleans District.

Sincerely,

STEPHEN F. STUMPF

-----Original Message-----

From: Kelly Hagggar <riparian@bellsouth.net>

To: Owen, Gib A MVN; Wiggins, Elizabeth MVN

CC: Riparian, Inc. (sent from web) <riparian@bellsouth.net>

Sent: Mon Jan 12 23:56:43 2009

Subject: Comments, IER 25, 12 Jan 08

1. Two of the three JDs in the IER for the Stumpf phases have expired; MVN-2001-1280 (29 March 2001) and MVN-1998-2856 (03 June 1998). JDs are good until the last day of the month 5 years later, so -1280 expired on 31 Mar 06 while -2856 ran out on 30 Jun 03. This is more significant for -2856 than for -1280 since -2856 was issued pre-SWANCC. The Corps interprets its duty under the CWA to avoid jurisdictional wetlands whenever possible. If that's the case, then it matters which wetlands are jurisdictional. Had -2856 been updated, and if it had followed the past practices of MVN, the large oval wetland in the NW part of -2856 would have been either a non-jurisdictional wetland or an upland. In any event, Regulatory would not allow any private actor to go forward with an initial permit application years after a JD had expired. If Civil Works is going to require and rely upon JDs it should at least be dealing with current ones.

2. As Matt Rota observed at page 5 of "3\_11\_08\_NGOMtgSummFINAL," quote

Several of you have had issues with policies but you have always responded with the Freedom of Information Act process. The 30-day public comment period is pointless because we need information. This goes against transparency. If this is information used to make decisions we should have access to it without going through an official FOIA request where we still don't get necessary information we ask for.

unquote. He went on to note in a presentation slide (see attached) that NEPA documents must contain enough information to enable the public to properly comment. Here, however, we have, at page 37, in "3.2.2 Non-Jurisdictional Bottomland Hardwood Forest," and pages 63-65, in "6. COORDINATION AND CONSULTATION, 6.2 AGENCY COORDINATION" and "7. MITIGATION," language speaking to "Average Annualized Habitat Units (AAHUs)" and the mitigation required for them. However, the IER does not contain any documentation to show how the figure of 262 units was obtained. A footnote to Table 7, "BLH Impacts from Proposed Action," on page 65 simply indicates that the "USFWS determined this value." We were offered the post-publication rationale that these units are expected to accure over the next 50 years. The great bulk of these AAHUs are attributed to the Stumpf phases, which are a not a fresh system at present and are totally lacking true BLH habitat. We noted saline readings on Sunday 11 Jan 09 of 0.8 ppt and 0.9 ppt in very shallow water in the roadside ditches along Industrial Blvd. Values increase with depth; we saw 1.8 ppt at the surface in waters where the 10-12 foot bottom was 9.2 ppt. (Halfway down it was 4.5 ppt.) We doubt the listed assemblage of BLH trees will survive in a prolonged saline level of even 0.8 ppt, much less the higher 2.1 ppt on the Bayou Sauvage NWR side of the Maxtent or

the 1.9 to 2.2 ppt levels found at the surface of the Maxtent. (South of Chef Hwy, the readings were 3.4 and 3.7 ppt.)

3. Aside from how the "262 AAHU" figure was obtained, the IER only describes the habitat as 1 to 2 inch tall trees. We don't read Sec 906 of the 2007 WRDA, 33 USC 2283 (d), as requiring the Corps to mitigate for the BLH that may appear in the next 50 years. Moreover, we have received WVAs for projects in the Coastal Zone that did not consider what the habitat would be like in 50 years without the project.

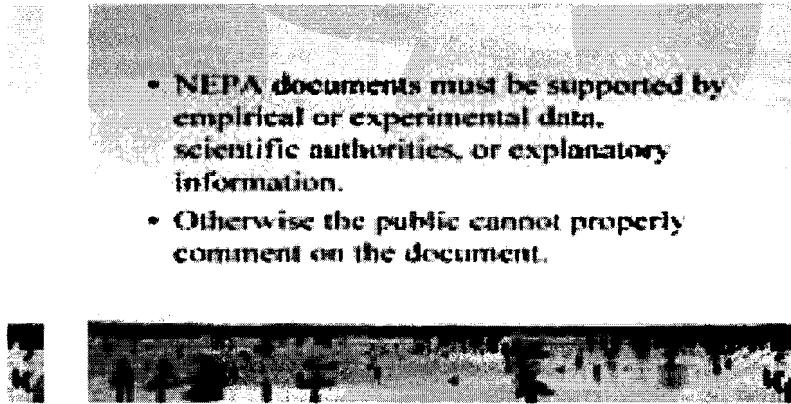
4. Finally, once mitigation decisions are to be made in those IERs, we do not see credit purchases from mitigation banks as being either the only response MVN may make nor as being the best response MVN may make.

Thx

kmh

[Matt Rota's remarks during his slide show]

Several of you have had issues with policies but you have always responded with the Freedom of Information Act process. The 30-day public comment period is pointless because we need information. This goes against transparency. If this is information used to make decisions we should have access to it without going through an official FOIA request where we still don't get necessary information we ask for.



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**River Birch**  
INCORPORATED

Post Office Box 1938 • Gretna, Louisiana 70054  
504 364.1140 • 504 364.1120 FAX

January 12, 2009

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

**Re: *Comments Submitted in Response to Individual Environmental Report (IER)  
No. 25 on Behalf of River Birch, Inc. and HWY 90, LLC***

Dear Mr. Owens:

On behalf of River Birch, Inc. and HWY 90, LLC, I respectfully submit the attached comments regarding IER No. 25 for the Army Corps of Engineers consideration. The majority of the comments herein pertain to the Corps inclusion of 56 acres of HWY 90, LLC's property as a potential Government-furnished borrow site. If you have any questions or require additional information please contact me or Dr. Vic Culpepper at your convenience.

Best Regards,

A.J. Ward, Jr.  
President

CC: Dr. Vic Culpepper, River Birch, Inc./HWY 90, LLC  
Ms. Daria Diaz, Stone Pigman Walther Wittmann L.L.C.  
Mr. Horace Thibodeaux, T. Baker Smith, Inc.

Enclosures

## **Comments on Draft IER #25 Submitted on Behalf of Highway 90, L.L.C.**

### **Introduction**

Highway 90, L.L.C. ("Highway 90") supports the Army Corps of Engineers and its efforts and commitment to rebuild and complete construction of HSDRRS in the New Orleans metropolitan area. That being said, Highway 90 is compelled to point out and must address certain concerns it has regarding problematic issues raised by the "Draft Individual Environmental Report, Government Furnished Borrow Material # 3, Orleans, Jefferson, and Plaquemines Parishes, Louisiana, IER # 25" ("IER 25"). These comments primarily pertain to the proposed use of the proposed Westbank D site as a Government-furnished borrow site; however, at least one of the issues--the zoning and associated requirements for borrow pit operations in Jefferson Parish--is common to all of the proposed Jefferson Parish sites. While these comments oppose the proposal for government-furnished borrow material sites as described in IER # 25, Highway 90 offers an alternative to IER # 25 that would achieve the Corps' "goal to locate and procure high quality clay borrow sources suitable for levee and floodwall construction in such a way as to be least damaging to both the natural and human environments within the proposed borrow areas."<sup>1</sup> The alternative proposed would furnish substantially more borrow material for the HSDRRS **and** would be more economical, more efficient, compliant with Jefferson Parish's zoning ordinances, and less burdensome and damaging to the residential communities, area businesses, and the natural environment.

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<sup>1</sup> IER # 25 at pg. 19 states: "The team's goal is to locate and procure high quality clay borrow sources suitable for levee and floodwall construction in such a way as to be least damaging to both the natural and human environments within the proposed borrow areas."

## Zoning and Land Acquisition Cost Issues

### *The Westbank D Site is Zoned for as a Landfill and Is Part of the Highway 90 Construction and Demolition Debris Landfill Expansion*

While IER # 25 repeatedly mischaracterizes the Westbank D site as pasture land, IER # 25 also correctly recognizes that the "Westbank D site is part of landfill expansion used for construction and demolition debris." (IER # 25 at pg. 51.) The Westbank D site is, in fact, part of the expansion area for the Highway 90 C&D landfill, and the Westbank D site must be valued accordingly.

The proposed Westbank D site is zoned Industrial District M-4, which the Jefferson Parish Comprehensive Zoning Ordinance describes as follows:

The district is intended **solely for industrial activities related to or involving waste collection, handling and disposal facilities.** The purpose of this district is to allow the normal operation of state permitted landfills and other waste handling, recycling and disposal establishments under such conditions as will protect adjacent land uses. Whenever practical, this district should be buffered from nearby residential areas by more restrictive zoning.

Jefferson Parish Comprehensive Zoning Ordinance, Article XXXII.5, Sec. 40-611. (Emphasis added.) The Jefferson Parish Zoning Ordinance expressly prohibits landfills from being sited in any area of Jefferson Parish that is not zone M-4.<sup>2</sup>

Before creating the M-4 district in February, 2003, the Jefferson Parish Council commissioned an extensive study entitled "Waggaman Area Zoning Study," by Coastal Engineering and Environmental Consultants, Inc., in cooperation with the University of New

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<sup>2</sup> "The uses described in section 40-612(2) [including solid waste landfills] shall not be allowed in any area of Jefferson Parish except the M-4 Industrial District." *Id.*, Sec. 40-612(4).

Orleans Real Estate Market Data Center, January 2003 ("Zoning Study"). The Zoning Study incorporates the "Forecast of Solid Waste Type I Landfills in Jefferson Parish, LA 2002 to 2050, prepared by University of New Orleans Real Estate Market Data Center, Wade D. Ragas, Director, on July 16, 2002 ("Forecast"). Jefferson Parish's designation of a specific area for solid waste facilities in the parish, considered together with the Zoning Study and Forecast, makes clear that Jefferson Parish has determined that landfills are necessary and important land use activities, but that those activities must be restricted to an area that the Jefferson Parish Council has, based upon extensive study and analysis, deemed particularly suitable for such activities. The M-4 zoning classification is very limited and the M-4 district's remaining undeveloped property is found only in the area where the proposed Westbank D Government-furnished borrow site is located. As such, due to the importance of and the never ending and increasing need for landfill space, property that possesses an M-4 zoning classification situated in the only area where landfills can be operated in Jefferson Parish, is extremely valuable, not only from a monetary perspective, but also for hurricane preparedness and recovery.<sup>3</sup>

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<sup>3</sup> Adequate permitted landfill space is essential to hurricane planning, preparedness, and recovery. The LDEQ Debris Management Plan, states: "This plan is designed to ensure that disaster-generated debris that requires disposal is managed and disposed in a manner that is protective of public health and the environment. Disaster-generated debris requiring disposal shall be managed and disposed at sites that have either been permitted or authorized by the LDEQ." July 2006 State of Louisiana Comprehensive Plan for Disaster Clean-up and Debris Management, prepared by the Louisiana Department of Environmental Quality. Even relatively minor hurricanes generate significant debris that must be properly handled and disposed of. "As of September 15, 2008, it was estimated by the United States Army Corps of Engineers computer modeling that 11 million cubic yards of debris has been generated by Hurricane Gustav, state-wide, and that 1.1 million cubic yards of debris has been generated by Hurricane Ike in Louisiana. As of December 3, 2008, FEMA is reporting 9.9 million cubic yards of debris removed and only 2% remaining." Louisiana Debris Management Policy Working Group document found at [www.deq.louisiana.gov](http://www.deq.louisiana.gov).



Not only is the Westbank D proposed site zoned for landfill use, Highway 90 has a major permit modification application pending with the Louisiana Department of Environmental Quality ("LDEQ") for the expansion of the Highway 90 C&D Landfill into the area where the proposed Westbank D site is located. IER # 25 notes this fact where it states that the "Westbank D site is part of a landfill expansion for construction and demolition debris." IER # 25, pg. 51.) Thus, the analysis, evaluation, and assessment of the Westbank D site as a proposed Government-furnished borrow site must account for the acquisition costs based upon the fair market value of the 56-acre proposed site as highly valuable and limited landfill space, not as pasture land.<sup>4</sup>

***Jefferson Parish Zoning Ordinance Prohibits Borrow Pits as Proposed in IER # 25***

As explained previously in these comments, the proposed Westbank D site is located in an area zoned Industrial District M-4. The M-4 zoning district "is intended **solely** for industrial activities relating to or involving waste collection, handling and disposal activities." Under the plain language of the ordinance, borrow pit operations are not permitted uses within the M-4 district. Clay excavation and extraction in conjunction with landfill construction or operation activities, however, would be permissible in the M-4 district.

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<sup>4</sup> See, IER # 22, Public Meeting Recap, Response 6, which reads in part: "Compensation given to Marrero Land will be a fair market value determined by an appraiser. The appraiser will evaluate in the property in its state right now. If it's zoned commercial or residential it'll be appraised by a licensed appraiser and that'll be what's offered." See also, e.g., *Palazzo v. Rhode Island*, 533 U.S. 606, 625 (2001)(in condemnation proceedings property value is based on fair market value, and the existing zoning classification is an important consideration in determining property use and fair market value).

While the Jefferson Parish Comprehensive Zoning Ordinance does permit borrow pits in certain districts, minimum specified criteria, which are detailed and restrictive, first must be satisfied. The proposed Jefferson Parish Government-furnished borrow sites identified in IER # 25 fail to satisfy those requirements.

For example, the Westbank E Phase II Parcel 2 does not meet minimum 20-acre-size requirement for borrow pit operations. Jefferson Parish Comprehensive Zoning Ordinance Article XXXIV, Sec. 40-642(15)(a) and Article V, 40-77(10)(a).

The Comprehensive Zoning Ordinance requires that all borrow pits "shall be secured by a fence at least six (6) feet in height . . ." *Id.* Article XXXIV, Sec. 40-642(15)(g) and Article V, Sec. 40-77(10)(g). There are no provisos in IER # 25 indicating that the buffer zone and fencing requirements of the ordinance would be met. Rather, the following language suggests that there is **no plan** in place or intention on the part of the Corps to provide the requisite protective fencing: "However, if borrow sites are not fenced in, then there would be increased adverse effects to health and safety in the vicinity, especially that of young children. (IER # 25 pg. 52.)

The Comprehensive Zoning Ordinance also imposes minimum distance requirements of 2,000 feet from any residential structure or any platted residential subdivision boundary. Article XXXIV, Sec. 40-642(15)(c) and Article V, Sec. 40-77(10)(c). IER # 25 notes "[t]here are approximately 300 residences within a one-block vicinity of the proposed site [Westbank E Phase 1 and 2]. (IER # 25, pg. 51.)

Further, the Jefferson Parish Comprehensive Zoning Ordinance requires that all "[c]losed or abandoned excavation sites or borrow pits shall be reclaimed or filled with sand or other approved material to the pre-excavation elevation unless incorporated into a platted

subdivision or other permitted use within the district as a water feature within the development site." Article XXXIV, Sec. 40-642(15)(o) and Article V, Sec. 40-77(10)(o). The Corps admittedly will not comply with refilling/reclamation requirement imposed by the Comprehensive Zoning Ordinance, since IER # 25 expressly states that "the CEMVN has determined that backfilling utilized Government Furnished borrow areas is not feasible." (IER # 25, pg. 15.)

To be sure, backfilling the five proposed Government-furnished borrow sites in Jefferson Parish, which would require an estimated 6,378,864 cubic yards of fill, would be an expensive endeavor.<sup>5</sup> The backfilling/reclamation requirement would not be an issue if the clay was removed as part of a permitted land use, such as landfill construction and operations activities in the M-4 district, which would serve the useful purpose of creating landfill capacity, while at the same time providing the Corps with much needed quality clay for the HSDRRS. In addition, the area would be properly monitored, buffered, and secured in accordance with the LDEQ Solid Waste Regulations and the Jefferson Parish Comprehensive Zoning Ordinance

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<sup>5</sup> See attached letter dated January 5, 2009 from Engineering Associates, Inc. calculating the estimated quantity of material that will be removed from the five proposed Jefferson Parish Government-furnished borrow sites. Exhibit 1. The estimated cost of river sand to refill the borrow pits ranges from an estimated \$11 per cubic yard to \$16 per cubic yard. See the attached bids from three separate contractors. Exhibit 2 *in globo*. At the lowest estimate, the cost to refill the borrow areas with river sand (using a conservative assumption that the borrow pits could be refilled using the same volume of material that was removed) would be \$70,167,504.

requirements, thereby protecting the public from the acknowledged hazards and negative visual impacts that would result from five unmonitored, unsecured, gaping borrow pits.<sup>6</sup>

In IER # 25, Section 3.3.3 Health and Safety Flood Control and Hurricane Protection, the Proposed Action discussion found on page 52, the Corps makes the commitment that "[i]mplementation of the sites would be subject to Federal, State, and local safety and health regulations." The proposed Jefferson Parish Government-furnished borrow sites identified in IER # 25 do not and admittedly will not comply with the requirements imposed by the Jefferson Parish Comprehensive Zoning Ordinance.<sup>7</sup> The purpose of the Comprehensive Zoning Ordinance is to "protect and promote public health, safety and general welfare through a set of regulations and procedures for the use of land which are consistent with and implement the Jefferson Parish Comprehensive Plan, as adopted."<sup>8</sup> Highway 90 offers an alternative in compliance with the Jefferson Parish Comprehensive Zoning Ordinance that allows the Corps to obtain a larger quantity of clay from a single location than it would obtain by excavating the five proposed Jefferson Parish Government-furnished borrow sites identified in IER #25. Highway 90 urges the Corps to seriously consider its proposed alternative, which is discussed and described later in these comments.

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<sup>6</sup> For example, IER # 25 notes that the adverse impacts from the proposal include negative impacts on aesthetic (visual) resources (pg. 49), and "increased adverse effects to health and safety in the vicinity, especially that of young children." (Pg. 52.)

<sup>7</sup> Land use planning and zoning regulations cannot be disregarded and must be considered in the light of the federal-state-local relationship contemplated by NEPA. *See, e.g., Isle of Hope Assn., Inc. v U.S. Army Corps of Engineers*, 646 F.2d 215 (5th Cir. 1981).

<sup>8</sup> Jefferson Parish Comprehensive Zoning Ordinance, Article I, Sec. 40-2.

### **Landfill Operations Issues**

As previously noted, and as the Corps acknowledged in IER # 25, the proposed Westbank D site is part of the expansion area for the Highway 90 C&D Landfill. A major permit modification application for the expansion of the landfill has been filed with the LDEQ. The Corps' proposal to use the Westbank D site as a Government-furnished borrow site raises strikingly similar, if not identical, issues and concerns as those associated with the Corps' initial proposal for River Birch-South Kenner Road site, which the Corps originally identified but later withdrew from consideration as a potential Government-furnished borrow site.

Since the River Birch-South Kenner Road site is a permitted expansion area for the River Birch Landfill, and the operation of a Government-furnished borrow site at this location would interfere with River Birch's intended use of the area for landfill cell construction, the Corps withdrew that site from the Government-furnished borrow site list. River Birch supports the Corps' efforts to provide the clay needed for the HSDRRS projects. River Birch therefore took the steps necessary to become a Contractor-furnished borrow site, and the River Birch-South Kenner Road site currently is under consideration by the Corps to serve as a Contractor-furnished site. As a Contractor-furnished site, River Birch can maintain the necessary control and oversight over the excavation of the clay to ensure compliance with the operating practices and the engineering and construction requirements mandated by the LDEQ Solid Waste Regulations, as well as the Jefferson Parish Comprehensive Zoning Ordinance.

As was the case with the River Birch-South Kenner Road site, the Corps proposed use of the Westbank D site would interfere with the operations and expansion of the Highway 90 C&D Landfill. The Corps proposes to excavate across the entirety of the Highway 90 C&D Landfill in a north-south direction at a depth of 20 feet. The presence of a large excavated

borrow pit in the Highway 90 C&D Landfill proposed expansion area would, upon commencement of landfill activities in that area, adversely affect and complicate the traffic patterns of landfill customers and the movement of landfill equipment by impeding or preventing the construction of interior roadways in an east-west direction. The proposed borrow excavation also would adversely affect and interfere with landfill cell excavation and development by creating a large borrow pit that does not conform to LDEQ regulatory requirements for landfill cells, which are generally only a few acres in size, and would therefore increase the landfill construction and operational costs that would be incurred if the Corps excavates the Westbank D site as proposed.

Moreover, the drainage and water migration problems created by the Corps' proposed 20-foot excavation likely would create additional maintenance and water control issues as individual landfill cells are constructed and utilized. Given the proximity of the proposed borrow excavation at the Westbank D site to landfilled materials, any water in the borrow pit may qualify as "contact" water--particularly once landfilling operations are commenced in the expansion area--which would be regulated and would be required to be permitted. This would increase costs and create operational difficulties and impediments that would not arise in an orderly, controlled, and properly engineered landfill cell excavation process.

Instead of allowing Highway 90 to excavate the expansion in accordance with accepted engineering practices and regulatory parameters, the Corps excavation of a single 20-foot borrow pit potentially could be viewed by the LDEQ as active landfill area once any landfilling activities commence in the expansion area. This has the potential to increase the solid waste landfill financial assurance requirements under the LDEQ regulations, and thereby further increase the costs and burdens to the landowner.

In short, the Corps proposal to use the Westbank D site as a Government-furnished borrow site would significantly interfere with and adversely impact the expansion of the Highway 90 C&D Landfill and would significantly increase the costs to the landowner and the public. Highway 90 must maintain control over the orderly construction and development of the landfill to ensure that the engineering, excavation, and operations comply with the LDEQ's Solid Waste Regulations and to keep landfill construction, operation, and maintenance costs at reasonable levels that will not be prohibitive to the continued use of this property for landfill purposes.<sup>9</sup>

**Adverse Impacts to Existing Contractor-Furnished Borrow Sites**

The Westbank D proposed Government-furnished borrow site encompasses 56 acres. A large portion of the Westbank D site acreage presently is being used for stockpiling and processing clay that is being removed from Highway 90's Contractor-furnished borrow site. The proposed Westbank D Government-furnished borrow site is the only on-site location currently available for stockpiling/processing borrow material that is being supplied to and used by the Corps for various projects, including the Cataoutche Levee project. Thus, using this site as a Government-furnished site would interfere with the operation of an existing Contractor-furnished borrow site, and would likely restrict or reduce the amount of clay coming from that site.

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<sup>9</sup> In determining the value of the Westbank D site, the Corps also must account for the difference between the value of the entire parent tract before the taking and its value after the taking. *United States v. Virginia Elec. Co.*, 365 U.S. 624, 632, 81 S.Ct. 784, 5 L.Ed.2d 838 (1961); *United States v. 8.41 Acres of Land, Situated in Orange County, State of Texas*, 680 F.2d 388 (5th Cir.1982). Thus, the increased costs and operational burdens that would result if the Westbank D site is used by the Corps as a Government-furnished borrow site must be included in the acquisition costs for the property.

### **Alternative to Proposed IER #25 Offering Greater Benefits with Lower Costs**

As stated at the outset, Highway 90 supports the Corps in its efforts to rebuild and complete construction of HSDRRS. Highway 90 offers an alternative to the Corps that: 1) would furnish more borrow material than IER # 25; 2) would save the Corps money if for no reason other than the Corps would not need to acquire the proposed Westbank Government-furnished borrow sites, which is certain to be an expensive endeavor given the very high land value of the Westbank D site; 3) would reduce the adverse impacts to the natural and human environment in the area of the proposed Westbank sites by reducing the number of borrow sites and the concomitant adverse impacts; and 4) would comply with applicable and controlling Jefferson Parish zoning ordinances.

As part of its landfill expansion, Highway 90 is willing and able to provide clay as a contractor furnished site for borrow material. Highway 90 would agree to immediately seek approval as a Contractor-furnished site and would work with the Corps to expedite the process. The proposed landfill expansion is 197 acres and can furnish an estimated 6,740,923 cubic yards of borrow material, which is 362,000 more yards of borrow material than the Corps would obtain through the excavation of the 5 proposed Westbank sites identified in IER # 25.<sup>10</sup>

Using this alternative would substantially reduce the impacts of the clay extraction process. All of the clay would come from one area instead of the five areas proposed in IER # 25, thereby reducing the overall impacted acreage by 31 acres, and also would eliminate the haphazard and multiple footprints resulting from the five proposed Westbank borrow pits. The clay extraction would be a component of an ongoing landfill operation that is zoned M-4 and

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<sup>10</sup> See attached Exhibits 1 and 2 and the summary chart attached as Exhibit 3..



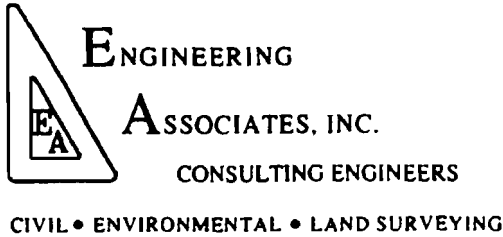
would comply with the requirements for M-4 district uses as set forth in the Jefferson Parish Comprehensive Zoning Ordinance. The traffic, residential and business impacts would be reduced and would be more orderly and controlled. As part of a logical, orderly, and engineered landfill operation and expansion, the Corps would achieve and accomplish the clay extraction with the added benefit of excavating landfill cells in accordance with regulatory requirements and sound engineering practices. The borrow pits as proposed by the Corps in IER # 25 would have the end result of several large unfilled holes in the ground that would pose safety hazards, would be mosquito breeding grounds, and would reduce surrounding property values. The regulatory and zoning requirements imposed upon landfill operations impose aesthetic, safety, and security requirements that would reduce, and in some cases eliminate, the negative impacts associated with the IER # 25 multiple proposed sites.

In addition, by using the alternative suggested by Highway 90, the Corps could eliminate or significantly reduce the adverse effects of the proposal as set forth in IER # 25. At a minimum, the Highway 90 alternative would: 1) preserve 79.4 acres of bottomland hardwood forest and the associated habitat and wildlife that will be eliminated or destroyed if the Westbank E Phase 1 and 2 areas are used for borrow operations (IER # 25, pg. 37); 2) preserve 96.6 acres of maintained pasture land on the Westbank E Phase 1 and 2 sites (*Id.* Pg. 38); 3) reduce the water quality impacts that will result from multiple borrow sites (*Id.* Pg. 47.); 4) eliminate the negative visual impacts from the multiple borrow sites (*Id.* Pg. 49.); 5) minimize or eliminate the negative impacts on future development and growth opportunities (*Id.* pg. 52, 54); 6) eliminate the safety concerns posed by open borrow pits, especially to young children (*Id.*); and 7) eliminate the adverse environmental justice impacts (*Id.* Pg. 58).

In addition to the reduced impacts and greater efficiencies associated with the Highway 90 alternative, the Highway 90 alternative likely will ameliorate community opposition and governmental concerns in Jefferson Parish associated with the proposal described in IER # 25.

### **Conclusion**

Highway 90 supports the Corps' "goal to locate and procure high quality clay borrow sources suitable for levee and floodwall construction in such a way as to be least damaging to both the natural and human environments within the proposed borrow areas." Unfortunately the five Jefferson Parish Government-furnished borrow sites identified in IER #25 do not achieve that goal because those proposed sites pose a multitude of adverse health, safety, aesthetic, economic and environmental impacts that can and should be minimized or entirely avoided. Highway 90 has proposed an alternative that can in fact achieve the Corps' goal. Highway 90 therefore urges the Corps to consider and adopt Highway 90's alternative proposal, which would: 1) provide the Corps with more clay than it would obtain from the five proposed Jefferson Parish borrow pit areas; 2) comply with applicable Federal, state, and local laws and ordinances; 3) save the Corps the high land acquisition and reclamation costs; and 4) be more sensitive to the surrounding community and the interests of Jefferson Parish in protecting and promoting the health and safety of its residents.



January 5, 2009

Project No. 23102

Mr. Vic Culpepper  
 Hwy 90, L.L.C.  
 2000 South Kenner Road  
 Avondale, LA 70094

**RE: Earthwork Calculations**

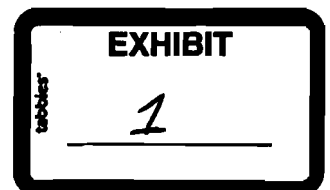
Dear Mr. Culpepper:

In response to your request our office has performed volumetric earthwork calculations for several parcels of land located in Jefferson Parish, Louisiana. The parcels are shown on the attached maps and are designated as Parcels 1 through 5.

It is our understanding that the Corps of Engineers is considering excavation of soils from the above-referenced parcels for use in levee construction activities. We have calculated the approximate volume of soil available from each parcel based on the side slopes and excavation depths shown on the attached maps (total excavation depth of 20 feet with side slopes of 1V:3H. A summary of our calculations is as follows:

<u>Parcel Number</u>	<u>Available Soil Volume (cubic yards)</u>
1	2,269,648
2	739,848
3	1,348,948
4	428,628
5	<u>1,591,792</u>
<b>Total</b>	<b>6,378,864</b>

As you are aware, our office has prepared a permit modification for the expansion of existing Hwy-90 Construction and Demolition Debris Landfill. The proposed expansion is located adjacent to and includes Parcel Number 5 referenced above. The permit modification requesting approval to expand the existing landfill has been submitted to the Louisiana Department of Environmental Quality and is currently being reviewed by their office. A map showing the proposed expansion area has been attached.



Mr. Culpepper

2


January 5, 2009

At your request we have calculated the volume of soil that will require excavation in conjunction with expansion of the existing Hwy-90 Landfill. Based on the side slopes and excavation depths shown in the permit modification request, the total volume of soil to be excavated in conjunction with the landfill expansion is 6,740,923 cubic yards. This volume exceeds the combined available volume of Parcel Numbers 1 through 5 referenced above.

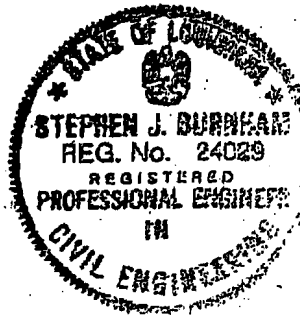
Should you have any questions or require additional information concerning this matter, please give us a call.

Sincerely,

ENGINEERING ASSOCIATES, INC.



Stephen J. Burnham, P.E.  
President



SJB:dbc

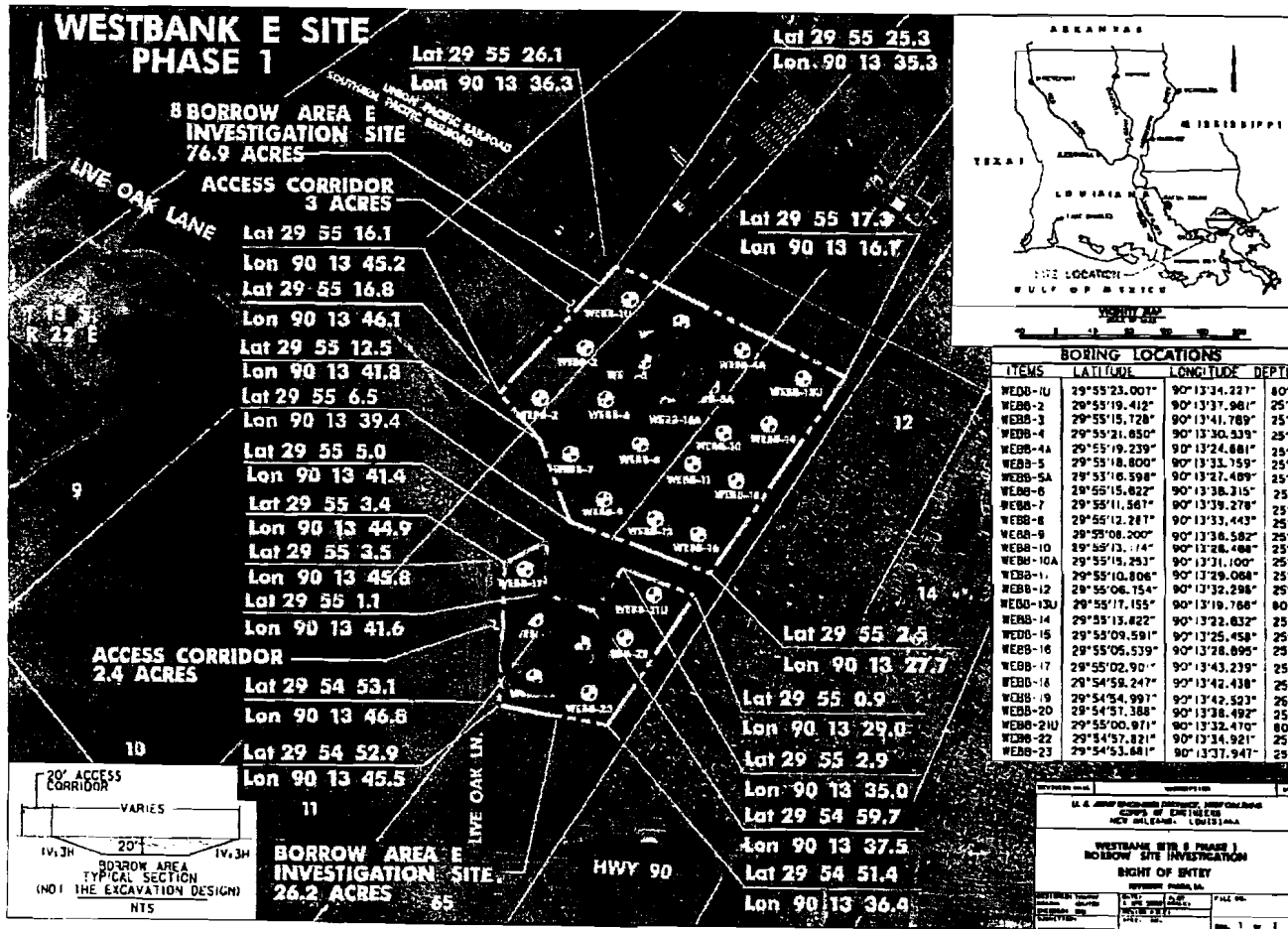


Figure 9: Westbank E Phase 1 Proposed Borrow Area



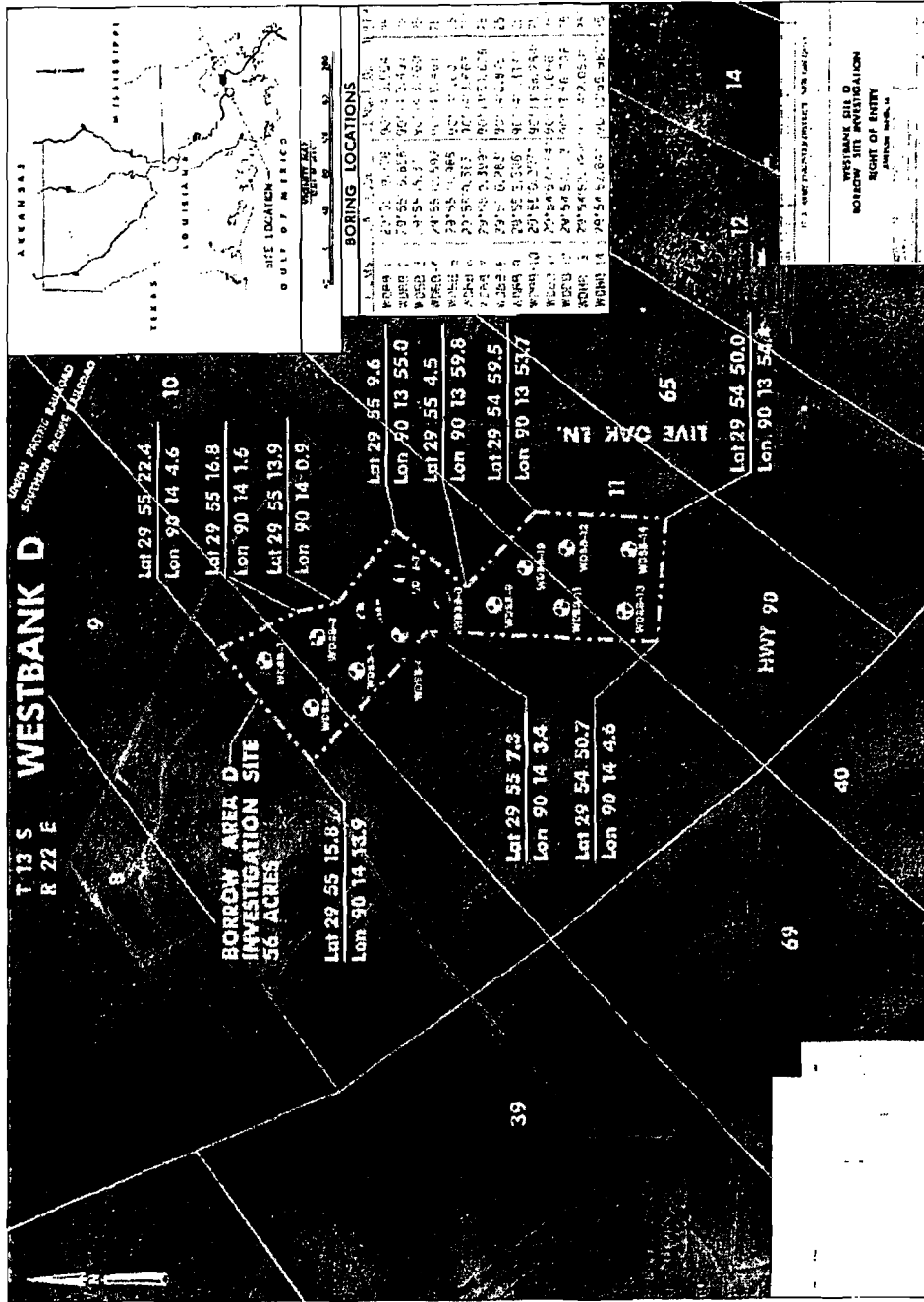
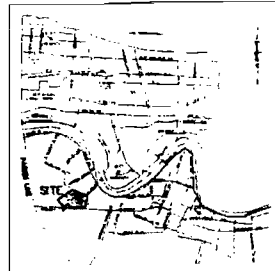
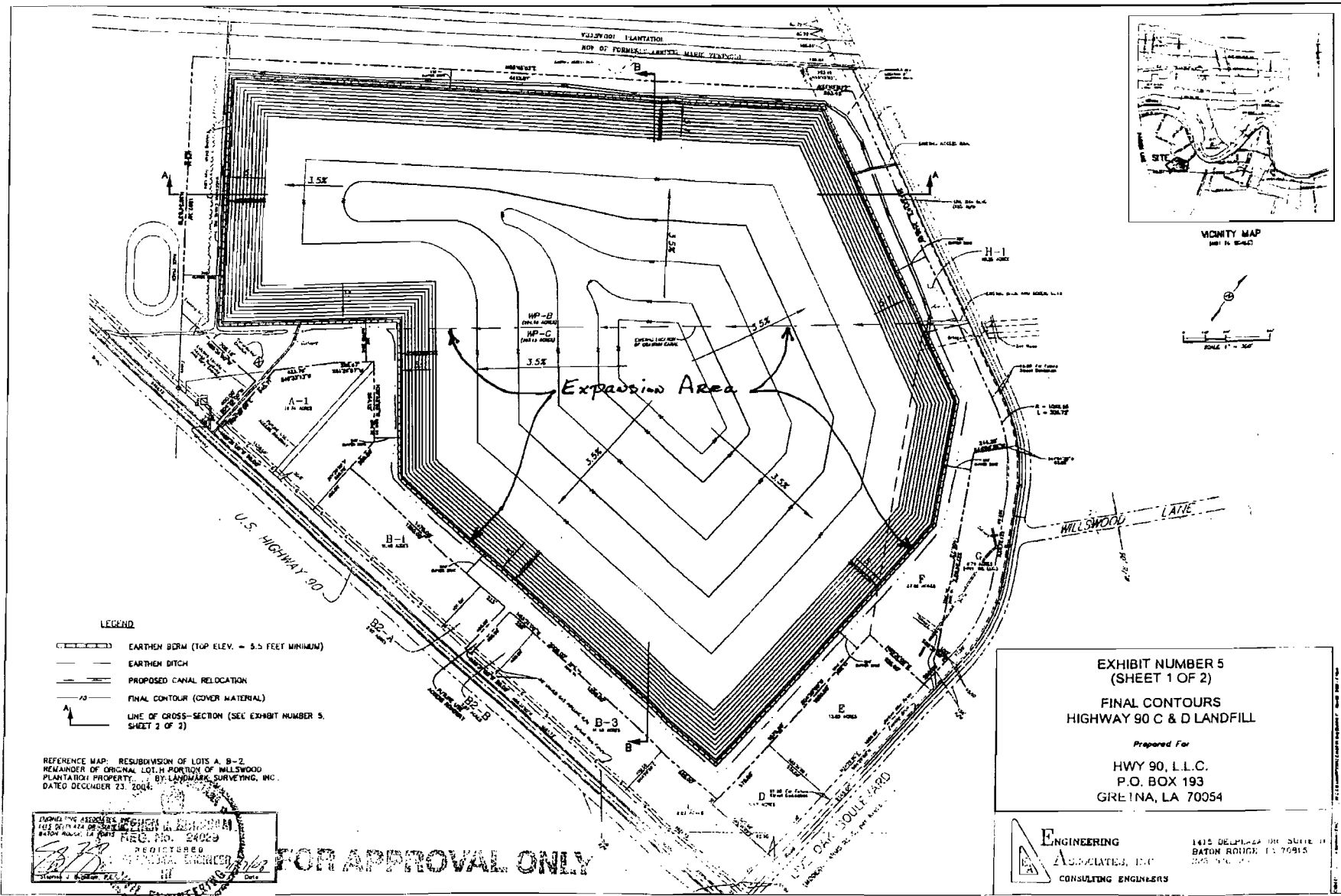


Figure 8: Westbank D Proposed Borrow Area



MCINTY MAP  
MAY 16, 2004



- LEGEND**
- EARTHEN BERM (TOP ELEV. = 5.5 FEET MINIMUM)
  - EARTHEN DITCH
  - PROPOSED CANAL RELOCATION
  - FINAL CONTOUR (COVER MATERIAL)
  - LINE OF CROSS-SECTION (SEE EXHIBIT NUMBER 5, SHEET 2 OF 2)

REFERENCE MAP: RESUBDIVISION OF LOTS A, B-2, REMAINDER OF ORIGINAL LOT 14 PORTION OF WILLOW PLANTATION PROPERTY. BY LAWRENCE SURVEYING, INC. DATED DECEMBER 23, 2004.

WILLIAMS ENGINEERING, INC.

**FOR APPROVAL ONLY**

**EXHIBIT NUMBER 5**  
**(SHEET 1 OF 2)**  
**FINAL CONTOURS**  
**HIGHWAY 90 C & D LANDFILL**

Prepared For  
**HWY 90, L.L.C.**  
 P.O. BOX 193  
 GREINA, LA 70054

**ENGINEERING**  
**ASSOCIATES, INC.**  
 CONSULTING ENGINEERS

1415 DELPHEA DR. SUITE 11  
 BATON ROUGE, LA 70815  
 (504) 765-1111



# BEVERLY CONSTRUCTION Co., LLC

1214 River Road  
P.O. Box 9016  
Bridge City, La 70096

Bus. (504) 436-2924

Fax (504) 436-2914

Mr. Clem Betpouey  
Riverbirch Landfill  
Avondale, LA

Proposal No. 123108-01  
December 31, 2008

Re: **BORROW PIT RECLAMATION**

Dear Mr. Betpouey

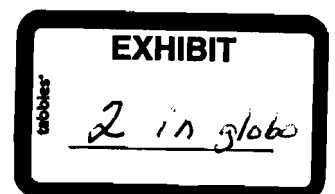
Pursuant to your recent conversations with Mr. A.J. Phillips of our office, Beverly Construction Co., LLC is pleased to issue this proposal for the above referenced project. Our intended scope of work is limited to filling exhausted borrow pits with hydraulically dredged river sand or clay fill. Our pricing is as follows:

River Sand (installed)	\$11.00 cy (vehicular measure)
Clay Fill (installed)	\$14.03 cy (vehicular measure)

If you have any questions, or if I can be of further assistance, please do not hesitate to call. Thank you for the opportunity to quote this project.

Sincerely,

  
Donald F. Davis  
Beverly Construction Co., LLC



# HARDROCK CONSTRUCTION, INC.

2305 L & A Road  
Metairie, LA 70001  
Ph. (504) 835-1050

## PROPOSAL

DATE: December 30, 2008

<b>Proposal Submitted to:</b>	<b>Work to be performed at:</b>
River Birch Landfill	River Birch Landfill
ATTN: Clem Betpouey, III	
Fax No.: 436-7247	

Item	Description	Bid Qty.	U/M	Unit Bid
01	Furnish/Install/Compact River sand fill material	55	acre	\$12.55/cu yd.
02	Furnish/Install/Compact Fill dirt	55	acre	\$22.55/cu yd

With payment as follows ..... Monthly

### RESPECTFULLY SUBMITTED

Hard Rock Construction, L.L.C.

*Jeffrey D. Young*  
Jeffrey D. Young

Date: 12/30/08

Note: This proposal may be withdrawn by us if not accepted within 30 days.

### ACCEPTANCE OF PROPOSAL

The above prices, specifications, and conditions are satisfactory and are hereby accepted. Payments will be made as indicated above.

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

**JCB CONSTRUCTION, INC.**  
**1311 Crestmont Drive • Metairie, LA 70005**  
**(504) 583-7623**

2  
 January  
 2009

Mr. Clement Betpouey, III  
 RIVERBIRCH LANDFILL  
 2000 S. Kenner Road  
 Avondale, LA 70094

Re: 55-Acre Borrow Pit Re-fill

Dear Mr. Betpouey:

We are pleased to forward the following pricing for the above referenced project.

- 1. Re-fill borrow pit with compacted river sand material.....\$16.00 cy (in place)
- 2. Re-fill borrow pit with compacted fill material.....\$21.80 cy (in place)

Thank you for the opportunity to offer our proposal. Should you have any questions, please contact us at your convenience.

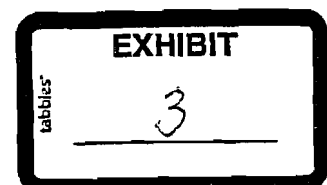
Sincerely,



JCB CONSTRUCTION, INC.

<b>USACE Proposed Borrow Sites</b>	<b>App. Acreage</b>	<b>App. Cubic Yards</b>
Westbank E Phase I Parcel 1	76.9	2,269,648
Westbank E Phase I Parcel 2	26.2	739,848
Westbank E Phase II Parcel 1	50	1,348,948
Westbank E Phase II Parcel 2	19	428,628
Westbank D (HWY 90)	56	1,591,792
<b>Total</b>	<b>228.1</b>	<b>6,378,864</b>
HWY 90 Expansion Cell Excavation	197	6,740,923

Our proposal will reduce the borrow locations from 5 to 1, reduce the overall acreage by 31 acres and create an additional 362,000 yards of borrow material.



## **APPENDIX C: MEMBERS OF INTERAGENCY ENVIRONMENTAL TEAM**

Kyle Balkum	Louisiana Dept. of Wildlife and Fisheries
Catherine Breau	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
Kevin Roy	U.S. Fish and Wildlife Service
Manuel Ruiz	Louisiana Dept. of Wildlife and Fisheries
Renee Sanders	Louisiana Dept. of Wildlife and Fisheries
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**

October 8, 2008

Colonel Alvin B. Lee  
District Engineer  
U.S. Army Corps of Engineers  
Post Office Box 60267  
New Orleans, Louisiana 70160-0267

Dear Colonel Lee:

Please reference the Individual Environmental Report (IER) 25, entitled Government Furnished Borrow Material #3 Jefferson, Orleans, and Plaquemines Parishes, Louisiana, which addresses impacts resulting from the excavation of government-furnished borrow sites. Excavated material will be used to increase hurricane protection within the Greater New Orleans area located in southeast Louisiana. Work associated with that IER is being conducted in response to Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4). That law authorized the U.S. Army 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 to provide protection against a 100-year hurricane event. This draft report contains an analysis of the impacts on fish and wildlife resources that would result from excavation of those borrow sites and provides recommendations to minimize and/or mitigate project impacts on those resources.

The Supplemental 4 authorization of the proposed project directed the Corps to proceed with engineering, design, and modification (and construction where necessary) of the hurricane protection projects. Procedurally, project construction has been authorized in the absence of the report of the Secretary of the Interior that is required by Section 2(b) of the Fish and Wildlife Coordination Act (FWCA) (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.). In this case, the authorization process has prevented our agencies from following the normal procedures for fully complying with the FWCA. The FWCA requires that our Section 2(b) report be made an integral part of any report supporting further project authorization or administrative approval. Therefore, to fulfill the coordination and reporting requirements of the FWCA, the U.S. Fish and Wildlife Service (Service) will be providing post-authorization 2(b) reports for individual IERs.

This draft report incorporates and supplements our FWCA Reports that addressed impacts and mitigation features for the Westbank and Vicinity of New Orleans (dated November 10, 1986, August 22, 1994, November 15, 1996, and June 20, 2005) and the Lake Pontchartrain and Vicinity Hurricane (dated July 25, 1984, and January 17, 1992) Protection projects. 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.

## DESCRIPTION OF THE STUDY AREA

The study area is located within the Mississippi River Deltaic Plain of the Lower Mississippi River Ecosystem. Portions or all of Jefferson, Orleans, and Plaquemines Parishes, Louisiana are included in the study area. 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. Navigation channels such as the Gulf Intracoastal Waterway and the Mississippi River – Gulf Outlet are also 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. Major waterbodies include Lake Pontchartrain located north of the project area, the Mississippi River which bisects the project area, and Lake Borgne which is located on the eastern edge of the project area.

## FISH AND WILDLIFE HABITATS AND RESOURCES

Habitat types at and in the vicinity of the borrow sites include forested wetlands (i.e., bottomland hardwoods and/or swamps), non-wet bottomland hardwoods, upland forests, scrub-shrub, marsh, open water, and developed areas. Due to urban development and a forced-drainage system with the levee system, the hydrology of much of the forested habitat has been altered. The forced-drainage system has been in operation for many years, and subsidence is evident throughout the area.

Wetlands (forested, marsh, and scrub-shrub) within the study area provide plant detritus to adjacent coastal waters and thereby contribute to the production of commercially and recreationally important fishes and shellfishes. Wetlands in the project area also provide valuable water quality functions such as reduction of excessive dissolved nutrient levels, filtering of waterborne contaminants, and removal of suspended sediment. In addition, coastal wetlands buffer storm surges reducing their damaging effect to man-made infrastructure within the coastal area.

Factors that will strongly influence future fish and wildlife resource conditions include freshwater input and loss of coastal wetlands. Depending upon the deterioration rate of marshes, the frequency of occasional short-term saltwater events may increase. Under that scenario, tidal action in the project area may increase gradually as the buffering effect of marshes is lost, and use of that area by estuarine-dependent fishes and shellfish tolerant of saltwater conditions would likely increase. Regardless of



which of the above factors ultimately has the greatest influence, freshwater wetlands within and adjacent to the project area will probably experience losses due to development, subsidence, and erosion.

Forested wetlands in the area are divided into two major types; bottomland hardwood forests and cypress-tupelo swamps. Bottomland hardwood forests are found at higher elevations (Mississippi River and former distributary channel levees) in the project area, while cypress-tupelo swamps are located along the flanks of larger distributary ridges as a transition zone between bottomland hardwoods and lower-elevation marsh, scrub-shrub habitats, or open water.

Non-wet bottomland hardwoods within the project area also provide habitat for wildlife resources. Between 1932 and 1984, the acreage of bottomland hardwoods in Louisiana declined by 45 percent (Rudis and Birdsey 1986). By 1970, Jefferson Parish was classified as entirely urban or nonforested in the U.S. Forest Service's forest inventory with most of this loss resulting from development within non-wet areas inside the hurricane protection levees. A large percentage of the original bottomland hardwoods within the Mississippi River floodplain acreage in the Deltaic Plain are located within a levee system, especially those at higher elevations. However, losses of that habitat type are not regulated or mitigated with the exception of impacts resulting from Corps projects as required by Section 906(b) of the Water Resources Development Act of 1986.

Dead-end canals and small bayous are typically shallow and their bottoms may be filled in to varying degrees with semi-fluid organic material. Drainage canals enclosed within the hurricane protection projects or within developed areas are stagnant except when pumps are operating to remove rain water. Runoff from developed areas has likely reduced the habitat value of that aquatic habitat by introducing various urban pollutants, such as oil, grease, and excessive nutrients. Clearing and development has eliminated much of the riparian habitat that would normally provide shade and structure for many aquatic species.

Some of the waterbodies in the project area meet criteria for primary and secondary contact recreation and partially meet criteria for fish and wildlife propagation; while others do not meet the latter criteria. Causes for not fully meeting fish and wildlife propagation criteria include excessive nutrients, organic enrichment, low dissolved oxygen levels, flow and habitat alteration, pathogens and noxious aquatic plants. Sources of those problems include hydromodification, habitat modification, recreational activities, and unspecified upstream inputs. Municipal point sources, urban runoff, storm sewers, and onsite wastewater treatment systems are also known contributors to poor water quality in the area.

Developed habitats in the study area include residential and commercial areas, as well as roads and existing levees. Those habitats do not support significant wildlife use. Most of the development is located on higher elevations of the project area; however, vast acreages of swamp and marsh have been placed under forced drainage systems and developed. A smaller acreage of wetlands has been filled for development. Agricultural lands occur throughout the area; agriculture includes sugarcane farming, cattle production, and haying.

## Endangered and Threatened Species

To aid the Corps in complying with their proactive consultation responsibilities under the Endangered Species Act (ESA), the Service provided a list of threatened and endangered species and their critical habitats within the coastal parishes of the New Orleans District. The Corps has conducted ESA consultation on each borrow site as they were identified and determined that, at this time, no threatened or endangered species or their critical habitat were located within any proposed borrow site; however, there is a bald eagle nest located within 660 feet from the Westbank D and Westbank E borrow site boundaries. Bald eagles were removed from the List of Endangered and Threatened Species as of August 8, 2007, but are protected by the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) and the Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.) The Service recommends that the Corps consult the Service-developed National Bald Eagle Management (NBEM) Guidelines regarding potential impacts to the eagle at

<http://www.fws.gov/migratorybirds/issues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf>.

In addition, a website designed to help determine whether an activity may disturb nesting bald eagles is available at: <http://www.fws.gov/midwest/eagle/guidelines/index.html>. Those guidelines and the website provide landowners, land managers, and others with information and recommendations regarding how to minimize potential project impacts to bald eagles, particularly where such impacts may constitute “disturbance,” which is prohibited by the BGEPA.

The BGEPA guidelines recommend maintaining: (1) a specified distance between the activity and the nest (buffer area); (2) natural areas (preferably forested) between the activity and nest trees (landscape buffers); and (3) avoiding certain activities during the breeding season. The buffer areas serve to minimize visual and auditory impacts associated with human activities near nest sites. Ideally, buffers would be large enough to protect existing nest trees and provide for alternative or replacement nest trees. On-site personnel should be informed of the possible presence of nesting bald eagles within the project boundary, and should identify, avoid, and immediately report any such nests to this office. If after consulting those guidelines and the above website you need further assistance in determining the appropriate size and configuration of buffers or the timing of activities in the vicinity of a bald eagle nest, please contact this office. A copy of your final determination should be provided to our office.

If a proposed borrow site is changed significantly or relocated, or excavation is not implemented within 1 year, we recommend that the Corps reinitiate coordination with this office to ensure that the proposed project would not adversely affect any federally listed threatened or endangered species or their habitat.

## Future Fish and Wildlife Resources

The combination of subsidence and sea level rise results in higher water levels, stressing most non-fresh marsh plants and forested wetlands leading to plant death and conversion to open water. Other major causes of wetland losses within the study area include altered hydrology, storms, saltwater intrusion (caused by marine processes invading fresher wetlands), shoreline erosion, herbivory, and development activities including the direct and indirect impacts of dredge and fill (Louisiana Coastal

Wetlands Conservation and Restoration Task Force and the Wetlands Conservation and Restoration Authority 1998). The continued conversion of wetlands and forested habitats to open water or developed land represents the most serious fish and wildlife-related problem in the study area. Habitat losses could be expected to cause declines in the study area's carrying capacity for migratory waterfowl, wading birds, other migratory birds, alligators, furbearers, and game mammals.

## ALTERNATIVES UNDER CONSIDERATION

The proposed borrow sites have been located in areas that minimize impacts to wetlands and impacts to non-wet bottomland hardwoods have also been avoided to the extent practicable. Use of adjacent borrow, the typical construction method, has been limited because of soil conditions (i.e., insufficient clay content), thus impacts resulting from expansion of borrow sites into wetlands has been avoided in some areas. The Service provided an August 7, 2006, Planning-aid Letter to the Corps proposing a protocol to identify borrow sites thereby minimizing impacts to fish and wildlife resources. The Corps has used that protocol as a guideline in identifying potential government-furnished borrow sites.

## PROJECT IMPACTS

Excavation of borrow sites will result in the conversion of terrestrial habitat into open-water areas. Because pasture habitat has a reduced value to fish and wildlife resources and is not a declining or limited habitat type, impacts associated with conversion of pasture to open-water were quantified only by acreage. Wetland acreage impacts were determined by the Corps regulatory program. Impacts to bottomland hardwood were quantified by acreage and habitat quality (i.e., average annual habitat unit or AAHUs) and are presented in Table 1.

The Service used the Habitat Assessment Methodology (HAM) to quantify the benefits of anticipated mitigation measures for forested habitats. The habitat assessment models for swamps and bottomland hardwoods within the Louisiana Coastal Zone utilized in this evaluation are modified from those developed in the Service's Habitat Evaluation Procedures (HEP). For each habitat type, those models define an assemblage of variables considered important to the suitability of an area to support a diversity of fish and wildlife species (Louisiana Department of Natural Resources 1994; U.S. Fish and Wildlife Service 1980). The HAM, however, is a community-level evaluation instead of the species-based approach used with HEP. Further explanation of how impacts/benefits are assessed with HAM and an explanation of the assumptions affecting habitat suitability (i.e., quality) index (HIS) values for each target year are available for review at Service's Lafayette, Louisiana, field office.

**Table 1: Impacts from Government Furnished Borrow Sites**

<b>Proposed Borrow Sites</b>	<b>Parish</b>	<b>BLH impacted (acres)</b>	<b>AAHUs lost</b>
Stumpf Phase 1	Orleans	318	88
Stumpf Phase 2	Orleans	531	146
Tac Carrere	Plaquemines	17.7	12.1
Westbank D	Jefferson	(56)	0
Westbank E Ph1	Jefferson	26.2	13.7
Westbank E Ph2	Jefferson	53.2	27.8
Total		946 (56, non-BLH)	262

As indicated in Table 1, our HAM analyses indicate that project implementation would result in the conversion of 1002 acres of terrestrial habitat to deep open water areas. This would also result in the direct loss of 946 acres and 262 AAHUs of bottomland hardwood forests. The Westbank D site is mostly pasture with only a few fence line trees.

#### FISH AND WILDLIFE CONSERVATION MEASURES

The President's Council on Environmental Quality defined the term "mitigation" in the National Environmental Policy Act regulations to include:

(a) avoiding the impact altogether by not taking a certain action or parts of an action; (b) minimizing impacts by limiting the degree or magnitude of the action and its implementation; (c) rectifying the impact by repairing, rehabilitating, or restoring the affected environment; (d) reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and (e) compensating for the impact by replacing or providing substitute resources or environments.

The Service supports and adopts this definition of mitigation and considers its specific elements to represent the desirable sequence of steps in the mitigation planning process. Based on current and expected future without-project conditions, the planning goal of the Service is to develop a balanced project, i.e., one that is responsive to demonstrated hurricane protection needs while addressing the co-equal need for fish and wildlife resource conservation.

The Service's Mitigation Policy (Federal Register, Volume 46, No. 15, January 23, 1981) identifies four resource categories that are used to ensure that the level of mitigation recommended by Service biologists will be consistent with the fish and wildlife resource values involved. Considering the high value of forested areas (wet and non-wet) and marsh for fish and wildlife and the relative scarcity of that habitat type, those wetlands are usually designated as Resource Category 2 habitats, the mitigation goal for which is no net loss of in-kind habitat value. Degraded bottomland hardwood forest (dominated by exotic species) and any wet pastures that may be impacted, however, are placed in Resource Category 3 due to their reduced value to wildlife, fisheries and lost/degraded wetland

functions. The mitigation goal for Resource Category 3 habitats is no net loss of habitat value.

To minimize wetland and bottomland hardwood impacts, the Service recommends that prior to utilizing borrow sites, every effort should be made to reduce impacts by using sheetpile, floodwalls, geotextile, or some combination thereof, to increase levee heights wherever feasible. In addition, the Service recommends that the previous protocol to identify and prioritize borrow sources provided in our August 7, 2006, Planning-aid letter should continue to be utilized as a guide in locating future borrow-sites.

### SERVICE POSITION AND RECOMMENDATIONS

Excavation of borrow sites result in the loss of 946 acres of bottomland hardwoods for a total loss of 262 AAHUs. The Service does not object to the use of the proposed borrow sites provided the following fish and wildlife recommendations are implemented concurrently with project implementation:

1. The Corps and local sponsor shall provide 262 AAHUs to compensate for the unavoidable, project-related loss of forested lands. The Service, National Marine Fisheries Service, Louisiana Department of Wildlife and Fisheries, and Louisiana Department of Natural Resources should be consulted regarding the adequacy of any proposed alternative mitigation sites.
2. The protocol to identify and prioritize borrow sources provided in our August 7, 2006, Planning-aid letter should continue to be utilized as a guide in locating future borrow-sites.
3. Any proposed change in borrow site features, locations or plans shall be coordinated in advance with the Service, NMFS, LDWF, and LDNR.
4. The project's first Project Cooperation Agreement (or similar document) shall include language that includes the responsibility of the local-cost sharer to provide operational, monitoring, and maintenance funds for mitigation features.
5. Forest clearing associated with borrow site preparation should be conducted during the fall or winter to minimize impacts to nesting migratory birds, when practicable.
6. Whenever applicable, the Service recommends that the Corps consult the Service-developed National Bald Eagle Management (NBEM) Guidelines, utilize the interactive webpage at: <http://www.fws.gov/midwest/eagle/guidelines/index.html>, and implement any recommendations suggested. We also ask that the Corps provide a copy of their disturbance determination to our office.
7. If a proposed borrow site is changed significantly or excavation is not implemented within 1 year, we recommend that the Corps reinitiate coordination with this office to ensure that the proposed project would not adversely affect any federally listed threatened or endangered species or their habitat.



**UNITED STATES DEPARTMENT OF COMMERCE**  
**National Oceanic and Atmospheric Administration**  
NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office  
263 13<sup>th</sup> Avenue South  
St. Petersburg, Florida 33701

December 18, 2008 F/SER46/GE:jk  
225-389-0508

Mr. Gib Owen  
Environmental Planning and Compliance Branch  
Planning, Programs, and Management Division  
New Orleans District, U.S. Army Corps of Engineers  
Post Office Box 60267  
New Orleans, Louisiana 70160-0267

Dear Mr. Owen:

NOAA's National Marine Fisheries Service (NMFS) has received the draft **Individual Environmental Report (IER) #25** provided by letter from Ms. Elizabeth Wiggins dated December 8, 2008. The draft IER evaluates the potential impacts associated with the possible excavation of four government furnished borrow areas for proposed use as suitable borrow material for construction of the proposed Hurricane and Storm Damage Risk Reduction System in the vicinity of New Orleans, Louisiana.

NMFS has reviewed the draft IER and agrees that none of the borrow sites are located in areas classified as essential fish habitat or supportive of marine fishery resources. As such, we have no comments to provide on the draft IER.

We appreciate the opportunity to review and comment on the draft IER.

Sincerely,

*for* Miles M. Croom  
Assistant Regional Administrator  
Habitat Conservation Division

c:  
FWS, Lafayette  
EPA, Dallas  
LA DNR, Consistency  
F/SER46, Swafford  
Files





## United States Department of the Interior



FISH AND WILDLIFE SERVICE  
646 Cajundome Blvd.  
Suite 400  
Lafayette, Louisiana 70506  
January 9, 2009

Colonel Alvin B. Lee  
District Engineer  
U.S. Army Corps of Engineers  
Post Office Box 60267  
New Orleans, Louisiana 70160-0267

Dear Colonel Lee:

The U.S. Fish and Wildlife Service (Service) has reviewed the December 8, 2008, draft Individual Environmental Report (IER), "Government Furnished Borrow Material # 3, Orleans, Jefferson, and Plaquemines Parishes, Louisiana" (IER 25), transmitted to our office via a letter from Ms. Elizabeth Wiggins, Chief of your Environmental Planning and Compliance Branch. That study addresses impacts resulting from the excavation of borrow material at several sites that will be used to increase hurricane protection within the Greater New Orleans area located in southeast Louisiana. Work associated with that IER is being conducted in response to Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4). That law authorized the U.S. Army 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 to provide protection against a 100-year hurricane event. The Service submits the following comments in accordance with provisions of the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d), Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.), Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), and the National Environmental Policy Act of 1969 (83 Stat. 852, as amended; 42 U.S.C. 4321- 4347).

### **General Comments**

The IER is well-written and provides a good description of fish and wildlife resources in the project area and project impacts on those resources. Bottomland hardwood (BLH) forest in the project area provide habitat for Federal trust species including wading birds and neotropical migrants. The proposed project would impact BLH; however, the Corps has indicated that mitigation for all impacts will be implemented.

### **Specific Comments**

#### Page 40, 3.2.5 Wildlife

Borrow sites Westbank D and Westbank E in Jefferson Parish, Louisiana, are located in the vicinity of a bald eagle nest. The Corps has adjusted the Westbank E boundary so that the borrow activities will not encroach upon the recommended zone of no disturbance; however, a portion of the



Westbank D borrow site is within 660 feet of the eagle nest. The Service recommends that IER 25 include a discussion of the eagle nest and the steps that the Corps has taken, and will take, to avoid disturbance of the nest and nesting eagles. Although the bald eagle has been removed from the List of Endangered and Threatened Species, it continues to be protected under the MBTA and the BGEPA. The Service developed the National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations to minimize potential project impacts to bald eagles, particularly where such impacts may constitute "disturbance," which is prohibited by the BGEPA. A copy of the NBEM Guidelines is available at: <http://www.fws.gov/southeast/es/baldeagle/NationalBaldEagleManagementGuidelines.pdf>. Those guidelines recommend: (1) maintaining a specified distance between the activity and the nest (buffer area); (2) maintaining natural areas (preferably forested) between the activity and nest trees (landscape buffers); and (3) avoiding certain activities during the breeding season. An evaluation must be performed to determine whether the use of Westbank D borrow site 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. We again request that the Corps provide a copy of their determination to our office as requested in our October 8, 2008, draft Fish and Wildlife Coordination Act Report (FWCAR). In addition, on-site personnel should be informed of the possible presence of other nesting bald eagles within the project boundary, and should identify, avoid, and immediately report any such nests to this office.

Page 65, Mitigation, Table 7

As part of the process of identifying suitable borrow material, the Corps may reject or change the boundary and consequentially, the acreage (usually a reduction) of certain sites. The boundaries of two borrow sites, Westbank E Phase 1 and Stumpf Phase 2, were modified after the Service conducted its Habitat Assessment Methodology (HAM) analyses. The Service has updated the calculation of BLH impacts and Average Annual Habitat Units (AAHU) required for mitigation based on these new site acreages for inclusion in the draft IER 25. In Table 7 please make the following changes: Stumpf Phase 2 BLH impacted acres should be changed to 519 and AAHUs lost should be changed to 143. Westbank E Phase 1 BLH impacted acres should be changed to 25.1 and AAHUs lost should be changed to 13.1. Also, Total BLH impacted acres should be changed to 933. The original Total AAHUs lost value was erroneous due to a calculation error by the Service. The correct value, including the updates mentioned previously, should be 284. These values should also be changed if they occur elsewhere in the document.

The Service thus far does not object to the proposed features in IER 25 and looks forward to the Corps' evaluation and resolution of potential impacts to nesting bald eagles at the Westbank D borrow site. Thank you for the opportunity to provide comments on the draft IER. If you or your staff has any questions regarding our comments, please contact David Castellanos at (337) 291-3112

Sincerely,



James F. Boggs  
Supervisor  
Louisiana Field Office



cc: Mr. Michael Brown, CEMVN, New Orleans, LA  
EPA, Dallas, TX  
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LA Dept. of Natural Resources (CMD/CRD), Baton Rouge, LA

## **APPENDIX E: CEMVN BORROW AREA INDEX MAP**

The most up to date version of this and other borrow maps can be found at [www.nolaenvironmental.gov](http://www.nolaenvironmental.gov).

# Borrow Areas

