

DRAFT INDIVIDUAL ENVIRONMENTAL REPORT
PRE-APPROVED CONTRACTOR FURNISHED BORROW MATERIAL # 2
ST. BERNARD, ST. CHARLES, PLAQUEMINES PARISHES, LOUISIANA,
AND HANCOCK COUNTY, MISSISSIPPI

IER # 23



**US Army Corps
of Engineers®**

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1. Introduction

The U.S. Army Corps of Engineers (USACE) Mississippi Valley Division, New Orleans District (CEMVN), has prepared this Individual Environmental Report #23 (IER #23) to evaluate the potential impacts associated with the possible excavation of five Pre-Approved Contractor Furnished borrow areas. The proposed action areas are located in southeastern Louisiana (Figures 1; 2-4) and southwest Mississippi (Figure 5). 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. CEMVN is proposing to use suitable borrow material for construction of the proposed Greater New Orleans Storm Damage Risk Reduction System (GNOSDRRS).

IER #23 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, and are herein incorporated by reference.

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 GNOSDRRS, 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 GNOSDRRS in the New Orleans Metropolitan Area as a result of Hurricanes Katrina and Rita.

This Draft IER will be distributed for a 30-day public review and comment period. A public meeting specific to the proposed action will be held, if requested by a stakeholder during the review period. Any comments received during this public meeting will be considered part of official record. After the 30-day comment period, and public meeting if requested, the CEMVN District Commander will review all comments received during the review period and make a determination as to whether or not they are substantive. If comments are not considered to be substantive, the District Commander will make a decision on the proposed action. This decision will be documented in an IER Decision Record. If a comment(s) is determined to be substantive an Addendum to the IER will be prepared and published for a 30-day public review and comment period. After the expiration of the public comment period, the District Commander will make a decision on the proposed action. The decision will be documented in an IER Decision Record.

A total of five potential Pre-Approved Contractor 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 GNOSDRRS improvements. CEMVN engineers currently estimate that over 100,000,000 cubic yards of suitable material is required to improve Federal and non-Federal levee and floodwall projects. Borrow areas investigated in this IER could potentially provide approximately 16,350,000 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 GNOSDRRS, multiple borrow IERs are being prepared.

1.1 Purpose and Need for the Proposed Action

The purpose of the proposed action is to identify borrow areas that contain suitable material that can be excavated to supply Federal GNOSDRRS levee and floodwall projects. The completed GNOSDRRS 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 CEMVN. The proposed action resulted from the need to provide a total of over 100,000,000 cubic yards of suitable clay for GNOSDRRS 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 protection,” as it is used throughout this document, refers to a level of protection which reduces the risk of hurricane surge and wave driven flooding that the New Orleans Metropolitan Area has a 1% 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 GNOSDRRS 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).

The WBV project was authorized under the WRDA, as cited above. The Westwego to Harvey Canal Hurricane Protection Project was authorized by the WRDA of 1986. The WRDA of 1996 modified the project and added the Lake Cataouatche Project and the East of Harvey Canal Project. The WRDA of 1999 combined the three projects into one project under the current name.

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% 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

protection; the replacement or reinforcement of floodwalls; the construction of permanent closures at the outfall canals; the improvement of the Inner Harbor Navigation Canal (IHNC); 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, (5th 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, and are herein incorporated by reference. Pertinent studies, reports and projects are discussed below:

Lake Pontchartrain and Vicinity Hurricane Protection Project

- On 14 March 2008, 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. A Tier 2 document discussing alignment alternatives and designs of the navigable and structural barriers, and the impacts associated with exact footprints, is being completed.
- On 21 February 2008, CEMVN signed a Decision Record on IER # 18 titled "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.
- In 14 February 2008, CEMVN signed a Decision Record on IER # 19 titled "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, 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, CEMVN signed a FONSI on EA # 279 titled "Lake Pontchartrain Lakefront, Breakwaters, Pump Stations 2 and 3." The report evaluated 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, CEMVN signed a FONSI on EA # 282 titled "LPV, Jefferson Parish Lakefront Levee, Landside Runoff Control: Alternate Borrow." The report investigated 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, CEMVN signed a FONSI on EA # 169 titled “LPV, Hurricane Protection Project, East Jefferson Parish Levee System, Jefferson Parish, Louisiana, Gap Closure.” The report addressed the construction of a floodwall in Jefferson Parish to close a “gap” in the levee system. The area was previously levied and under forced drainage, and it was determined that the action would not significantly impact the already disturbed area.
- On 22 February 1991, CEMVN signed a FONSI on EA # 164 titled “LPV Hurricane Protection – Alternate Borrow Area for the St. Charles Parish Reach.” The report addressed the impacts associated with the use of borrow material from the Mississippi River on the left descending bank in front of the Bonnet Carré Spillway Forebay for LPV construction.
- On 30 August, 1990 CEMVN signed a FONSI on EA # 163 titled “LPV Hurricane Protection – Alternate Borrow Area for Jefferson Parish Lakefront Levee, Reach III.” The report addressed the impacts associated with the use of a borrow area in Jefferson Parish for LPV construction.
- On 2 July 1991, CEMVN signed a FONSI on EA # 133 titled “LPV Hurricane Protection – Alternate Borrow at Highway 433, Slidell, Louisiana.” The report addressed the impacts associated with the excavation of a borrow area in Slidell, Louisiana for LPV construction.
- On 12 September 1990, CEMVN signed a FONSI on EA # 105 titled “LPV Hurricane Protection – South Point to Gulf Intracoastal Waterway, A. V. Keeler and Company Alternative Borrow Site.” The report addressed the impacts associated with the excavation of a borrow area in Slidell, Louisiana for LPV construction.
- On 12 March 1990, CEMVN signed a FONSI on EA # 102 titled “LPV Hurricane Protection – 17th Street Canal Hurricane Protection.” The report addressed the use alternative methods of providing flood protection for the 17th Street Outfall Canal in association with LPV activity. Impacts to resources were found to be minimal.
- On 4 August 1989, CEMVN signed a FONSI on EA # 89 titled “LPV Hurricane Protection, High Level Plan - Alternate Borrow Site 1C-2B.” The report addressed 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, CEMVN signed a FONSI on EA # 79 titled “LPV Hurricane Protection – London Avenue Outfall Canal.” The report investigated the impacts of strengthening existing hurricane protection at the London Avenue Outfall Canal.
- On 21 July 1988, CEMVN signed a FONSI on EA # 76 titled “LPV Hurricane Protection – Orleans Avenue Outfall Canal.” The report investigated the impacts of strengthening existing hurricane protection at the Orleans Avenue Outfall Canal.

- On 26 February 1986, CEMVN signed a FONSI on EA # 52 titled “LPV Hurricane Protection – Geohegan Canal.” The report addressed the impacts associated with the excavation of borrow material from an extension of the Geohegan Canal for LPV construction.
- Supplemental Information Report (SIR) # 25 titled “LPV Hurricane Protection – Chalmette Area Plan, Alternate Borrow Area 1C-2A” was signed by CEMVN on 12 June, 1987. The report addressed the used of an alternate contractor furnished borrow area for LPV construction.
- SIR # 27 titled “LPV Hurricane Protection – Alternate Borrow Site for Chalmette Area Plan” was signed by CEMVN on 12 June, 1987. The report addressed the used of an alternate contractor furnished borrow area for LPV construction.
- SIR # 28 titled “LPV Hurricane Protection – Alternate Borrow Site, Mayfield Pit” was signed by CEMVN on 12 June, 1987. The report addressed the used of an alternate contractor furnished borrow area for LPV construction.
- SIR # 29 titled “LPV Hurricane Protection – South Point to GIWW Levee Enlargement” was signed by CEMVN on 12 June, 1987. The report discussed the impacts associated with the enlargement of the GIWW.
- SIR # 30 titled “LPV Hurricane Protection Project, Jefferson Lakefront Levee” was signed by CEMVN on 7 October, 1987. The report investigated impacts associated with changes in Jefferson Parish LPV levee design.
- SIR # 17 titled “LPV Hurricane Protection – New Orleans East Alternative Borrow, North of Chef Menteur Highway” was signed by CEMVN on 30 April, 1986. The report addressed the use of an alternate contractor furnished borrow area for LPV construction.
- SIR # 22 titled “LPV Hurricane Protection – Use of 17th Street Pumping Station Material for LPHP Levee” was signed by CEMVN on 5 August, 1986. The report investigated the impacts of moving suitable borrow material from a levee at the 17th Street Canal in the construction of a stretch of levee from the Inner Harbor Navigation Canal to the London Avenue Canal.
- SIR # 10 titled “LPV Hurricane Protection, Bonnet Carré Spillway Borrow” was signed by CEMVN on 3 September, 1985. The report evaluated the impacts associated with using the Bonnet Carré Spillway as a borrow source for LPV construction, and found “no significant adverse effect on the human environment.”
- In December 1984, a SIR to complement the Supplement to Final EIS on the LPV Hurricane Protection project was filed with the Environmental Protection Agency.
- The Final EIS for the LPV Hurricane Protection Project, dated August 1974. A Statement of Findings was signed by 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 titled “Flood Control, Mississippi River and Tributaries,” published as House Document No. 90, 70th Congress, 1st 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 14 March 2008, 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. A Tier 2 document discussing alignment alternatives and designs of the navigable and structural barriers, and the impacts associated with exact footprints, is being completed.
- On 21 February 2008, CEMVN signed a Decision Record on IER # 18 titled “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.
- In 14 February 2008, CEMVN signed a Decision Record on IER # 19 titled “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, 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 23 August 2005, CEMVN signed a FONSI on EA # 422 titled “Mississippi River Levees – West Bank Gaps, Concrete Slope Pavement Borrow Area Designation, St. Charles and Jefferson Parishes, Louisiana.” The report investigated the impacts of obtaining borrow material from various areas in Louisiana.
- On 22 February 2005, CEMVN signed a FONSI on EA # 306A titled “West Bank Hurricane Protection Project – East of the Harvey Canal, Floodwall Realignment and Change in Method of Sector Gate.” The report discussed 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 CEMVN signed a FONSI on EA # 337 titled “Algiers Canal Alternative Borrow Site.”

- On 19 June 2003, CEMVN signed a FONSI on EA # 373 titled “Lake Cataouatche Levee Enlargement.” The report discussed the impacts related to improvements to a levee from Bayou Segnette State Park to Lake Cataouatche.
- On 16 May 2002, CEMVN signed a FONSI on EA # 306 titled “West Bank Hurricane Protection Project - Harvey Canal Sector Gate Site Relocation and Construction Method Change.” The report discussed 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, CEMVN signed a FONSI on EA # 320 titled “West Bank Hurricane Protection Features.” The report evaluated the impacts associated with borrow sources and construction options to complete the Westwego to Harvey Canal Hurricane Protection Project.
- On 18 August 1998, CEMVN signed a FONSI on EA # 258 titled “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 CEMVN in September 1998.
- The Final EIS for the WBV, Lake Cataouatche, Hurricane Protection Project was completed. A ROD was signed by CEMVN in September 1998.
- In December 1996, the USACE completed a post-authorization change study titled, “Westwego to Harvey Canal, Louisiana Hurricane Protection Project Lake Cataouatche Area, EIS.” The study investigated the feasibility of providing hurricane surge protection to that portion of the west bank of the Mississippi River in Jefferson Parish between Bayou Segnette and the St. Charles Parish line. A Standard Project Hurricane (SPH) level of protection 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, Public Law 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, CEMVN signed a FONSI on an EA # 198 titled, “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 evaluated the impacts associated with borrow sources and construction options to complete the Westwego to Harvey Canal Hurricane Protection Levee.
- In August 1994, CEMVN completed a feasibility report titled “WBV (East of the Harvey Canal).” The study investigated the feasibility of providing hurricane surge protection to that portion of the west bank of metropolitan New Orleans from the Harvey Canal eastwards to the Mississippi River. The final report recommended that the existing West Bank Hurricane Project, Jefferson Parish, Louisiana, authorized by the WRDA of 1986 (P.L. 99-662), approved 17 November 1986, be modified to provide additional hurricane protection east of the Harvey Canal. The report also recommended that the level of protection for the area east of the Algiers Canal deviate from the National Economic Development Plan’s level of protection 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, CEMVN signed a FONSI on EA # 165 titled "Westwego to Harvey Canal Disposal Site."
- In February 1992, the USACE completed a reconnaissance study titled "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 protection 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, CEMVN signed a FONSI on EA # 136 titled "West Bank Additional Borrow Site between Hwy 45 and Estelle PS."
- On 15 March 1990, CEMVN signed a FONSI on EA # 121 titled "West Bank Westwego to Harvey Changes to EIS." The report addressed 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 titled, "West Bank of the Mississippi River in the Vicinity of New Orleans, La." The report investigated 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 recommended implementing a plan that would provide SPH level of protection 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 Interim Environmental Reports

In addition to this IER, 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, or can be requested by contacting 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.

1.5 Public Concerns

The public has had the opportunity to give input about proposed GNOSDRRS work throughout the planning process through a number of outlets (i.e., public meetings, written comments, www.nolaenvironmental.gov). IER # 18 and IER # 19 were the first in a series of IERs investigating the impacts of borrow excavation related to the GNOSDRRS. Final IER # 18 and Final IER # 19 contain public comments regarding borrow issues. These documents are available at www.nolaenvironmental.gov, or upon request.

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 protection from storm events. Borrow excavation is an integral part of upgrading hurricane protection in the New Orleans Metropolitan Area. The public also feels 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; CEMVN is currently looking into the feasibility of backfilling utilized borrow areas. The public is concerned about impacting wetlands; 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 free use of their privately-owned property.

1.6 Data Gaps and Uncertainties

Transportation impacts and routes for the delivery of borrow material have not been determined, as it currently is uncertain to which GNOSDRRS construction sites each proposed borrow area would provide material. Large quantities of material would be delivered to GNOSDRRS 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. 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 future IERs once it is completed.

CEMVN is studying the feasibility of backfilling Government Furnished borrow areas after excavation. Information will be discussed in future IERs once it becomes available.

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 Pre-Approved Contractor Furnished borrow material there are no nonstructural alternatives. Non-structural alternatives will be evaluated in the IERs dealing directly with the construction of the GNOSDRRS.

CEMVN is pursuing three avenues of obtaining the estimated amount of borrow material needed for GNOSDRRS construction. The three avenues that are being pursued by

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 discussed and # 22 will discuss Government Furnished borrow alternatives. This IER discusses potential Pre-Approved Contractor Furnished borrow areas. Approved Pre-Approved Contractor Furnished borrow areas were discussed in IER # 19. 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 US Fish and Wildlife Service (USFWS) supports 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 CEMVN in meeting this protocol.

The GNOSDRRS 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 the construction, 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). 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 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 depths to minimize impacts to the human and natural environment.

Some parishes have ordinances that require the backfilling of any borrow areas inside the jurisdictional limits of the parish. Sites in these areas would be backfilled in accordance with the local ordinances. Material for the backfill operation will likely be dredged from the Mississippi River.

2.2 Description of the Alternatives

Four alternatives were considered. These included the No-Action, the Proposed Action, Government Furnished Borrow Material, and Supply Contract.

2.3 Proposed Action

The proposed action (preferred alternative) consists of potentially excavating all suitable material from the proposed five borrow areas (Figure 1). In order to meet the borrow needs of the GNOSDRRS, personnel from 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: 1025 Florissant / 2: Acosta / 3: 3C Riverside / 4: Myrtle Grove / 5: Pearlington Dirt Phase 2

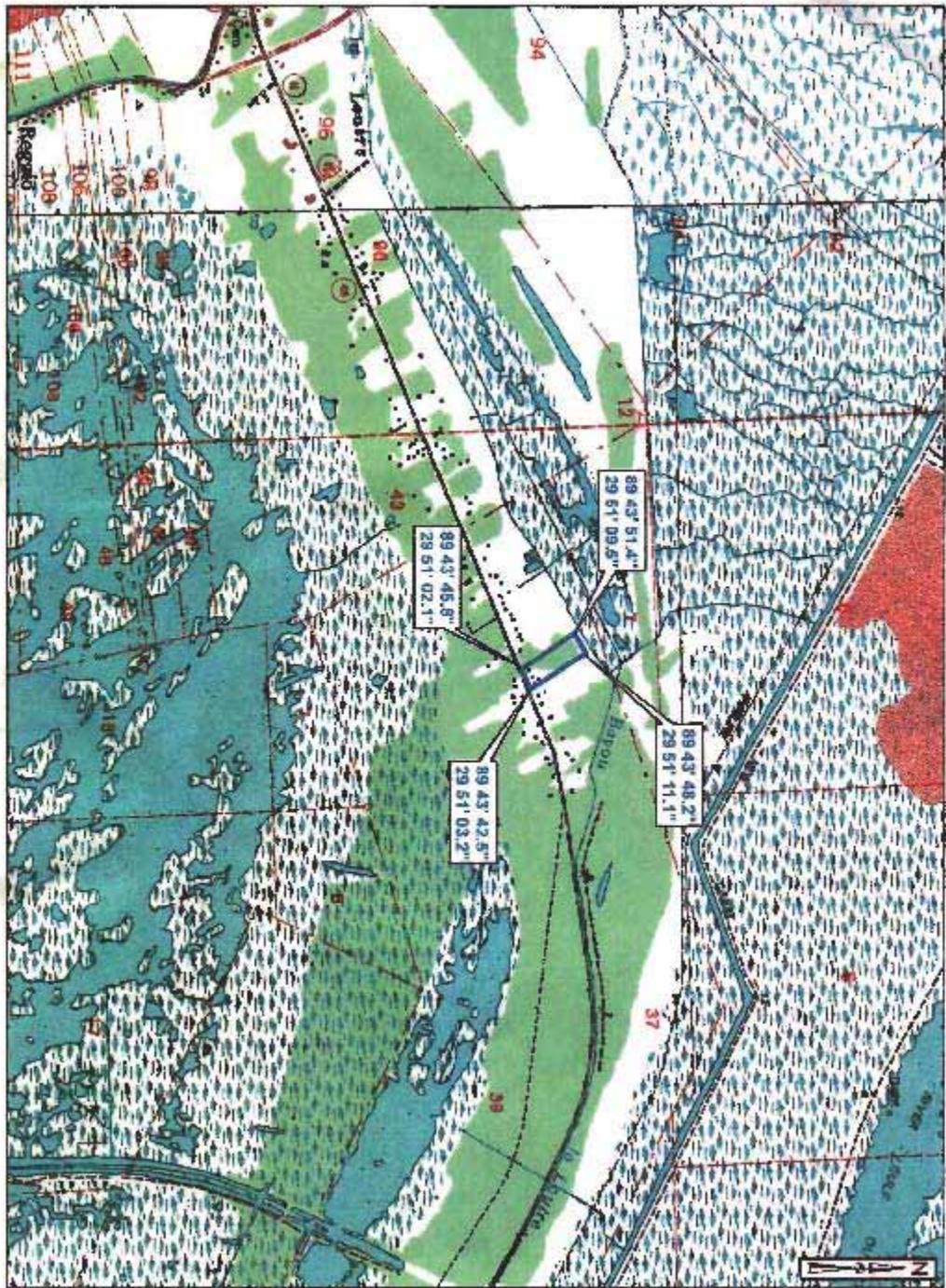
The team investigated and completed environmental coordination on the proposed borrow areas, and is currently investigating others. Pre-Approved Contractor Furnished borrow areas were initially evaluated by reviewing the contractor-provided information packet required for the use of proposed borrow areas. The contractor packet was considered approved if it consisted of the following: 1) a signed right of entry; 2) maps that showed the property boundaries and areas being proposed for use as a Pre-Approved Contractor Furnished borrow area; 3) an approved Jurisdictional Wetland Determination from the CEMVN Regulatory Functions Branch indicating no wetland impacts, or a Section 404 (of the Clean Water Act- see Appendix A) permit and proof of compensatory mitigation; 4) a Coastal Use permit or letter of no objection from the Louisiana Department of Natural Resources, Coastal Management Division (LDNR) or local parish coastal management; 5) a concurrence letter from the U.S. Department of the Interior, USFWS indicating no threatened or endangered (T&E) species or their critical habitat would be affected; 6) a cultural resources assessment; 7) a Phase 1 Environmental Site Assessment (ESA); 8) geotechnical boring logs and soil analysis identifying the suitability of potential borrow material.

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

- The 1025 Florissant area is located on Florissant Highway in St. Bernard Parish, Louisiana (Figure 2). The proposed borrow area is 3 acres.
- The Acosta area is located on Highway 46 in St. Bernard Parish (Figure 3). The proposed borrow area is 25 acres.

- The 3C Riverside area is located off of Highway 3127 in St. Charles Parish (Figure 4). The proposed borrow area is comprised of two sites. The first site is 118 acres and the second site is 146 acres.
- The Myrtle Grove area is located on Highway 23 in Plaquemines Parish, Louisiana (Figure 5). The proposed borrow area is 271 acres.
- The Pearlinton Dirt Phase 2 area is located on Highway 90 in Hancock County, Mississippi (Figure 6). The proposed borrow area is 110 acres.

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.



1025 Florissant Borrow Pit - St. Bernard Parish

Figure 2: 1025 Florissant Proposed Borrow Area

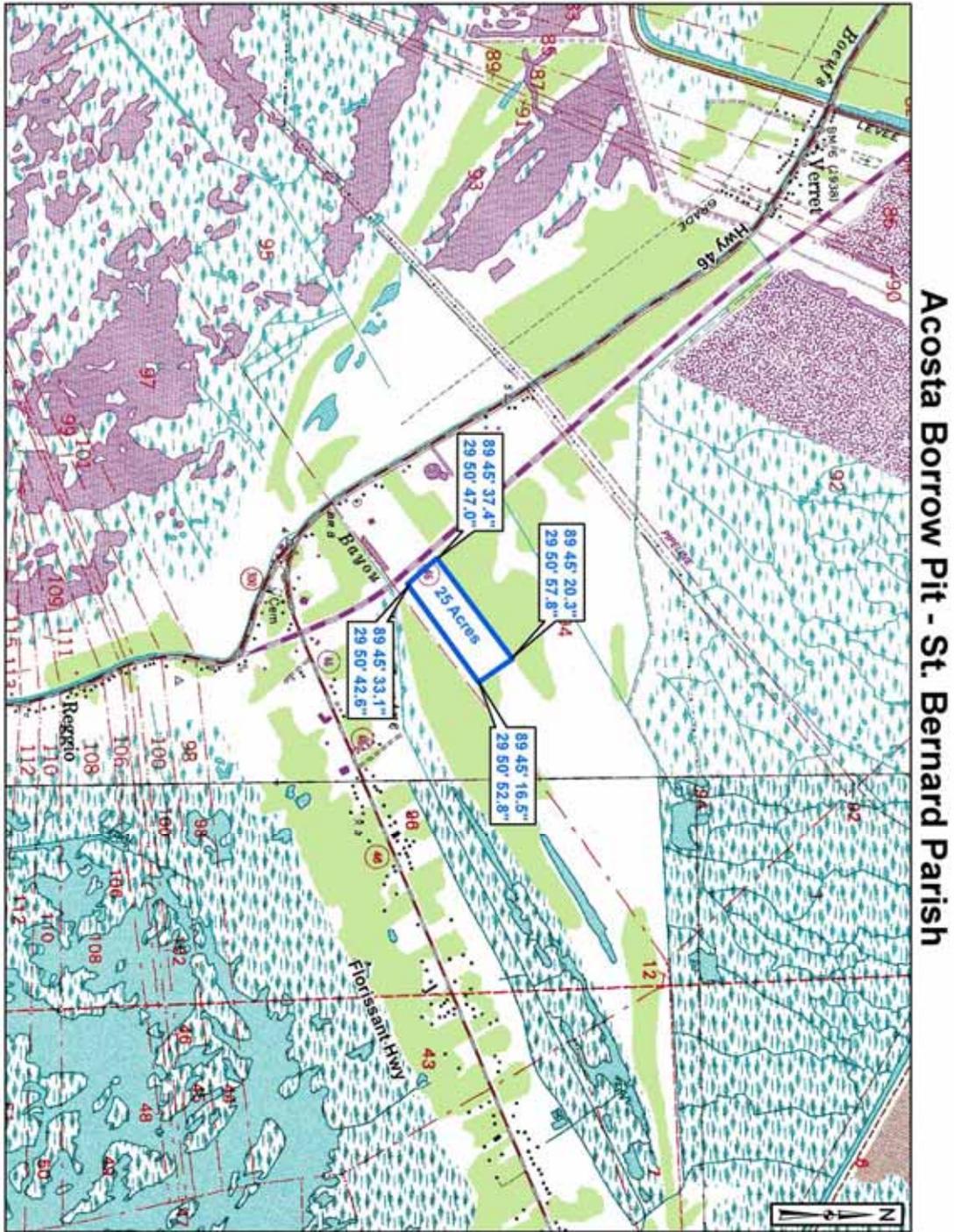
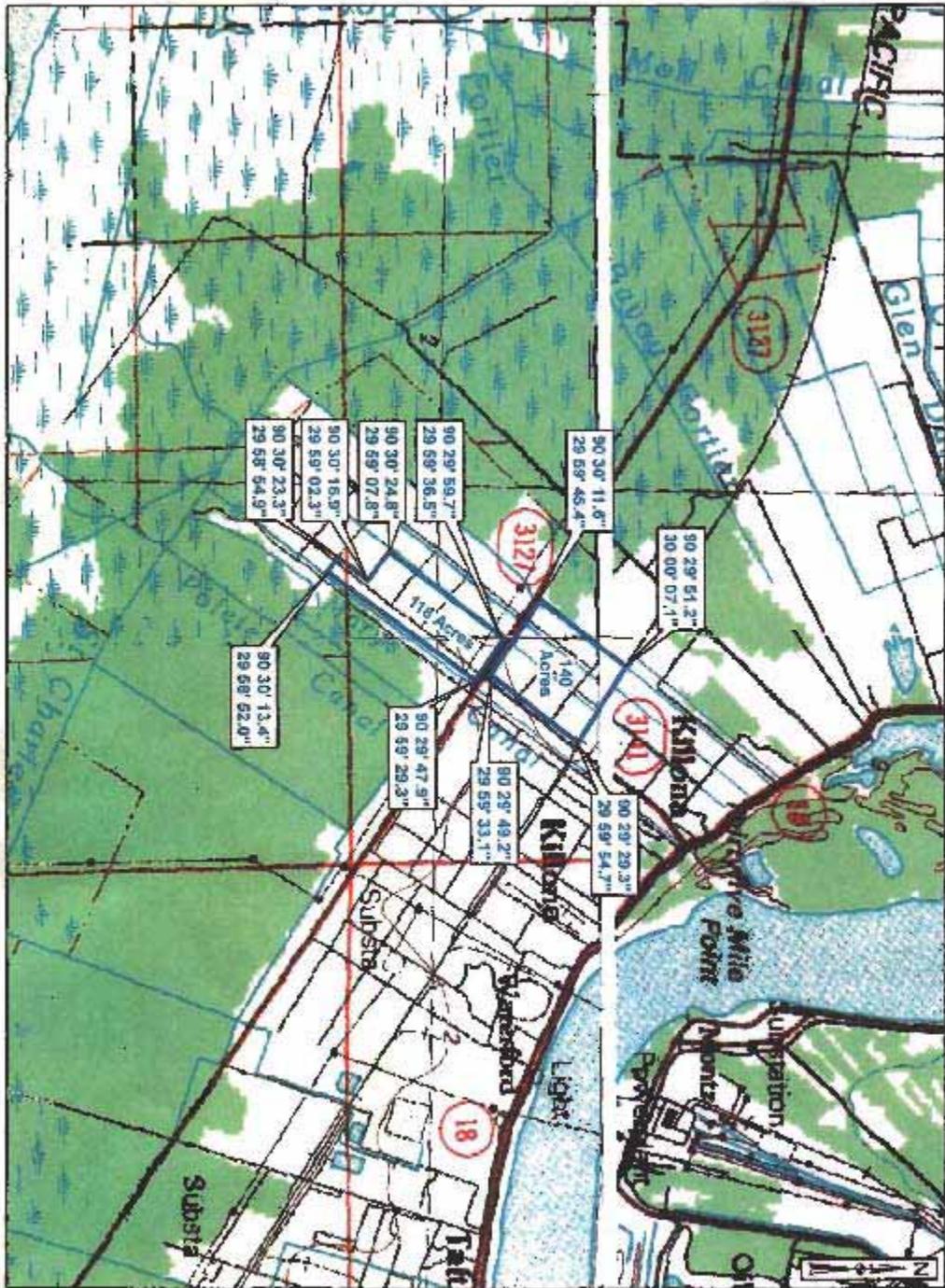
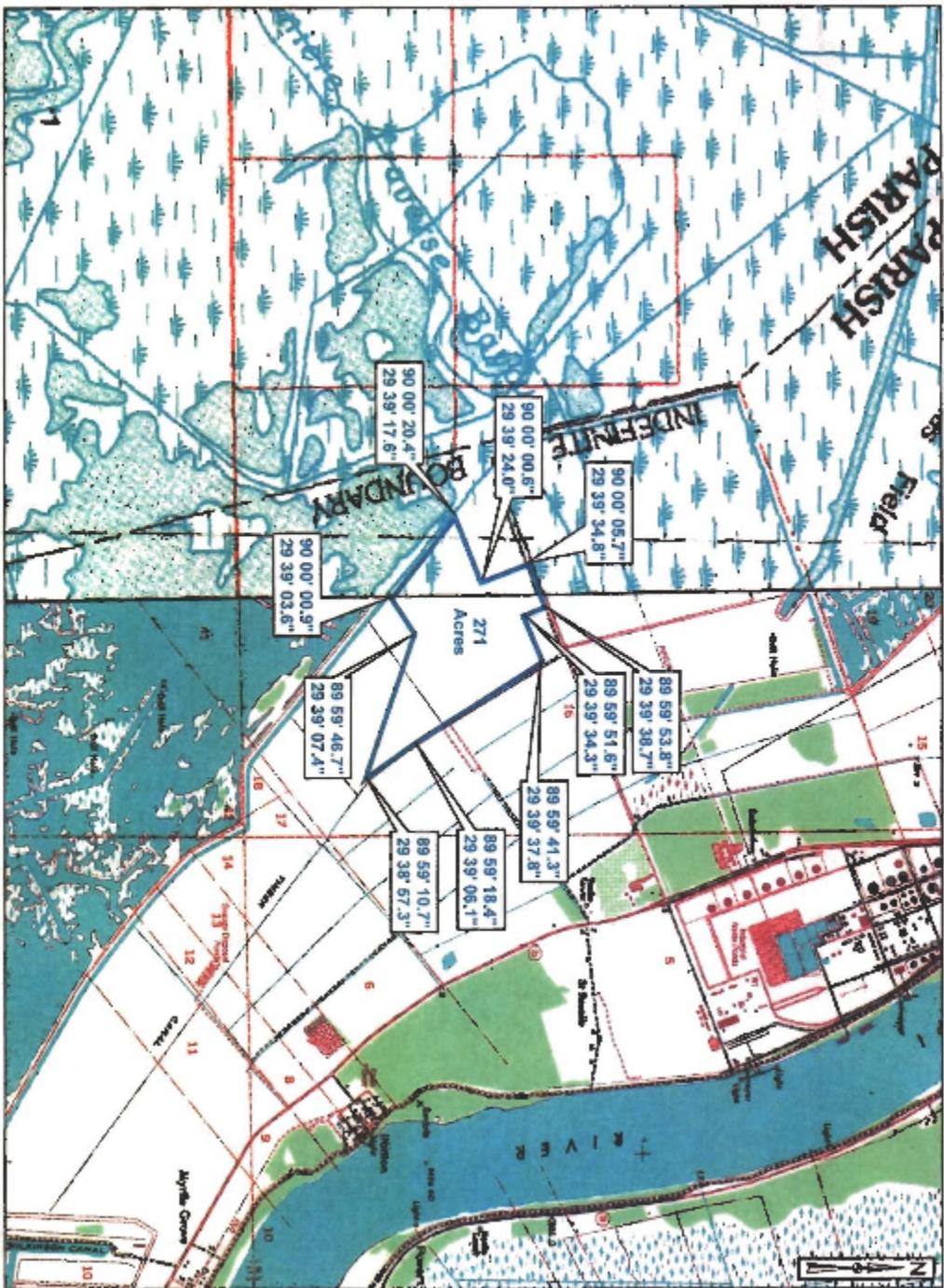


Figure 3: Acosta Proposed Borrow Area



3C Riverside Properties Borrow Pit - St. Charles Parish

Figure 4: 3C Riverside Proposed Borrow Area



Myrtle Grove Borrow Pit - Plaquemines Parish

Figure 5: Myrtle Grove Proposed Borrow Area

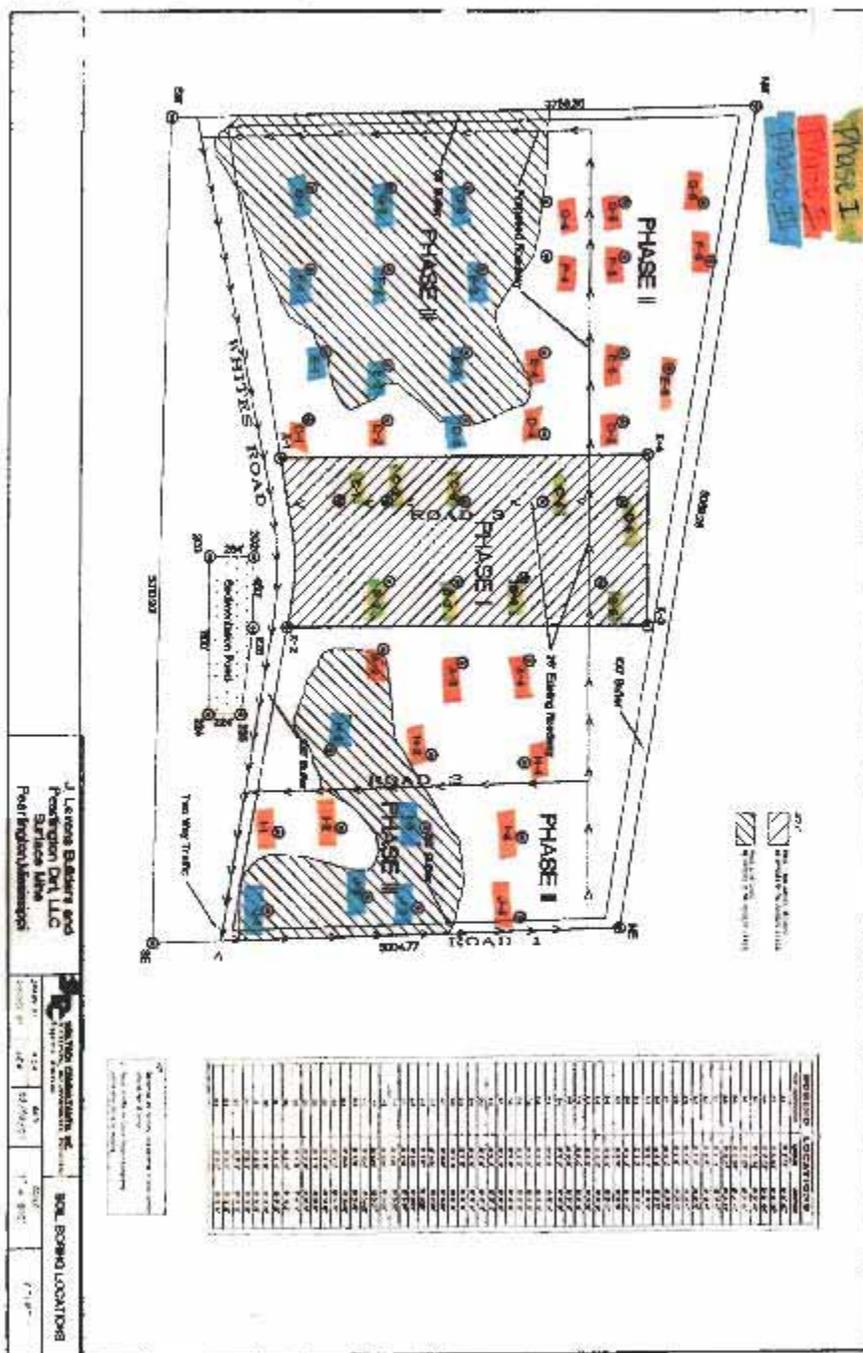


Figure 6: Pearlington Dirt Phase 2 Proposed Borrow Area

2.4 Alternatives to the Proposed Action

Other alternatives to the proposed action were considered, as described below

No Action. Under the No Action alternative, the proposed Pre-Approved Contractor Furnished borrow areas would not be used by contractors awarded a CEMVN GNOSDRRS contract. GNOSDRRS projects would be built to authorized levels using Government and/or Contractor Furnished borrow areas described in IERs # 18 and # 19, 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 proposed action consists of excavating the proposed borrow areas that are discussed in this document. The material would be transported to GNOSDRRS construction sites via truck or barge.

Government Furnished Borrow Material. Due to the large quantities of suitable clay material needed for the GNOSDRRS projects, Government Furnished borrow alternatives were discussed in IER # 18, and additional areas will be discussed in IER # 22 and other future borrow IERs titled Government Furnished Borrow Material. These documents will be released independent of IER # 23, and as such no further discussion of Government Furnished Borrow Material will occur in IER # 23.

Supply Contract Borrow Material. Due to the large quantities of suitable clay material needed for the proposed GNOSDRRS projects, Supply Contract borrow alternatives may be discussed in future IERs. 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.

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 # 23, and as such no further discussion of Supply Contract borrow material will be done in IER # 23.

2.5 Alternative Sites Eliminated from Further Consideration

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

- Pearlinton Dirt Phase 3: The proposed area is located on Whites Road in Hancock County, Mississippi. The area consists of approximately 118.5 acres of jurisdictional pine flatwoods wetlands. CEMVN is currently avoiding potential borrow areas that would impact jurisdictional wetlands. 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 GNOSDRRS, 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).

3. Affected Environment and Environmental Consequences

3.1 Environmental Setting

The proposed borrow areas described in this report are located in St. Bernard, St. Charles, and Plaquemines parishes, Louisiana, and Hancock County, Mississippi. The study area is bounded to the north by Lake Pontchartrain, to the west by the town of Killona, and to the east by Pearllington, Mississippi. 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 Acosta and 1025 Florissant areas are located in a rural area of St. Bernard Parish. The 3C Riverside areas are located in rural areas of St. Charles Parish. The Myrtle Grove area is located in a rural area of Plaquemines Parish. The Pearllington Dirt Phase 2 area is located in rural area of Hancock County, Mississippi.

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 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% 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% sand content.

The USACE Hurricane and Storm Damage Reduction System Design Guidelines, of which the soil standards previously discussed 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 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. An implementation plan for an external review is currently being finalized.

Geotechnical borings were collected at each area to determine the suitability of the material for levee construction use. The borings were spaced to adequately define the material in the area, but in no case spaced greater than 500 feet on center. Borings along the proposed borrow area boundary were located no further than one-half of the boring spacing in the area or 250 feet, whichever was less.

The soils were classified, logged, and recorded within seven days of obtaining the samples in the field. The Unified Soil Classification System was used in classifying the soils. A water content determination was made and recorded on all samples classified as fat clay (CH), lean clay (CL), and silt (ML) at one foot intervals (recommended) or two foot intervals (required). For (CH), (CL), and (ML) soils, Atterberg Limits and Organic Content Testing (American Society of Testing and Materials [ASTM] D 2974, Method C), was required every five feet (minimum). Samples with moisture contents at 70% or higher or having a Liquid Limit of 70 or higher were tested for organic content, as well as for a sample two feet above and two feet below that sample (2.5 feet also acceptable). Grain size distribution determinations including both sieve (#200 sieve required) and hydrometer testing was required for samples that classify as CL with a PI greater than 10 for two or more consecutive feet, but not more than one test every five 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 were analyzed for potential borrow use by 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.

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 CEMVN, or on www.nolaenvironmental.gov, which offers information on the ecological and human value of these resources, as well as the laws and regulations governing each resource. Search for “Significant Resources Background Material” in the 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

Significant Resource	Impacted	Not Impacted
Jurisdictional Wetlands/Bottomland Hardwood Forest		X
Non-Wetland Resources/Upland Resources	X	
Navigable Waters	X	
Prime and Unique Farmland	X	
Fisheries	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, CEMVN is working diligently to avoid impacts to Clean Water Act Section 404 jurisdictional wetlands, associated with providing borrow material for authorized and 100-year hurricane protection construction. 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. CEMVN will coordinate with governmental agencies and the public if jurisdictional wetland may be impacted during future proposed borrow activities.

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. Some understory species include dewberry, lizard’s tail, 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.

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

- The CEMVN jurisdictional wetland determination MVN-2006-2017-SY dated 01 August 2006 at the proposed 1025 Florissant Highway borrow area indicated no jurisdictional wetlands are located on the site. A canal on the north side of the property is designated as a Section 404 waters of the U.S.,
- The CEMVN jurisdictional wetland determination MVN-2007-3294-SU dated 30 January 2008 at the proposed Acosta borrow area indicated no jurisdictional

wetlands are located on the site. A canal on the south side of the property is designated as a Section 10 waters of the U.S.

- The CEMVN jurisdictional wetland determination MVN-2007-760-SY dated 06 April 2007 at the proposed 3C Riverside borrow area indicated no jurisdictional wetlands are located on the 118 acre site. A canal located on the southeastern property is designated as a Section 404 waters of the U.S.. The CEMVN jurisdictional wetland determination MVN-2007-1839-SY dated 26 June 2007, indicated no jurisdictional wetlands are located on the 146 acre site.
- The CEMVN jurisdictional wetland determination MVN-2007-750-SZ dated 13 June 2007 at the proposed Myrtle Grove borrow area indicated no jurisdictional wetlands are located on the site.
- The USACE Vicksburg District (CEMVK) jurisdictional wetland determination MVK-2006-1647 dated 08 May 2007 at the proposed Pearlington Dirt Phase 2 borrow area indicated some jurisdictional wetlands are located adjacent to the site, but not within the proposed site. These adjacent wetlands would not be impacted by borrow excavation.

Discussion of Impacts

No Action

With implementation of this alternative, no direct or indirect impacts to jurisdictional wetlands through CEMVN actions would occur at the proposed borrow areas. GNOSDRRS projects would be built to authorized levels using potential Government and Contractor Furnished borrow areas described in IERs # 18, # 19, or other sources as yet to be identified.

Proposed Action

With implementation of the proposed action, no direct or indirect 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 GNOSDRRS 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 1025 Florissant Highway borrow area would not directly impact the canal designated as Section 404 waters. BMPs would be implemented to ensure no indirect impacts to the canal.

The borrow area management plan of the proposed 3C Riverside borrow area would not impact the canal designated as Section 404 waters. BMPs would be implemented to ensure no indirect impacts to the canal.

The proposed Pearlington Dirt Phase 2 borrow area would not impact jurisdictional wetlands adjacent to it. The contractor is responsible for leaving an adequate buffer zone between the borrow area and the jurisdictional wetlands. BMPs would be implemented to ensure no indirect impacts to the wetlands.

3.2.2 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, Brazilian vervain, and eastern false-willow. 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 1025 Florissant Highway area is 3 acres of maintained and unmaintained pasture land.
- The Acosta area is 25 acres of maintained pasture land.
- The 3C Riverside area is comprised of two sites. The first site is 118 acres and the second site is 146 acres. Both parcels are currently utilized as farmland.
- The Myrtle Grove area is 271 acres of maintained pasture land.
- The Pearlington Dirt Phase 2 area is 110 acres of loblolly pine.

Discussion of Impacts

No Action

With implementation of this alternative, no direct or indirect impacts to non-wetland resources/upland resources through CEMVN actions would occur at the proposed borrow areas. GNOSDRRS projects would be built to authorized levels using Government and Contractor Furnished borrow areas described in IERs # 18 and #19, or other sources as yet to be identified.

Proposed Action

With implementation of the proposed action, non-wetland resources/upland resources would be cleared and excavated. The areas would be converted to 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.

3.2.3 Prime and Unique Farmland

Existing Conditions

Three proposed borrow areas contain prime and unique soils according to the National Resources Conservation Service (NRCS) (Table 2).

Table 2: Prime and Unique Farmland Soils Present

Site Name	Parish	Soil map unit(s)	Prime Farmland	Acres of Prime and Unique Farmland
1025 Florissant Hwy	St. Bernard	Clovelly Muck	Yes	0.7
Acosta	St. Bernard	Schriever silty clay loam		

		Cancienne silty clay loam	Yes	25
		Schriever silty clay loam		
3C Riverside	St. Charles	Cancienne silt loam	Yes	258
		Cancienne silty clay loam		
		Schriever silty clay loam		
Myrtle Grove	Plaquemines	Schriever clay	No	N/A
		Harahan clay		
Pearlington Dirt Phase 2	Hancock County	Allemands muck	No	N/A
		Beauregard silt loam		
		Guyton silt loam		
		Trebloc association		

Discussion of Impacts

No Action

With implementation of this alternative, no direct or indirect impacts to prime and unique farmland through CEMVN actions would occur at the proposed borrow areas. GNOSDRRS projects would be built to authorized levels using Government and Contractor Furnished borrow areas described in IERs # 18 and # 19, or other sources as yet to be identified.

Proposed Action

With implementation of the proposed action, prime and unique farmlands would be cleared and excavated. Removing soils from these proposed borrow areas would result in a permanent loss of prime and unique farmlands, and the areas would no longer be available for farming. The proposed borrow areas would most likely fill with water and be converted 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.

3.2.4 Fisheries

Existing Conditions

The proposed borrow areas at 1025 Florissant Highway and Acosta contains small ponds. They do not support viable fisheries systems. There are no known fisheries resources at the other three proposed borrow areas.

Discussion of Impacts

No Action

With implementation of this alternative, no direct or indirect impacts to fisheries through CEMVN actions would occur at the proposed borrow areas. GNOSDRRS projects would be built to authorized levels using Government and Contractor Furnished borrow areas described in IERs # 18 and # 19, or other sources as yet to be identified.

Proposed Action

With implementation of the proposed action, upland areas and existing small ponds would be excavated. Dry land sites may be converted to ponds and small lakes. The areas could provide fishery habitats if stocked by landowners, which would not be inconsistent with other land uses near the proposed project areas. Fish that may thrive in ponds include mosquitofish, killifish, shortnose and spotted gar, redbfin shad, bass, bluegill, and catfish. If overburden is sufficient, sloped and fringe shallows could be created to provide shallows for both near edge and submergent vegetative growth. Overburden material would be used, to the maximum extent practicable, to create fringe wetlands and fishery habitats.

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.

Discussion of Impacts

No Action

With implementation of this alternative, no direct or indirect impacts to wildlife through CEMVN actions would occur at the proposed borrow areas. GNOSDRRS projects would be built to authorized levels using Government and Contractor Furnished borrow areas described in IERs # 18 and # 19, or other sources as yet to be identified.

Proposed Action

With implementation of the proposed action, wildlife would be displaced when the areas are excavated. The areas may be converted to ponds and small lakes. At that time, some 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 CEMVN, are responsible for mosquito control.

3.2.6 Threatened and Endangered Species

Existing Conditions

There are no known T&E species, or critical habitats, in the vicinity of any of the proposed borrow areas.

Discussion of Impacts

No Action

With implementation of this alternative, no direct or indirect impacts to T&E species through CEMVN actions would occur at the proposed borrow areas. GNOSDRRS projects would be built to authorized levels using Government and Contractor Furnished borrow areas described in IERs # 18 and # 19, or other sources as yet to be identified.

Proposed Action

The proposed action is not likely to adversely affect these T&E species or their critical habitats. The USFWS concurred with the CEMVN that excavation of any proposed borrow areas would not be likely to adversely affect T&E species or their critical habitat (Table 3).

Table 3: USFWS T&E Concurrence

Proposed Borrow Area	USFWS Concurrence
1025 Florissant	9 August 2007
Acosta	2 July 2007
3C Riverside	27 July 2007
Myrtle Grove	29 January 2007
Pearlington Dirt Phase 2	14 January 2008

3.2.7 Cultural Resources

Existing Conditions

Cultural resources have been considered for each proposed borrow area (Table 4). The level of investigation varied depending on the probability of cultural resources being located within the project area. Investigations were geared toward identifying known and previously unrecorded historic properties within proposed borrow areas, and the areas of potential effect (APE). Background research involving review of known resources within the area and the assessing likelihood of cultural resources based on soil and geomorphologic data was completed for all proposed borrow areas. Investigations also included reconnaissance or Phase I archaeological surveys (Lackowicz 2007; Leard and

Smith 2007; Pumphrey and Richardson Seacat 2007; and Rawls 2007). Section 106 of the National Historic Act of 1966, as amended, consultation included correspondence with the State Historic Preservation Officer (SHPO) and Federally recognized Tribes that have an interest in the region.

The results of these investigations revealed that no known listed National Register of Historic Places properties or sites eligible for listing on the National Register of Historic Places exist within the proposed project locations or will be affected by the proposed action.

Archeological surveys in the vicinity of the proposed borrow areas have identified both prehistoric and historic sites in the vicinity of the proposed action (Lackowicz 2007; Leard and Smith 2007; Pumphrey and Richardson Seacat 2007; and Rawls 2007; Wiseman et al 1979). Given the recent geologic development of the Mississippi delta and the age of deposits within the Louisiana project areas, archaeological sites are not expected to date prior to the Poverty Point Phase (1700 – 500 B.C.) (Wiseman et al 1979). Prehistoric 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, and on older stable portions of the delta, and in association with freshwater marshes. Similarly, historic period sites, such as forts plantations, and industrial features tend to be located on levees and waterways. The dynamic nature of flooding and sedimentation from the Mississippi River has likely buried some archeological sites, and subsidence has likely inundated others.

Three of the proposed borrow areas (Myrtle Grove, Acosta, and 1025 Florissant) are located in drained backswamps. While backswamps were utilized for resource extraction during both prehistoric and historic periods, there is little evidence of occupation in this habitat, and thus the likelihood for the presence of undiscovered cultural sits within these project areas remains low. The proposed 3C Riverside Properties borrow area lies partially within natural levee soils. Archaeological survey of this property (Lackowicz 2007) failed to identify any unrecorded sites. The proposed 3C Riverside Properties borrow is located in the vicinity the “German Coast,” the location of a short-lived eighteenth Century German settlement (Deiler 1970; Blume 1990 (translated)). Given the short-term occupation, archaeological deposits of the German Coast are expected to be ephemeral; however, intensive survey of the proposed borrow area did not identify sites within the APE (Lackowicz 2007).

The proposed Pearlington Dirt Phase 2 borrow area lies within the physiographic district Coastal Flatwoods of the Gulf Coastal Plain (Faulkner 2005). Geomorphological development of the Coastal Plain differs from the Mississippi Delta lobes of southeastern Louisiana. While the geomorphology allows for the presence of archaeological sites, survey of the proposed borrow area did not identify any cultural resources within the APE (Pumphrey and Richardson Seacat 2007: 3).

Table 4: Summary of Section 106 of NHPA correspondence

Proposed Contractor Furnished Borrow Area	Parish	CEMVN letter date	SHPO	Chitimacha Tribe of Louisiana ¹	Mississippi Band of Choctaw Indians	Choctaw Nation of Oklahoma	Alabama Coushatta Tribe of TX ¹	Caddo Nation of OK ¹	Coushatta Tribe of LA ¹	Jena Band of Choctaw Indians	Quapaw Tribe of OK ¹	Seminole Nation of OK ¹	Seminole Tribe of FL ¹	Tunica-Biloxi Tribe of LA	Chickasaw Nation ²
1025 Florissant	St. Bernard	Sept. 26, 2006 ⁴ Nov. 16, 2007	Oct. 26, 2006	Dec. 21, 2007*	Dec. 21, 2007*	Dec. 21, 2007*	Dec. 21, 2007*	Dec. 21, 2007*	Dec. 21, 2007*	Dec. 21, 2007*	Dec. 21, 2007*	Dec. 21, 2007*	Dec. 21, 2007*	Dec. 21, 2007*	
³ C Riverside Properties	St. Charles	Oct. 24, 2007	Dec. 6, 2007	Dec. 6, 2007*	Dec. 6, 2007*	Nov. 30, 2007	Dec. 6, 2007*	Dec. 6, 2007*	Dec. 6, 2007*	Dec. 6, 2007*	Dec. 6, 2007*	Dec. 6, 2007*	Dec. 6, 2007*	Dec. 6, 2007*	
Myrtle Grove	Plaquemines	Nov. 10, 2006 ³ Nov. 16, 2007	Dec. 19, 2006	Dec. 21, 2007*	Dec. 21, 2007*	Dec. 21, 2007*	Dec. 21, 2007*	Dec. 21, 2007*	Dec. 21, 2007*	Dec. 21, 2007*	Dec. 21, 2007*	Dec. 21, 2007*	Dec. 21, 2007*	Dec. 21, 2007*	
Acosta	St. Bernard	Sept. 19, 2007	Oct. 19, 2007	Oct. 22, 2007*	Oct. 22, 2007*	October 15, 2007	Oct. 22, 2007*	Oct. 22, 2007*	Oct. 22, 2007*	Oct. 22, 2007*	Oct. 22, 2007*	Oct. 22, 2007*	Oct. 22, 2007* ^v	Oct. 22, 2007*	
Pearlington Dirt	Hancock County, MS	Oct. 3, 2007 Dec. 3, 2007	Nov. 22, 2006		Nov. 5, 2007	Dec. 5, 2007				Nov. 5, 2007				Nov. 5, 2007	Nov. 5, 2007

¹ Tribe consults on projects in Louisiana only.

² Tribe consults on projects in Mississippi only.

³ Correspondence sent to SHPO by Earth Search Inc.

⁴ Correspondence sent to SHPO by David Palmer, landowner of 1025 Florissant.

* 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).

Discussion of Impacts

No Action

Without implementation of the proposed action no direct impacts to cultural resources are anticipated. Any undiscovered or unreported cultural resources or traditional cultural properties will likely 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. GNOSDRRS projects would be built to authorized levels using Government and Contractor Furnished borrow areas described in IERs # 18 and # 19, or other sources as yet to be identified.

Proposed Action

With implementation of the proposed action, any undiscovered cultural resources may be damaged during borrow excavation and construction operations. 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 areas.

3.2.8 Recreational Resources

Existing Conditions

The region in which the proposed actions are to take place is rich with recreation resources. The potential borrow areas may have some recreational potential, but contain no existing recreational infrastructure or specific features, and are privately owned and not open to public access.

Discussion of Impacts

No Action

Without the proposed action, there should be no direct or indirect impacts to recreation resources. GNOSDRRS projects would be built to authorized levels using Government and Contractor Furnished borrow areas described in IERs # 18 and # 19, or other sources as yet to be identified.

Proposed Action

The proposed actions will not directly or indirectly impact existing recreation resources in the region. 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), but these benefits are expected to be minimal and sites would not be open to public access.

3.2.9 Noise Quality

Existing Conditions

Some of the proposed borrow areas are located near highways, interstates, and residential areas, while others are located in rural areas. Currently, sound levels in and around the proposed areas are expected to be moderate. The primary producers of sound would be from traffic, people, and, wildlife. Local traffic may have short-term sound levels that are high.

Discussion of Impacts

No Action

With implementation of this alternative, no direct or indirect impacts to noise quality through CEMVN actions would occur at the proposed borrow areas. Noise quality may be impacted by non-Federal actions if the landowner chooses to use the land as a borrow source for other purposes. GNOSDRRS projects would be built to authorized levels using Government and Contractor Furnished borrow areas described in IERs # 18 and # 19, or other sources as yet to be identified.

Proposed Action

With implementation of the proposed action there would be an elevation of noise levels during construction. This noise would be associated with construction equipment such as bulldozers, excavators, haul trucks, and/or chainsaws. Portable pumps would also be used if needed. Elevated noise levels may impact nearby residents. However, these impacts are expected to be constrained to construction hours.

3.2.10 Air Quality

Existing Conditions

As of June 15, 2005, the 1-hour ozone standard for the Metropolitan New Orleans 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 not subject to any conformity requirements of the Clean Air Act, or in other words, these parishes are now in attainment of the 8-hour ozone standard and all other criteria pollutant National Ambient Air Quality Standards (NAAQS). The parishes listed above are currently in attainment of all NAAQS. This classification is the result of area-wide air quality modeling studies. Hancock County, Mississippi, which is where the Pearlington Dirt Phase 2 proposed borrow area is located, is in a NAAQS attainment area.

Discussion of Impacts

No Action

With implementation of this alternative no direct or indirect impacts to air quality through CEMVN actions would occur at the proposed borrow areas. GNOSDRRS projects would be built to authorized levels using Government and Contractor Furnished borrow areas described in IERs # 18 and # 19, or other sources as yet to be identified.

Proposed Action

With implementation of the proposed action, there would be short-term impacts to air quality that would result from the construction of borrow areas in St. Bernard, St. Charles, and Plaquemines parishes, and Hancock County 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_x), carbon monoxide (CO), ozone (O₃) and sulfur oxides (SO_x) emissions from diesel engine combustion. The construction equipment and haul trucks should have catalytic converters and mufflers to reduce exhaust emissions. Contractors are required to obtain appropriate air quality permits from the Louisiana Department of Environmental Quality (LDEQ) before construction.

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. 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.

3.2.11 Water Quality

Existing Conditions

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 or indirect impacts to water quality through CEMVN actions would occur at the proposed borrow areas. GNOSDRRS projects would be built to authorized levels using Government and Contractor Furnished borrow areas described in IERs # 18 and # 19, or other sources as yet to be identified.

Proposed Action

Despite the use of BMPs, with implementation of the proposed action there would be some disturbances to water quality in the immediate vicinity of the proposed borrow areas. The 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. 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. Disturbance of water quality would be temporary, confined, and short lived.

3.2.12 Transportation

Existing Conditions

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

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

- St. Bernard Parish: The proposed 1025 Florissant Highway borrow area is located on Florissant Highway, on the north side of the Highway. The proposed Acosta borrow area is located on the north side of Highway 46.
- St. Charles Parish: The proposed 3C Riverside borrow area is located in Killona, Louisiana on Highway 3127. The 118 acre site is located across from the intersection of Highway 3127 and Highway 3141 on the south side. The 140 acre site is located north of the intersection at Highway 3127 and Highway 3141.
- Plaquemines Parish: The proposed Myrtle Grove borrow area is located at 1051 West Ravenna Road, which intersects Highway 23 on the east side of the Highway.
- Hancock County: The proposed Pearlinton Dirt Phase 2 borrow area fronts Whites Road, which leads into Highway 90 to the east and Highway 604 to the west.

Discussion of Impacts

No Action

With implementation of this alternative, no direct or indirect impacts to transportation routes through CEMVN actions would occur at the proposed borrow areas. GNOSDRRS projects

would be built to authorized levels using Government and Contractor Furnished borrow areas described in IERs # 18 and # 19, or other sources as yet to be identified.

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. The 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.

- St. Bernard Parish: The proposed 1025 Florissant and Acosta areas are located on road segments that do not presently receive heavy traffic loads. If these proposed borrow areas are used, material would more than likely be used for GNOSDRRS 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.
- St. Charles Parish: The proposed 3C Riverside borrow area is in a rural area, and material excavated would likely be used on GNOSDRRS construction sites within the area. However, the material from these sites could be loaded onto barge and transported south to other GNOSDRRS projects in the New Orleans Metropolitan Area.
- Plaquemines Parish: The proposed Myrtle Grove borrow area is in a rural area, and material excavated would likely be used on GNOSDRRS construction sites within 20 miles of the proposed borrow area.
- Hancock County: The Pearlinton Dirt Phase 2 area is located in a rural area. The material from this site could be loaded onto barge or truck and transported to GNOSDRRS projects in southeastern Louisiana.

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.

3.2.13 Aesthetic (Visual) Resources

Existing Conditions

Most of the proposed borrow areas contain similar land use patterns (i.e., former- or presently-cultivated land) in the immediate and adjacent areas and, generally, they lack distinct qualities that make them visually significant. However, the 3C Riverside and Florissant proposed borrow areas are adjacent to residential areas. Noteworthy is the physical condition of the area surrounding the proposed Florissant borrow area, as it remains scarred from the effects of Hurricane Katrina. Other proposed borrow areas are visually remote and inaccessible.

Discussion of Impacts

No Action

With implementation of this alternative, no direct or indirect impacts to visual resources through CEMVN 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. GNOSDRRS projects would be built to authorized levels using Government and Contractor Furnished borrow areas described in IERs # 18 and # 19, or other sources as yet to be identified.

Proposed Action

It is recognized that some proposed borrow areas in St. Bernard Parish are located near the San Bernardo Scenic Byway. Current restrictions to development along Louisiana State recognized byways apply only to signage such as advertising billboards. Developmental actions such as borrow areas are not currently restricted. It is also recognized that some proposed borrow areas are adjacent to residential areas where their existence may not be considered as positive environmental features. However, the Pre-Approved Contractor Furnished borrow areas must conform to local zoning ordinances and land use regulations, and, in so doing, not violate public and local governmental expectations of private property land use norms.

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 five areas in the vicinity of the New Orleans Metropolitan Area. This borrow material would be used to construct Federal GNOSDRRS projects, usually in the same parish where it is acquired.

3.3.1 Population and Housing, Business and Industry, Property Values & Public Facilities & Services

Existing Conditions

Mostly 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. The close proximity of the proposed borrow areas to additional urban developments adds value to the adjacent area, commercial and residential property values, public facilities and services, utilities public transit, safe highways, streets and bridges, police and fire protection facilities and services, schools and educational services, hospitals and health care services, and the many other public facilities and services of Federal, State, and local government.

Of the three parishes in Louisiana and one county in Mississippi discussed in this report, the specified median value of homes ranged from \$85,200 in St. Bernard Parish to as high as \$110,100 in Plaquemines Parish. The ‘proposed action’ paragraph below indicates the latest and most detailed census information available in regards to the value of residential property in related census tracts (2000 US Census), although all of the sites proposed are on currently vacant property.

Discussion of Impacts

No Action

With implementation of this alternative, Federal GNOSDRRS projects would be built to authorized levels using Government and Contractor Furnished borrow areas described in IERs # 18 and # 19, or other sources as yet to be identified. No incremental effects on population and housing, business and industry, property values, and public facilities and services relative to the proposed action are anticipated.

Proposed Action

Planning for the proposed action has attempted to balance the cost and need for storm surge risk reduction with consideration of property values, public facilities and services, and

potential impacts to the local tax base. The borrow materials are used to enhance authorized storm surge risk reduction systems, thus adding value for various purposes ranging from industrial, commercial, residential, institutional, and public.

The proposed borrow areas are privately owned parcels that could be utilized as borrow areas with or without the Federal project. While some diminution in adjacent property values may occur, the Pre-Approved Contractor Furnished borrow areas must conform to local zoning ordinances and land use regulations, and, in so doing, not violate public and local governmental expectations of private property land use norms.

The proposed 1025 Florissant and Acosta borrow areas in St. Bernard Parish cover 3 and 29 acres, respectively, within the Lake Pontchartrain and Vicinity GNOSDRRS. The sites are current uninhabited and used as pasture, and are within a sparsely populated rural area. The proposed sites are located in census group 301.01.01, with a specified median value for owner-occupied housing units of \$70,100.

The proposed 3C Riverside area consists of two sites of farmland in St. Charles Parish, totaling 258 acres. The sites are located within the Lake Pontchartrain and Vicinity hurricane protection system. These proposed areas are located in census group 627.01 with a specified median value for owner-occupied housing units of \$94,900. The area is sparsely populated, with a small development nearby.

The proposed Myrtle Grove area in Plaquemines Parish contains 271 acres. The site is located within the Plaquemines Parish West Bank Non-Federal Levee Project vicinity. It is part of census group 504.01, with specified median value for owner-occupied housing units of \$61,900. The area around the site contains some industrial facilities, but the actual site is currently uninhabited and used as pasture.

The Pearlington Dirt site is located in Hancock County, Mississippi, and contains 110 acres. The site is located in census group 304.02, with a specified median value for owner-occupied housing units of \$49,800. The site is uninhabited and relatively far from residential development.

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.

3.3.2 Health and Safety and Flood Control & Hurricane Protection

Existing Conditions

The proposed borrow areas fall within existing storm damage risk reduction areas of St. Bernard, St. Charles, and Plaquemines parishes, in addition to one area in Hancock County, Mississippi. 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 of 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 of the proposed project areas. Hurricanes Katrina and Rita, which occurred in August and September of 2005, respectively, created heavy damage that required an immediate effort to restore protection to people and property as soon as possible.

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

Discussion of Impacts

No Action

With implementation of this alternative Federal GNOSDRRS projects would be built to authorized levels using Government and Contractor Furnished borrow areas described in IERs # 18 and # 19, or other sources as yet to be identified. Under this alternative there would be no impact to health and safety at the specified areas.

Proposed Action

With implementation of the proposed action suitable material would be excavated from the proposed borrow areas. This is the process that was historically used to create most of the storm surge 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 areas 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 areas during the excavation period may raise 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, but the contractor would be required to follow USACE BMPs to minimize these impacts. Changes in water and air quality would last only through the period of excavation.

Whether back filled or not, altering property contours so as to flood a neighbor's property is not allowed under Louisiana law.

One potential adverse health impact due to the excavation of borrow material would be a problem with mosquitoes. If borrow areas are not backfilled, and are instead allowed to fill with water, increased breeding of mosquitoes may occur. However, mosquito control is part of the responsibilities of local parishes, not CEMVN.

No impacts to health and safety facilities are expected as a result of this alternative.

3.3.3 Employment, Income and Local Tax Base

Existing Conditions

Except for areas used as pasture or farmland, the proposed areas are not currently used for business and industrial purposes generating employment. Non-wetland areas in close proximity to urban areas, however, provide value and potential income. The project areas total almost 700 acres within close proximity to urban developments of the New Orleans Metropolitan Statistical Area (MSA).

Discussion of Impacts

No Action

With implementation of this alternative, Federal GNOSDRRS projects would be built to authorized levels using Government and Contractor Furnished borrow areas described in IERs # 18 and # 19, or other sources as yet to be identified. The collection of alternative material may be an added cost to the project that would be reflected in the project

construction cost. However, no incremental impacts on employment, income, and local tax base relative to the proposed alternative are expected.

Proposed Action

Some of the proposed sites were previously or currently used as pasture or farmland. 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. There are no anticipated disruptions to commercial activities in the areas near the borrow sites. Therefore, no disruptions to income and public tax collections are expected. 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.

To the extent that the execution of the contract to provide borrow material provides taxable income to the property owner, Federal, state, and local tax collections may increase. In a broader sense, the construction activities themselves invariably require the hiring of labor resources that results in higher incomes, personal spending, and potential governmental tax revenues.

3.3.4 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. Similarly to other references to social and economic conditions, community and regional growth has been heavily dependent on the unique flood and hurricane protection 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 GNOSDRRS projects would be built to authorized levels using Government and Contractor Furnished borrow areas described in IERs # 18 and # 19, or other sources as yet to be identified. No incremental impacts with respect to the proposed action are expected.

Proposed Action

The proposed project would advance community growth by advancing the 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 community will increase.

Additionally, construction activities will advance community growth by increasing traffic to the areas around the borrow sites. This increased activity will likely benefit area businesses.

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.

3.3.5 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.

Discussion of Impacts

No Action

With implementation of this alternative, Federal GNOSDRRS projects would be built to authorized levels using Government and Contractor Furnished borrow areas described in IERs # 18 and # 19, or other sources as yet to be identified. 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 negative and positive 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 measures 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.

Under the contractor furnished borrow program, material will only be acquired from willing sellers. Those who do not wish to have Pre-Approved Contractor Furnished borrow material removed from their properties do not have to enroll in the program. As such, there should be no adverse impact to the extent that these decisions do not create a significant and long-lasting divisiveness within community affairs that risk the patterns of existing social interaction.

While the proposed borrow areas are located on unpopulated tracts of land, there may be nearby residents or business operators who disapprove of proximate sites being used as sources of borrow materials. This would be seen as a threat to the cohesion of the local community through the adverse visual impact that would result from the activity. Within this understanding of community cohesion, however, such cohesion is linked to a direct impact on a social resource area, aesthetics, which is addressed separately and cannot be otherwise determined to materially affect the patterns of social interaction that the physical landscape and supporting human infrastructure facilitates.

Further, while the adverse impact to aesthetic values can be expected from the proposed projects, and a possible diminution in adjacent property values may occur, the Pre-Approved Contractor Furnished borrow areas must nonetheless conform to local zoning ordinances and land use regulations, and, in doing so, not violate public and local governmental expectations of private property land use norms.

3.4 Environmental Justice

Existing Conditions

- 1025 Florissant and Acosta

The proposed 1025 Florissant borrow area is approximately two miles east of the proposed Acosta borrow area. The 2000 US Census demographic and income data (based on Block level data) showed that the area was not minority, with greater than 90% of its population categorized as non-Hispanic White.

Except for the very sparsely settled area along Highway 46, areas in St. Bernard Parish within a one-mile radius of the proposed project are currently uninhabited.

- 3C Riverside

The proposed 3C Riverside borrow area consists of two sites located on Highway 3127 in St. Charles Parish. These two borrow sites are within the community of Killona, LA, a predominantly lower income, African American/Black community of nearly 800 residents on the west bank of the parish.

According to the 2000 US Census, the Killona population was approximately 93% African American, with a poverty rate of 41%. St. Charles Parish had a poverty rate of 11% and was 38% minority as of 2000. Based on 2007 estimates produced by ESRI, Inc., the demographic and economic profile of Killona has changed very little since the 2000 Census; Killona is currently a low-income and minority community.

- Myrtle Grove

The 2000 Census reported that the block, which comprises Myrtle Grove, Block 5 of Census Tract 504, Block Group 1, had only 12 residents, of which only two were minority. The Census does not report income at the block level.

The area has been developed as the Myrtle Grove Marina Estates, a higher end, waterfront residential development taking advantage of water access to inland lakes and bays through the Myrtle Grove Marina. Because the development occurred in the past few years, the census data may not reflect this change in demographics.

The community of Myrtle Grove is likely not a low-income or minority community.

- Pearlington Dirt Phase 2

According to the 2000 Census, the town of Pearlinton was not a minority or low-income community. The minority population percentage was 23.6%, compared to the Mississippi State percentage of 39.3% and the Hancock County percentage of 11.1%. The percentage of persons living below the poverty line as of 2000 was 17.6%, compared to the State percentage of 19.9% and the County percentage of 14.4%. While Pearlinton has a disproportionately higher percentage of minority and low-income persons when compared to Hancock County, it is less than State percentages.

According to recent estimates provided by ESRI, Inc., the demographic and economic background of Pearlinton, MS has changed very little since 2000. Therefore, it is unlikely that low-income and/ or minority communities have increase in Pearlinton from 2000 to 2007. The proposed borrow area is not immediately adjacent to any inhabited areas, but is within a one-mile radius of the developed northeast portion of the Pearlinton community.

Discussion of Impacts

The proposed action was evaluated for potential disproportionately high environmental effects on minority or low-income populations. Further environmental justice analysis will be included in the CED. Aerial photos were utilized to confirm the presence of habitation in the various project areas.

No Action

Under the No Action alternative, GNOSDRRS projects would be built to authorized levels using Government and Contractor Furnished borrow areas described in IERs # 18 and # 19, or other sources as yet to be identified. Not using the five 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.

Proposed Action

The proposed action would benefit all residents of the New Orleans Metropolitan Area equally by providing the material necessary to construct the GNOSDRRS. Further, Pre-Approved Contractor Furnished borrow material would only be acquired from willing sellers. Those who do not wish to have borrow material removed from their properties do not have to enroll in the program. As such, there should be no adverse impacts to community growth and cohesion under the proposed action.

- 1025 Florissant and Acosta
Because this area is rural and very sparsely populated, and due to the general absence of human habitation near this area in lower St. Bernard Parish, no potential impacts to low income or minority communities have been identified.
- 3C Riverside
Killona is currently a low-income and minority community. No disproportional impacts to low income or minority communities have been identified.
- Myrtle Grove
Since the Myrtle Grove community is likely not a low-income or minority community, no potential impacts to low income or minority communities have been identified.
- Pearlington Dirt Phase 2
Pearlington is not a minority or low-income community. No potential impacts to low income or minority communities have been identified.

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 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 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 CEMVN and is incorporated herein by reference. Copies of these reports are available by requesting them from CEMVN, or accessing them at www.nolaenvironmental.gov.

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

- The Phase I ESA for 1025 Florissant was completed on 11 September 2007. No RECs were identified.
- The Phase 1 ESA for Acosta was completed on 04 July 2007. No RECs were identified.
- The Phase I ESA for 3C Riverside was completed on 23 July 2007. No RECs were identified.
- The Phase I ESA for Myrtle Grove was completed on 27 November 2007. No RECs were identified.
- The Phase I ESA for Pearlinton Dirt Phase 2 was completed on 9 November 2007. No RECs were identified.

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.

Borrow material has been obtained in the past by CEMVN for GNOSDRRS and other projects in southeastern Louisiana. CEMVN has been working at an accelerated schedule to rehabilitate the GNOSDRRS system after Hurricanes Katrina and Rita, and has a goal of building the system to

authorized levels by June 2011. Over 100,000,000 cubic yards of borrow material is 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. 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 IHNC 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 CEMVN projects 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 100,000,000 cubic yards of material would be needed to raise levee elevations regionally to meet the needs of the GNOSDRRS. 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 future IERs.

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 GNOSDRRS construction, would contribute cumulatively to land alteration and loss in southeastern Louisiana/southwestern Mississippi (Proposed Action). After borrow area excavation, the land may be converted to ponds and small lakes if not backfilled, which may be required per local ordinances. 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/southwestern Mississippi, it is reasonable to anticipate that future activities would further contribute to cumulative degradation of land resources. 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 proposed borrow areas would not result in substantial direct, secondary or cumulative adverse impact on the environment. The mitigation plan is discussed in Section 7.

5. Selection Rationale

The proposed action consists of excavating the proposed Pre-Approved Contractor 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 100,000,000 cubic yards of borrow material to complete the GNOSDRRS, and the proposed action meets approximately 10% of this demand. Because of this need, CEMVN will need to investigate acquiring all potentially viable areas for the next few years. Government Furnished borrow is an option that was explored in IER # 18, and more potential areas may be discussed in IER # 22 and future IERs. Other Pre-Approved Contractor Furnished borrow areas were investigated in IER # 19, 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 GNOSDRRS, 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 GNOSDRRS 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. Scoping for GNOSDRRS 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, CEMVN is hosting monthly public meetings to keep the stakeholders advised of project status. Public input will be provided in Appendix B.

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 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 CEMVN IER projects. The following agencies, as well as other interested parties, are receiving copies of this 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 5).

Table 5: LDNR Coastal Zone Consistency Determination Concurrence

Proposed Borrow Area	LDNR LCRP Consistency Permit Number
1025 Florissant	P20060763
Acosta	P20070851
3C Riverside	P20070558
Myrtle Grove	N/A
Pearlington Dirt Phase 2	DMR-070125

CEMVN received a draft Coordination Act Report (CAR) from the USFWS on 30 January 2008, and an Appendix to the CAR on 29 February 2008 (Appendix D). Recommendations of the USFWS, in accordance with the Fish and Wildlife Coordination Act, include:

Recommendation 1: “[CEMVN] to provide [USFWS] verification that wetland impacts and impacts to non-wet bottomland hardwoods, present and future, have been mitigated.”

CEMVN Response 1: CEMVN will provide verification of mitigation.

Recommendation 2: “[CEMVN] to provide to the [USFWS] maps, descriptions of habitats and impacts for all future contractor-furnished borrow sites.”

CEMVN Response 2: CEMVN will provide maps, etc. to USFWS.

Recommendation 3: “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 3: Concur.

Recommendation 4: “Any proposed change in borrow site features, locations or plans shall be coordinated in advance with [USFWS], NMFS, LDWF, and LDNR.”

CEMVN Response 4: CEMVN will coordinate with these agencies.

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: “If a proposed borrow site is changed significantly or excavation is not implemented within one year, we recommend that [CEMVN] notify the contractor to 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 6: Concur.

7. Mitigation

Mitigation for unavoidable impacts to the human and natural environment described in this and other IERs will be addressed in separate mitigation IERs. 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 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 do not contain any wetlands or non-wet bottomland hardwoods; therefore, no mitigation is necessary.

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 3); Louisiana Department of Natural Resources concurrence with the determination that the proposed action is consistent, to the maximum extent practicable, with the LCRP (Table 5); coordination with the SHPO (Table 4); 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. SHPO has determined that cultural resources would not be adversely impacted by the proposed action.

9. Conclusions

9.1 Interim Decision

The proposed action consists of excavating five 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.

9.2 Prepared By

IER # 23 was prepared by Michael Brown, Biologist, NEPA Compliance, with relevant sections prepared by: Danielle Tommaso - Environmental Resources Specialist; J. Christopher Brown, Ph.D. - HTRW; Valerie J. McCormack, Ph.D. - Cultural Resources; Hope Pollmann - Recreational Resources; Richard Radford - Aesthetics; Laura Singer - Socioeconomics; Ed Lyon, Ph.D. - Environmental Justice; Gib Owen - Environmental Team Leader; and Soheila Holley - Senior Project Manager. 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.

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Appendices

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Appendix C: Members of Interagency Environmental Team
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Appendix E: CEMVN Borrow Area Index Map

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
FONSI: Finding of No Significant Impact
GNOSDRRS: Hurricane and Storm Damage Reduction System (aka, Hurricane Protection System)
HPS: See GNOSDRRS
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_x: Nitrogen oxides
NOV: New Orleans to Venice Hurricane Protection Project
NPDES: National Pollutant Discharge Elimination System
O₃: 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_x: 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

Appendix C: Members of Interagency Environmental Team

Kyle Balkum	Louisiana Dept. of Wildlife and Fisheries
Agaha Brass	Louisiana Department of Natural Resources
Catherine Breaux	U.S. Fish and Wildlife Service
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David Walther	U.S. Fish and Wildlife Service
Patrick Williams	NOAA National Marine Fisheries Service

Appendix D: Interagency Correspondence

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.

