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

REPLY TO
ATTENTION OF:

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

Decision Record

Individual Environmental Report 1 Supplemental
Lake Pontchartrain and Vicinity, La Branche Wetlands Levee, St. Charles Parish, Louisiana

IERS 1

Description of Proposed Action. The New Orleans District, US Army Corps of Engineers (CEMVN) proposes modifications to actions approved in IER 1 in order to incorporate a levee flood side shift, replacement of a floodwall with a levee segment, the use of high strength geotextile fabric, construction of drainage structures in proposed locations, construction of new access roads and temporary bridges, use of cofferdams, and use of existing access roads along the La Branche Wetlands in St. Charles Parish, Louisiana. The modifications were developed to ensure the most engineeringly feasible, least environmentally damaging, and cost effective alternative would be brought forward for construction.

Draft IERS 1, which detailed the impacts of the proposed actions, was released for public review on May 15, 2009. Stakeholders had until June 13, 2009 to comment on the document. Comments were received from four governmental agencies. A public meeting pertaining to the proposed actions within IERS 1 occurred on June 10, 2009.

Factors Considered in Determination. CEMVN has assessed the impacts of the proposed action on significant resources in the proposed project area, including wetlands, fisheries, essential fish habitat, threatened and endangered species, cultural resources, recreational resources, aesthetic resources, air quality, noise, and transportation.

All jurisdictional wetlands and non-jurisdictional bottomland hardwood forest impacts were assessed in cooperation with the US Fish and Wildlife Service (USFWS) and CEMVN under NEPA, Fish and Wildlife Coordination Act, Section 906 (b) WRDA 1986 requirements, and the Clean Water Act Section 404(b)(1). The impacts for the proposed action are as follows:

Wetlands/Drainageways/Canals

- LPV 03d Levee – Increase of wetlands impacts by 1.8 acres
- LPV 04 and 05 – Reduction of wetlands impacts by approximately 2 acres at Walker

Access Road Relocation, increase of wetlands impacts by 0.1 acre at Walker Access Road, increase of wetlands impacts by 0:3 acre at Shell Access Road 2, and an increase of wetlands impacts by 0.53 at Cross Bayou Access Road

- LPV 06 – no wetlands impacts
- LPV 07b and 07c – 0.17 acre of wetlands to be dredged and backfilled, 0.91 acre open water to be filled (no net change)
- LPV 07d and 07e – no wetlands impacts
- **Total impacts: 3.81 lost and 2 gained acres = 1.81 net acres of proposed impacts**

Fisheries

- LPV 03d Levee – no new fisheries impacts
- LPV 04 and 05 –no new fisheries impacts
- LPV 06 – no new fisheries impacts
- LPV 07b and 07c – 0.91 acre impact to fish habitat due to filling
- LPV 07d and 07e – minimal fisheries impacts
- **Total impacts: 0.91 acres of proposed impacts**

Wildlife

- LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 – minor reduction in wetland habitat and/or temporary impacts to wildlife within the vicinity of the project area during construction.

Endangered or Threatened Species

- LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 – The USFWS concurred with the CEMVN's determination that the proposed work is not likely to adversely affect any threatened or endangered species based on the fact that there are no known threatened or endangered species in the project area.

Socioeconomic Resources

- LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 – no additional impacts.

Environmental Justice

- LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 – no additional impacts.

Cultural Resources

- LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 – No effect: SHPO consultation for this project concurred with CEMVN that no cultural resources would be impacted under the proposed action.

Recreation

- LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 – no additional impacts.

Aesthetic (Visual) Resources

- LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 – no additional impacts.

Air Quality

- LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 – no additional impacts.

Noise

- LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 – no additional impacts.

Transportation

- LPV 03d, LPV 06 and LPV 07 - no additional impacts.
- LPV 04 and LPV 05 - minimal additional temporary direct impacts to traffic associated with the proposed access roads perpendicular to Highway 61 (Shell Access Road 2 and Cross Bayou Access Road). The outer lane of Highway 61 would be closed during the pile driving activity for a few hours a day, throughout consecutive days, for 4-5 weeks.

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

Environmental Design Commitments.

1.) Although no wading bird colonies have been recently identified in the IER 1 project area, the CEMVN is aware that colonies may be present in the project area that are not currently listed by the US Fish and Wildlife Service. Should any new colonies be observed in the area, the USFWS should be notified and the following activity restrictions observed to minimize their disturbance.

> For colonies containing nesting birds (i.e., herons, egrets, night-herons, ibis, and roseate spoonbills), anahingas, and/or cormorants, all activity occurring within 1,000 ft of a rookery should be restricted to the non-nesting period (i.e., September 1 through February 15, depending on species present), to the maximum extent possible.

In addition, USFWS recommends that on-site contract personnel be informed of the need to identify wading bird colonies and their nests, and, to the maximum extent possible, should avoid affecting them during the breeding season.

2.) If the proposed action is changed significantly or is not implemented within one year, CEMVN will reinitiate T&E coordination with the USFWS to ensure that the proposed action would not adversely affect any Federally listed threatened or endangered species, or their habitat.

3.) If any unrecorded cultural resources are determined to exist within the proposed project boundaries, then no work will proceed in the area containing these cultural resources until a CEMVN-PM-RN archeologist has been notified and final coordination with the State Historic Preservation Officer (SHPO) and Tribal Historic Preservation Officer (THPO) has been completed. [CEMVN-PM-RN/SHPO Standard Operating Procedure]

4.) As referenced in section 3.4 of the IER 1, a no work zone in the vicinity of Bayou Trepagnier on both the flood and protected side of the existing levee will be adhered to until Motiva's remediation of contaminants in this area is complete.

5.) On site personnel will be informed of the possible presence of nesting bald eagles in the vicinity of the project area, and will identify, avoid, and immediately report any such nests within 650 ft of the levee centerline to CEMVN-PM-RS.

Agency and Public Involvement. Various governmental agencies, non-governmental organizations, and citizens were engaged throughout the preparation of IERS 1. Agency staff from USFWS, National Marine Fisheries Service, US Environmental Protection Agency, US Geologic Survey, National Park Service, Louisiana Department of Natural Resources, and Louisiana Department of Wildlife and Fisheries were part of an interagency team that has and will continue to have input throughout the Greater New Orleans Hurricane and Storm Damage Risk Reduction System (HSDRRS) planning process (Appendix C of Final IERS 1).

There have been over 100 public meetings since March 2007 about proposed HSDRRS work. Issues relating to draft IER 1 and draft IERS 1 have been discussed at seven of these meetings, the latest of which occurred June 10, 2009 in St. Rose, Louisiana to specifically discuss IERS 1 proposed work. CEMVN sends out public notices in local and national newspapers, news releases (routinely picked up by television and newspapers in stories and scrolls), and mail notifications to stakeholders for each public meeting. In addition, www.nolaenvironmental.gov was set up to provide information to the public regarding proposed HSDRRS work. CEMVN sends out e-mail notifications of the meetings to approximately 1,300 stakeholders who requested to be notified by this method. Public meetings will continue throughout the planning process.

Draft IERS 1 Public Review Period

1. Agency Comments (Appendix C of Final IERS 1)

a. NMFS: Comment letter dated May 20, 2009
b. USFWS: Comment letter dated May 26, 2009
c. LDEQ: Email dated June 08, 2009
d. LaDOTD: Email dated May 26, 2009
e. LaDOTD: Email dated May 27, 2009

2. Public Comments (Appendix B of Final IERS 1)
   a. Coastal Environmental, Inc.: Comment letter dated June 11, 2009

Decision. The CEMVN Environmental Planning and Compliance Branch has assessed the potential environmental impacts of the proposed action described in this IERS, and performed a review of the comments received during the public review period for the draft IERS 1. Furthermore, all practicable means to avoid or minimize adverse environmental effects have been incorporated into the recommended plan. Since the USFWS and CEMVN mutually agreed the proposed wetland impacts associated with the IERS 1 proposed action were comparable to the proposed wetland impact reductions, i.e., 2 acres of wetland impacts eliminated because Walker Access Road would be relocated, the Wetlands Value Assessment calculated for IER 1 was not recalculated. The -302 acres or approximately 193 Annual Average Habitat Units of jurisdictional wetland impacts originally approved within IER 1 will be addressed in a separate IER specifically written for mitigation implementation.

The public interest will be best served by implementing the selected plan as described in IERS 1 in accordance with the environmental considerations discussed above.

CEMVN will prepare a Comprehensive Environmental Document (CED) that may contain additional information related to IERS 1 that becomes available after the execution of the Final IERS 1. The CED will provide a final mitigation plan, comprehensive cumulative impacts analysis, and any additional information that addresses outstanding data gaps in any of the IERs.

I have reviewed IERS 1, and have considered agency recommendations and comments received from the public during the scoping phase and comment periods. I find the recommended plan fully addresses the objectives as set forth by the Administration and Congress in the 3rd, 4th, and 5th Supplemental Appropriations.

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

6-29-2009
Date

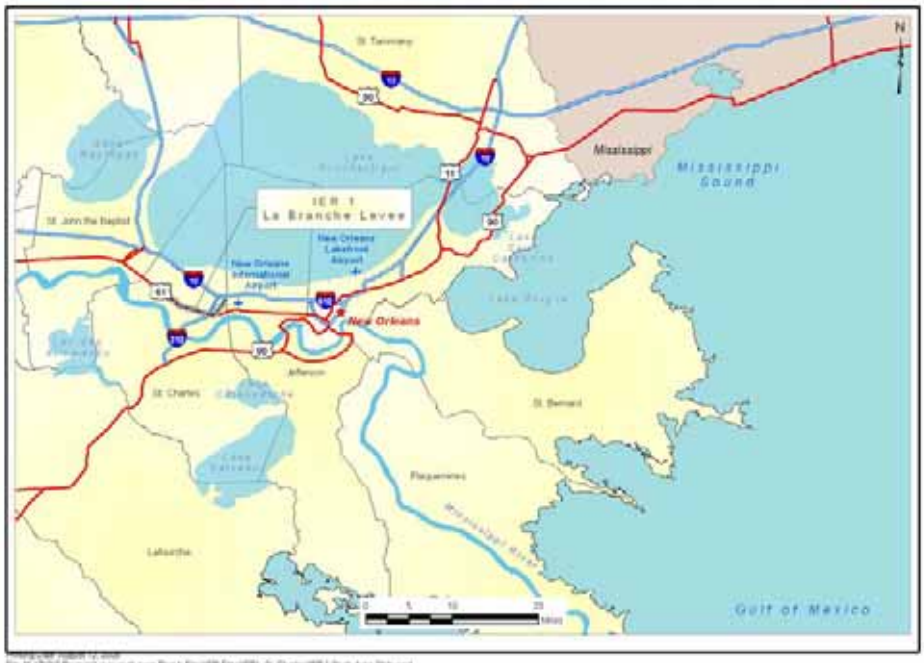
Alvin B. Lee
Alvin B. Lee
Colonel, U.S. Army
District Commander

FINAL INDIVIDUAL ENVIRONMENTAL REPORT SUPPLEMENTAL

LPV, LA BRANCHE WETLANDS LEVEE

ST. CHARLES PARISH, LOUISIANA

IERS 1



US Army Corps of Engineers®

June 2009

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1.0 INTRODUCTION

The U.S. Army Corps of Engineers (USACE), Mississippi Valley Division, New Orleans District (CEMVN), has prepared this Final Individual Environmental Report 1 Supplemental (IERS 1) to evaluate the potential impacts associated with the proposed project revisions to the original IER 1. The proposed project revisions are located in St. Charles Parish, Louisiana (figure 1). For the purposes of this IER Supplemental, the proposed project revisions are shown by reaches. Every reach is identified by a project identification number (e.g., LPV 1; figure 2). Only those reaches associated with the proposed action are discussed in this document.

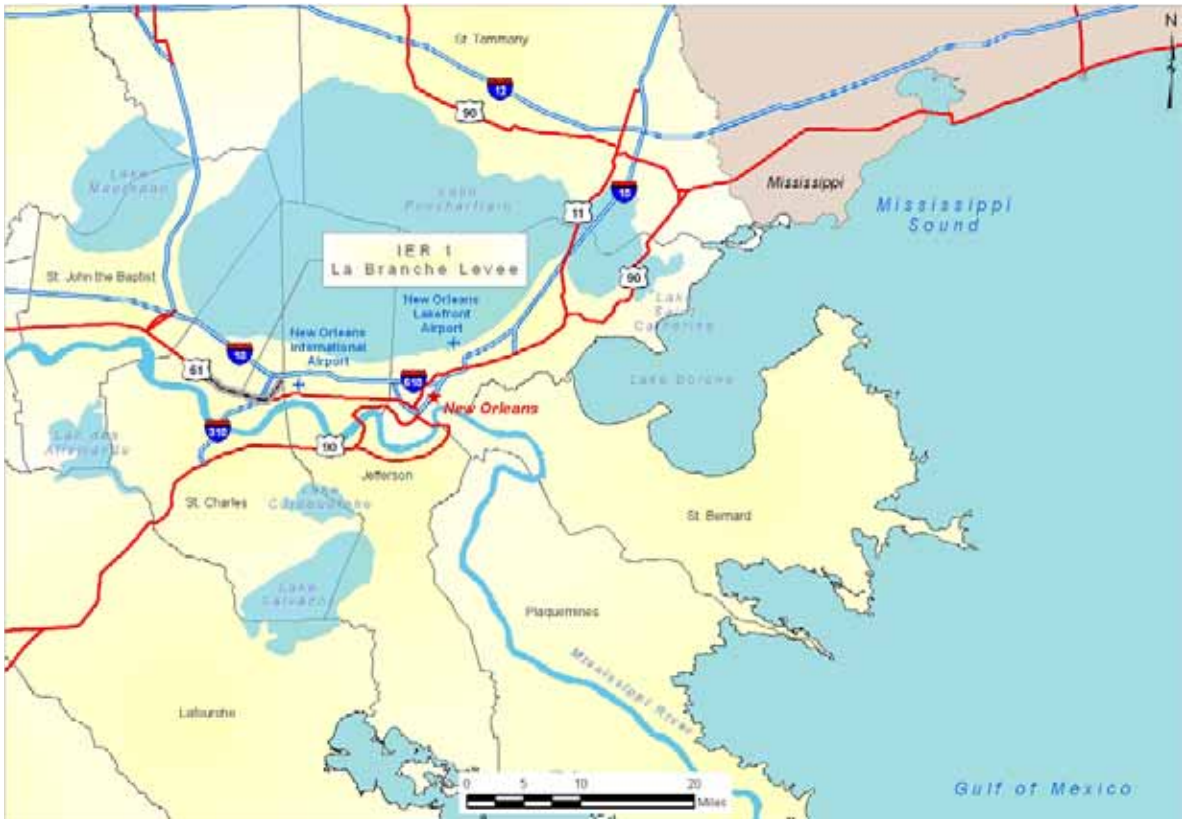

Figure 1. La Branche Wetlands Levee, Vicinity Map

On June 9, 2008, the District Commander signed the Decision Record for IER 1. IER 1 is hereby incorporated by reference into this supplemental document. Copies of the document and other supporting information are available upon request or at nolaenvironmental.gov. This supplemental document has been prepared to address proposed changes in the Government's approved plan.

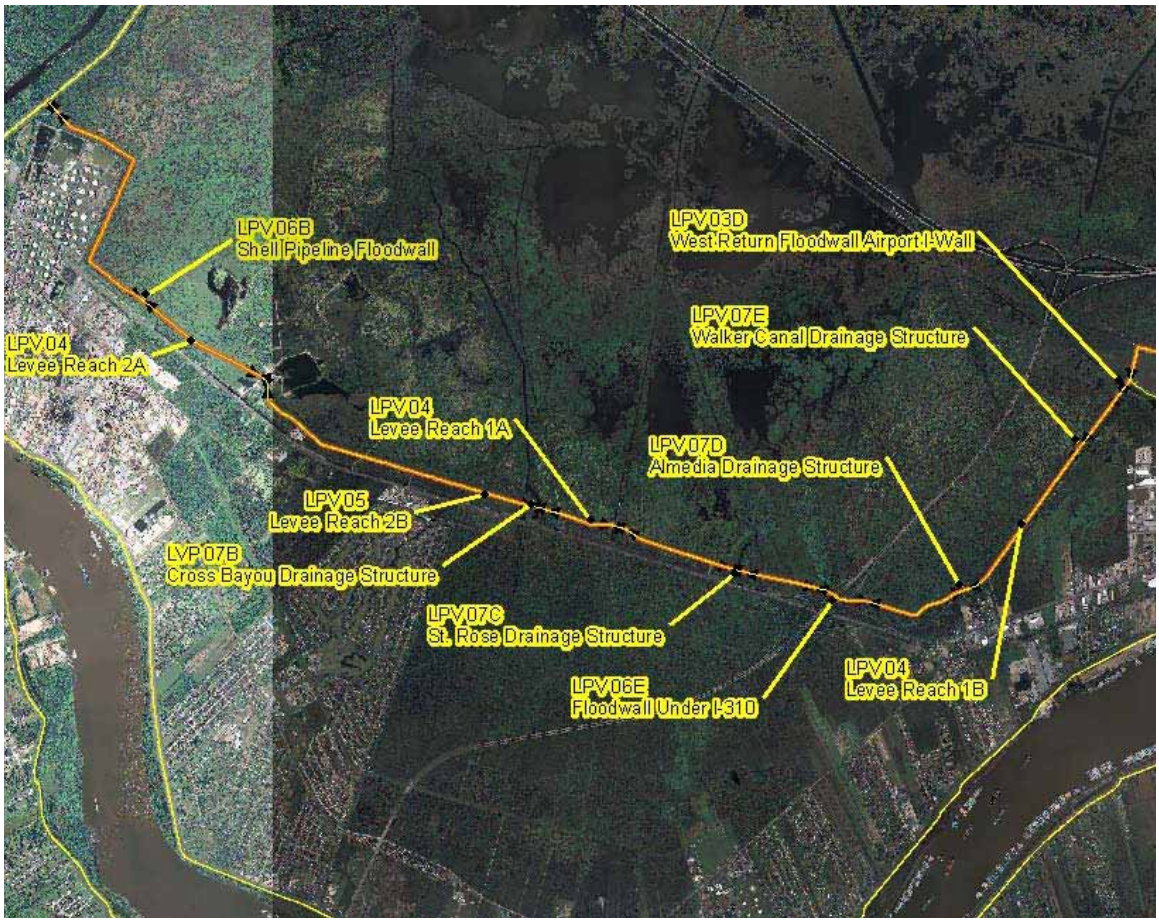

Figure 2. Reaches associated with the proposed action.

1.1 PRIOR REPORTS

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

- On 12 June 2009, the CEMVN signed a Decision Record for IER #16, entitled "Western Tie-In, Jefferson and St. Charles Parishes, Louisiana." The document evaluates the impacts related to building hurricane risk reduction structures on the west bank of Jefferson and St. Charles Parishes, Louisiana.

- On 26 May 2009, the CEMVN signed a Decision Record for IER #10, entitled "Lake Pontchartrain and Vicinity, Chalmette Loop Levee, St. Bernard Parish, Louisiana." The document evaluates the impacts related to improving hurricane risk reduction structures in St. Bernard Parish, Louisiana.

- On 13 March 2009, the CEMVN signed a Decision Record for IER 4, entitled "Lake Pontchartrain and Vicinity, Orleans East Bank, New Orleans Lakefront Levee, West

of Inner Harbor Navigation Canal to Eastbank of 17th Street Canal, Orleans Parish, Louisiana." The document was prepared to evaluate the potential impacts associated with improving the Orleans lakefront hurricane risk reduction features.

- On 18 February 2009, the CEMVN signed a Decision Record on IER 12 entitled "GIWW, Harvey, and Algiers Levees and Floodwalls, Jefferson, Orleans, and Plaquemines Parishes, Louisiana." The document was prepared to evaluate potential impacts associated with the proposed construction and upgrades of levees, floodwalls, floodgates, and pumping station(s) within a portion of the WBV HSDRRS.

- On 3 February 2009, the CEMVN signed a Decision Record on IER 25 entitled "Government Furnished Borrow Material 3, Orleans, Jefferson, and Plaquemines Parishes, Louisiana." The document was prepared to evaluate the potential impacts associated with the possible excavation of four Government Furnished borrow areas.

- On 21 January 2009, the CEMVN signed a Decision Record on IER 17 entitled "West Bank and Vicinity, Company Canal Floodwall, Jefferson Parish, Louisiana." The document was prepared to evaluate the potential impacts associated with the proposed construction and maintenance of a 100-year level of risk reduction along the WBV, Company Canal Floodwall from the Bayou Segnette State Park to the New Westwego Pumping Station.

- On 21 October 2008, the CEMVN signed a Decision Record on IER 11 Tier 2 Borgne entitled "Improved Protection on the Inner Harbor Navigation Canal, Tier 2 Borgne Orleans and St. Bernard Parishes, Louisiana." The document was prepared to evaluate the potential impacts associated with constructing a surge barrier on Lake Borgne.

- On 20 October 2008, the CEMVN signed a Decision Record on IER 26 entitled "Pre-Approved Contractor Furnished Borrow Material 3, Jefferson, Plaquemines, and St. John the Baptist Parishes, Louisiana, and Hancock County, Mississippi." The document was prepared to evaluate the potential impacts associated with the actions taken by commercial contractors as a result of excavating borrow areas for use in construction of the HSDRRS.

- On 26 August 2008, the CEMVN signed a Decision Record on IER 14, entitled "Westwego to Harvey Levee, Jefferson Parish, Louisiana." The proposed action includes enlarging earthen levees, rebuilding floodwalls, constructing fronting protection for three pump stations, replacing a floodgate with a swing gate, and raising an existing ramp to ensure a continuous line of risk reduction in the levee and floodwall system.

- On 25 July 2008, the CEMVN signed a Decision Record on IER 3, entitled "Lake Pontchartrain and Vicinity, Lakefront Levee, Jefferson Parish, Louisiana." The proposed action includes the rebuilding of 9.5 miles of earthen levees, upgrading of foreshore protection, replacement of two floodgates, and construction of fronting protection and construction or modification of breakwaters at four pumping stations along the lakefront in Jefferson Parish, Louisiana.

- On 18 July 2008, the CEMVN signed a Decision Record on IER 2, entitled "Lake Pontchartrain and Vicinity, West Return Floodwall, Jefferson and St. Charles Parishes, Louisiana." The proposed action includes replacing 3.4 miles of floodwall in Jefferson and St. Charles Parishes, Louisiana.

- On 12 June 2008, the CEMVN signed a Decision Record on IER 15, entitled "Lake Cataouatche Levee, Jefferson and Plaquemines Parishes, Louisiana." The proposed action includes constructing and maintaining a 100-year level of risk reduction along the project area in Jefferson Parish, Louisiana.

- On 9 June 2008, the CEMVN signed a Decision Record on IER 1, entitled "Lake Pontchartrain and Vicinity, La Branche Wetlands Levee, St. Charles Parish, Louisiana." The proposed action includes raising approximately 9 miles of earthen levees, replacing over 3,000 feet of floodwalls, rebuilding or modifying four drainage structures, closing one drainage structure, and modifying one railroad gate in St. Charles Parish, Louisiana.

2.0 ALTERNATIVES

At the time of completion of the original IER 1 report, engineering designs had not been finalized for all of the actions and alternatives. Since that time, engineering details (e.g., location of access roads and drainage structure designs) of the action have been revised based on the final engineering reports. Therefore, the changes to the action that could result in further impact to the natural or human environment are being addressed in this IER Supplemental.

2.1 DESCRIPTION OF THE ALTERNATIVES

No Action. Under the no-action alternative, the Government-approved action, as described in IER 1 would be constructed.

Proposed Action. The proposed action would be instrumental in providing 100-year level of risk reduction for St. Charles Parish, Louisiana. As with the levees and structures addressed in the IER 1, all proposed levees and structures discussed in this document would be raised to a height of +16 - +18 ft NAVD88. The changes in this proposed action were developed to ensure the most engineeringly feasible, least damaging, and cost effective alternative would be brought forward for construction.

The following reaches would be included in the proposed action:

- LPV 03d Levee – consists of approximately 3,000 ft of levee at the northwestern end of the Louis Armstrong New Orleans International Airport. The existing elevations of the levees vary, but range from +10.5 ft to +13.5 ft as referenced to the North American Vertical Datum (NAVD88).
- LPV 04 Levee - reach 1A and 1B – consists of approximately 4.7 miles of levee. Prior to Hurricane Katrina, the levees were at an elevation of approximately +10.5 to +12 ft (NAVD88). These reaches are currently under contract to be raised to their previously authorized heights of approximately +13.5 ft (NAVD88).
- LPV 05 Levee – reach 2A and 2b – consists of approximately 3.3 miles of levee. Prior to Hurricane Katrina, the levee was at an elevation of approximately +9 ft

(NAVD88). However, this reach was recently raised to its previously authorized height of approximately +13.5 ft (NAVD88)

- LPV 06b Shell Pipeline Floodwall – consists of approximately 195 ft of floodwall at an elevation of approximately +12 ft (NAVD88).
- LPV 06e Floodwall under I-310 – consists of approximately 1,760 ft of floodwall at an elevation of approximately + 11 ft (NAVD 88).
- LPV 07b Cross Bayou Drainage Structure – consists of an approximately 503 ft structure and levee tie-ins at an elevation of approximately +11.5 ft (NAVD88).
- LPV 07c St. Rose Drainage Structure – consists of an approximately 640 ft structure and levee tie-ins at an elevation of approximately +11 ft (NAVD88).
- LPV 07d Almedia Drainage Structure – consists of an approximately 225 ft structure and levee tie-ins at an elevation of approximately +11 ft (NAVD88).
- LPV 07e Walker Drainage Structure – consists of an approximately 248 ft structure and levee tie-ins at an elevation of approximately +11 ft (NAVD88).

See figure 2 for an illustration of reaches associated with the proposed action within the La Branche Wetlands project vicinity.

The modifications were proposed in order to incorporate a levee flood side shift, replacement of a floodwall with a levee segment, the use of high strength geotextile fabric, construction of drainage structures in proposed locations, construction of new access roads and temporary bridges, use of cofferdams, and use of existing access roads along the La Branche Wetlands in St. Charles Parish, Louisiana (figure 3; modifications in blue).

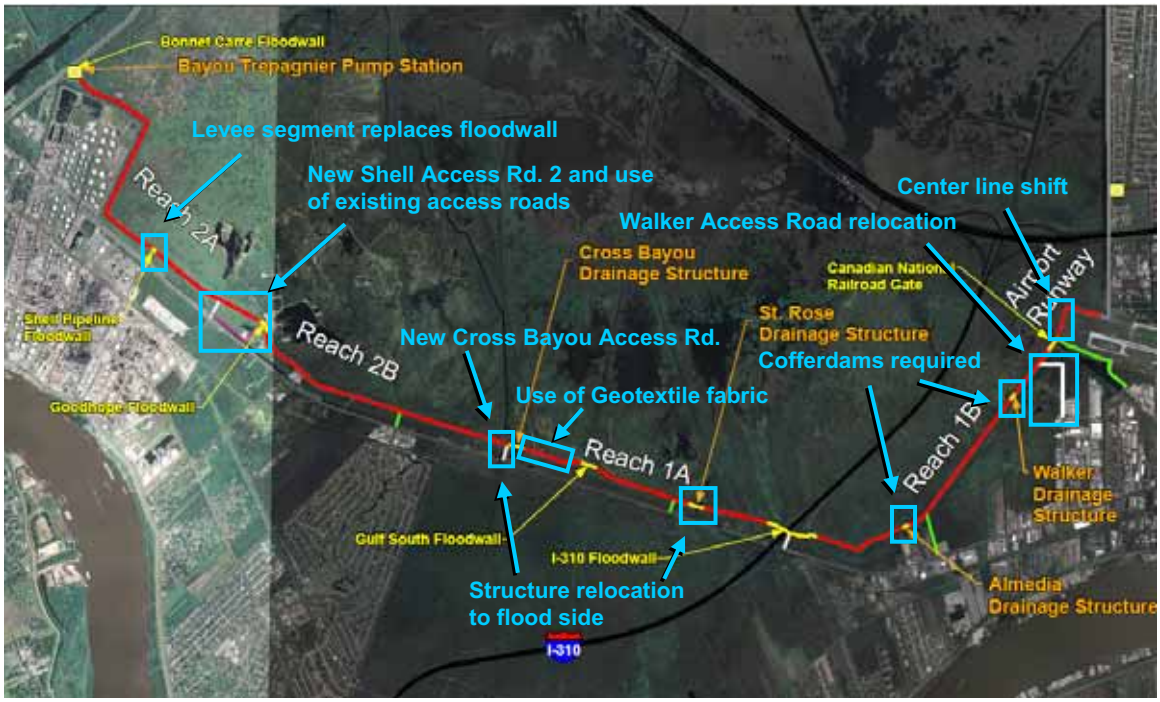

Figure 3. Proposed modifications to the Government's approved, original proposed action as described in IER 1 addressed in this document (in blue).

For each reach addressed in this IER Supplemental, the Government's approved action as described in IER 1 is described first as the No Action Alternative, and the proposed action is described second.

LPV 03d Levee

No Action

The approved action for this reach consists of a flood side enlargement of the existing levee. The existing levee will be raised from its present elevation of approximately +14 ft to +16 ft[1] plus 1 ft overbuild. A short reach of reinforced concrete retaining wall will be required to maintain an existing landing approach light, which is located at the flood side toe of the existing levee that runs north to south, for the east-west runway of Louis Armstrong New Orleans International Airport. This retaining wall will be incorporated into the flood side slope of the levee embankment and is necessary to maintain the approach light in its present position, as required by the Federal Aviation Administration and the New Orleans Aviation Authority.

As part of the approved action, the centerline of the new levee crown will shift approximately 15 ft flood side of the existing levee centerline. The landside slope will remain intact and the levee footprint (the ground surface area that would be covered by the alternative structure and associated right-of-way [ROW]) will increase by up to 50 ft on the flood side. East Jefferson Levee District's access road, located on the flood side of the existing levee, will be rebuilt as part of the levee enlargement contract. Tie-ins to the T-wall constructed as part of the Canadian National Railroad Gate (LPV 06f) and the floodwalls of the IER 2 project area will also be incorporated.

Proposed Action

For the portion of the levee that runs north to south, the centerline of the new levee crown would shift approximately 45 ft flood side of the existing centerline in order to incorporate the appropriately sized stability berm based on new design criteria and a high strength geotextile fabric would be used to reduce impacts to the sensitive Airport equipment (figure 4a and 4b). The centerline shift of the levee would impact two approach lights and require their movement and incorporation into the levee slope as coordinated with the Federal Aviation Administration. The existing light on the flood side stability berm would be moved slightly to the east on the new protected side levee stability berm. The western most light would be removed and replaced in the same location but on top of the new flood side stability berm. Both lights would be pole mounted and pile supported. The East Jefferson Levee District access road, presently on the flood side of the existing levee, would be relocated to the protected side of the levee. The levee expansion would also require the relocation of a shallow drainage ditch further to the flood side. Approximately 550 cubic yards (CY) would be excavated and disposed of at a commercial disposal site. Approximately 2.5 additional acres would be obtained from the Airport to construct the proposed action.

[1] All elevations are NAVD 2004.65

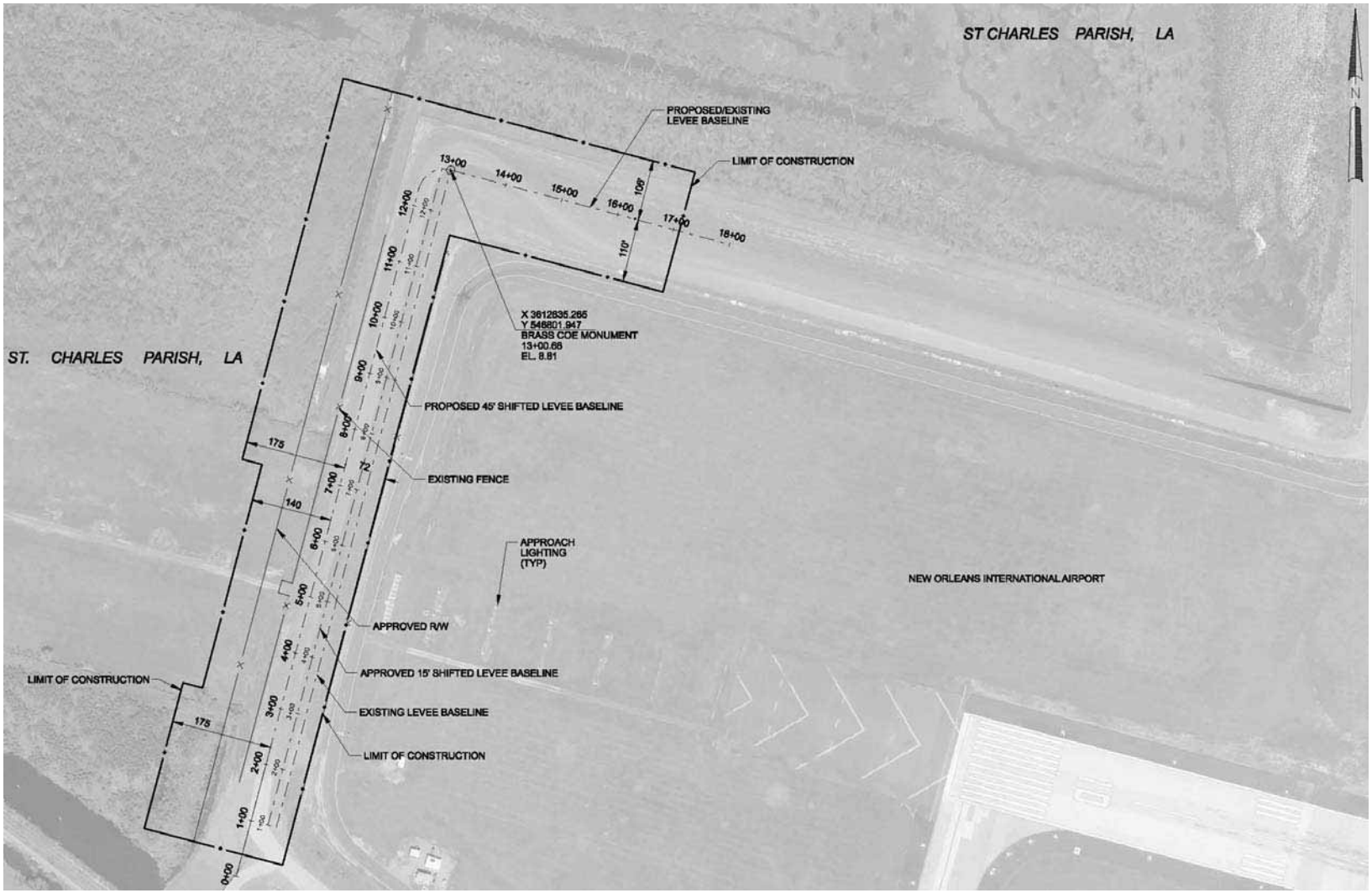

Figure 4a. Plan view of LPV 03d showing the existing, approved and proposed levee centerlines and the approved (in IER 1) and proposed ROW (approx. 2.5 acres).

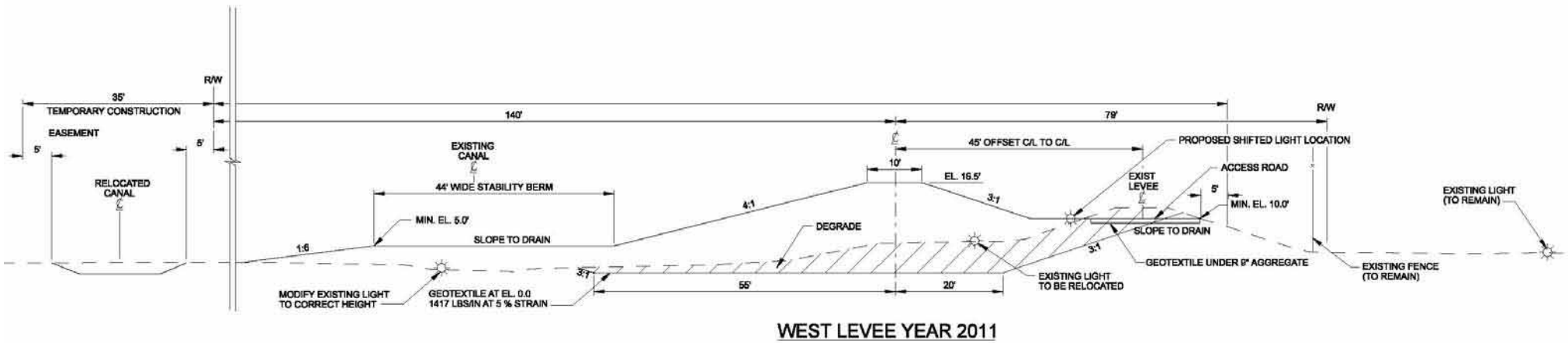

Figure 4b. Cross-sectional view of LPV 03d showing the existing and proposed levee centerlines and the approved (in IER 1) and proposed ROW (approx. 2.5 acres).

LPV 04 Levee (Reach LPV 04 1A and LPV 04 1B) and LPV 05 Levee (Reach LPV 05 2A and LPV 05 2B)

No Action

Levees

The approved action for reach 1A and 2B will consist of raising the levee reach from the authorized elevation of +12.5 ft to +13.5 ft (after completion of the previously authorized Phase I) to 18 ft plus 1 ft overbuild. The levee alignment will not be changed; however, the centerline of the levee could shift slightly, as necessary, to accommodate the levee footprint expansion of 100 ft to 250 ft on both the flood and protected side.

Staging Areas and Access Roads

Currently there are three previously existing staging areas and roads on the protected side of the levee that have been designated as staging areas / access roads for this project. From west to east, these areas are located at the Trepagnier Pump Station (Reach 2A), off of U.S. 61 across from Ormond Boulevard (Reach 2B), and off of the temporary road constructed near Fox Lane (Reach 1B).

Three additional access roads were approved to be established temporarily. If constructed, these new access roads will be located at the Shell Pipeline crossing (Reach 2A), off of U.S. 61 in the vicinity of the northbound I-310 exit ramp (Reach 1B), and from the northwest corner of the industrial park to the Walker Structure (Reach 1B). At completion of construction, the three temporary access roads will be returned to their original condition. The conceptual designs for the new roads are illustrated in figure 5.

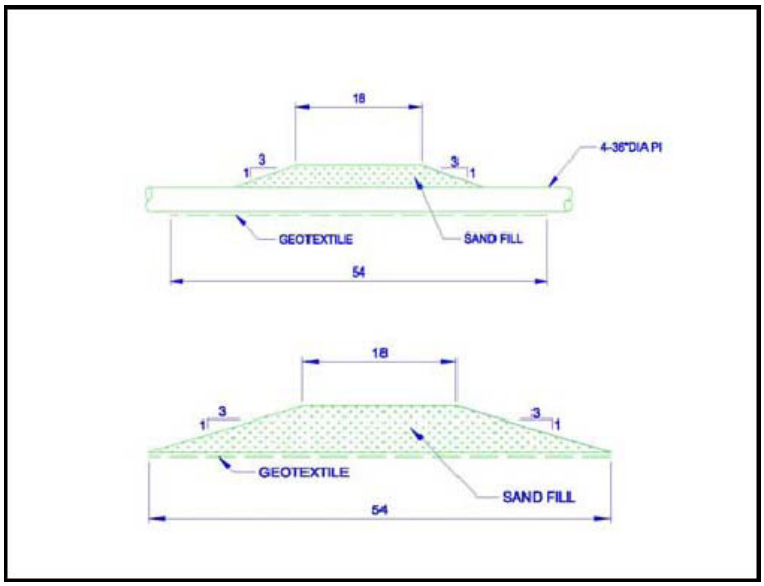

Figure 5. Typical access road cross sections with and without culverts.

Proposed Action

Levee

For the proposed action, a portion of reach 1A (3,000 ft of levee immediately east of Cross Bayou Drainage Structure) and 2B (10,500 ft of levee between Goodhope Floodwall and Cross Bayou drainage structure) would be raised from the authorized elevation of +12.5 ft to +13.5 ft (after completion of the previously authorized Phase I) to +18 ft. Both the 3,000 ft and 10,500 ft stretch of levee would be degraded to approximately elevation +3 ft, a high strength geotextile fabric would be placed on the degraded levee, and the levee would then be rebuilt to the 100-year level of risk reduction. The utilization of the high strength geotextile fabric would be done in an effort to further minimize environmental impacts within this area. Approximately 25 percent less earthen fill would be required for this alternative than the proposed action. No new ROW would be required.

Access Roads

The access road to the Walker drainage structure and Canadian National Railroad Gate would be relocated to an adjacent site that is part of an expansion of the currently existing industrial park. The location of the new Walker Access Road would be in the same location as a commercially planned and permitted road through this industrial park (404 Permit #: MVN-2004-2805-EBB; CUP #: P20040743; figure 6). The road would be permanent and would be constructed in the same manner as the previously approved access roads (figure 5). The construction of this road would impact wetlands (See Section 3.2.1), however the landowner has already applied for and received a Clean Water Act Section 404 permit, thus the use of this access route would minimize the government's impacts to the environment by eliminating the planned access route. Mitigation for unavoidable wetland impacts has already been completed by the landowner.

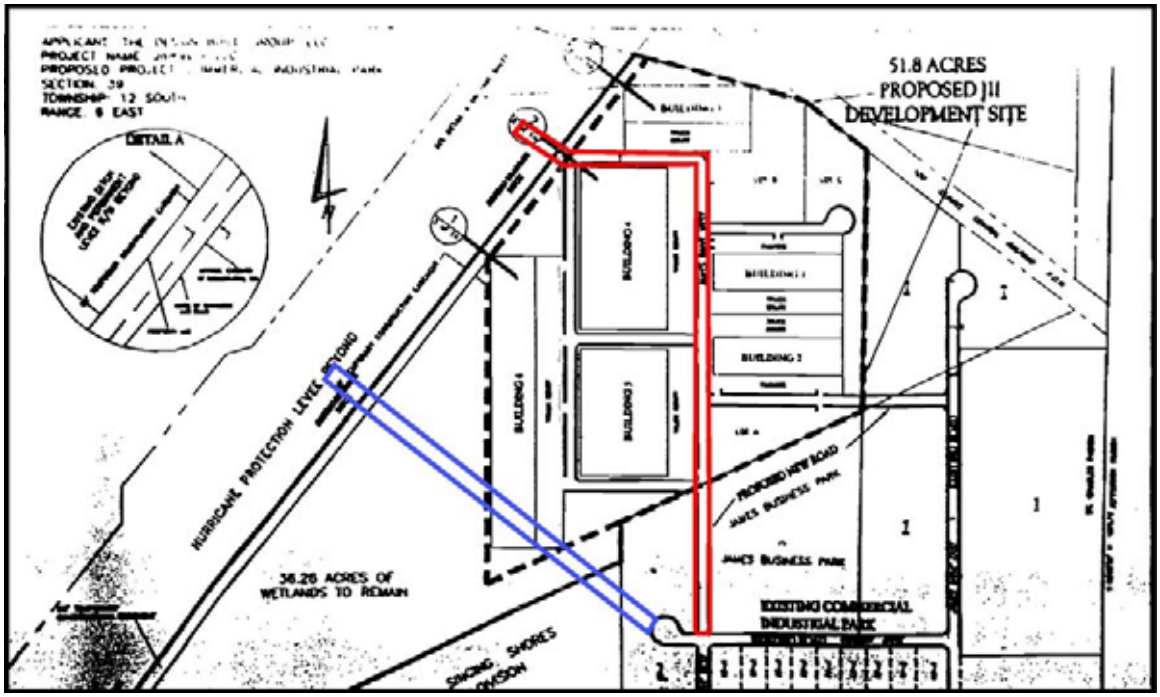

Figure 6. The proposed (in red) and previously approved (in blue) Walker Access Road in relation to permitted plans of future industrial park development.

Additional permanent access via an existing permanent road would be necessary to construct the 100 – year level of risk reduction for a portion of the Reach 2A levee (figure 7). A bridge would be required to cross the drainage canal adjacent to Highway 61 to gain access to the existing road. The constructed bridge would be 31 ft wide and 100 ft long and would require a 23 ft temporary construction easement on either side. The existing road is 425 ft long and would be widened from approximately 30 ft to 54 ft. Construction of the bridge and widening of the existing road for Shell Access Road 2 would require approximately 0.3 additional acres.

Additional temporary access via existing roads at SWEPI Road, a road running parallel to Hwy 61 between SWEPI Road and the proposed Shell Access Road 2, and a road East of SWEPI Road would be required to construct the 100-year level of risk reduction for this reach (figure 7). None of the roads would require improvement or widening. Maintenance would be conducted if necessary to maintain the integrity of the existing road.

Figure 7. Proposed location of Shell Access Road 2 and use of existing access roads, road parallel to Hwy. 61, SWEPI Road and East of SWEPI access roads.

Additional permanent access near the existing Cross Bayou drainage structure would be necessary to construct the replacement Cross Bayou drainage structure (figure 8). A bridge would be required to cross the drainage canal adjacent to Highway 61. The bridge would be 31 ft wide and 150 to 175 ft long and would require a 23 ft construction easement on either side. The constructed road would be 54 ft wide and 275 ft long. The bridge and road would mainly be constructed within the existing channel easement; however, a small part of the bridge construction near Hwy 61 would require obtaining <0.1 additional acres from the Louisiana Department of Transportation and Developement (LaDOTD).

Figure 8. Proposed location of the Cross Bayou drainage structure access road.

To accommodate construction of the new bridges and their accompanying tie-ins at both Shell Access Road 2 and Cross Bayou Access Road, an approximate 405 ft stretch of the outer (right) west bound lane of Airline highway adjacent to each construction site would be closed intermittently over 6 months. The intermittent lane closure anticipated start date would be September 2009 for Cross Bayou Access Road and November 2009 for Shell Access 2.

LPV 06b Shell Pipeline Floodwall

No Action
The approved action consists of demolishing the existing floodwall and rebuilding a new T-wall to approximately +17 to +18.5 ft. The new floodwall will remain in its current alignment with minimal footprint expansion. The base of the floodwall and the flanking stability berms would be 96' at its widest. On the average it would be 65-feet wide.

Proposed Action
The proposed action would demolish the existing floodwall and construct an earthen levee segment in its place. Implementation of a levee in place of a floodwall would require relocating the 8-inch pipeline under the levee. CEMVN would remove the pipeline components that currently cross through the existing floodwall; however, the private company would be responsible for relocating the pipeline underground using directional drilling techniques. The underground portion of the pipeline would be approximately 1,500 ft long and -75 to -100 ft elevation.

Replacing the existing floodwall with an earthen levee segment and relocating the pipeline underground via directional drilling would remove transitions (levee tie-ins and pipeline components within the wall itself) from the alignment, would reduce risk and increase reliability, and also alleviate potential issues associated with future system upgrades in the area. The proposed action within this reach would also be more time effective. (figure 9a and 9b). The levee would be built to a 2011 "overbuild" elevation of +16.5 ft and would expand the width of the current foot print from approximately 50 ft to 251 ft.

Note: Levees are constructed at the 2011, 100-year elevation, and hardened structures such as floodwalls and floodgates are constructed at the 2057, 100-year elevation. Hardened structures are built to higher elevations, since those structures can not easily be upgraded if so required in the future. Levees can be lifted as needed to maintain levees at the 100 year level required to be certified for the National Flood Insurance Program.

Though replacing the floodwall with an earthen levee segment (on high strength geotextile fabric) would increase the footprint, no new ROW would be required for the levee expansion.

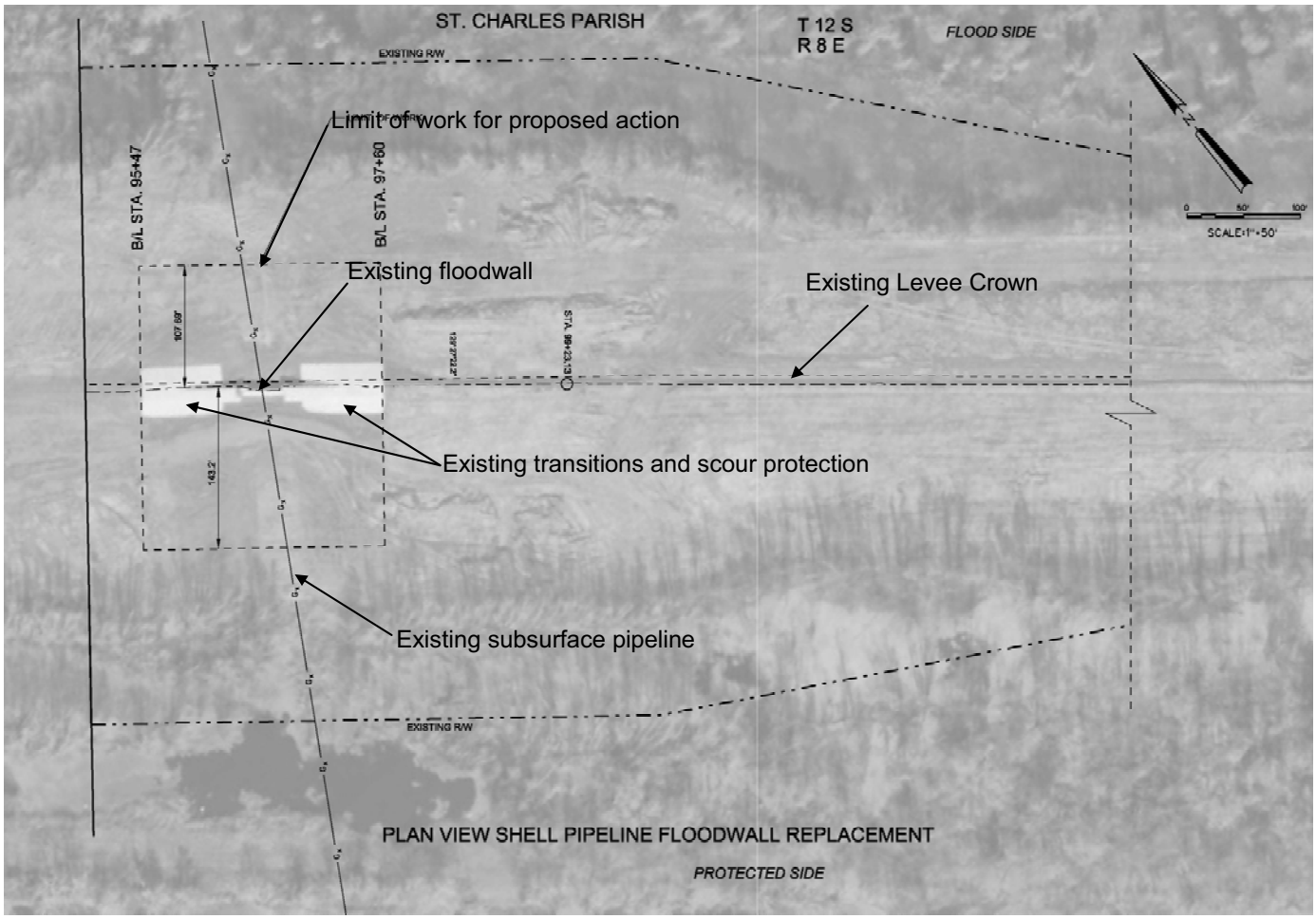

Figure 9a. Plan view of the earthen levee segment to replace the Shell Pipeline floodwall.

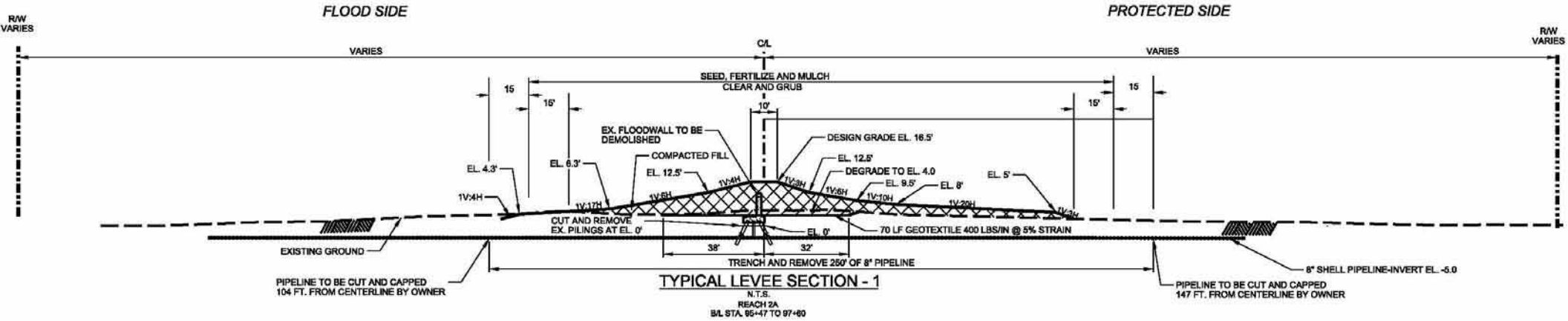

Figure 9b. Cross-sectional view showing the existing Shell Pipeline floodwall and earthen levee segment proposed to replace it.

LPV 06e Floodwall Under I-310

Proposed Action
There is no change proposed to the structure, only the method of construction. Pile driving activities for the floodwall extending under the elevated I-310 would be conducted from the right/left emergency lanes on the I-310 interstate. To minimize traffic impacts, pile driving would occur during the weekend and take 1-2 weekends for completion.

LPV 07 - Drainage Structures (LPV 07b Cross Bayou Drainage Structure, LPV 07c St. Rose Drainage Structure, LPV 07d Almedia Drainage Structure, and LPV 07e Walker Drainage Structure)

No Action
The approved action for the Cross Bayou drainage structure and the St. Rose drainage structure consists of demolishing and building new structures to approximately elevation +15.5 ft to +18.5 ft, adjacent to the existing structures. The new structures will remain in alignment with the levee system and the current structures would remain in place during construction of the new structures. The new structures will be built adjacent to the existing structures and the drainage canals will be realigned to flow through the new structures after completion. Following completion of the new structures, the existing structures will be demolished and the area would be rebuilt as an earthen levee.

Note: the Cross Bayou drainage structure approved in IER 1 was to be relocated to where the Pontchartrain Levee District permitted pump station will now be constructed (404 Permit #: MVN 2001-1384; CUP #:P20080055; figure 10), and the St. Rose drainage structure approved in IER 1 was to be relocated west of the existing structure within the current alignment (Figure 11). Both approved structure relocations would have required dredging to realign the flow through the new structures.

The approved action for the Almedia and Walker Drainage Structure consists of modifying the existing structures (using additional pilings and thicker walls to add height) to approximately +16 ft.

Proposed Action
For the proposed action, the existing Cross Bayou and St. Rose drainage structures would remain in place while new drainage structures are constructed within the existing canal, floodside of the existing structures (figures 10 and 11). The new structures would be offset in the existing channel but would be constructed within existing ROW. Cross Bayou drainage structure would not be constructed in the location approved in IER 1 due the Pontchartrain Levee District's permitted pump station construction in that location. St. Rose drainage structure would not be constructed in the location approved in IER in order to reduce risk associated with degrading the existing risk reduction system during construction of the new structure, to reduce costs associated with providing temporary flood protection during construction, and to minimize environmental impacts associated with drainage structure relocation (i.e.; extensive canal dredging to realign the flow through the new structure). The old drainage structures would be demolished to the base slab.

Minimal dredging, as compared to the canal dredging associated with the approved action, would be required on the eastern bank of the channel, floodside of the existing Cross Bayou drainage structure to maintain water flow during construction (figure 10). The area (0.17 acres) would be dredged to elevation - 5 ft NAVD88, and the 1,400 CY of material would be excavated, stockpiled in existing ROW, and replaced after the structure is built.

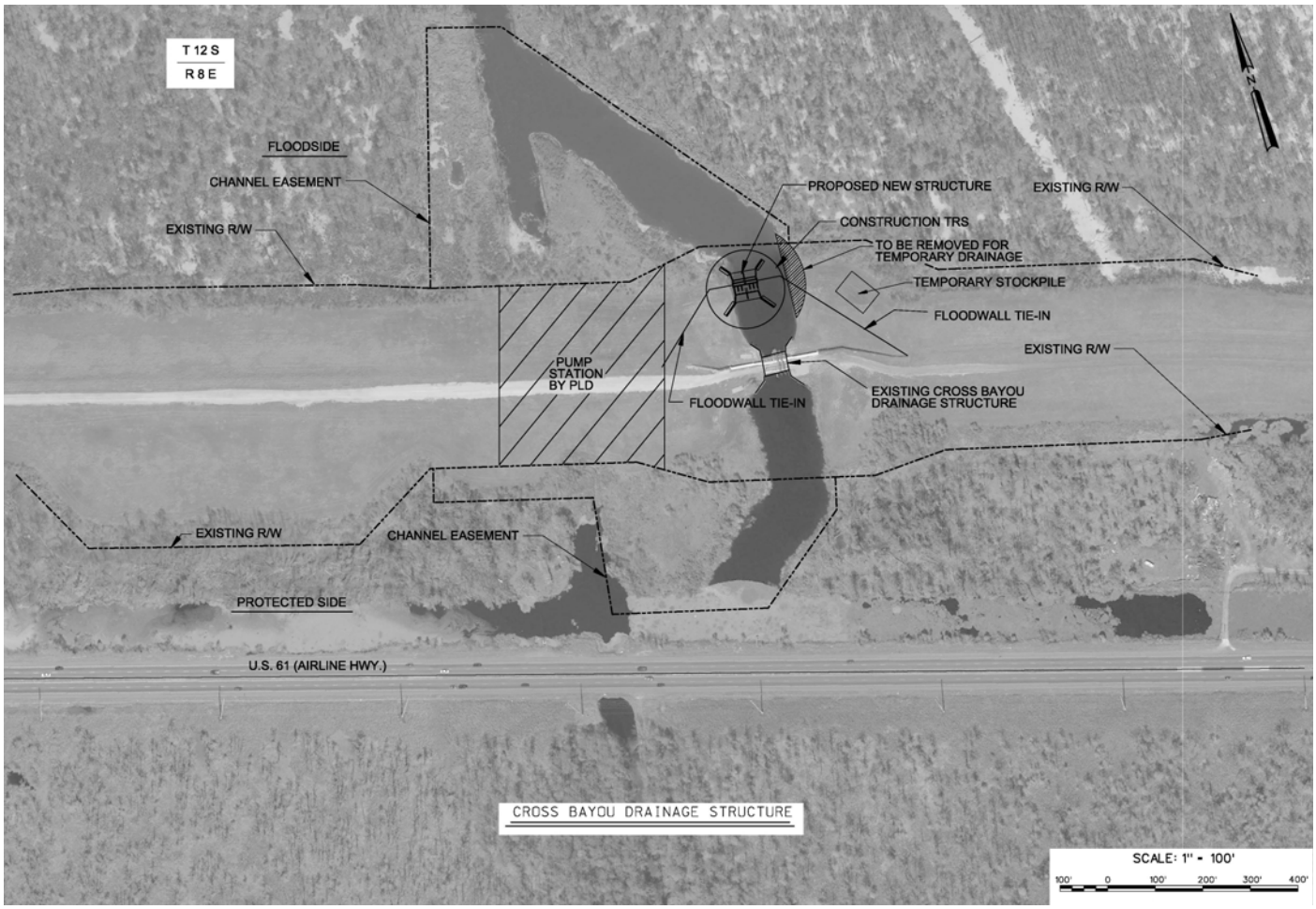

Figure 10. Overview of the proposed action plans for the Cross Bayou Drainage structure showing the proposed location of the drainage structure, temporary dredge and stockpile locations, and the Pontchartrain Levee District's permitted pump station location.

To realign the risk reduction system, once the new St. Rose drainage structure is constructed, would require filling the two embayed areas flood side of the existing St. Rose Drainage Structure, adjacent to the new structure location (0.91 acres; figure 11). The western embayed area would be initially filled in for construction access, and the eastern embayed area would be filled in following construction. Water flow would not be significantly affected during

construction of the new structure as water would be able to move around the cofferdam necessary for construction.

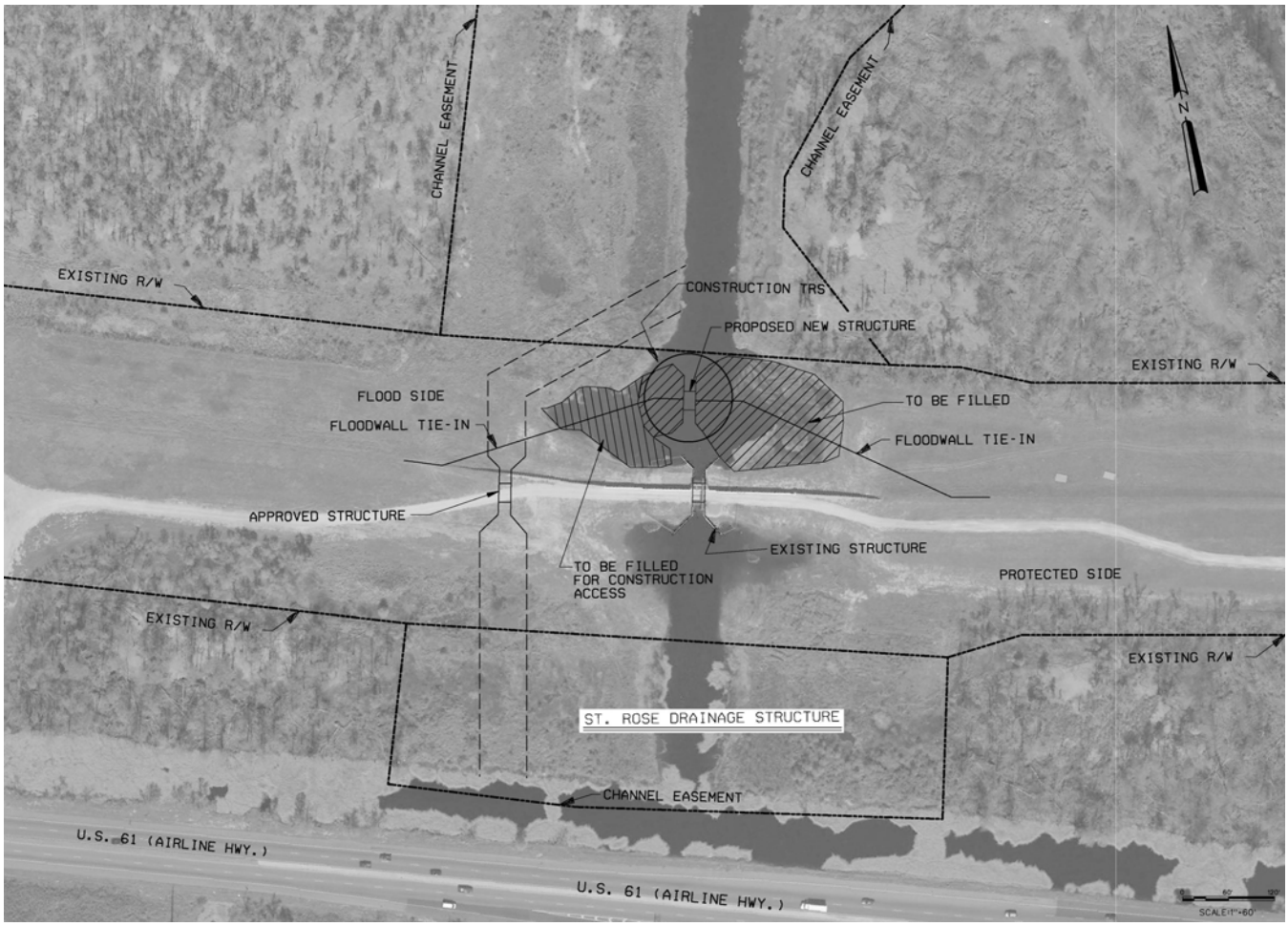

Figure 11. Overview of the proposed action plans for the St Rose drainage structure showing the proposed location of the drainage structure, the filled area required to realign to system to the new structure, and the currently approved (in IER 1) location for the drainage structure.

Three temporary canal crossings would be constructed, two at the Almedia and one at the Walker drainage structures, to facilitate access to and around the structures during construction. All three canal crossings would be constructed parallel to the drainage structure on the protected side crossing the respective drainage canals. Culverts would be installed (2 at Almedia and 4 at Walker Road) and sized appropriately to ensure flow is not significantly altered in the channel. Each temporary crossing would be 25 ft wide and up to 70 ft long.

The Government's approved action as described in IER 1 to modify the existing Almedia and Walker drainage structures using additional pilings and thicker walls to add height require the use of cofferdams during construction. While in place, the cofferdams would prevent water exchange through the structures for up to 3 months. To ensure protected side drainage of the

area, work on the drainage structures would be done consecutively. In addition, to minimize environmental impacts at this location, work on the drainage structures would be done during spring and summer months.

Construction Related Information for Proposed Alternatives

Clearing and grubbing activities would be completed before construction of the proposed action could begin. Clearing would consist of the complete removal above the ground surface of all trees, stumps, down timber snags, brush, vegetation, loose stone, abandoned structures, fencing, and similar debris. Trees would be felled in such a manner as to avoid damage to trees to be left standing or to existing structures. Grubbing would consist of the removal of all stumps, roots, buried logs, old pilings, old paving, old foundations, pipes, drains, and other unsuitable matter. All holes caused by grubbing operations shall be backfilled with suitable material in 12-inch layers to the elevation of the adjacent ground surface, and each layer compacted to a density at least equal to that of the adjoining undisturbed material. All debris resulting from clearing and grubbing operations at the construction site would be disposed of by removal from the site. Reasonable efforts would be made to channel merchantable material into the commercial market to make beneficial use of materials resulting from clearing and grubbing operations. Remaining debris including crown surfacing from the site would be disposed of in compliance with all applicable Federal, state, and local laws.

Construction of the proposed action for all reaches of the levee would require a significant amount of construction equipment, including hydraulic cranes and excavators, mechanical cranes, dump trucks, bulldozers, rollers, graders, tractors, front end loaders, water trucks, flatbed trucks, and pickup trucks. Significant amounts of earthen fill, concrete, piling and surfacing materials would also be needed to complete construction. Table 1 summarizes the estimated totals of construction material quantities that would be required to complete the proposed action for each project area.

Table 1. Additional Construction Material Quantities Required to Complete the Proposed Action

	LPV 03d	LPV 04 and LPV 05	LPV 06b	LPV 06e (I-310)	LPV 06f (Gate)	LPV 07
Concrete Cubic Yard (CY)	NA	542	NA	NA	NA	NA
Sheet Piling square feet (Sq Ft)	NA	NA	NA	NA	NA	NA
H-Piling (LFT)	NA	NA	NA	NA	NA	NA
Pipe Piling (LFT)	NA	NA	NA	NA	NA	NA
Earthen Fill (CY)	30,000	2,500	20,000	NA	NA	NA
Surfacing (CY)	NA	NA	NA	NA	NA	NA

Table 1. Additional Construction Material Quantities Required to Complete the Proposed Action (continued)						
Rock Armor stone (tons)	NA	30	NA	N/A	NA	NA
Geotextile (SY)	NA	65,500	2,600	NA	NA	NA
Crushed Limestone (CY)	NA	1,100	NA	NA	NA	NA
Concrete Piles (LF)	NA	9,730	NA	NA	NA	NA
Sand Fill (CY)	NA	23,150	NA	NA	NA	600
36" Diameter Pipes (LF)	NA	3,850	NA	NA	NA	NA
48" Diameter Pipes (LF)	NA	NA	NA	NA	NA	80

NA – Not applicable (Material not required for completion of proposed action)

For all construction under the proposed action, earthen fill material would be obtained from the Bonnet Carré Spillway, which is located approximately 1.9 miles from the project area. If additional borrow material is needed from a source other than the Bonnet Carré Spillway, an additional IER would be prepared to analyze the impacts associated with potential borrow sources. Borrow material would be stockpiled, as needed, along the protected-side of the new levee alignment for each reach included in the proposed action. Concrete would likely be transported to the site via mixing truck and pumped on-site. Steel sheet piling and H-piling would likely be shipped by truck into the city from the manufacturer. Other materials could be shipped via railways and transloaded to trucks at a terminal near the project site or barged down the Mississippi River and transloaded to trucks at a terminal near the project site. Surfacing would likely be provided by a local supplier and transported via truck to the project site.

Existing access routes and staging areas are located within a radius of approximately 5 to 10 miles of the project site. Nearly all of the truck traffic transporting construction materials to the project site would occur on U.S. 61 (Airline Highway).

2.2 ALTERNATIVES TO THE PROPOSED ACTION

No Action Alternative

Without implementation of the proposed action, the Government's approved action, described as no action throughout, would be constructed. Please reference Section 2.1 for more detailed description of the Government's approved action.

2.3 ALTERNATIVE ELIMINATED FROM FURTHER CONSIDERATION

2.3.1 Alternate Cross Bayou Access

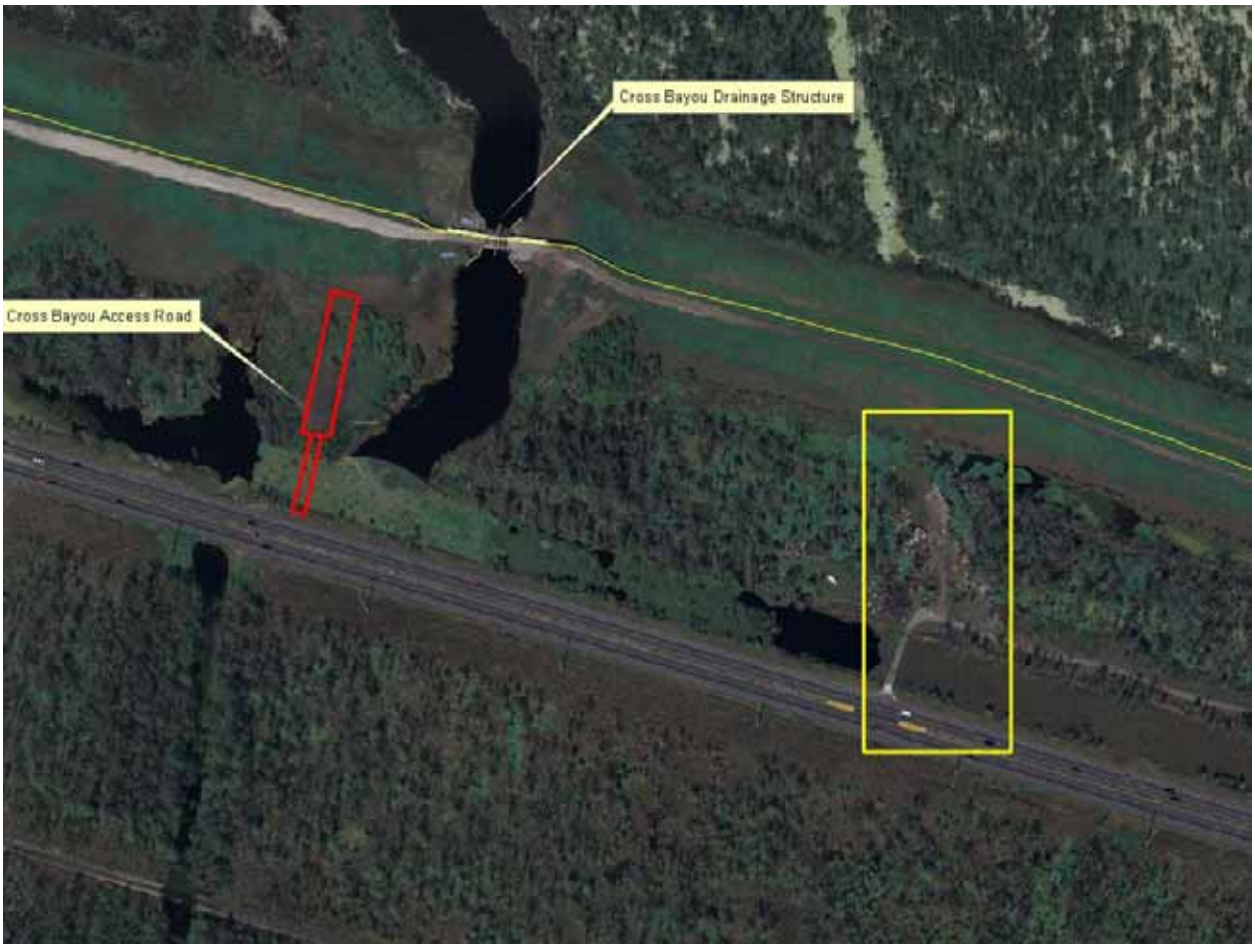

Figure 12. Proposed Cross Bayou Access Road (outlined in red) and an area eliminated from further consideration for access to the Cross Bayou Drainage Structure (within yellow box).

The alternate access road to the Cross Bayou Drainage Structure (figure 12) was eliminated from further consideration for the following reasons:

1. The location for the access road is a private road and bridge that would be inadequate for the vehicles and the equipment required for construction. The existing bridge would have to be removed and rebuilt resulting in additional cost to the project. The current proposed action location for the new bridge and access road is within an existing channel easement, while the alternate location would be outside of existing ROW.

2. The Pontchartrain Levee District will be constructing the Cross Bayou Pump Station (currently permitted; see figure 10) at the same time the CEMVN would be constructing

the new Cross Bayou Drainage Structure. The location of the bridge and access road within the proposed action would allow both contractors to use the same access route without a conflict. The new bridge and access road location eliminated from further consideration would require the contractor constructing the Cross Bayou Pump Station for the Pontchartrain Levee District to pass through the construction site for the Cross Bayou drainage structure. It is never a good idea to have one contractor crossing through another contractor's work area. The alternative access route for the Pontchartrain Levee District would be at Ormond, which will be unavailable as soon as construction on Reach 2B begins. Requiring the Pontchartrain Levee District to find a new access route would result in additional environmental impacts and a potential delay in both the levee district's and CEMVN's construction schedule.

3. From lessons learned following Hurricane Gustav, CEMVN determined that it is very beneficial if the drainage structure access road is located adjacent to the structure itself so that the structure can be assessed quickly once an event passes through the area. In addition, the bridge and access road location eliminated from further consideration could be adversely impacted by future levee enlargements. The access road location currently included as a part of the proposed action described in this IER supplement would not be impacted by any future levee enlargement contracts.

4. There could be HTRW concerns near the new bridge and access road location that has been eliminated from further consideration. The extent of potential contamination at this site can not be determined without additional investigations which would cause delays in the schedule. Any remediation of the site would be required to be completed by the non-Federal sponsor at its expense. This additional expense would have the potential to significantly increase the cost due to remediation that might be required.

2.3.2 LPV 03d Minimized Levee Centerline Shift

The first evaluation to bring this reach up to 2011, 100 year level of risk reduction looked at enlarging the existing levee along the current alignment; however, post Hurricane Katrina design criteria have generally resulted in larger levees with bigger stability berms. In order to enlarge the levee to the required 100 year level of risk reduction elevation along the existing alignment a large protected side stability berm would have to be constructed. If the levee centerline were maintained in its current location this new berm would extend into the area within the Airport's security fence where landing lights and sensitive electronic gear are located that provide the adjacent runway with unique (for this Airport) capability of allowing fully instrumented landings. By shifting the centerline of the levee 45 ft to the floodside we are able to utilize the area where the existing levee is located for the protected side berm. This shift significantly reduces the impacts to the FAA equipment.

The area that would be affected by the 45 ft shift in the levee centerline is already owned and maintained by Louis Armstrong New Orleans International Airport. The area has FAA landing light fixtures that extend several hundred feet towards the flood side along the alignment of the runway centerline. Roughly half of the area that would be affected by the levee shift was filled

when the airport was constructed, and is maintained as open green space. The remaining half (flanking both sides of the central filled zone) is wetlands (1.8 acres). Therefore, given concerns expressed by the FAA, the CEMVN can not minimize the levee center line shift to a distance less than 45ft.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 ENVIRONMENTAL SETTING

IER 1 contains a complete discussion of the Environmental Setting for the project area and is incorporated by reference into this document. As such, no discussion of environmental setting will be made in this document.

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 proposed modifications to the Government approved, action as discussed IER 1. Direct impacts are those that would be caused by the action taken and occur at the same time and place (40 CFR 1508.8(a)). Indirect impacts are those that would be caused by the action and would be later in time or farther removed in distance, but are still reasonably foreseeable (40 CFR 1508.8(b)).

The resources described in this section are those recognized as significant by laws, executive orders, regulations, and other standards of national, state, or regional agencies and organizations; technical or scientific agencies, groups, or individuals; and the general public. Table 2 shows those significant resources found within the project area, and notes whether they would be impacted by any of the alternatives analyzed in this IER.

Table 2
Significant Resources in Project Study Area

Significant Resource	Impacted	Not Impacted
Wetlands/Drainageways/Canals	X	
Fisheries	X	
Essential Fish Habitat		X*
Wildlife	X	
Threatened or Endangered Species		X
Non-wet Uplands		X*
Cultural Resources		X
Recreational Resources		X*
Aesthetic (Visual) Resources		X*
Air Quality		X*
Noise		X*
Transportation	X	

Table 2 Significant Resources in Project Study Area (continued)
* - Proposed action poses only deMimimus additional impacts and as such is not discussed in this document Impacts to those resources from the complete IER 1 project are described in detail in IER 1.

Existing Conditions were discussed in IER 1 and are incorporated by reference for each significant resource discussed.

3.2.1 Wetlands/Drainageways/Canals

Future Conditions with No Action

Without implementation of the proposed action, the Government's approved action, as discussed in IER 1 would be constructed. Consequently, direct, indirect, and cumulative impacts on wetlands/drainage ways/canals would not differ from those described previously in the original IER 1.

Future Conditions for LPV 03d Levee

Proposed Action LPV 03d Levee – (centerline shift)
Roughly half of the area that would be affected by the levee shift was filled when the airport was constructed, and is maintained as open green space. The remaining half (flanking both sides of the central filled zone) is wetlands. The levee expansion would also require the relocation of a shallow drainage ditch further into the flood side. The proposed action for this reach would directly impact approximately 1.8 acres of wetlands. There would be no additional indirect or cumulative wetland impacts.

LPV 04 Levee (Reach LPV 04 1A and LPV 04 1B) and LPV 05 Levee (Reach LPV 05 2A and LPV 05 2B)

Proposed Action LPV 04 Levee (Reach LPV 04 1a, LPV 04 1b, and LPV 04 2a) and LPV 05 Levee (Reach LPV 05 2b) – (use of high strength geotextile fabric and new permanent access roads)

Levee
There would be no additional direct, indirect or cumulative wetland impacts within this reach due to the incorporation of high strength geotextile fabric in the levee in reaches 1A and 2B. Wetland impacts would be reduced by approximately 9.3 acres in reach 1A and by approximately 22 acres in reach 2B. This reduction in wetland impacts will not be reflected in this IER Supplemental but will be covered in a subsequent Mitigation IER (see Section 7 Mitigation).

Access Roads
There would be minimal direct impacts to wetlands due to the proposed permanent bridges and

access roads. Relocating the Walker Access Road to a previously permitted and mitigated location reduces wetlands impacts within the project area by approximately 2 acres. The new Walker Access Road location would only have new wetland impacts at the canal crossing (<0.1 acres of direct impacts; figure 13). Shell access road 2 would directly impact approximately 0.3 acres of wetlands to construct the bridge and road (figure 14), and Cross Bayou drainage structure access road would directly impact approximately 0.53 acres of wetlands for both the bridge and road construction.

Figure 13. The new Walker Access Road location proposed in coordination with permitted plans of the future industrial park development.

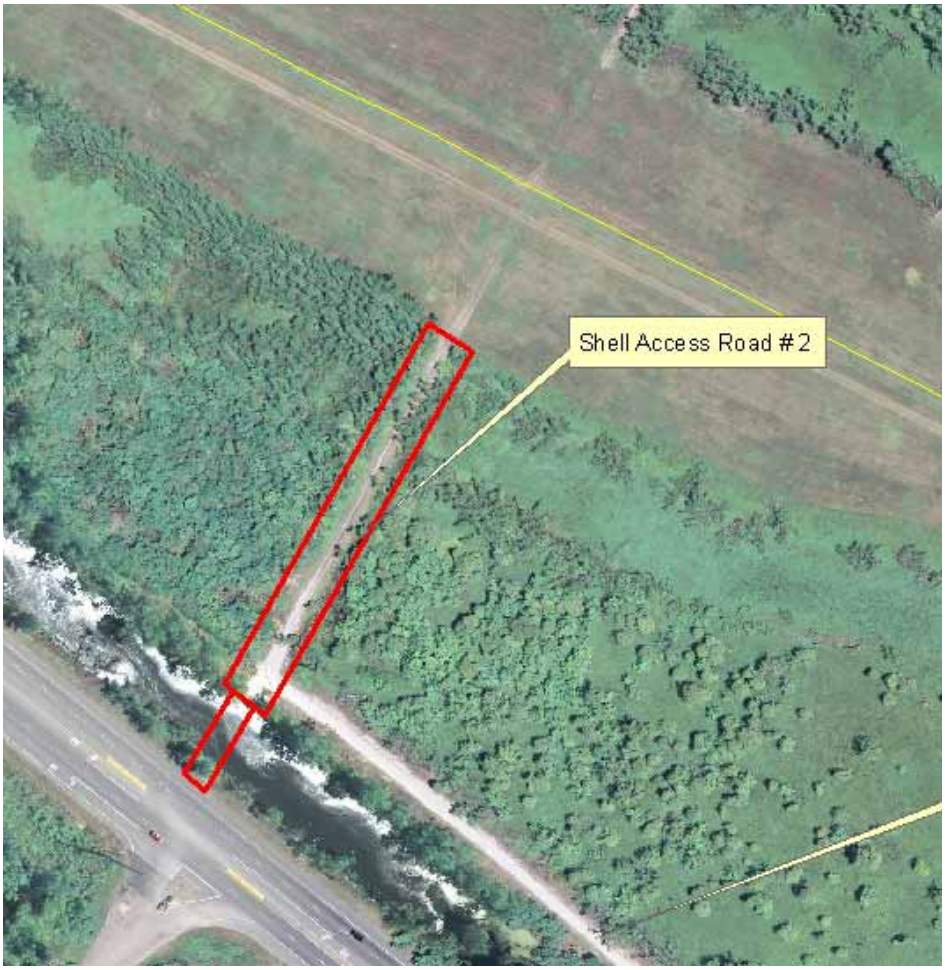

Figure 14. Proposed location of bridge construction and road widening for Shell Access Road 2.

Table 3. New Access Road Wetland Impacts(acres)			
	Approved in IER 1	Proposed in IERS 1	
		Reduction	New
Walker	- 2.0	+2	-0.1
Shell Access 2	N/A	N/A	-0.3
Cross Bayou	N/A	N/A	-0.53
Total	-2	+2	-0.93

There would be little to no additional indirect or cumulative wetland impacts within this reach due to the construction of new bridges and access roads.

Additional temporary access via existing roads at SWEPI Road, a road running parallel to Hwy 61 between SWEPI Road and the proposed Shell Access Road 2, and a road East of SWEPI Road would be required to construct the 100-year level of risk reduction for this reach (see figure 4; section 2.1). Multiple access points are required due to the expedited construction schedules that would require multiple construction crews to work concurrently None of the roads would

require improvement or widening. Maintenance would be conducted if necessary to maintain the integrity of the existing road. There would be no additional direct, indirect or cumulative wetland impacts within this reach due to the use of these existing access roads.

Future Conditions for LPV 06b Shell Pipeline Floodwall

There would be no additional direct, indirect or cumulative wetland impacts within this reach due to replacing the floodwall with an earthen levee segment.

Future Conditions for LPV 06e Floodwall Under I-310

There would be no additional direct, indirect or cumulative wetland impacts within this reach due to pile driving activity from the I-310 emergency lanes.

Future Conditions for LPV 07 - Drainage Structures (LPV 07b Cross Bayou Drainage Structure, LPV 07c St. Rose Drainage Structure, LPV 07d Almedia Drainage Structure, and LPV 07e Walker Drainage Structure)

Proposed Action LPV 07 - Drainage Structures - LPV 07b Cross Bayou Drainage Structure, LPV 07c St. Rose Drainage Structure (New Structures Floodside of Existing)

Direct Impacts
Dredging on the eastern bank of the channel, flood side of the existing Cross Bayou Drainage Structure would be required to maintain water flow during construction (figure 10). The area (0.17 acres) would be dredged to 5 ft in depth, and the 1,400 CY of material would be excavated, stockpiled in adjacent existing ROW, and replaced after the structure is built. In addition, the two embayed areas flood side of the existing St. Rose Drainage Structure, adjacent to the new structure location, would be filled from the existing bank to the new structure to support the tie-in walls and realign the levee centerline (0.91 acres; figure 11). The western embayed area would be initially filled in for construction access, and the eastern embayed area would be filled in following construction. Water flow would not be significantly affected during construction of the new structure as water would be able to move around the cofferdams necessary for construction. The dredging and filling impacts associated with the proposed action would be minimal compared to the extensive dredging and filling associated with the approved action for both structures (see figures 10 and 11).

The proposed action would temporarily disrupt up to 1.5 acres of water habitat. Installation of the water control structure would disturb wetland biota and sediments in the immediate vicinity of construction activities. However, those impacts would be short-term, approximately 17 months in duration, with effects lasting up to several months after completion. The adjacent wetlands would stabilize following construction, allowing sediment to settle and vegetation to recolonize the area. The new structures would have a similar footprint to the existing structures.

Indirect Impacts
Construction in the wetlands and drainage channels could cause downstream increases in turbidity and sedimentation. However, those impacts would be short-term, approximately 17

months in duration, with effects lasting up to several months after completion. The drainage channel and adjacent wetlands would stabilize.

Cumulative Impacts
The cumulative impacts from the proposed actions for these structures would be primarily short-term, during the construction period. The project area would be modified very slightly in the context of the multiple LPV flood control projects in the St. Charles and Jefferson Parish area.

LPV 07d Almedia Drainage Structure, and LPV 07e Walker Drainage Structure

Proposed Action LPV 07d Almedia Drainage Structure, and LPV 07e Walker Drainage Structure (temporary bridges and use of cofferdams)

There would be no additional direct, indirect or cumulative wetland impacts within this reach due to construction of the temporary canal crossing, and there would be no additional direct wetland impacts within this reach due to construction of cofferdams; however, there may be temporary indirect impacts to adjacent wetlands. Normal tidal exchange would resume following the removal of the cofferdam, and there would be no additional cumulative wetland impacts within this reach due to the construction of the cofferdams.

Table 4. Wetland Impacts (acres)			
Reach	Approved in IER 1	Proposed	
		Reduction	New
LPV 03d	- 1.4	0	-1.8
LPV 04 and LPV 05	- 300	+2	-0.93
LPV 06	- <1	0	0
LPV 07b and 07c	No net change	0	1.08
LPV 07d and 07e	0	0	0
Total	-302	+2	-3.81
Grand Total	-302*	-1.81**	

*Denotes total mitigation requirements within the IER 1 project area
**Denotes total impacts due to the proposed action.

Note: The USFWS and CEMVN mutually agreed the proposed wetland impacts associated with IERS 1 were comparable to the proposed wetland impact reductions, i.e., 2 acres of wetland impacts eliminated because Walker Access Road would be relocated, thus the Wetland Value Assessment calculated for IER 1 was not recalculated. The -302 acres still designate mitigation requirements within the IER 1 project area; however, mitigation requirements will likely decrease when actual impacts are quantified and disclosed in the subsequent Mitigation IER (see section 7 Mitigation).

3.2.2 Fisheries

Future Conditions with No Action

Without implementation of the proposed action, the Government's approved action, as discussed in IER 1 would be constructed. Consequently, direct, indirect, and cumulative impacts on fisheries would not differ from those described previously in the original IER 1.

Future Conditions for LPV 03d Levee

Proposed Action LPV 03d Levee (centerline shift)

Fisheries and aquatic life in the existing drainage ditch would be adversely impacted as the ditch would need to be filled to accommodate the levee expansion. Once filled, the ditch would be lost as possible habitat for fish and other aquatic organisms, but would be replaced by the new ditch which would re-populate native fisheries and aquatic life. Motile organisms present would attempt to avoid construction activities and seek refuge in adjacent undisturbed waters. Some benthic organisms would be impacted due their inability to vacate the construction area. Construction activities would likely cause indirect effects by increased local turbidity, decreased dissolved oxygen levels, vibrations, and subsurface noise. There would likely be no additional cumulative fisheries impacts within this reach due to the proposed action.

LPV 04 Levee (Reach LPV 04 1A and LPV 04 1B) and LPV 05 Levee (Reach LPV 05 2A and LPV 05 2B)

Proposed Action LPV 04 Levee (Reach LPV 04 1a, LPV 04 1b, and LPV 04 2a) and LPV 05 Levee (Reach LPV 05 2b) – (use of high strength geotextile fabric and new permanent access roads)

Levee
There would be no additional direct, indirect or cumulative fisheries impacts within this reach due to the incorporation of high strength geotextile fabric in the levee in reaches 1A and 2B.

Access Roads
There would be no additional direct, indirect or cumulative fisheries impacts within this reach due to the construction of new and use of existing access roads.

Future Conditions for LPV 06b Shell Pipeline Floodwall

Proposed Action LPV 06b Shell Pipeline Floodwall (replacing floodwall with earthen levee segment)

There would be no additional direct, indirect or cumulative fisheries impacts within this reach due to replacing the floodwall with an earthen levee segment.

Future Conditions for LPV 06e Floodwall Under I-310

Proposed Action LPV 06e Floodwall under I-310 (pile driving activity from the I-310 emergency lane)

There would be no additional direct, indirect or cumulative fisheries impacts within this reach due to pile driving activity from the I-310 interstate emergency lanes.

Future Conditions for LPV 07 - Drainage Structures (LPV 07b Cross Bayou Drainage Structure, LPV 07c St. Rose Drainage Structure, LPV 07d Almedia Drainage Structure, and LPV 07e Walker Drainage Structure)

Proposed Action LPV 07 - Drainage Structures - LPV 07b Cross Bayou Drainage Structure, LPV 07c St. Rose Drainage Structure (New Structures Floodside of Existing)

Direct Impacts
The proposed action would permanently remove up to 1.5 acres of water habitat within each drainage channel. Installation of the water control structure would disturb wetland biota and sediments in the immediate vicinity of construction activities. The adjacent wetlands would stabilize following construction, allowing sediment to settle and vegetation to recolonize the area. The new structures would have a similar footprint to the existing structures. The new structures would have the same flow capacity as the older structures.

Indirect Impacts
Construction in the wetlands and drainage channels could cause downstream increases in turbidity and sedimentation. However, those impacts would be short-term, approximately 17 months in duration, with effects lasting up to several months after completion. The drainage channel and adjacent wetlands would stabilize.

Cumulative Impacts
The cumulative impacts from the proposed actions for these structures would be primarily short-term, during the construction period. The project area would be modified very slightly in the context of the multiple LPV flood control projects in the St. Charles and Jefferson Parish area.

LPV 07d Almedia Drainage Structure, and LPV 07e Walker Drainage Structure

Proposed Action LPV 07d Almedia Drainage Structure, and LPV 07e Walker Drainage Structure (temporary bridges and use of cofferdams)

There would be no additional direct, indirect or cumulative fisheries impacts within this reach due to the construction of temporary canal crossings.

During construction to modify the existing drainage structure (at Almedia or Walker), flow would be limited to the other drainage structure not under construction. Preventing flow through either drainage structure would have minimal impacts on fish passage from the flood to the protected side; however, some fisheries species may be temporarily prevented from passing

through the drainage structure due to the cofferdam necessary for construction. The spring and summer months were selected for construction as upstream movement may increase during winter months.

3.2.3 Wildlife

Future Conditions with No Action

Without implementation of the proposed action, the Government's approved action, as discussed in IER 1 would be constructed. Consequently, direct, indirect, and cumulative impacts on wildlife would not differ from those described previously in the original IER 1.

Future Conditions for LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07

Direct, Indirect, and Cumulative Impacts
Aside from approved impacts disclosed in the IER 1, there would be minimal additional direct, indirect or cumulative wildlife impacts within these reaches due to the proposed action.

3.2.4 Threatened or Endangered Species

In accordance with the provisions of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 USC 1531 et seq.), the CEMVN submitted a letter on 25 March 2009 to the USFWS office in Lafayette, Louisiana, requesting information on protected, proposed, and candidate species and critical habitat that may occur in the vicinity of the proposed IER 1 Supplemental project area. In response and in accordance with the provisions of the ESA and the Migratory Bird Treaty Act of 1918 (40 Stat. 755, as amended; 16 USC 703 et seq.), USFWS responded in a letter on 3 April 2009 (appendix C). The USFWS concurred with the CEMVN's determination that the proposed work is not likely to adversely affect any threatened or endangered species based on the fact that there are no known threatened or endangered species in the project area.

3.2.5 Cultural Resources

In CEMVN's initial letter to the State Historic Preservation Officer (SHPO) and Indian Tribes dated 26 June 2007, the CEMVN provided project documentation, evaluated cultural resources potential in the project area, and found that the proposed actions as described in IER 1 would have no impact on cultural resources. The SHPO concurred with the CEMVN "no historic properties affected" finding in a letter dated 3 August 2007. The Mississippi Band of Choctaw Indians concurred with the effect determination in an email dated 23 August 2007. No other Indian Tribes responded to our initial request for comments.

Additional project documentation regarding LPV 03d was provided to the SHPO and Indian Tribes on 31 October 2007. The SHPO and Mississippi Band of Choctaw Indians concurred with the CEMVN "no historic properties affected" finding for LPV 03d in a letter and email

dated 13 December 2007, and 29 November 2007, respectively. No other Indian Tribes responded to our second request for comments.

In our third letter to the SHPO and Indian Tribes dated 27 March 2009, additional project documentation regarding the Walker Access Road relocation in the proposed action, was provided. The SHPO, Alabama-Coushatta Tribe of Texas, Seminole Tribe of Florida, Choctaw Nation of Oklahoma and the Quapaw Tribe of Oklahoma concurred with the CEMVN "no historic properties affected" finding in letters dated 16 April 2009, 17 April 2009, 17 April 2009 and 20 April 2009, and an email dated 27 March 2009, respectively. No other Indian Tribes responded to our third request for comments.

Section 106 consultation for the proposed project actions is concluded. However, if any unrecorded cultural resources are determined to exist within the proposed project boundaries, then no work would proceed in the area containing these cultural resources until a CEMVN archaeologist has been notified and final coordination with the SHPO and Indian Tribes has been completed.

Direct, indirect and cumulative impacts to cultural resources within the IER 1 Supplemental project area are the same as those disclosed within the original IER 1.

3.2.6 Transportation

Future Conditions with No Action

Without implementation of the proposed action, the Government's approved action as described in IER 1 would be constructed. Consequently, direct, indirect, and cumulative impacts on transportation would not differ from those described previously in IER 1.

Future Conditions with Proposed Action All Reaches within Supplemental IER 1 Project Area

In addition to transportation impacts as described in IER 1, there are minimal direct transportation impacts associated with the proposed action. There are temporary direct impacts to traffic associated with the proposed access roads perpendicular to Highway 61 (Shell Access Road 2 and Cross Bayou Access Road). To accommodate construction of the new bridge and its accompanying tie-in at both Shell Access Road 2 and Cross Bayou Access Road, an approximate 405 ft stretch of the right (outer) west bound lane of Airline highway adjacent to each construction site would be closed intermittently. The outer lane would be closed during the pile driving activity for a few hours a day, throughout consecutive days, for 4-5 weeks. The intermittent lane closure anticipated start date would be 22 September 2009 for Cross Bayou Access Road and 30 November 2009 for Shell Access 2.

There are little to no indirect and cumulative transportation impacts due to the proposed action.

Note: As engineering designs are finalized and efforts are made to reduce environmental impacts (i.e., the minimization of levee footprints), transportation impacts may be diminished as

the required borrow quantities are reduced throughout the system. These impact reductions will be covered in a subsequent report.

4. 0 CUMULATIVE IMPACTS

Aside from approved impacts disclosed in the IER 1, there would be minimal additional cumulative impacts within the IER project area due to the proposed action.

5.0 SELECTION RATIONALE

The modifications proposed in this IER Supplemental were developed in order to incorporate a levee flood side shift, replacement of a floodwall with levee, the use of high strength geotextile fabric, construction of structures in proposed locations, construction of new access roads and temporary bridges, use of cofferdams, and use of existing access roads along the La Branche Wetlands in St. Charles Parish, Louisiana. The proposed action was revised because at the time of completion of the original IER 1 report, engineering evaluations had not been completed for all of the proposed actions and alternatives. Since that time, final selection and engineering details (e.g., location of access roads and drainage structure designs) of the original proposed action have been revised based on the final engineering reports. The proposed modifications to the Government-approved action in IER 1 were brought forward to ensure the most reliable, time and cost effective and least environmentally damaging alternative was implemented. In addition, for levee section LPV 03d, consultation with the FAA and Louis Armstrong Airport staff was completed. The Corps relied heavily on the FAA and its guidance concerning potential impacts in the immediate area of the airport runways, etc in forming the proposed action discussed in this report.

6. 0 COORDINATION AND CONSULTATION

6.1 AGENCY COORDINATION

Preparation of this IER Supplemental has been coordinated with appropriate 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. This interagency environmental team was integrated with the CEMVN Project Delivery Team (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 held concerning this and other CEMVN HSDRRS projects.

Listed below are the agency specific project specific recommendations for the IER 1 Supplemental proposed action.

The U.S. Fish and Wildlife Service (USFWS) reviewed the proposed action to see if it would affect any T&E species, or their critical habitat. The USFWS concurred with the CEMVN in a letter dated 3 April 2009, that the proposed action would not have adverse impacts on T&E species (appendix C).

NOAA National Marine Fisheries Service (NMFS) was sent the CEMVN's determination on the effects the proposed action would have on T&E species on 30 March 2009. No T&E species or their critical habitat under NMFS jurisdiction would be impacted with construction of the proposed action.

The LDNR reviewed the proposed action for consistency with the Louisiana Coastal Resources Program (LCRP). The proposed action was found to be consistent with the LCRP, as per a letter dated 8 May 2009 (appendix C).

Section 106 of the National Historic Preservation Act, as amended, requires consultation with the Louisiana SHPO [State Historic Preservation Officer] and Native American tribes. Eleven Federally-recognized tribes that have an interest in the region were given the opportunity to review the proposed action. The SHPO, Alabama-Coushatta Tribe of Texas, Seminole Tribe of Florida, Choctaw Nation of Oklahoma and the Quapaw Tribe of Oklahoma concurred with the CEMVN "no historic properties affected" finding in letters dated 16 April 2009, 17 April 2009, 17 April 2009 and 20 April 2009, and an email dated 27 March 2009, respectively. No other Indian Tribes responded to our third request for comments (appendix C).

Coordination with the USFWS regarding modifications to the action approved in IER 1 was initiated in a letter dated 30 March 2009. A Draft Coordination act Report (CAR) addressing the IERS 1 proposed action was provided by the USFWS on 27 April 2009, and a Final CAR was provided by the Service 23 June 2009. The 27 April 2009 and 23 June 2009 CARs along with the 22 July 2008 Final Fish and Wildlife Coordination Act (FWCA) Report address the study area, significant fish and wildlife species, and project construction to be conducted within the IER 1 project area. The FWCA Report and CARs concluded that the USFWS does not object to the construction of the proposed project provided that fish and wildlife conservation recommendations are implemented concurrently with project implementation. The USFWS and CEMVN mutually agreed the proposed wetland impacts associated with IERS 1 were comparable to the proposed wetland impact reductions, i.e., 2 acres of wetland impacts eliminated because Walker Access Road would be relocated, thus the Wetland Value Assessment calculated for IER 1 was not recalculated. Copies of the Draft and Final reports are provided in appendix C.

The USFWS believes that the project-specific recommendations (presented below) provided in the 22 July 2008 Final FWCA Report continue to remain valid with the exception that the recommendation addressing the previously proposed access roads was removed. Each recommendation is followed by the CEMVN response.

> Recommendation 1: The Corps and local sponsor shall provide 193 AAHUs to compensate for the unavoidable, project-related loss of forested wetlands. The Service, National Marine Fisheries Service (NMFS), Louisiana Department of Wildlife and

Fisheries (LDWF), and Louisiana Department of Natural Resources (LDNR) should be consulted regarding the adequacy of any proposed alternative mitigation sites. The mitigation plan developed to offset project related impacts should be consistent with mitigation requirements of the Clean Water Act regulatory program, and include monitoring, success criteria, and financial assurance components.

CEMVN Response 1: Concur.

Recommendation 2: The Service recommends that any impacts to forested wetlands should be avoided or minimized to the greatest extent practicable.

CEMVN Response 2: Concur.

Recommendation 3: For each of the three new access roads the Service recommends the installation of a minimum of 18-24 inch culverts every 250 feet when constructing these access roads through wetlands. Additional culverts should be installed at a stream crossing and drainage feature. Culverts should be maintained to ensure that existing flow of surface water is uncompromised.

CEMVN Response 3: Concur.

Recommendation 4: All gates and/or culverts being replaced or modified should be operated according to previously developed operational plans to avoid further degradation of the project area hydrology.

CEMVN Response 4: Concur.

Recommendation 5: To avoid the protected-side swamps near the Bayou Trepagnier pumps and drainage structure from becoming impounded or drained, provide assurance that once the drainage structure is replaced with a T-wall that the pumps will be operated to achieve the same hydrologic results (i.e. water levels) as in the past thus perpetuating existing conditions and minimizing secondary impacts from development and hydrologic alteration.

CEMVN Response 5: Concur.

Recommendation 6: Bayou Trepagnier is a Louisiana designated Natural and Scenic River. The Corps must obtain authorization from the LDWF, Scenic Rivers Program prior to initiating any of the proposed activities within or adjacent to the banks of Bayou Trepagnier. Scenic Rivers Coordination Keith Cascio can me contacted at (318) 343-4045

CEMVN Response 6: Concur.

Recommendation 7: Avoid adverse impacts to wading bird colonies through careful design project features and timing of construction. Colonies that are not currently listed in the database maintained by the Louisiana Department of Wildlife and Fisheries may be present. That database is updated primarily by monitoring the colony sites that were previously surveyed during the 1980s. Until a new, comprehensive coast-wide survey is

conducted to determine the location of -established nesting colonies, the Service recommends that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season.

CEMVN Response 7: Concur.

Recommendation 8: The Service shall be provided an opportunity to review and submit recommendations on the draft plans and specifications for all levee work addressed in this report.

CEMVN Response 8: Concur.

Recommendation 9: Any proposed change in levee, f1oodwall, or drainage structure features, locations or plans shall be coordinated in advance with the Service, NMFS, LDWF, and LDNR.

CEMVN Response 9: Concur.

Recommendation 10: The project's first Project Cooperation Agreement (or similar document) shall include language that includes the responsibility of the local-cost sharer to provide operational, monitoring, and maintenance funds for mitigation features.

CEMVN Response 10: Corps Project Partnering Agreements (PPA) do not contain language mandating the availability of funds for specific project features, but require the non-Federal Sponsor to provide certification of sufficient funding for the entire project. Further, mitigation components are considered a feature of the entire project. The non-Federal Sponsor is responsible for Operation, Maintenance, Repair, Replacement and Rehabilitation (OMRR&R) of all project features accordance with the OMRR&R manual that the Corps provides upon completion of the project.

Recommendation 11: If the proposed project has not been constructed within 1 year or if changes are made to the proposed project, the USACE should re-initiate Endangered Species Act consultation with the Service to ensure that the proposed project would not adversely affect any Federally listed threatened or endangered species or their habitat.

CEMVN Response 11: Concur.

7. 0 MITIGATION

All actual wetland impacts due to construction will receive compensatory mitigation. Mitigation acreages considered in IER 1 were cleared for the worse case scenarios; however, as structure and levee designs are finalized, the CEMVN is including measures to continually minimize wetland impacts; e.g., access road relocations to avoid wetlands, use of geotextile to minimize levee footprints, etc. The CEMVN is minimizing impacts throughout the IER 1 project area as engineering designs are finalized, and those acres actually impacted by construction will be addressed in a subsequent mitigation IER and will receive compensatory mitigation.

Since the Walker Access Road would be relocated to a previously permitted and mitigated adjacent location, approximately 2 acres of wetland impacts that were discussed in IER 1 will no longer be impacted. When subtracting the 2 acres of reduced impacts from the new wetland impacts associated with the proposed action, 3.81 acres, the proposed action would result in an additional 1.81 acres of new wetland impacts that were not discussed in IER 1 (table 4).

Note: The USFWS and CEMVN mutually agreed the proposed wetland impacts associated with IERS 1 were comparable to the proposed wetland impact reductions, i.e., 2 acres of wetland impacts eliminated because Walker Access Road would be relocated, thus the Wetland Value Assessment calculated for IER 1 was not recalculated. The approved -302 acres will be used for mitigation purposes.

8. 0 COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

Construction of the proposed action would not commence until the proposed action achieved environmental compliance with all applicable laws and regulations, as described in this section.

Environmental compliance for the proposed action consisted of coordination of this IER Supplemental with appropriate agencies, organizations, and individuals for their review and comments; the USFWS and NMFS confirmation that the proposed action would not be likely to adversely affect any endangered or threatened species or completion of ESA section 7 consultation; LDNR concurrence with the determination that the proposed action is consistent, to the maximum extent practicable, with the Louisiana Coastal Resources Program; receipt of a Water Quality Certificate from the State of Louisiana; public review of the Section 404(b)(1) Public Notice and signature of the Section 404(b)(1) Evaluation; coordination with the Louisiana SHPO; receipt and acceptance or resolution of all Fish and Wildlife Coordination Act recommendations; receipt and acceptance or resolution of all LDEQ comments on the air quality impact analysis documented in the IER Supplemental; and receipt and acceptance or resolution of all EFH recommendations. Much of the aforementioned coordination had been completed prior to submitting the draft IER 1 Supplemental for public review.

Below is a list of environmental and cultural resources agencies with which the CEMVN coordinated and the dates in which those agencies responded stating the CEMVN proposed action was compliant with the associated laws and regulations.

Agency / Organization	Date Responded
Endangered Species Act Section 7 concluded (USFWS):	April 3, 2009
Endangered Species Act Section 7 concluded (NMFS):	N/A - “No Effect”
Coastal Zone Management Consistency Determination:	May 8, 2009
Clean Water Act Section 401 Water Quality Certification:	April 20, 2009
USFWS Draft Coordination Act Report:	April 24, 2009
National Historic Preservation Act Sect. 106 (SHPO and/or ACHP):	April 16, 2009
Federal tribes with vested interests (that responded):	

Agency / Organization (continued)	Date Responded
Alabama-Coushatta Tribe of Texas	April 17, 2009
Seminole Tribe of Florida	April 17, 2009
Choctaw Nation of Oklahoma	April 20, 2009
Quapaw Tribe of Oklahoma	April 27, 2009
MPRSA Section 103 Evaluation:	N/A
Clean Air Act:	May 7, 2008
Clean Water Act Section 404(b)(1) signed:	June 16, 2009
USFWS Final Coordination act Report:	June 23, 2009

9.0 CONCLUSIONS

9.1 FINAL DECISION

The modifications to reaches LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 were proposed in order to incorporate a levee flood side shift, replacement of a floodwall with levee, the use of high strength geotextile fabric, construction of drainage structures in new proposed locations, construction of new access roads and temporary bridges, use of cofferdams, and use of existing access roads along the La Branche Wetlands in St. Charles Parish, Louisiana (figure 3).

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

Wetlands/Drainageways/Canals

- LPV 03d Levee – Increase of wetlands impacts by 1.8 acres
- LPV 04 and 05 – Reduction of wetlands impacts by approximately 2 acres at Walker Access Road Relocation, increase of wetlands impacts by 0.1 acre at Walker Access Road, increase of wetlands impacts by 0.3 acre at Shell Access Road 2, and an increase of wetlands impacts by 0.53 at Cross Bayou Access Road
- LPV 06 – no wetlands impacts
- LPV 07b and 07c – 0.17 acre of wetlands to be dredged and backfilled, 0.91 acre open water to be filled (no net change)
- LPV 07d and 07e – no wetlands impacts
- **Total impacts: 3.81 lost and 2 gained acres = 1.81 net acres of proposed impacts**

Fisheries

- LPV 03d Levee – no new fisheries impacts
- LPV 04 and 05 –no new fisheries impacts
- LPV 06 – no new fisheries impacts
- LPV 07b and 07c – 0.91 acre impact to fish habitat due to filling
- LPV 07d and 07e – minimal fisheries impacts
- **Total impacts: 0.91 acres of proposed impacts**

Wildlife

- LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 – minor reduction in wetland habitat and/or temporary impacts to wildlife within the vicinity of the project area during construction.

Endangered or Threatened Species

- LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 – The USFWS concurred with the CEMVN's determination that the proposed work is not likely to adversely affect any threatened or endangered species based on the fact that there are no known threatened or endangered species in the project area.

Socioeconomic Resources

- LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 – no additional impacts.

Environmental Justice

- LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 – no additional impacts.

Cultural Resources

- LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 – No effect: SHPO consultation for this project concurred with CEMVN that no cultural resources would be impacted under the proposed action.

Recreation

- LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 – no additional impacts.

Aesthetic (Visual) Resources

- LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 – no additional impacts.

Air Quality

- LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 – no additional impacts.

Noise

- LPV 03d, LPV 04, LPV 05, LPV 06, and LPV 07 – no additional impacts.

Transportation

- LPV 03d, LPV 06 and LPV 07 - no additional impacts.

- LPV 04 and LPV 05 - minimal additional temporary direct impacts to traffic associated with the proposed access roads perpendicular to Highway 61 (Shell Access Road 2 and Cross Bayou Access Road). The outer lane of Highway 61 would be closed during the pile driving activity for a few hours a day, throughout consecutive days, for 4-5 weeks.

9.2 PREPARED BY

The point of contact for this IER Supplemental is Mr. Gib Owen, USACE, New Orleans District CEMVN-PM-RS. Table 5 lists the preparers of relevant sections of this report. Mr. Owen can be reached at the U.S. Army Corps of Engineers, New Orleans District; Protection and Restoration Office, P.O. Box P.O. Box 60267, 7400 Leake Avenue; New Orleans, Louisiana 70118.

Table 5
IER Preparation Team

EA Section	Team Member
Environmental Team Leader	Gib Owen, USACE
Environmental Project Manager	Lissa Lyncker, HDR
Cultural Resources	Michael Swanda, USACE
HTRW	Christopher Brown, USACE
Technical Editor	Jennifer Darville, USACE
Internal Technical Review	Thomas Keevin, USACE

APPENDIX A

LIST OF ACRONYMS AND DEFINITIONS OF COMMON TERMS

AAHU	average annual habitat unit
AMI	area median income
ASTM	American Society for Testing and Materials
CAA	Clean Air Act
CAR	Coordination Act Report
CED	Comprehensive Environmental Document
CEMVN	U.S. Army Corps of Engineers, Mississippi Valley Division, New Orleans District
CEQ	Council on Environmental Quality
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
CO	carbon monoxide
CWPPRA	Coastal Wetlands Planning, Protection, and Restoration Act
CY	cubic yard
dB	decibel
dBA	A-weighted decibel
DCED	Draft Comprehensive Environmental Document
DNL	day-night average sound level
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EJ	Environmental Justice
ER	Engineering Regulations
ESA	Endangered Species Act
F	Fahrenheit
ft	feet
FCED	Final Comprehensive Environmental Document
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FMC	Fishery Management Council
FMP	Fishery Management Plan
FONSI	Finding of No Significant Impact
GIWW	Gulf Intracoastal Waterway
GNOHSDRRS	Greater New Orleans Hurricane and Storm Damage Risk Reduction System
HTRW	hazardous, toxic, and radioactive waste
I-10	Interstate 10
I-310	Interstate 310
IER	Individual Environmental Report
IHNC	Inner Harbor Navigation Canal
III	Insurance Information Institute
LADOTD	Louisiana Department of Transportation and Development
LCWCRTF	Louisiana Coastal Wetlands Conservation and Restoration Task Force

LaDNR	Louisiana Department of Natural Resources
LaDOL	Louisiana Department of Labor
lft	linear feet
LaNHP	Louisiana Natural Heritage Program
LaDWF	Louisiana Department of Wildlife and Fisheries
LOS	level of service
LPV	Lake Pontchartrain and Vicinity
mi^2	square miles
mph	miles per hour
MRGO	Mississippi River Gulf Outlet
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NAAQS	National Ambient Air Quality Standards
NAVD88	North American Vertical Datum
NEPA	National Environmental Policy Act of 1969
NHPA	National Historic Preservation Act of 1966, as Amended
NHTSA	National Highway Traffic and Safety Administration
NMFS	National Marine Fisheries Service
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NORCO	New Orleans Refining Company
NWR	National Wildlife Refuge
NWUS	Navigable Waters of the United States
O_3	ozone
OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
Pb	lead
PL	Public Law
PM	particulate matter
PPA	Project Partnering Agreements
ppm	parts per million
ppt	parts per thousand
RCRA	Resource Conservation and Recovery Act
REC	recognized environmental condition
ROD	Record of Decision
ROW	right-of-way
SHPO	State Historic Preservation Office
SIR	Supplemental Information Report
SO_2	sulfur dioxide
sq ft	square feet
T&E	threatened and endangered
TRB	Transportation Research Board
USC	United States Code
USACE	U.S. Army Corps of Engineers
USCB	U.S. Census Bureau
USEPA	U.S. Environmental Protection Agency
USFWS	U.S. Fish and Wildlife Service
USGS	U.S. Geological Survey

WBV	West Bank and Vicinity
WCRA	Wetlands Conservation and Restoration Authority
WoUS	Waters of the United States
WRDA	Water Resources Development Act
WVA	wetland value assessment

APPENDIX B

PUBLIC COMMENT AND RESPONSES SUMMARY

- **Coastal Environmental, Incorporated Comment**

Coastal Environments , Incorporated

Services:

Applied Science & Planning

Environmental Restoration & Monitoring

Cultural Resources Management

Geographic Information (GIS) Services

Litigation Services

Website:

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bkappel@coastalenv.com

June 11, 2008

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

RE: Draft Individual Environmental Report LPV, LaBranche Wetlands Levee
St. Charles Parish, LA, IER 1 Supplemental

Dear Mr. Owen:

On behalf of St. Charles Airline Lands, Inc. (SCALI) and St. Charles Land Syndicate (SCLS), landowners in the LaBranche area of St. Charles Parish, Coastal Environments, Inc. respectfully submits the following comments regarding the aforementioned project.

While it remains unclear how much wetland habitat will be directly impacted as the result of hurricane levee project improvements, SCALI and SCLS steadfastly believe that all compensatory wetland mitigation obligations should be fulfilled in LaBranche.

As you know, mitigation for the original LaBranche Wetlands Levee Project in the 1990s was conducted in another parish. Due to the fact there are multiple wetland restoration and enhancement opportunities in LaBranche, the mitigation should stay where the impacts occur.

Thank you for the opportunity to make these comments.

Sincerely yours,

Ed Fike

Ed Fike
Project Scientist

xc: SCALI
SCLS

APPENDIX C

INTERAGENCY CORRESPONDANCE

- **USFWS Threatened and Endangered Species Concurrence**
- **USFWS Final Fish and Wildlife Coordination Act (FWCA) Report (July 22, 2008); Draft Coordination Act Report (April 24, 2009); Final Coordination Act Report (June 23, 2009); and Comments**
- **LDEQ Water Quality Certificate and Comments**
- **LSHPO CRM Management Summary**
- **Alabama-Coushatta Tribe of Texas Response Letter**
- **Seminole Tribe of Florida Response Letter**
- **Chocktaw Nation of Oklahoma Response Letter**
- **Quapaw Tribe of Oklahoma Response Email**
- **LDNR LCRP Consistency Determination**
- **LaDOTD Comments**
- **NMFS Comments**

United States Department of the Interior

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

April 3, 2009

PRO

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

Dear Colonel Lee:

The U.S. Fish and Wildlife Service (Service) has reviewed the information provided for the Supplemental Individual Environmental Report (IER) Lake Pontchartrain and Vicinity (LPV) St. Charles Parish, Louisiana (IERS1). That study was conducted in response to Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4). That law authorized the Corps of Engineers (Corps) to upgrade some existing hurricane protection projects to provide protection against a 100-year hurricane event. The Service submits the following comments in accordance with provisions of the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) and the Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.).

The project area is located where colonial nesting waterbirds may be present. Louisiana Department of Wildlife and Fisheries currently maintains a database of these colonies locations. That database is updated primarily by monitoring the colony sites that were previously surveyed during the 1980s. Until a new, comprehensive coast-wide survey is conducted to determine the location of newly-established nesting colonies, we recommend that a qualified biologist inspect the proposed work sites for the presence of undocumented nesting colonies during the nesting season (e.g. February through September depending on the species). If colonies exist work should not be conducted within 1,000 feet of the colony during the nesting season

The project-area forested wetlands may provide nesting habitat for the bald eagle (*Haliaeetus leucocephalus*), which has officially been removed from the List of Endangered and Threatened Species as of August 8, 2007, however the bald eagle continues to be protected under the MBTA and the BGEPA. Bald eagles nest in Louisiana from October through mid-May. Eagles typically nest in mature trees (e.g., bald cypress, sycamore, willow, etc.) near fresh to intermediate marshes or open water in the southeastern parishes. Major threats to this species include habitat alteration, human disturbance, and environmental contaminants.

The Service developed the National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations regarding how to

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minimize potential project impacts to bald eagles, particularly where such impacts may constitute "disturbance," which is prohibited by the BGEPA. A copy of the NBEM Guidelines is available at: http://www.fws.gov/migratorybirds/issues/BaldEagle/NationalBaldEagleManagementGuidelines.pdf. Those guidelines recommend: (1) maintaining a specified distance between the activity and the nest (buffer area); (2) maintaining natural areas (preferably forested) between the activity and nest trees (landscape buffers); and (3) avoiding certain activities during the breeding season. On-site personnel should be informed of the possible presence of nesting bald eagles within the project boundary, and should identify, avoid, and immediately report any such nests to this office. The construction of the proposed project features for IER 1, in the vicinity of the Reach 1A, may potentially impact the bald eagle. If the Corps determines that construction activities will be located at or closer than 660 feet from a nest tree, the Service recommends that the Corps conduct an on-line evaluation at: http://www.fws.gov/southeast/es/baldeagle. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary. A copy of that determination should be provided to this office. The Division of Migratory Birds for the Southeast Region of the Service (phone: 404/679-7051, e-mail: SEmigratorybirds@fws.gov) has the lead role in conducting such consultations. Should you need further assistance interpreting the guidelines or performing an on-line project evaluation, please contact our office.

We concur with Corps' determination that the proposed work is not likely to adversely affect any threatened or endangered species. Our concurrence is based on the fact that there are no know threatened or endangered species in the project areas. If the scope or design of the project changes, or the project is not implemented within one year from the date of this letter, the Service requests that ESA consultation be reinitiated with this office.

Thank you for the opportunity to assist in the planning of this project feature. If you have any questions regarding our comments, please contact David Walther at (337) 291-3122.

Sincerely,

James F. Boggs
Supervisor
Louisiana Field Office

cc: EPA, Dallas, TX
National Marine Fisheries Service, Baton Rouge, LA
LA Dept. of Wildlife and Fisheries, Baton Rouge, LA
LA Dept. of Natural Resources (CMD/CRD), Baton Rouge, LA

United States Department of the Interior

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

July 22, 2008

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

Dear Colonel Lee

Please reference the "Individual Environmental Report (IER) Lake Pontchartrain and Vicinity (LPV) St. Charles Parish, Louisiana (IER1)". That study was conducted in response to Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4). That law authorized the Corps of Engineers (Corps) to upgrade some existing hurricane protection projects to provide protection against a 100-year hurricane event. This report contains an analysis of the impacts on fish and wildlife resources that would result from the implementation of 100-year hurricane protection for that area, and provides recommendations to minimize and/or mitigate project impacts on those resources.

The proposed project was authorized by Supplemental 4 which instructed the Corps to proceed with engineering, design, and modification (and construction where necessary) of the LPV and the West Bank and Vicinity (WBV) Hurricane Protection Projects so those projects would provide 100-year hurricane protection. Procedurally, project construction has been authorized in the absence of the report of the Secretary of the Interior that is required by Section 2(b) of the Fish and Wildlife Coordination Act (FWCA) (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.). In this case, the authorization process has precluded the normal procedures for fully complying with the FWCA. The FWCA requires that our Section 2(b) report be made an integral part of any report supporting further project authorization or administrative approval. Therefore, to fulfill the coordination and reporting requirements of the FWCA, the Service will be providing post-authorization 2(b) reports for each IER.

This report incorporates and supplements our FWCA Reports that addressed impacts and mitigation features for the WBV of New Orleans (dated November 10, 1986, August 22, 1994, November 15, 1996, and June 20, 2005) and the LPV (dated July 25, 1984 and January 17, 1992) Hurricane Protection projects and the November 26, 2007 Draft Programmatic FWCA Report that addresses the hurricane protection improvements authorized in Supplemental 4. This report constitutes the report of the Secretary of the Interior as required by Section 2(b) of the FWCA.

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The draft and supplemental FWCA Report was provided to the Louisiana Department of Wildlife and Fisheries and the National Marine Fisheries Service; their comments are incorporated into this final report.

We appreciate the cooperation of your staff on this study. Should your staff have any questions regarding the enclosed report, please have them contact Ms. Catherine Breaux (504/862-2689) of this office.

Sincerely,

James F. Boggs
Supervisor
Louisiana Field Office

Enclosures

cc: EPA, Dallas, TX
National Marine Fisheries Service, Baton Rouge, LA
LA Dept. of Wildlife and Fisheries, Baton Rouge, LA
LA Dept. of Natural Resources (CMD/CRD), Baton Rouge, LA

Fish and Wildlife Coordination Act Report
for the
Individual Environmental Reports (IER)
St. Charles Parish, Louisiana
IER 1

Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4)

PROVIDED TO
NEW ORLEANS DISTRICT
U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

PREPARED BY
CATHERINE BREAUX
FISH AND WILDLIFE BIOLOGIST

U.S. FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
LAFAYETTE, LOUISIANA
JULY 2008
U.S. FISH AND WILDLIFE SERVICE – SOUTHEAST REGION

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EXECUTIVE SUMMARY

The U. S. Army Corps of Engineers' New Orleans District (Corps) is preparing the "Individual Environmental Report (IER) Lake Pontchartrain and Vicinity (LPV) St. Charles Parish, Louisiana (IER1)". That study was conducted in response to Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4). That law authorized the Corps to upgrade some existing hurricane protection projects to provide protection against a 100-year hurricane event. This report contains an analysis of the impacts on fish and wildlife resources that would result from the implementation of 100-year hurricane protection for that area, and provides recommendations to minimize and/or mitigate project impacts on those resources.

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Construction of the flood protection levee would result in the loss of 292 acres of swamp and bottomland hardwood wetlands for a total loss of 193 AAHUs. The Service does not object to the construction of the proposed project provided the following fish and wildlife conservation recommendations are implemented concurrently with project implementation:

1. The Corps and local sponsor shall provide 193 AAHUs to compensate for the unavoidable, project-related loss of forested wetlands. The Service, National Marine Fisheries Service (NMFS), Louisiana Department of Wildlife and Fisheries (LDWF), and Louisiana Department of Natural Resources (LDNR) should be consulted regarding the adequacy of any proposed alternative mitigation sites. The mitigation plan developed to

offset project related impacts should be consistent with mitigation requirements of the Clean Water Act regulatory program, and include monitoring, success criteria, and financial assurance components.

2. The Service recommends that any impacts to forested wetlands should be avoided or minimized to the greatest extent practicable.

3. Three new access roads will be constructed at the Shell pipeline crossing, under I-310, and at the Walker structure. The potential for induced development is increased greatly with these new access corridors, especially the access road at the Walker structure. The Service recommends that all three access roads be only used temporarily during construction and to be degraded and replanted with appropriate bottomland hardwood forest or cypress swamp species after construction activities are complete. Reforestation activities should include the use of measures to prevent nutria herbivory, and monitoring to document habitat recovery and the need for further actions. If any of the access roads are not degraded after construction activities are completed, then secondary and cumulative impacts would have to be assessed.

4. Where each of the three access roads cross wetlands, 18-24 inch culverts should be installed every 250 feet. Additional culverts should be installed at stream crossings and drainage features. Culverts should be maintained to ensure that existing flow of surface water is uncompromised.

5. All gates and/or culverts being replaced or modified should be operated according to previously developed operational plans to avoid further degradation of the project area hydrology.

6. To prevent the protected-side swamps near the Bayou Trepagnier pumps and drainage structure from becoming impounded or drained, provide assurance that once the drainage structure is replaced with a T-wall that the pumps will be operated to achieve the same hydrologic results (i.e. water levels) as in the past thus perpetuating existing conditions and minimizing secondary impacts from development and hydrologic alteration.

7. Bayou Trepagnier is a Louisiana designated Natural and Scenic River. The Corps must obtain authorization from the LDWF, Scenic Rivers Program prior to initiating any of the proposed activities within or adjacent to the banks of Bayou Trepagnier. Scenic Rivers Coordinator Keith Cascio can be contacted at (318) 343-4045.

8. Avoid adverse impacts to wading bird colonies through careful design project features and timing of construction. Colonies that are not currently listed in the database maintained by the Louisiana Department of Wildlife and Fisheries may be present. That database is updated primarily by monitoring the colony sites that were previously surveyed during the 1980s. Until a new, comprehensive coast-wide survey is conducted to determine the location of newly-established nesting colonies, the Service recommends that a qualified

biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season.

9. The Service shall be provided an opportunity to review and submit recommendations on future planning and design documents and the draft plans and specifications for all levee work addressed in this report.

10. Any proposed change in levee, floodwall, or drainage structure features, locations or plans shall be coordinated in advance with the Service, NMFS, LDWF, and LDNR.

11. The project's first Project Cooperation Agreement (or similar document) shall include language that includes the responsibility of the local-cost sharer to provide operational, monitoring, and maintenance funds for mitigation features.

12. If the proposed project has not been constructed within 1 year or if changes are made to the proposed project, the Corps should re-initiate Endangered Species Act consultation with the Service to ensure that the proposed project would not adversely affect any Federally listed threatened or endangered species or their habitat.

INTRODUCTION

The U. S. Army Corps of Engineers' New Orleans District (Corps) is preparing the "Individual Environmental Report (IER) Lake Pontchartrain and Vicinity (LPV) St. Charles Parish, Louisiana (IER1)". That study was conducted in response to Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4). That law authorized the Corps to upgrade some existing hurricane protection projects to provide protection against a 100-year hurricane event. This report contains an analysis of the impacts on fish and wildlife resources that would result from the implementation of 100-year hurricane protection for that area, and provides recommendations to minimize and/or mitigate project impacts on those resources.

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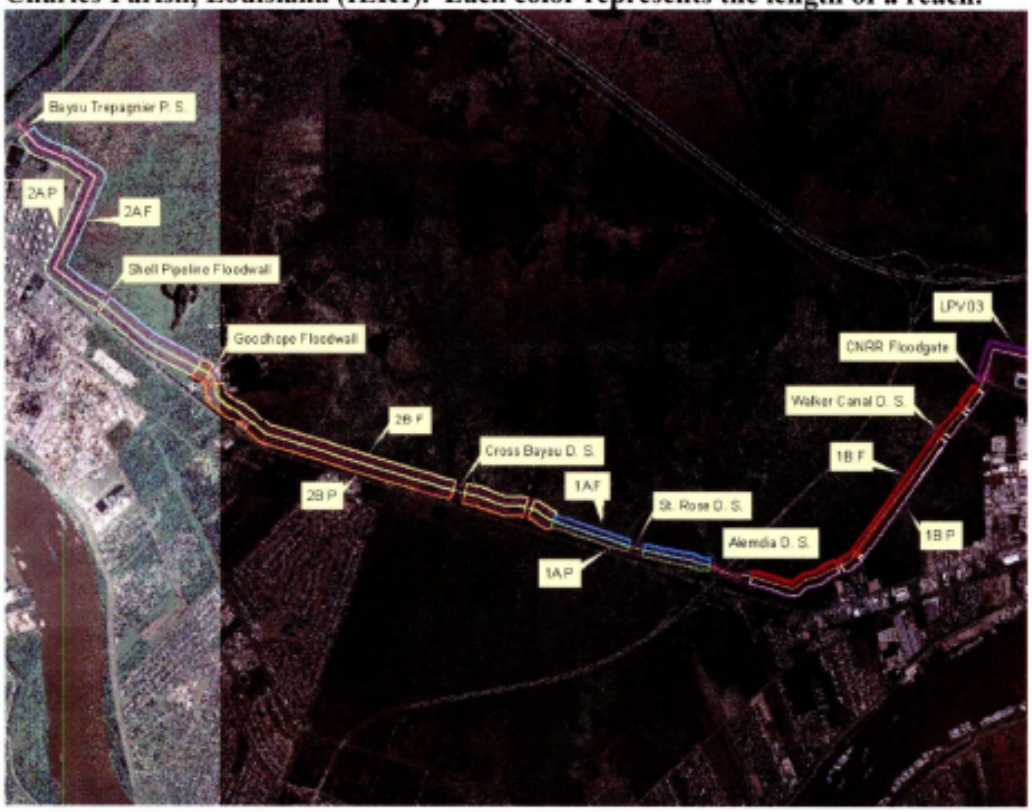
DESCRIPTION OF THE STUDY AREA

The IER1 project area runs along the existing St. Charles Parish levee system on the north side of U.S. 61 (Airline Highway) (Figure 1). The existing levee, floodwalls, and floodgates proposed for amendment as part of the IER1 project begins immediately north of the Shell-Norco complex adjacent to the Bonnet Carré Guide Levee, which is east of the Bonnet Carré Spillway. The existing levee system wraps around the Shell-Norco complex and runs approximately 0.1 mile north of and parallel to Airline Highway. Approximately one half mile east of the Interstate-310

interchange with Airline Highway the levee system turns to a northeasterly direction. The IER1 project area terminates around the northwest end of the Louis Armstrong New Orleans International Airport near the St. Charles/Jefferson parish line.

Figure 1. Individual Environmental Report (IER) Lake Pontchartrain and Vicinity (LPV) St. Charles Parish, Louisiana (IER1). Each color represents the length of a reach.



DESCRIPTION OF SELECTED PLAN

The proposed plan for IER1 involves upgrading or rebuilding the existing flood protection levee and associated floodwalls, gates, and drainage structures on the St. Charles Parish levee system. The preferred plan will rebuild 8.7 miles of earthen levees, replace 6,400 linear feet of floodwalls, and construct fronting protection for five existing drainage structures. IER1 is subdivided into several separate reaches (figure 1). Reaches LPV 03, 1A, 1B, 2A, and 2B make up the earthen levee portions of IER1; the floodwalls and gates include the Bonnet Carre floodwall, Shell pipeline floodwall, Good Hope floodwall, Koch-Gateway floodwall, floodwall under Interstate 310 (I-310), Canadian National Railroad Gate; and the drainage structures include the Cross Bayou drainage structure, St. Rose drainage structure, Almeidia drainage structure, and Walker drainage structure.

LPV03

LPV 03b consists of approximately 3,000 linear feet (lf) of levees at the northwestern end of the Louis Armstrong New Orleans International Airport. The existing elevations of the levees vary, but range from +10.5 to +13.5 feet (ft) as referenced to the North American Vertical Datum (NAVD88). The preferred alternative for this reach consists of an increase in levee height with a flood-side shift. The levees would be raised increasing the height to approximately 14 ft to 16 ft. There would be an approximate 20 ft expansion of the levee footprint (the ground surface area that would be covered by the alternative structure and associated right-of-way [ROW]) on the flood-side of the levee. Tie-ins to the Canadian National Railroad Gate and the floodwalls of IER #2 (Jefferson East Bank Levee) would also be incorporated.

Levee Reaches 1A, 1B, 2A, and 2B

LPV04 consists of approximately 8 miles of levee. Prior to hurricane Katrina, the levees were at an elevation of approximately +9 to +12 ft NAVD88. These reaches either were recently raised or are currently under contract to be raised to their authorized heights of approximately +14 ft NAVD88.

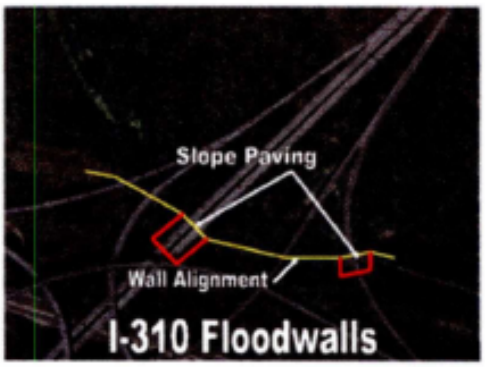
The preferred alternative for these reaches consists of raising the levee reaches from their authorized height of 12.5 to 13.5 ft to 18 ft plus 1 ft overbuild for Reach 1A; 16 ft plus 1 ft overbuild for Reach 1B; and 18 ft plus 1 ft overbuild for Reach 2A and 2B. Levee alignments would not be changed; however, the centerline of the levees could shift slightly, as necessary, to accommodate the levee footprint expansions of 100 to 250 ft on both the flood- and protected-sides.

Floodwalls and Gate

The Bonnet Carré floodwall consists of approximately 155 lf of floodwall, the Shell pipeline floodwall is 195 lf, the Good Hope floodwall is 550 lf, and the Koch-Gateway floodwall is 272 lf. The preferred alternative for these four flood walls consists of demolishing the existing walls and rebuilding the new T-walls to approximately 17 to 18.5 ft. Based on the preferred alternative for levees, the new walls would remain in their current alignment with minimal footprint expansion. However, the Bonnet Carré Floodwall would be increased in length to 465 ft. During the construction phase, temporary structures (sheet piling) would be installed on the flood-side to protect the existing levee system.

The preferred alternative for the floodwall under I-310 (1,760 lf) consists of demolishing the existing I-wall, replacing the I-wall with a new T-wall to approximately the same height (13.5 ft) under the I-310 spans and under the onramp from Westbound Airline Drive to Northbound I-310 and to an elevation of 15.5 ft at all other sections of the wall. In addition, concrete scour protection would be incorporated under the bridges extending approximately to the limit of the ROW on the protected side of the floodwall and extending approximately 50 feet on either side of the bridges (Figure 2). The small gate located about mid-way down the length of the floodwall and located east of the main I-310 spans would also be replaced. The existing sheet pile would be driven down and new steel H-piles would be driven approximately 90 feet on the protected side of the new wall.

Figure 2. I-310 Wall Scour Protection



The preferred alternative for the 450 lf Canadian National Railroad Gate consists of adding approximately 4-5 ft of height to the existing gate, bringing it to an approximate height of 16 ft. The tie-in floodwalls on each side of the existing gate would be demolished and new T-walls would be constructed to tie-in with the levee reach at approximately 16 ft.

Drainage Structures

The preferred alternative for the existing drainage structure on the canal west of Bayou Trepagnier would be retrofitted with a new T-wall to a height of approximately 18 ft and a stability berm.

The proposed action for the Cross Bayou drainage structure (503 lf) and the St. Rose drainage structure (640 lf) consist of demolishing and rebuilding the structures to approximately 18 ft. The new structures would remain in alignment with the levee system; however, the current structures would remain in place while the new structures are built. The new structures would be built adjacent to the existing structures and the drainage canals would be realigned to flow through the new structures after completion. Following completion of the new structures, the existing structures would be demolished and replaced with an extension to the adjacent levee and a levee tie-in system.

The proposed action for the 225 lf Almeidia drainage structure and the 248 lf Walker drainage structure drainage structures would be to modify the existing structures (using additional pilings and thicker walls to add height) to approximately 16 ft.

Access Roads

Three new temporary access roads will be constructed based on increased activities and to relieve significant congestion on the existing access roads. The access roads (figure 3) will be located at the Shell pipeline crossing (0.47 acres) in reach 2A and under I-310 (0.63 acres) in reach 1B. The access road near the Walker structure (1.89 acres) would extend from the northwest corner of the business park to the Walker structure in reach 1B.

Figure 3. Access road at the Shell pipeline crossing in reach 2A and under I-310 and at the Walker structure in reach 1B.

Borrow

For all construction under the proposed action, earthen fill material would be obtained from the Bonnet Carre Spillway, which is located approximately 1-9 miles from the IER1 project area. The borrow material would be stock piled, as needed, along the protected side of the new levee alignment for each reach included in the proposed action. Impacts for areas stock piled and for borrow for each IER will be addressed in a separate IER document.

FISH AND WILDLIFE RESOURCES

Description of Habitats

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

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

conditions would likely increase. However, with a total closure structure on the MRGO there is expected to be an overall decrease in salinities throughout the Pontchartrain basin. Regardless of which of the above factors ultimately has the greatest influence, freshwater wetlands within and adjacent to the project area will probably experience losses due to development, subsidence, and erosion; however, fish and wildlife habitat quality should remain approximately at or slightly below present levels on the remaining acreage of those wetlands.

As previously mentioned, the Service has provided previous FWCA Reports for the two subject hurricane protection projects. Those reports contain a discussion of the significant fish and wildlife resources including habitats that occur within the study area. For brevity, that discussion is incorporated by reference herein, but the following brief descriptions are provided to update the previously mentioned information.

Forested Wetland Habitats

The majority of the area adjacent to the levee reaches in the IER1 project area is swamp. About 350 acres of swamp habitat are located on the protected side of the existing levee and hundreds of acres of swamp extend from the flood side of the levee. The swamp habitat in the project area is predominantly vegetated by bald cypress, tupelo, and red maple (see Appendix A for all Latin names of plants, fish, amphibians, reptiles, birds, and mammals in this report). Other tree species include Chinese tallow-tree, green ash, black willow, black gum, and pumpkin ash. Other vegetation includes Walter's millet, spikerush, alligatorweed, pennywort, Aster, goldenrod, marshmallow, cattail, rattlebox, frogbit, dogfennal, eastern baccharis, smartweed, deerpea, Panicum, waterhyssop, frogfruit, spikerush, buttonbush, palmetto, and delta duckpotato.

Only one and a half acres of bottomland hardwood (BLH) on the flooded side near the I-310 interchange will be affected by this project. That BLH exist on higher elevation than the surrounding swamp because the site was a medical waste landfill. BLH habitat in the project area is predominantly sugarberry, red maple, green ash, and American elm. Other tree species include oaks, pumpkin ash, Chinese tallow-tree, cottonwood, and flowering dogwood. Other vegetation includes alligatorweed, smartweed, lizard's tail, eastern baccharis, Virginia creeper, Rubus, elderberry, goldenrod, and mulberry.

Due to the railroad through LaBranche, the St. Charles Parish levee, and Highway 61, the hydrology of the forested wetlands has been altered. Before the railroad and the levee, water levels were mostly influenced by sheet flow across the marsh and influenced from Lake Pontchartrain. Though the swamp on the flooded side of the levee is still tidally connected to Lake Pontchartrain, the exchange may be somewhat restricted (moderate flow/exchange and semi-permanently flooded) as water flows through openings across the railroad. The protected side is not or minimally tidally influenced (low flow/exchange and semi-permanently flooded) as the water has to pass through more culverts or gates across the levee. The bottomland hardwood, which is higher in elevation than the swamp, is seasonally flooded but has the same flow/exchange as the swamp.

In the future, the forested wetlands are expected to remain for the project life. Subsidence will continue but not to the extent that will be detrimental to this habitat.

Marshes

Some fresh marsh exists at the eastern end of the project area near the airport (LPV03 reach). The marsh vegetation there includes marshhay cordgrass, smooth cordgrass, bullwhip, eastern baccharis, alligatorweed, deerpea, Walter's millet, spikerush, pennywort, marshmallow, cattail, rattlebox, frogbit, smartweed, panicum, waterhyssop, frogfruit, and spikerush.

Emergent wetlands within the project area provide plant detritus to adjacent coastal waters and thereby contribute to the production of commercially and recreationally important fishes and shellfishes. Wetlands in the project area also serve valuable water quality functions such as reduction of excessive dissolved nutrient levels and removal of suspended sediment. These wetlands are expected to remain relatively stable with some decline from subsidence.

Open-Water Habitats

The project area is bound to the north by the LaBranche Wetlands and to the north of LaBranche is Lake Pontchartrain. Bayous LaBranche and Trepagnier are the major natural water features occurring in and around the project area. Bayou LaBranche originates near Highway 61 and flows northward for four miles to its confluence with Lake Pontchartrain. Bayou Trepagnier flows for four miles north from the Shell-Norco Oil Refinery to its confluence with Bayou LaBranche.

The major canals and drainage-ways within the project area are the Cross Bayou Canal that starts north of the Mississippi River and crosses the existing flood control levee flowing north to cross Bayou Traverse and terminates in the LaBranche wetlands near Interstate 10. Another drainage-runs parallel to the Cross Bayou Canal on the east, crossing the existing levee and flowing north across Bayou Traverse to its confluence in Lake Pontchartrain; Walker Canal begins south of the levee near U.S. 61 (Airline Highway) and flows north across the levee to its confluence in Lake Pontchartrain. The levees borrow canal runs parallel to the south side of the levee from the eastern side of the I-310 interchange to the Canadian National Railroad Gate. These canals and drainage-ways are man made features created for control of storm water run-off or were created during construction of the existing levees. The network of these structures illustrates the highly manipulated hydrology of the project area.

The canals and bayous support submerged and floating aquatic vegetation such as coontail, wild celery, alligatorweed, hydrocotle, and pondweeds. In places the borrow canal had dense vegetation reducing the value of that aquatic habitat. Bayou Trepagnier has contaminated sediment due to the historical disposal of oil refinery waste (Maygarden 2004).

Developed Areas

Developed habitats in the project area include commercial areas (Shell-Norco petrochemical complex at the western end, facilities near the Almedia drainage structure, truck/trailer storage facility, and the western end of New Orleans International Airport runway adjacent to LPV03 on the east), the I-310 overpass, and the railroad at the eastern end of the project area (LPV03). In addition, the project area has low grade roads (gravel or dirt) with intermittent use and the existing levee. Highways usually induce development; with Highway 61 paralleling the project area, it is expected that some additional development along the highway near the project area (on the protected side of the levee) may occur in the foreseeable future, especially with a new permanent access road near the Walker structure. Those and future developed habitats do not support significant wildlife use.

Fishery/Aquatic Resources

Drainage and borrow canals in the project area does not support significant fishery resources because of dense vegetation, poor water quality, and inadequate depth. Freshwater sport fishes present in Bayous LaBranche and Trepagnier and other wetlands outside of the levees, include largemouth bass, crappie, bluegill, redear sunfish, warmouth, channel catfish, and blue catfish. Other fishes likely to be present include yellow bullhead, freshwater drum, bowfin, carp, buffaloes, and gars. In the future fisheries of the area are expected to remain relatively stable.

Essential Fish Habitat

The 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act; P.L. 104-297) set forth a new mandate for NOAA's National Marine Fisheries Service (NMFS), regional fishery management councils (FMC), and other federal agencies to identify and protect important marine and anadromous fish habitat. The Essential Fish Habitat (EFH) provisions of the Magnuson-Stevens Act support one of the nation's overall marine resource management goals- maintaining sustainable fisheries. Essential to achieving this goal is the maintenance of suitable marine fishery habitat quality and quantity. Detailed information on federally managed fisheries and their EFH is provided in the 1999 generic amendment of the Fishery Management Plans (FMP) for the Gulf of Mexico prepared by the Gulf of Mexico Fishery Management Council (GMFMC). The generic FMP subsequently was updated and revised in 2005 and became effective in January 2006 (70 FR 76216). NMFS administers EFH regulations.

EFH includes all waters and substrates within estuarine boundaries, including the subtidal vegetation (seagrasses and algae) and adjacent tidal vegetation (marshes). The forested wetland areas adjacent to the project area are hydrologically connected to the EFH of the Lake Pontchartrain estuary. However, the primarily cypress swamp of this project area are not likely to be suitable habitat for any of the Lake Pontchartrain managed species (shrimp, red drum, and Spanish mackerel).

Wildlife Resources

Mammals known to occur in the project-area wetlands include mink, raccoon, nutria, river otter, and muskrat, armadillo, Virginia opossum, cotton mouse, hispid cotton rat, eastern cottontail rabbit, swamp rabbit, fox squirrel, grey squirrel, fox, bobcat, and white-tailed deer (Lowery, 1974a and O'Neil and Linscombe 1975).

Those wetlands also support a variety of birds including herons and egrets. Flooded swamp within the project area provide habitat for nesting colonial wading birds. Swamp, BLH, and scrub-shrub habitats within the study area also provide habitat for many resident passerine birds and essential resting areas for many migratory songbirds including warblers, sparrows, thrushes, vireos, buntings, flycatchers, chickadees, titmouse, wrens, and swallows.

Given the extent of development and drainage, waterfowl use within the hurricane protection system is likely minimal, while adjacent wetlands outside the levees provide high quality habitat. Swamps, fresh and intermediate marshes usually receive greater waterfowl utilization than brackish and saline marshes because they generally provide more waterfowl food. Resident species expected to occur in that area include mottled duck and wood duck (Lowery 1974b).

The project area also supports resident hawks and owls including the red-shouldered hawk, barn owl, common screech owl, great horned owl, and barred owl. The red-tailed hawk, marsh hawk, and American kestrel are seasonal residents which utilize habitats within the project area.

Amphibians such as the southern dusky salamander, dwarf salamander, eastern newt, three-toed amphiuma, lesser siren, Gulf coast toad, northern cricket frog, green treefrog, squirrel treefrog, spring peeper, eastern narrow-mouthed toad, bullfrog, green frog, pig frog, and southern leopard frog (Dundee and Rossman, 1989) are expected to occur in the project-area wetlands.

Reptiles such as the American alligator, eastern mud turtle, red-eared turtle, snapping turtle, green anole, broadhead skink, ground skink, mud snake, speckled kingsnake, rat snake, Gulf coast ribbon snake, cottonmouth, garter snake, and water snakes are expected to occur in the project-area wetlands (Dundee and Rossman, 1989).

In the future, wildlife in the project area is not expected to significantly change.

Endangered and Threatened Species/Protected Species

The bald eagle potentially may occupy habitat in the project area. Until recently the bald eagle was federally listed as threatened; however, it was determined to have recovered and was delisted on August 8, 2007 (FWS 2007). The bald eagle is still protected under the Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.).and Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d)

No Federally listed threatened or endangered species presently occur within the proposed project area. Therefore, no further endangered species consultation is required unless there are changes in the scope or location of the project, or project construction has not been initiated within one year. If project construction has not been initiated within 1 year, follow-up consultation should be accomplished prior to making expenditures for construction. If the scope or location of the proposed work is changed, consultation should be reinitiated as soon as such changes are made.

ALTERNATIVES UNDER CONSIDERATION

The proposed plan is discussed above in the Description of Selected Plan section. Other alternatives that were considered include the following:

No-Action Alternative

For each levee reach, floodwall, flood gate, and structure within IER1, the no-action alternative was evaluated. Under the no-action alternative, the proposed action would not be constructed. The current levee reaches, floodwalls, and associated structures would remain or be brought to the authorized heights of 12.5 to 13.5 ft. Routine maintenance of the levee system would continue, but no height would be added to the system.

Levee Alternatives

Sets of alignment alternatives and scales within these alignments were initially considered for each levee reach including: alignments – existing alignment with straddle, flooded side shift (all toe-to-toe growth occurs on the flooded side of the levee), and protected-side shift (all toe-to-toe growth occurs on the protected side of the levee); scale – earthen levee, T-wall floodwall, earthen levee with T-wall floodwall cap, and earthen levee with Deep Soil Mixing.

It was determined that using the existing levee with a protected-side shift would be unlikely due to the location of the Shell Oil Refinery, U.S. 61 (Airline Highway), a drainage canal, and segments of pipelines that run south of the existing levee alignment. In addition, a protected-side shift would be infeasible due to the geotechnical instability of the land between the drainage canal and the stability berm associated with the existing levee structure. A flooded–side shift was eliminated in order to avoid and minimize the destruction of wetlands. In addition the cost for mitigation would make it infeasible. Replacement with floodwalls and floodwall caps was eliminated due to engineering inferiority. Deep Soil Mixing was eliminated due to the presence of cypress logs in the subsurface surrounding the existing levee system.

Floodwalls and Drainage Structure Alternatives

As part of the initial evaluation of the Bonnet Carré Floodwall, Shell Pipeline Floodwall, Good Hope Floodwall, Koch-Gateway Floodwall, Canadian National Railroad Gate, Bayou Trepagnier Drainage Structure, Cross Bayou Drainage Structure, St. Rose Drainage Structure, Almeidia Drainage Structure, and Walker Drainage Structure, flood-side and protected-side shifts as well as

deep zone mixing were eliminated from detailed analysis. Significant shifts in the floodwall and gate alignments were considered impractical from an engineering perspective, and deep zone mixing was eliminated due to obstructions (i.e., cypress logs) in the surrounding subsurface. For the four drainage structures and the Canadian National Railroad Gate, all forms of earthen levees were also eliminated from detailed impact analysis because there were physical factors (i.e., drainage area or railroad crossing) that would prevent the construction of an earthen levee. In addition, modification of existing LPV 06 floodwalls (adding height) was eliminated from further analysis because it was determined that the existing floodwalls are not structurally designed to handle the increased hydrostatic load.

As part of the initial evaluation of the floodwall under I-310, all forms of earthen levees and replacement floodwall caps were eliminated from further consideration based on the proximity to I-310. In addition, any form of deep zone mixing was eliminated from consideration due to the potential of hazardous waste in the immediate vicinity.

Non-Structural Alternatives

Non-structural alternatives included elevating all residential and commercial properties and public acquisition of properties in areas subject to flooding. Both these alternatives were eliminated due to excessive cost.

PROJECT IMPACTS

Approximately 292 acres (Table 1) of wetlands would be directly impacted by the proposed project. Work would involve raising part of and realigning the levee in reach LPV03, raising the levees in reaches 1A, 1B, 2A, and 2B, rebuilding new T-walls, adding concrete scour protection under I-310, and rebuilding new or modify existing drainage structures.

Table 1: Habitat Impacts from Individual Environmental Report (IER) Lake Pontchartrain and Vicinity (LPV) St. Charles Parish, Louisiana (IER1)

Habitats	Acres	AAHUs
Swamp flooded side	143.57	-110.97
Swamp protected side	137.05	-73.99
BLH flooded side	11.33	-8.09
BLH protected side	0	0
Total	291.95	-193.05

To quantify anticipated project impacts to fish and wildlife resources, the Service used the Wetland Value Assessment (WVA) methodology. The WVA was developed to evaluate restoration projects proposed for funding under Section 303 of the Coastal Wetlands Planning, Protection and Restoration Act. The WVA version utilized in this evaluation was modified by the Louisiana Department of Natural Resources to better determine impacts and mitigation needs in forested wetlands. Further explanation of how impacts/benefits are assessed with WVA and an

explanation of the assumptions affecting HSI values for each target year are available for review at the Fish and Wildlife Service's (Service) Lafayette, Louisiana, field office.

As indicated in Table 1, our WVA analyses indicate that project implementation would result in the direct loss of 193 Average Annual Habitat Units (AAHUs) in swamp and bottomland hardwood forested wetlands. Once the proposed action is complete, the adjacent wetlands would stabilize. As with the future without project, fish and wildlife and their habitats, in the future with project scenario, are expected to remain relatively stable with some decline from development, subsidence, and erosion.

FISH AND WILDLIFE CONSERVATION MEASURES

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

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

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

The Service's Mitigation Policy (Federal Register, Volume 46, No. 15, January 23, 1981) identifies four resource categories that are used to ensure that the level of mitigation recommended by Service biologists will be consistent with the fish and wildlife resource values involved. Considering the high value of forested wetlands for fish and wildlife and the relative scarcity of that habitat type, those wetlands are usually designated as Resource Category 2 habitats, the mitigation goal for which is no net loss of in-kind habitat value. Because the "no action" alternative was not selected, avoiding the project impacts altogether is not feasible. Therefore, remaining project impacts should be mitigated via compensatory replacement of the habitat values lost.

To replace the project-related loss of high-quality forested wetland habitat, the Corps and the local sponsor should develop and fund mitigation actions that would produce the equivalent of 148 AAHUs within the Pontchartrain basin. The estimated costs for achieving that mitigation via timber stand improvement and management, in addition to any mitigation area fixed costs, should be borne as a project expense, and should be provided to the agency implementing the mitigation.

SERVICE POSITION AND RECOMMENDATIONS

Construction of the flood protection levee would result in the loss of 292 acres of swamp and bottomland hardwood wetlands for a total loss of 193 AAHUs. The Service does not object to the construction of the proposed project provided the following fish and wildlife conservation recommendations are implemented concurrently with project implementation:

1. . The Corps and local sponsor shall provide 193 AAHUs to compensate for the unavoidable, project-related loss of forested wetlands. The Service, National Marine Fisheries Service (NMFS), Louisiana Department of Wildlife and Fisheries (LDWF), and Louisiana Department of Natural Resources (LDNR) should be consulted regarding the adequacy of any proposed alternative mitigation sites. The mitigation plan developed to offset project related impacts should be consistent with mitigation requirements of the Clean Water Act regulatory program, and include monitoring, success criteria, and financial assurance components.

2. The Service recommends that any impacts to forested wetlands should be avoided or minimized to the greatest extent practicable.

3. Three new access roads will be constructed at the Shell pipeline crossing, under I-310, and at the Walker structure. The potential for induced development is increased greatly with these new access corridors, especially the access road at the Walker structure. The Service recommends that all three access roads be only used temporarily during construction and to be degraded and replanted with appropriate bottomland hardwood forest or cypress swamp species after construction activities are complete. Reforestation activities should include the use of measures to prevent nutria herbivory, and monitoring to document habitat recovery and the need for further actions. If any of the access roads are not degraded after construction activities are completed, then secondary and cumulative impacts would have to be assessed.

4. Where each of the three access roads cross wetlands, 18-24 inch culverts should be installed every 250 feet. Additional culverts should be installed at stream crossings and drainage features. Culverts should be maintained to ensure that existing flow of surface water is uncompromised.

5. All gates and/or culverts being replaced or modified should be operated according to previously developed operational plans to avoid further degradation of the project area hydrology.

6. To prevent the protected-side swamps near the Bayou Trepagnier pumps and drainage structure from becoming impounded or drained, provide assurance that once the drainage structure is replaced with a T-wall that the pumps will be operated to achieve the same

hydrologic results (i.e. water levels) as in the past thus perpetuating existing conditions and minimizing secondary impacts from development and hydrologic alteration.

7. Bayou Trepagnier is a Louisiana designated Natural and Scenic River. The Corps must obtain authorization from the LDWF, Scenic Rivers Program prior to initiating any of the proposed activities within or adjacent to the banks of Bayou Trepagnier. Scenic Rivers Coordinator Keith Cascio can be contacted at (318) 343-4045.

8. Avoid adverse impacts to wading bird colonies through careful design project features and timing of construction. Colonies that are not currently listed in the database maintained by the Louisiana Department of Wildlife and Fisheries may be present. That database is updated primarily by monitoring the colony sites that were previously surveyed during the 1980s. Until a new, comprehensive coast-wide survey is conducted to determine the location of newly-established nesting colonies, the Service recommends that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season.

9. The Service shall be provided an opportunity to review and submit recommendations on future planning and design documents and the draft plans and specifications for all levee work addressed in this report.

10. Any proposed change in levee, floodwall, or drainage structure features, locations or plans shall be coordinated in advance with the Service, NMFS, LDWF, and LDNR.

11. The project's first Project Cooperation Agreement (or similar document) shall include language that includes the responsibility of the local-cost sharer to provide operational, monitoring, and maintenance funds for mitigation features.

12. If the proposed project has not been constructed within 1 year or if changes are made to the proposed project, the Corps should re-initiate Endangered Species Act consultation with the Service to ensure that the proposed project would not adversely affect any federally listed threatened or endangered species or their habitat.

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APPENDIX A
LATIN NAMES FOR SPECIES DISCUSSED IN REPORT

PLANTS

Alligatorweed	*Alternanthera philoxeroides*
American elm	*Ulmus americana*
Aster	*Aster* spp.
Bald cypress	*Taxodium distichum*
Black gum	*Nyssa sylvatica*
Black willow	*Salix nigra*
Bullwhip	*Scirpus californicus*
Buttonbush	*Cephalanthus occidentalis*
Cattail	*Typha* spp.
Chinese tallow-tree	*Triadica sebifera*
Deerpea	*Vigna luteola*
Delta duckpotato	Sagittaria platyphylla
Dogfennal	*Eupatorium capillifolium*
Eastern baccharis	*Baccharis halimifolia*
Eastern cottonwood	*Populus deltoides*
Elderberry	*Sambucus canadensis*
Frogbit	*Limnobium spongia*
Frogfruit	*Phyla nodiflora*
Goldenrod	*Solidago* sp.
Green ash	*Fraxinus pennsylvanica*
Lizard's tail	*Saururus cernuus*
Marshhay cordgrass	*Spartina patens*
Marshmallow	*Hibiscus* spp.
Mulberry	*Morus* spp.
Overcup oak	*Quercus lyrata*
Palmetto	*Sabal minor*
Panicum	*Panicum* sp.
Pennywort	*Hydrocotyle* spp.
Pumpkin ash	*Fraxinus tomentosa*
Rattlebox	*Sesbania drummondii*
Red maple	*Acer rubrum*
Red mulberry	*Morus rubra*
Roughleaf dogwood	*Cornus drummondii*
Rubus	*Rubus* spp.
Smartweed	*Polygonum* spp.
Smooth cordgrass	*Spartina alterniflora*
Spikerush	*Eleocharis* spp.

Sugarberry	*Celtis laevigata*
Tupelo	*Nyssa aquatica*
Virginia creeper	*Parthenocissus quinquefolia*
Walter's millet	*Echinochloa walteri*
Waterhyssop	*Bacopa*
Water oak	*Quercus nigra*
Willow oak	*Quercus phellos*

FISH

Bigmouth buffalo	*Ictiobus cyprinellus*
Black crappie	*Pomoxis nigromaculatus*
Blue catfish	*Ictalurus furcatus*
Bluegill	*Lepomis macrochirus*
Bowfin	*Amia calva*
Channel catfish	*Ictalurus punctatus*
Common carp	*Cyprinus carpio*
Freshwater drum	*Aplodinotus grunniens*
Grass carp	*Ctenopharyngodon idella*
Largemouth bass	*Micropterus salmoides*
Redear sunfish	*Lepomis microlophus*
Shortnose gar	*Lepisosteus platostomus*
Smallmouth buffalo	*Ictiobus bubalus*
Spotted gar	*Lepisosteus oculatus*
Warmouth	*Lepomis gulosus*
White crappie	*Pomoxis annularis*
Yellow bullhead	*Ameiurus natalis*

AMPHIBIANS

Bullfrog	*Rana catesbeiana*
Dusky salamander	*Desmognathus auriculatus*
Dwarf salamander	*Eurcyea quadridigitata*
Eastern narrow-mouthed toad	*Gastrophryne carolinensis*
Eastern newt	*Notophthalmus viridescens*
Green frog	*Rana clamitans*
Green treefrog	*Hyla cinerea*
Gulf coast toad	*Bufo valliceps*
Lesser siren	*Siren intermedia*
Northern cricket frog	*Acris crepitans*
Pig frog	*Rana grylio*
Southern leopard frog	*Rana sphenocephala*
Spring peeper	*Hyla crucifer*

Squirrel treefrog	*Hyla squirella*
Three-toed amphiuma	*Amphiuma tridactylum*

REPTILES

American alligator	*Alligator mississippiensis*
Broadhead skink	*Eumeces laticeps*
Cottonmouth	*Agkistrodon piscivorus*
Eastern mud turtle	*Kinosternon subrubrum*
Garter snake	*Thamnophis sirtalis*
Green anole	*Anolis carolinensis*
Ground skink	*Scincella lateralis*
Gulf coast ribbon snake	*Thamnophis proximus*
Mud snake	*Farancia abacura*
Rat snake	*Elaphe obsoleta*
Red-eared turtle	*Trachemys scripta*
Speckled kingsnake	*Lampropeltis getulus*
Snapping turtle	*Chelydra serpentina*
Water snakes	*Neodia* spp.

BIRDS

American kestrel	*Falco sqarverius*
Barn owl	*Tyto alba*
Barred owl	*Strix varia*
Cattle egret	*Bubulcus ibis*
Common screech owl	*Otus asio*
Great blue heron	*Ardea herodias*
Great egret	*Ardea alba*
Green heron	*Butorides virescens*
Great horned owl	*Bubo virginianus*
Marsh hawk	*Circus cyaneus*
Mottled duck	*Anas fulvigula*
Red-shouldered hawk	*Buteo lineatus*
Red-tailed hawk	*Buteo jamaicensis*
Snowy egret	*Egretta thula*
Wood duck	*Aix sponsa*

MAMMALS

Armadillo	*Dasypus novemcinctus*
Bobcat	*Lynx rufus*
Cotton mouse	*Peromyscus gossypinus*
Eastern cottontail rabbit	*Sylvilagus floridanus*

Fox	*Vulpes vulpes*
	Urocyon cinereoargenteus
Fox squirrel	*Sciurus niger*
Grey squirrel	*Sciurus carolinensis*
Hispid cotton rat	*Sigmodon hispidus*
Mink	*Mustela vison*
Muskrat	*Ondatra zibethicus rivalicius*
Northern raccoon	*Procyon lotor*
Nutria	*Myocaster coypus*
River Otter	*Lutra canadensis*
Swamp rabbit	*Sylvaligus aquaticus*
Virginia opossum	*Didelphis virginiana*
White-tailed deer	*Odocoileus virginianus*

United States Department of the Interior

FISH AND WILDLIFE SERVICE
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April 24, 2009

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

Dear Colonel Lee:

Please reference the "Individual Environmental Report (IER) Lake Pontchartrain and Vicinity (LPV) St. Charles Parish, Louisiana (IER1)". That study was conducted in response to Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4). That law authorized the Corps of Engineers (Corps) to upgrade some existing hurricane protection projects to provide protection against a 100-year hurricane event. The Corps has recently modified the proposed plan. The U.S. Fish and Wildlife Service (Service) provided recommendations on the previously proposed plan to the Corps in the January 14, 2008, Draft, March 5, 2008, Supplemental, and July 22, 2008, Final Fish and Wildlife Coordination Act (FWCA) Reports. This letter supplements those reports and is submitted in accordance with provisions of the FWCA (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.) and constitutes the report of the Secretary of the Interior as required by Section 2(b) of that Act.

A description of the study area and a discussion of the significant fish and wildlife resources (including habitats) that occur within that study area are contained in our July 2008 report. For brevity, that information and discussion is incorporated by reference herein.

The changes to the proposed plan that are relevant to habitat impacts include the slight sifts in some levee alignments, the change in location and size of access roads, and the temporary blocking of water exchange at drainage canals.

The slight shifts in levee alignments are maintained with in the existing right of ways, therefore impacts were already addressed in the previous FWCA reports.

The change in location and size of access roads will have less affect on habitat than previously proposed. The new permanent access road locations are on existing planned and permitted roads, existing easements, or have less impact than was previously

evaluated. Overall the impacts due to access roads would be reduced from about 3 acres of impacts to over 1 acre of impact. The Corps has chosen not to reduce the mitigation requirements accordingly as the change would be very slight and additional engineering studies may result in further modifications.

Water flow would be temporarily (up to 3 months) affected during construction of the new drainage structures. Where water exchange would be prevented, the water quality would decrease due to impounding and stagnation, though it would be for a short duration and once exchanged is reopened the water quality should return to normal. In addition, measures have been introduced to minimize further water flow issues. These measures include dredging one existing and three new temporary canals to maintain flow during construction, installing appropriately sized culverts to ensure flow is not significantly altered in the channel, and where water exchange would be prevented (up to 3 months) work on each drainage structure would occur consecutively to ensure protected side drainage of the area.

The Service has reviewed the changes made to the IER1 proposed plan and does not object to the construction of the newly proposed plan. The Service believes that the recommendations (presented below) provided in our July 22, 2008, Final FWCA Report continue to remain valid with the exception that the recommendation addressing the previously proposed access roads was removed.

1. The Corps and local sponsor shall provide 193 AAHUs to compensate for the unavoidable, project-related loss of forested wetlands. The Service, National Marine Fisheries Service (NMFS), Louisiana Department of Wildlife and Fisheries (LDWF), and Louisiana Department of Natural Resources (LDNR) should be consulted regarding the adequacy of any proposed alternative mitigation sites. The mitigation plan developed to offset project related impacts should be consistent with mitigation requirements of the Clean Water Act regulatory program, and include monitoring, success criteria, and financial assurance components.

2. The Service recommends that any impacts to forested wetlands should be avoided or minimized to the greatest extent practicable.

3. For each of the three access roads the Service recommends the installation of a minimum of 18-24 inch culverts every 250 feet when constructing these access roads through wetlands. Additional culverts should be installed at stream crossings and drainage features. Culverts should be maintained to ensure that existing flow of surface water is uncompromised.

4. All gates and/or culverts being replaced or modified should be operated according to previously developed operational plans to avoid further degradation of the project area hydrology.

5. To avoid the protected-side swamps near the Bayou Trepagnier pumps and drainage structure from becoming impounded or drained, provide assurance that once the drainage structure is replaced with a T-wall that the pumps will be operated to achieve the same hydrologic results (i.e. water levels) as in the past thus perpetuating existing conditions and minimizing secondary impacts from development and hydrologic alteration.

6. Bayou Trepagnier is a Louisiana designated Natural and Scenic River. The Corps must obtain authorization from the LDWF, Scenic Rivers Program prior to initiating any of the proposed activities within or adjacent to the banks of Bayou Trepagnier. Scenic Rivers Coordinator Keith Cascio can be contacted at (318) 343-4045.

7. Avoid adverse impacts to wading bird colonies through careful design project features and timing of construction. Colonies that are not currently listed in the database maintained by the Louisiana Department of Wildlife and Fisheries may be present. That database is updated primarily by monitoring the colony sites that were previously surveyed during the 1980s. Until a new, comprehensive coast-wide survey is conducted to determine the location of newly-established nesting colonies, the Service recommends that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season.

8. The Service shall be provided an opportunity to review and submit recommendations on the draft plans and specifications for all levee work addressed in this report.

9. Any proposed change in levee, floodwall, or drainage structure features, locations or plans shall be coordinated in advance with the Service, NMFS, LDWF, and LDNR.

10. The project's first Project Cooperation Agreement (or similar document) shall include language that includes the responsibility of the local-cost sharer to provide operational, monitoring, and maintenance funds for mitigation features.

11. If the proposed project has not been constructed within 1 year or if changes are made to the proposed project, the Corps should re-initiate Endangered Species Act consultation with the Service to ensure that the proposed project would not adversely affect any federally listed threatened or endangered species or their habitat.

Thank you for the opportunity to review the proposed revisions to IER1. If the project scope or design changes, the Service requests that the Corps reinitiate FWCA

coordination to ensure that the above recommendations remain valid. If you or your staff has any questions regarding this matter, please have them contact Catherine Breaux (504/862-2689) of this office.

Sincerely,

James F. Boggs
Supervisor
Louisiana Field Office

Enclosures

cc: EPA, Dallas, TX
National Marine Fisheries Service, Baton Rouge, LA
LA Dept. of Wildlife and Fisheries, Baton Rouge, LA
LA Dept. of Natural Resources (CMD/CRD), Baton Rouge, LA

United States Department of the Interior

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May 26, 2009

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

Dear Colonel Lee:

The U.S. Fish and Wildlife Service (Service) has reviewed the Draft Supplemental Individual Environmental Report 1 (SIER1) titled "Lake Pontchartrain and Vicinity, La Branch Wetlands Levee, St. Charles Parish, Louisiana." That study was conducted in response to Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4). That law authorized the Corps of Engineers (Corps) to upgrade some existing hurricane protection projects to provide protection against a 100-year hurricane event. The Service submits the following comments in accordance with provisions of the National Environmental Policy Act (NEPA) of 1969 (83 Stat. 852; 42 U.S.C. 4321 et seq.), the Endangered Species Act (ESA) of 1973 (87 Stat. 884, as amended; 16 U.S.C. 1531 et seq.), and the Fish and Wildlife coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.).

The SIER is well written and provides a good description of fish and wildlife resources in the project area and project impacts on those resources. Wetlands in the project area provide important habitat for several Federal trust species including wading birds, neotropical migrants, and resident and migratory waterfowl. The Service agrees that the changes to the wetland impacts in the SIER are comparable to the previously proposed wetland impacts; therefore, the previously calculated -193.05 Average Annual Habitat Units (AAHUs) needed for compensatory mitigation are adequate.

TAKE PRIDE IN AMERICA

The Service does not object to the measures proposed thus far for the IER1 Hurricane Protection Project. Thank you for the opportunity to provide comments on the draft SIER 1. If you have any questions regarding our comments, please contact Catherine Breaux at (504) 862-2689.

Sincerely,

James F. Boggs
Supervisor
Louisiana Field Office

cc: CEMVN-PM-RS, New Orleans, LA
EPA, Dallas, TX
National Marine Fisheries Service, Baton Rouge, LA
LA Dept. of Wildlife and Fisheries, Baton Rouge, LA
LA Dept. of Natural Resources (CMD/CRD), Baton Rouge, LA

United States Department of the Interior

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

June 23, 2009

Robert Barham
Secretary
Louisiana Department of Wildlife and Fisheries
Post Office Box 98000
Baton Rouge, Louisiana 70898-9000

Dear Mr. Barham:

Attached is the Fish and Wildlife Coordination Act Report on the "Individual Environmental Report (IER) Lake Pontchartrain and Vicinity (LPV) St. Charles Parish, Louisiana (IER1)." This report constitutes the 2(b) report of the Fish and Wildlife Service (Service). The Service incorporated your agency's comments into the final report prior to its submission to the U.S. Army Corps of Engineers. Should your staff have any questions regarding this report, please have them contact Catherine Breaux (504/862-2689) of this office.

Your cooperation in this matter is appreciated.

Sincerely,

James F. Boggs
Supervisor
Louisiana Field Office

TAKE PRIDE IN AMERICA

United States Department of the Interior

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

June 23, 2009

Mr. Richard Hartman
Branch Chief
Habitat Conservation Division
National Marine Fisheries Service
c/o Louisiana State University
Baton Rouge, Louisiana 70803-7535

Dear Mr. Hartman:

Attached is the Fish and Wildlife Coordination Act Report on the "Individual Environmental Report (IER) Lake Pontchartrain and Vicinity (LPV) St. Charles Parish, Louisiana (IER1)." This report constitutes the 2(b) report of the Fish and Wildlife Service (Service). The Service has incorporated your agency's comments into the final report prior to its submission to the U.S. Army Corps of Engineers. Should your staff have any questions regarding this report, please have them contact Catherine Breaux (504/862-2689) of this office.

Your cooperation in this matter is appreciated.

Sincerely,

James F. Boggs
Supervisor
Louisiana Field Office

TAKE PRIDE IN AMERICA

United States Department of the Interior

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

June 23, 2009

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

Dear Colonel Lee:

Please reference the "Individual Environmental Report (IER) Lake Pontchartrain and Vicinity (LPV) St. Charles Parish, Louisiana (IER1)." That study was conducted in response to Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4). That law authorized the Corps of Engineers (Corps) to upgrade some existing hurricane protection projects to provide protection against a 100-year hurricane event. This report contains an analysis of the impacts on fish and wildlife resources that would result from the implementation of 100-year hurricane protection for that area, and provides recommendations to minimize and/or mitigate project impacts on those resources.

The proposed project was authorized by Supplemental 4 which instructed the Corps to proceed with engineering, design, and modification (and construction where necessary) of the LPV and the West Bank and Vicinity (WBV) Hurricane Protection Projects so those projects would provide 100-year hurricane protection. Procedurally, project construction has been authorized in the absence of the report of the Secretary of the Interior that is required by Section 2(b) of the Fish and Wildlife Coordination Act (FWCA) (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.). In this case, the authorization process has precluded the normal procedures for fully complying with the FWCA. The FWCA requires that our Section 2(b) report be made an integral part of any report supporting further project authorization or administrative approval. Therefore, to fulfill the coordination and reporting requirements of the FWCA, the Service will be providing post-authorization 2(b) reports for each IER.

This report incorporates and supplements our FWCA Reports that addressed impacts and mitigation features for the WBV of New Orleans (dated November 10, 1986, August 22, 1994, November 15, 1996, and June 20, 2005) and the LPV (dated July 25, 1984 and January 17, 1992) Hurricane Protection projects, and the November 26, 2007 Draft Programmatic FWCA Report that addresses the hurricane protection improvements authorized in Supplemental 4. This report constitutes the report of the Secretary of the Interior as required by Section 2(b) of the FWCA. The draft (Jan 2008), two supplemental (March 2008, Apr 2009), and the first final (July 2008)

TAKE PRIDE IN AMERICA

FWCA Report were provided to the Louisiana Department of Wildlife and Fisheries and the National Marine Fisheries Service; their comments are incorporated into this second final report.

We appreciate the cooperation of your staff on this study. Should your staff have any questions regarding the enclosed report, please have them contact Ms. Catherine Breaux (504/862-2689) of this office.

Sincerely,

James F. Boggs
Supervisor
Louisiana Field Office

Enclosures

cc: New Orleans District, CEMVN-PM-RS, New Orleans, LA
EPA, Dallas, TX
National Marine Fisheries Service, Baton Rouge, LA
LA Dept. of Wildlife and Fisheries, Baton Rouge, LA
LA Dept. of Natural Resources (CMD/CRD), Baton Rouge, LA

Fish and Wildlife Coordination Act Report
for the
Individual Environmental Reports (IER)
St. Charles Parish, Louisiana
IER 1

Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4)

PROVIDED TO
NEW ORLEANS DISTRICT
U.S. ARMY CORPS OF ENGINEERS
NEW ORLEANS, LOUISIANA

PREPARED BY
CATHERINE BREAUX
FISH AND WILDLIFE BIOLOGIST

U.S. FISH AND WILDLIFE SERVICE
ECOLOGICAL SERVICES
LAFAYETTE, LOUISIANA
JULY 2008
U.S. FISH AND WILDLIFE SERVICE – SOUTHEAST REGION

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EXECUTIVE SUMMARY

The U. S. Army Corps of Engineers' New Orleans District (Corps) is preparing the "Individual Environmental Report (IER) Lake Pontchartrain and Vicinity (LPV) St. Charles Parish, Louisiana (IER1)". That study was conducted in response to Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4). That law authorized the Corps to upgrade some existing hurricane protection projects to provide protection against a 100-year hurricane event. This report contains an analysis of the impacts on fish and wildlife resources that would result from the implementation of 100-year hurricane protection for that area, and provides recommendations to minimize and/or mitigate project impacts on those resources.

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Construction of the flood protection levee would result in the loss of about 292 acres of swamp and bottomland hardwood wetlands for a total loss of 193 AAHUs. The Service does not object to the construction of the proposed project provided the following fish and wildlife conservation recommendations are implemented concurrently with project implementation:

1. The Corps and local sponsor shall provide 193 AAHUs to compensate for the unavoidable, project-related loss of forested wetlands. The Service, National Marine Fisheries Service (NMFS), Louisiana Department of Wildlife and Fisheries (LDWF), and Louisiana Department of Natural Resources (LDNR) should be consulted regarding the adequacy of any proposed alternative mitigation sites. The mitigation plan developed to offset project related impacts should be consistent with mitigation requirements of the

Clean Water Act regulatory program, and include monitoring, success criteria, and financial assurance components.

2. The Service recommends that any impacts to forested wetlands should be avoided or minimized to the greatest extent practicable.

3. For each of the three access roads the Service recommends the installation of a minimum of 18-24 inch culverts every 250 feet when constructing these access roads through wetlands. Additional culverts should be installed at stream crossings and drainage features. Culverts should be maintained to ensure that existing flow of surface water is uncompromised.

4. All gates and/or culverts being replaced or modified should be operated according to previously developed operational plans to avoid further degradation of the project area hydrology.

5. To avoid the protected-side swamps near the Bayou Trepagnier pumps and drainage structure from becoming impounded or drained, provide assurance that once the drainage structure is replaced with a T-wall that the pumps will be operated to achieve the same hydrologic results (i.e. water levels) as in the past thus perpetuating existing conditions and minimizing secondary impacts from development and hydrologic alteration.

6. Bayou Trepagnier is a Louisiana designated Natural and Scenic River. The Corps must obtain authorization from the LDWF, Scenic Rivers Program prior to initiating any of the proposed activities within or adjacent to the banks of Bayou Trepagnier. Scenic Rivers Coordinator Keith Cascio can be contacted at (318) 343-4045.

7. Avoid adverse impacts to wading bird colonies through careful design project features and timing of construction. Colonies that are not currently listed in the database maintained by the Louisiana Department of Wildlife and Fisheries may be present. That database is updated primarily by monitoring the colony sites that were previously surveyed during the 1980s. Until a new, comprehensive coast-wide survey is conducted to determine the location of newly-established nesting colonies, the Service recommends that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season.

8. The Service shall be provided an opportunity to review and submit recommendations on the draft plans and specifications for all levee work addressed in this report.

9. Any proposed change in levee, floodwall, or drainage structure features, locations or plans shall be coordinated in advance with the Service, NMFS, LDWF, and LDNR.

10. The project's first Project Cooperation Agreement (or similar document) shall include language that includes the responsibility of the local-cost sharer to provide operational, monitoring, and maintenance funds for mitigation features.

11. If the proposed project has not been constructed within 1 year or if changes are made to the proposed project, the Corps should re-initiate Endangered Species Act consultation with the Service to ensure that the proposed project would not adversely affect any Federally listed threatened or endangered species or their habitat.

INTRODUCTION

The U. S. Army Corps of Engineers' New Orleans District (Corps) is preparing the "Individual Environmental Report (IER) Lake Pontchartrain and Vicinity (LPV) St. Charles Parish, Louisiana (IER1)." That study was conducted in response to Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery, 2006 (Supplemental 4). That law authorized the Corps to upgrade some existing hurricane protection projects to provide protection against a 100-year hurricane event. This report contains an analysis of the impacts on fish and wildlife resources that would result from the implementation of 100-year hurricane protection for that area, and provides recommendations to minimize and/or mitigate project impacts on those resources.

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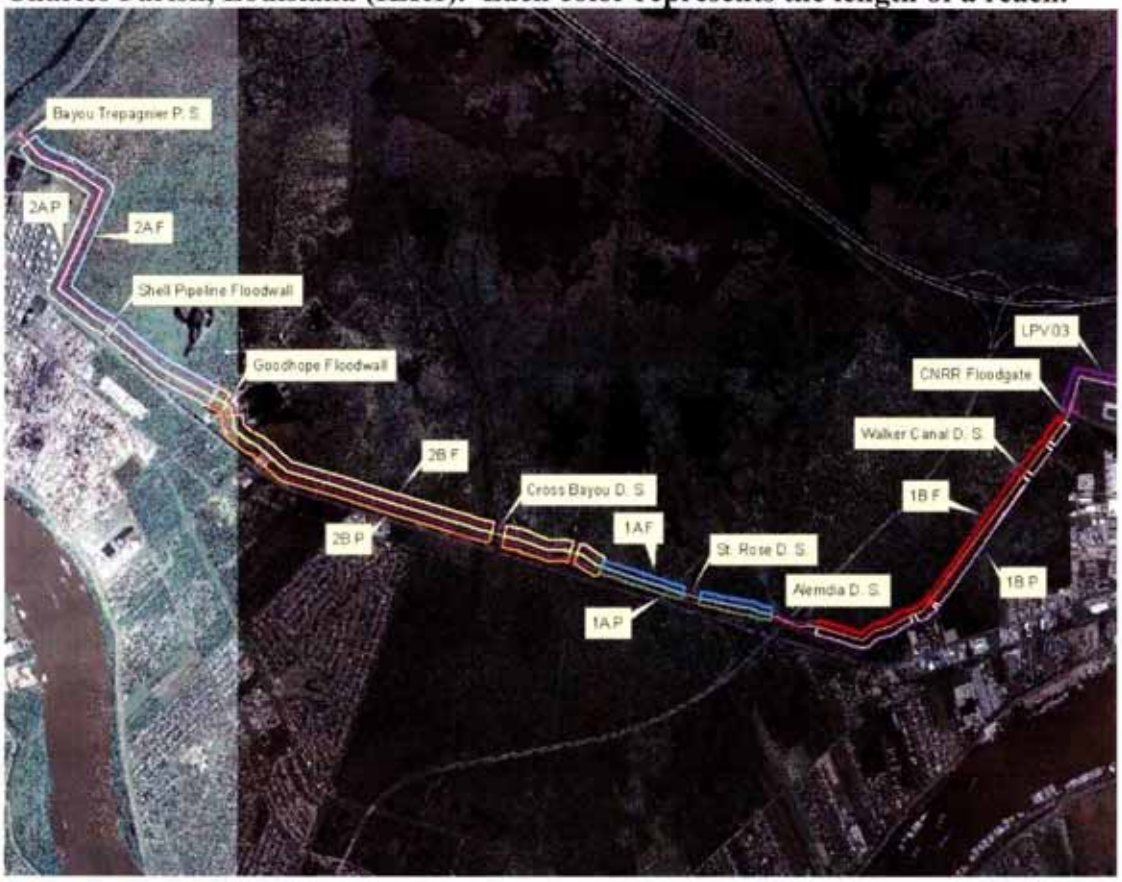
DESCRIPTION OF THE STUDY AREA

The IER1 project area runs along the existing St. Charles Parish levee system on the north side of U.S. 61 (Airline Highway) (Figure 1). The existing levee, floodwalls, and floodgates proposed for amendment as part of the IER1 project begins immediately north of the Shell-Norco complex adjacent to the Bonnet Carré Guide Levee, which is east of the Bonnet Carré Spillway. The existing levee system wraps around the Shell-Norco complex and runs approximately 0.1 mile north of and parallel to Airline Highway. Approximately one half mile east of the Interstate-310

interchange with Airline Highway the levee system turns to a northeasterly direction. The IER1 project area terminates around the northwest end of the Louis Armstrong new Orleans International Airport near the St. Charles/Jefferson parish line.

Figure 1. Individual Environmental Report (IER) Lake Pontchartrain and Vicinity (LPV) St. Charles Parish, Louisiana (IER1). Each color represents the length of a reach.



DESCRIPTION OF SELECTED PLAN

The proposed plan for IER1 involves upgrading or rebuilding the existing flood protection levee and associated floodwalls, gates, and drainage structures on the St. Charles Parish levee system. The preferred plan will rebuild 8.7 miles of earthen levees, replace 6,400 linear feet of floodwalls, and construct fronting protection for five existing drainage structures. IER1 is subdivided into several separate reaches (figure 1). Reaches LPV 03, 1A, 1B, 2A, and 2B make up the earthen levee portions of IER1; the floodwalls and gates include the Bonnet Carre floodwall, Shell pipeline floodwall, Good Hope floodwall, Koch-Gateway floodwall, floodwall under Interstate 310 (I-310), Canadian National Railroad Gate; and the drainage structures include the Cross Bayou drainage structure, St. Rose drainage structure, Almeidia drainage structure, and Walker drainage structure. Bayou Trepagnier is a Louisiana designated Natural and Scenic River located near the western end of the project area (Bonnet Carre floodwall). The Corps must obtain authorization from the LDWF, Scenic Rivers Program prior to initiating any of the proposed activities within or adjacent to the banks of Bayou Trepagnier.

LPV03

LPV 03b consists of approximately 3,000 linear feet (lf) of levees at the northwestern end of the Louis Armstrong New Orleans International Airport. The existing elevations of the levees vary, but range from +10.5 to +13.5 feet (ft) as referenced to the North American Vertical Datum (NAVD88). The preferred alternative for this reach consists of an increase in levee height with a flood-side shift. The levees would be raised increasing the height to approximately 14 ft to 16 ft. There would be an approximate 20 ft expansion of the levee footprint (the ground surface area that would be covered by the alternative structure and associated right-of-way [ROW]) on the flood-side of the levee. Tie-ins to the Canadian National Railroad Gate and the floodwalls of IER #2 (Jefferson East Bank Levee) would also be incorporated.

Levee Reaches 1A, 1B, 2A, and 2B

LPV04 consists of approximately 8 miles of levee. Prior to hurricane Katrina, the levees were at an elevation of approximately +9 to +12 ft NAVD88. These reaches either were recently raised or are currently under contract to be raised to their authorized heights of approximately +14 ft NAVD88.

The preferred alternative for these reaches consists of raising the levee reaches from their authorized height of 12.5 to 13.5 ft to 18 ft plus 1 ft overbuild for Reach 1A; 16 ft plus 1 ft overbuild for Reach 1B; and 18 ft plus 1 ft overbuild for Reach 2A and 2B. Levee alignments would not be changed; however, the centerline of the levees could shift slightly, as necessary, to accommodate the levee footprint expansions of 100 to 250 ft on both the flood- and protected-sides.

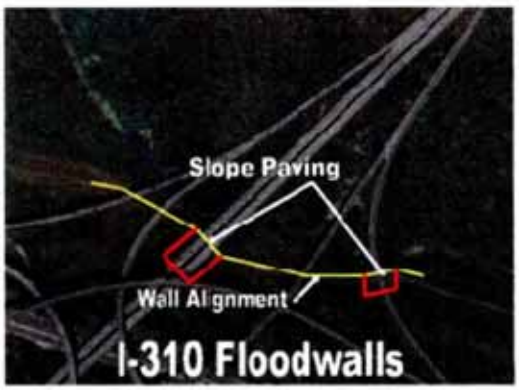
Floodwalls and Gate

The Bonnet Carré floodwall consists of approximately 155 lf of floodwall, the Shell pipeline floodwall is 195 lf, the Good Hope floodwall is 550 lf, and the Koch-Gateway floodwall is 272 lf. The preferred alternative for three of the flood walls (Bonnet Carré, Good Hope, and Koch-Gateway) consists of demolishing the existing walls and rebuilding the new T-walls to approximately 17 to 18.5 ft. The Shell pipeline floodwall will be demolished and an earthen levee (16.5ft) segment constructed in its place. Based on the preferred alternative for levees, the new walls would remain in their current alignment with minimal footprint expansion. However, the Bonnet Carré Floodwall would be increased in length to 465 ft. During the construction phase, temporary structures (sheet piling) would be installed on the flood-side to protect the existing levee system.

The preferred alternative for the floodwall under I-310 (1,760 lf) consists of demolishing the existing I-wall, replacing the I-wall with a new T-wall to approximately the same height (13.5 ft) under the I-310 spans and under the onramp from Westbound Airline Drive to Northbound I-310 and to an elevation of 15.5 ft at all other sections of the wall. In addition, concrete scour protection would be incorporated under the bridges extending approximately to the limit of the ROW on the protected side of the floodwall and extending approximately 50 feet on either side of the bridges (Figure 2). The small gate located about mid-way down the length of the floodwall and located east of the main I-310 spans would also be replaced. The existing sheet pile would be

driven down and new steel H-piles would be driven approximately 90 feet on the protected side of the new wall.

Figure 2. I-310 Wall Scour Protection



The preferred alternative for the 450 lf Canadian National Railroad Gate consists of adding approximately 4-5 ft of height to the existing gate, bringing it to an approximate height of 16 ft. The tie-in floodwalls on each side of the existing gate would be demolished and new T-walls would be constructed to tie-in with the levee reach at approximately 16 ft.

Drainage Structures

The preferred alternative for the existing drainage structure on the canal west of Bayou Trepagnier would be retrofitted with new T-wall to a height of approximately 18 ft and a stability berm.

The Cross Bayou drainage structure (503 lf) and the St. Rose drainage structure (640 lf) would remain in place while the new drainage structures are constructed slightly flood side and adjacent to the existing structures. The new structures would be offset in the existing channel but would be constructed within existing ROW. The designers and local sponsors would evaluate and determine if the old drainage structures would be demolished or left in their current state.

The proposed action for the 225 lf Almeidia drainage structure and the 248 lf Walker drainage structure drainage structures would be to modify the existing structures (using additional pilings and thicker walls to add height) to approximately 16 ft.

Water flow would be temporarily (up to 3 months) affected during construction of the new drainage structures. Where water exchange would be prevented, the water quality would decrease due to impounding and stagnation, though it would be for a short duration and once exchanged is reopened the water quality should return to normal. In addition, measures have been introduced to minimize further water flow issues. These measures include dredging one existing canal to maintain flow during construction, installing appropriately sized culverts to ensure flow is not significantly altered in the channel, and where water exchange would be prevented (up to 3 months) work on each drainage structure would occur consecutively to ensure protected side drainage of the area.

Access Roads

Three permanent access roads would be built on existing permitted roads. The Walker access road would require a crossing that would use fill and 3 -48" culverts. The Shell access road would require building a bridge to cross the drainage canal adjacent to Highway 61 and widening the existing road, which would require <1 acre of additional ROW. The Cross Bayou access road would require building a bridge to cross the drainage canal adjacent to Highway 61. Additional temporary access will be used but not require any additional improvements or widening.

Figure 3. Access road at the Shell pipeline crossing in reach 2A and under I-310 and at the Walker structure in reach 1B.

Borrow

For all construction under the proposed action, earthen fill material would be obtained from the Bonnet Carre Spillway, which is located approximately 1-9 miles from the IER1 project area. The borrow material would be stock piled, as needed, along the protected side of the new levee alignment for each reach included in the proposed action. Impacts for areas stock piled and for borrow for each IER will be addressed in a separate IER document.

FISH AND WILDLIFE RESOURCES

Description of Habitats

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

Factors that will strongly influence future fish and wildlife resource conditions in the area include freshwater input and loss of coastal wetlands. In the future, depending upon the deterioration rate of marshes, the frequency of occasional short-term saltwater events may increase. Under that scenario, tidal action in the project area may increase gradually as the buffering effect of marshes are lost, and use of that area by estuarine-dependent fishes and shellfish tolerant of freshwater conditions would likely increase. However, with a total closure structure on the MRGO there is expected to be an overall decrease in salinities throughout the Pontchartrain basin. Regardless of which of the above factors ultimately has the greatest influence, freshwater wetlands within and adjacent to the project area will probably experience losses due to development, subsidence, and erosion; however, fish and wildlife habitat quality should remain approximately at or slightly below present levels on the remaining acreage of those wetlands.

As previously mentioned, the Service has provided previous FWCA Reports for the two subject hurricane protection projects. Those reports contain a discussion of the significant fish and wildlife resources including habitats that occur within the study area. For brevity, that discussion is incorporated by reference herein, but the following brief descriptions are provided to update the previously mentioned information.

Forested Wetland Habitats

The majority of the area adjacent to the levee reaches in the IER1 project area is swamp. About 350 acres of swamp habitat are located on the protected side of the existing levee and hundreds of acres of swamp extend from the flooded side of the levee. The swamp habitat in the project area is predominantly vegetated by bald cypress, tupelo, and red maple (see Appendix A for all Latin names of plants, fish, amphibians, reptiles, birds, and mammals in this report). Other tree species include Chinese tallow-tree, green ash, black willow, black gum, and pumpkin ash. Other vegetation includes Walter's millet, spikerush, alligatorweed, pennywort, Aster, goldenrod, marshmallow, cattail, rattlebox, frogbit, dogfennal, eastern baccharis, smartweed, deerpea, Panicum, waterhyssop, frogfruit, spikerush, buttonbush, palmetto, and delta duckpotato.

Only one and a half acres of bottomland hardwood (BLH) are on the flooded side near the I-I-310 interchange will be affected by this project. That BLH exist on higher elevation than the surrounding swamp because the site was a medical waste landfill. BLH habitat in the project area is predominantly sugarberry, red maple, green ash, and American elm. Other tree species include oaks, pumpkin ash, Chinese tallow-tree, cottonwood, and flowering dogwood. Other vegetation

includes alligatorweed, smartweed, lizard's tail, eastern baccharis, Virginia creeper, Rubus, elderberry, goldenrod, and mulberry.

Due to the railroad through LaBranche, the St. Charles Parish levee, and Highway 61, the hydrology of the forested wetlands has been altered. Before the railroad and the levee, water levels were mostly influenced by sheet flow across the marsh and influenced from Lake Pontchartrain. Though the swamp on the flooded side of the levee is still tidally connected to Lake Pontchartrain, the exchange may be somewhat restricted (moderate flow/exchange and semi-permanently flooded) as water flows through designated openings across the railroad. The protected side is not or minimally tidally influenced (low flow/exchange and semi-permanently flooded) as the water has to pass through more culverts or gates across the levee. The bottomland hardwood, which is higher in elevation than the swamp in the area, is seasonally flooded but has the same flow/exchange as the swamp.

In the future, the forested wetlands are expected to remain for the project life. Subsidence will continue but not to the extent that will be detrimental to this habitat.

Marshes

Some fresh marsh exists at the eastern end of the project area near the airport (LPV03 reach). The marsh vegetation of the area includes marshhay cordgrass, smooth cordgrass, bullwhip, eastern baccharis, alligatorweed, deerpea, Walter's millet, spikerush, pennywort, marshmallow, cattail, rattlebox, frogbit, smartweed, panicum, waterhyssop, frogfruit, and spikerush.

Emergent wetlands within the project area provide plant detritus to adjacent coastal waters and thereby contribute to the production of commercially and recreationally important fishes and shellfishes. Wetlands in the project area also serve valuable water quality functions such as reduction of excessive dissolved nutrient levels and removal of suspended sediment. These wetlands are expected to remain relatively stable with some decline from subsidence.

Open-Water Habitats

The project area is bound to the north by the LaBranche Wetlands and to the north of LaBranche is Lake Pontchartrain. Bayous LaBranche and Trepagnier are the major natural water features occurring in and around the project area. Bayou LaBranche originates near Highway 61 and flows northward for four miles to its confluence with Lake Pontchartrain. Bayou Trepagnier flows for four miles north from the Shell-Norco Oil Refinery to its confluence with Bayou LaBranche.

The major canals and drainage-ways within the project area are the Cross Bayou Canal that starts north of the Mississippi River and crosses the existing flood control levee flowing north to cross Bayou Traverse to terminate in the LaBranche wetlands near Interstate 10; another drainage-runs parallel to the Cross Bayou Canal on the east, crossing the existing levee and flowing north across Bayou Traverse to its confluence in Lake Pontchartrain; Walker Canal begins south of the levee near U.S. 61 (Airline Highway) flows north across the levee to its confluence in Lake

Pontchartrain; and the borrow canal that runs parallel to the south side of the levee from the eastern side of the Interstate 310 interchange to the Canadian National Railroad Gate. These canals and drainage-ways are man made features created for control of storm water run-off or were created during construction of the existing levees. The network of these structures illustrates the highly manipulated hydrology of the project area.

The canals and bayous support submerged and floating aquatic vegetation such as coontail, wild celery, alligatorweed, hydrocotle, and pondweeds. In places the borrow canal had dense vegetation reducing the value of that aquatic habitat. Bayou Trepagnier has contaminated sediment due to the historical disposal of oil refinery waste (Maygarden 2004).

Developed Areas

The Developed habitats in the project area include commercial areas (Shell-Norco petrochemical complex at the western end, facilities near the Almedia drainage structure, truck/trailer storage facility, and the western end of New Orleans International Airport runway adjacent to LPV03 on the east), the I-310 overpass, and the railroad at the eastern end of the project area (LPV03). In addition the project area has low grade (gravel or dirt) roads with intermittent use and the existing levee. Highways usually induce development and with near by Highway 61 paralleling the project area, it is expected that some additional development along the highway near the project area (on the protected side of the levee) may occur in the foreseeable future, especially with a new permanent access road near the Walker structure. Those and future developed habitats do not support significant wildlife use.

Fishery/Aquatic Resources

Drainage and borrow canals in the project area does not support significant fishery resources because of dense vegetation, poor water quality, and inadequate depth. Freshwater sport fishes present in Bayous LaBranche and Trepagnier and other wetlands outside of the levees, include largemouth bass, crappie, bluegill, redear sunfish, warmouth, channel catfish, and blue catfish. Other fishes likely to be present include yellow bullhead, freshwater drum, bowfin, carp, buffaloes, and gars. In the future fisheries of the area are expected to remain relatively stable.

Essential Fish Habitat

The 1996 amendments to the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act; P.L. 104-297) set forth a new mandate for NOAA's National Marine Fisheries Service (NMFS), regional fishery management councils (FMC), and other federal agencies to identify and protect important marine and anadromous fish habitat. The Essential Fish Habitat (EFH) provisions of the Magnuson-Stevens Act support one of the nation's overall marine

resource management goals- maintaining sustainable fisheries. Essential to achieving this goal is the maintenance of suitable marine fishery habitat quality and quantity. Detailed information on Federally managed fisheries and their EFH is provided in the 1999 generic amendment of the Fishery Management Plans (FMP) for the Gulf of Mexico prepared by the Gulf of Mexico Fishery Management Council (GMFMC). The generic FMP subsequently was updated and revised in 2005 and became effective in January 2006 (70 FR 76216). NMFS administers EFH regulations.

EFH includes all waters and substrates within estuarine boundaries, including the subtidal vegetation (seagrasses and algae) and adjacent tidal vegetation (marshes). The forested wetland areas adjacent to the project area are hydrologically connected to the EFH of the Lake Pontchartrain estuary. However, the primarily cypress swamp of this project area are not likely to be suitable habitat for any of the lake Pontchartrain managed species (shrimp, red drum, and Spanish mackerel).

Wildlife Resources

Mammals known to occur in the project-area wetlands include mink, raccoon, nutria, river otter, and muskrat, armadillo, Virginia opossum, cotton mouse, hispid cotton rat, eastern cottontail rabbit, swamp rabbit, fox squirrel, grey squirrel, fox, bobcat, and white-tailed deer (Lowery, 1974a and O'Neil and Linscombe).

Those wetlands also support a variety of birds including herons and egrets. Flooded swamp within the project area provide habitat for nesting colonial wading birds. Swamp, BLH, and scrub-shrub habitats within the study area also provide habitat for many resident passerine birds and essential resting areas for many migratory songbirds including warblers, sparrows, thrushes, vireos, buntings, flycatchers, chickadees, titmouse, wrens, and swallows (Lowery 1974b).

Given the extent of development and drainage, waterfowl use within the hurricane protection system is likely minimal, while adjacent wetlands outside the levees provide high quality habitat. Swamps, fresh and intermediate marshes usually receive greater waterfowl utilization than brackish and saline marshes because they generally provide more waterfowl food. Resident species expected to occur in that area include mottled duck and wood duck.

The project area also supports resident hawks and owls including the red-shouldered hawk, barn owl, common screech owl, great horned owl, and barred owl. The red-tailed hawk, marsh hawk, and American kestrel are seasonal residents which utilize habitats within the project area.

Amphibians such as the southern dusky salamander, dwarf salamander, eastern newt, three-toed amphiuma, lesser siren, Gulf coast toad, northern cricket frog, green treefrog, squirrel treefrog, spring peeper, eastern narrow-mouthed toad, bullfrog, green frog, pig frog, and southern leopard frog (Dundee and Rossman, 1989) are expected to occur in the project-area wetlands.

Reptiles such as the American alligator, eastern mud turtle, red-eared turtle, snapping turtle, green anole, broadhead skink, ground skink, mud snake, speckled kingsnake, rat snake, Gulf coast

ribbon snake, cottonmouth, garter snake, and water snakes are expected to occur in the project-area wetlands (Dundee and Rossman, 1989).

In the future, wildlife in the project area is not expected to significantly change.

Endangered and Threatened Species

The bald eagle potentially may occupy habitat in the project area. Until recently the bald eagle was federally listed as threatened; however, it was determined to have recovered and was delisted on August 8, 2007 (FWS 2007). The bald eagle is still protected under the Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.).and Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d)

No Federally listed threatened or endangered species presently occur within the proposed project area. Therefore, no further endangered species consultation is required unless there are changes in the scope or location of the project, or project construction has not been initiated within one year. If project construction has not been initiated within 1 year, follow-up consultation should be accomplished prior to making expenditures for construction. If the scope or location of the proposed work is changed, consultation should be reinitiated as soon as such changes are made.

ALTERNATIVES UNDER CONSIDERATION

The proposed plan is discussed above in the Description of Selected Plan section. Other alternatives that were considered include the following:

No-Action Alternative

For each levee reach, floodwall, flood gate, and structure within IER1, the no-action alternative was evaluated. Under the no-action alternative, the proposed action would not be constructed. The current levee reaches, floodwalls, and associated structures would remain or be brought to the authorized heights of 12.5 to 13.5 ft. Routine maintenance of the levee system would continue, but no height would be added to the system.

Levee Alternatives

Sets of alignment alternatives and scales within these alignments were initially considered for each levee reach including: alignments – existing alignment with straddle, flooded side shift (all toe-to-toe growth occurs on the flooded side of the levee), and protected-side shift (all toe-to-toe growth occurs on the protected side of the levee); scale – earthen levee, T-wall floodwall, earthen levee with T-wall floodwall cap, and earthen levee with Deep Soil Mixing.

It was determined that using the existing levee with a protected-side shift would be unlikely due to the location of the Shell Oil Refinery, U.S. 61 (Airline Highway), a drainage canal, and segments of pipelines that run south of the existing levee alignment. In addition, a protected-side shift

would be infeasible due to the geotechnical instability of the land between the drainage canal and the stability berm associated with the existing levee structure. A flooded–side shift was eliminated in order to avoid and minimize the destruction of wetlands. In addition the cost for mitigation would make it infeasible. Replacement with floodwalls and floodwall caps was eliminated due to engineering inferiority. Deep Soil Mixing was eliminated due to engineering infeasibility due to the presence of cypress logs in the subsurface surrounding the existing levee system.

Floodwalls and Drainage Structure Alternatives

As part of the initial evaluation of the Bonnet Carré Floodwall, Shell Pipeline Floodwall, Good Hope Floodwall, Koch-Gateway Floodwall, Canadian National Railroad Gate, Bayou Trepagnier Drainage Structure, Cross Bayou Drainage Structure, St. Rose Drainage Structure, Almeidia Drainage Structure, and Walker Drainage Structure, flood-side and protected-side shifts as well as deep zone mixing were eliminated from detailed analysis. Significant shifts in the floodwall and gate alignments were considered impractical from an engineering perspective, and deep zone mixing was eliminated due to infeasibility from obstructions (i.e., cypress logs) in the surrounding subsurface. For three drainage structures (Bonnet Carre, Good Hope, and Koch-Gateway) and the Canadian National Railroad Gate, all forms of earthen levees were also eliminated from detailed impact analysis. In each of these cases, there were physical factors (i.e., drainage area or railroad crossing) that would prevent the construction of an earthen levee. In addition, modification of existing LPV 06 floodwalls (adding height) was eliminated from further analysis because it was determined that the existing floodwalls are not structurally designed to handle the increased hydrostatic load.

As part of the initial evaluation of the floodwall under I-310, all forms of earthen levees and replacement floodwall caps were eliminated from further consideration based on the proximity to I-310. In addition, any form of deep zone mixing was eliminated from consideration due to the potential of hazardous wastes in the immediate vicinity.

Non-Structural Alternatives

Non-structural alternatives included elevating all residential and commercial properties and public acquisition of properties in areas subject to flooding. Both these alternatives were eliminated due to excessive cost.

PROJECT IMPACTS

Approximately 292 acres (Table 1) of wetlands would be directly impacted by the proposed project. Work would involve raising part of and realigning the levee in reach LPV03, raising the levees in reaches 1A, 1B, 2A, and 2B, rebuilding new T-walls, adding concrete scour protection under I-310, and rebuilding new or modify existing drainage structures.

Table 1: Impacts to Individual Environmental Report (IER) Lake Pontchartrain and Vicinity (LPV) ST. Charles Parish, Louisiana (IER1)

WVAs	Acres	AAHUs
Swamp flooded side	143.57	-110.97
Swamp protected side	137.05	-73.99
BLH flooded side	11.33	-8.09
BLH protected side	0	0
Total	291.95	-193.05

To quantify anticipated project impacts to fish and wildlife resources, the Service used the Wetland Value Assessment (WVA) methodology. The WVA was developed to evaluate restoration projects proposed for funding under Section 303 of the Coastal Wetlands Planning, Protection and Restoration Act. The WVA version utilized in this evaluation was modified by the Louisiana Department of Natural Resources to better determine impacts and mitigation needs in forested wetlands. Further explanation of how impacts/benefits are assessed with WVA and an explanation of the assumptions affecting HSI values for each target year are available for review at the Fish and Wildlife Service's (Service) Lafayette, Louisiana, field office.

As indicated in Table 1, our WVA analyses indicate that project implementation would result in the direct loss of 193 AAHUs in swamp and bottomland hardwood forested wetlands. Once the proposed action is complete, the adjacent wetlands would stabilize. As with the future without project, fish and wildlife and their habitats, in the future with project scenario, are expected to remain relatively stable with some decline from development, subsidence, and erosion.

FISH AND WILDLIFE CONSERVATION MEASURES

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

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

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

The Service's Mitigation Policy (Federal Register, Volume 46, No. 15, January 23, 1981) identifies four resource categories that are used to ensure that the level of mitigation recommended by Service biologists will be consistent with the fish and wildlife resource values involved. Considering the high value of forested wetlands for fish and wildlife and the relative scarcity of that habitat type, those wetlands are usually designated as Resource Category 2

habitats, the mitigation goal for which is no net loss of in-kind habitat value. Because the "no action" alternative was not selected, avoiding the project impacts altogether is not feasible. Therefore, remaining project impacts should be mitigated via compensatory replacement of the habitat values lost.

To replace the project-related loss of high-quality forested wetland habitat, the Corps and the local sponsor should develop and fund mitigation actions that would produce the equivalent of 193 AAHUs within the Pontchartrain basin. The estimated costs for achieving that mitigation via timber stand improvement and management, in addition to any mitigation area fixed costs, should be borne as a project expense, and should be provided to the agency implementing the mitigation.

SERVICE POSITION AND RECOMMENDATIONS

Construction of the flood protection levee would result in the loss of 292 acres of swamp and bottomland hardwood wetlands for a total loss of 193 AAHUs. The Service does not object to the construction of the proposed project provided the following fish and wildlife conservation recommendations are implemented concurrently with project implementation:

1. The Corps and local sponsor shall provide 193 AAHUs to compensate for the unavoidable, project-related loss of forested wetlands. The Service, National Marine Fisheries Service (NMFS), Louisiana Department of Wildlife and Fisheries (LDWF), and Louisiana Department of Natural Resources (LDNR) should be consulted regarding the adequacy of any proposed alternative mitigation sites. The mitigation plan developed to offset project related impacts should be consistent with mitigation requirements of the Clean Water Act regulatory program, and include monitoring, success criteria, and financial assurance components.

2. The Service recommends that any impacts to forested wetlands should be avoided or minimized to the greatest extent practicable.

3. For each of the three access roads the Service recommends the installation of a minimum of 18-24 inch culverts every 250 feet when constructing these access roads through wetlands. Additional culverts should be installed at stream crossings and drainage features. Culverts should be maintained to ensure that existing flow of surface water is uncompromised.

4. All gates and/or culverts being replaced or modified should be operated according to previously developed operational plans to avoid further degradation of the project area hydrology.

5. To avoid the protected-side swamps near the Bayou Trepagnier pumps and drainage structure from becoming impounded or drained, provide assurance that once the drainage structure is replaced with a T-wall that the pumps will be operated to achieve the same

hydrologic results (i.e. water levels) as in the past thus perpetuating existing conditions and minimizing secondary impacts from development and hydrologic alteration.

6. Bayou Trepagnier is a Louisiana designated Natural and Scenic River. The Corps must obtain authorization from the LDWF, Scenic Rivers Program prior to initiating any of the proposed activities within or adjacent to the banks of Bayou Trepagnier. Scenic Rivers Coordinator Keith Cascio can be contacted at (318) 343-4045.

7. Avoid adverse impacts to wading bird colonies through careful design project features and timing of construction. Colonies that are not currently listed in the database maintained by the Louisiana Department of Wildlife and Fisheries may be present. That database is updated primarily by monitoring the colony sites that were previously surveyed during the 1980s. Until a new, comprehensive coast-wide survey is conducted to determine the location of newly-established nesting colonies, the Service recommends that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season.

8. The Service shall be provided an opportunity to review and submit recommendations on the draft plans and specifications for all levee work addressed in this report.

9. Any proposed change in levee, floodwall, or drainage structure features, locations or plans shall be coordinated in advance with the Service, NMFS, LDWF, and LDNR.

10. The project's first Project Cooperation Agreement (or similar document) shall include language that includes the responsibility of the local-cost sharer to provide operational, monitoring, and maintenance funds for mitigation features.

11. If the proposed project has not been constructed within 1 year or if changes are made to the proposed project, the Corps should re-initiate Endangered Species Act consultation with the Service to ensure that the proposed project would not adversely affect any Federally listed threatened or endangered species or their habitat.

LITERATURE CITED

Dundee, H.A., and D.A. Rossman. 1989. The amphibians and reptiles of Louisiana. Louisiana State University Press, Baton Rouge. 300 pp.

Lowery, G.H., Jr. 1974a. The mammals of Louisiana and its adjacent waters. Louisiana State University Press. Baton Rouge. 565 pp

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Maygarden, D. F. 2004. A Guide to the Wetlands of the Lake Pontchartrain Basin: 2004. A project of the University of New Orleans Pontchartrain Institute for Environmental Sciences (PIES) and the Lake Pontchartrain Basin Foundation. PIES CLR Technical Report Series 04013.

O'Neil, T. and G. Linscombe. The Fur Animals, The Alligator, and The Fur Industry in Louisiana. Louisiana Wildlife and Fisheries Commission. Louisiana Wildlife and Fisheries Commission. Wildlife Education Bulletin No. 106. 66 pp.

APPENDIX A
LATIN NAMES FOR SPECIES DISCUSSED IN REPORT

PLANTS

Alligatorweed	*Alternanthera philoxeroides*
American elm	*Ulmus americana*
Aster	*Aster* spp.
Bald cypress	*Taxodium distichum*
Black gum	*Nyssa sylvatica*
Black willow	*Salix nigra*
Bullwhip	*Scirpus californicus*
Buttonbush	*Cephalanthus occidentalis*
Cattail	*Typha* spp.
Chinese tallow-tree	*Triadica sebifera*
Deerpea	*Vigna luteola*
Delta duckpotato	Sagittaria platyphylla
Dogfennal	*Eupatorium capillifolium*
Eastern baccharis	*Baccharis halimifolia*
Eastern cottonwood	*Populus deltoides*
Elderberry	*Sambucus canadensis*
Frogbit	*Limnobium spongia*
Frogfruit	*Phyla nodiflora*
Goldenrod	*Solidago* sp.
Green ash	*Fraxinus pennsylvanica*
Lizard's tail	*Saururus cernuus*
Marshhay cordgrass	*Spartina patens*
Marshmallow	*Hibiscus* spp.
Mulberry	*Morus* spp.
Overcup oak	*Quercus lyrata*
Palmetto	*Sabal minor*
Panicum	*Panicum* sp.
Pennywort	*Hydrocotyle* spp.
Pumpkin ash	*Fraxinus tomentosa*
Rattlebox	*Sesbania drummondii*
Red maple	*Acer rubrum*
Red mulberry	*Morus rubra*
Roughleaf dogwood	*Cornus drummondii*
Rubus	*Rubus* spp.
Smartweed	*Polygonum* spp.
Smooth cordgrass	*Spartina alterniflora*
Spikerush	*Eleocharis* spp.
Sugarberry	*Celtis laevigata*

Tupelo	*Nyssa aquatica*
Virginia creeper	*Parthenocissus quinquefolia*
Walter's millet	*Echinochloa walteri*
Waterhyssop	*Bacopa*
Water oak	*Quercus nigra*
Willow oak	*Quercus phellos*

FISH

Bigmouth buffalo	*Ictiobus cyprinellus*
Black crappie	*Pomoxis nigromaculatus*
Blue catfish	*Ictalurus furcatus*
Bluegill	*Lepomis macrochirus*
Bowfin	*Amia calva*
Channel catfish	*Ictalurus punctatus*
Common carp	*Cyprinus carpio*
Freshwater drum	*Aplodinotus grunniens*
Grass carp	*Ctenopharyngodon idella*
Largemouth bass	*Micropterus salmoides*
Redear sunfish	*Lepomis microlophus*
Shortnose gar	*Lepisosteus platostomus*
Smallmouth buffalo	*Ictiobus bubalus*
Spotted gar	*Lepisosteus oculatus*
Warmouth	*Lepomis gulosus*
White crappie	*Pomoxis annularis*
Yellow bullhead	*Ameiurus natalis*

AMPHIBIANS

Bullfrog	*Rana catesbeiana*
Dusky salamander	*Desmognathus auriculatus*
Dwarf salamander	*Eurcyea quadridigitata*
Eastern narrow-mouthed toad	*Gastrophryne carolinensis*
Eastern newt	*Notophthalmus viridescens*
Green frog	*Rana clamitans*
Green treefrog	*Hyla cinerea*
Gulf coast toad	*Bufo valliceps*
Lesser siren	*Siren intermedia*
Northern cricket frog	*Acris crepitans*
Pig frog	*Rana grylio*
Southern leopard frog	*Rana sphenocephala*
Spring peeper	*Hyla crucifer*
Squirrel treefrog	*Hyla squirella*
Three-toed amphiuma	*Amphiuma tridactylum*

REPTILES

American alligator	*Alligator mississippiensis*
Broadhead skink	*Eumeces laticeps*
Cottonmouth	*Agkistrodon piscivorus*
Eastern mud turtle	*Kinosternon subrubrum*
Garter snake	*Thamnophis sirtalis*
Green anole	*Anolis carolinensis*
Ground skink	*Scincella lateralis*
Gulf coast ribbon snake	*Thamnophis proximus*
Mud snake	*Farancia abacura*
Rat snake	*Elaphe obsoleta*
Red-eared turtle	*Trachemys scripta*
Speckled kingsnake	*Lampropeltis getulus*
Snapping turtle	*Chelydra serpentina*
Water snakes	*Neodia* spp.

BIRDS

American kestrel	*Falco sqarverius*
Barn owl	*Tyto alba*
Barred owl	*Strix varia*
Cattle egret	*Bubulcus ibis*
Common screech owl	*Otus asio*
Great blue heron	*Ardea herodias*
Great egret	*Ardea alba*
Green heron	*Butorides virescens*
Great horned owl	*Bubo virginianus*
Marsh hawk	*Circus cyaneus*
Mottled duck	*Anas fulvigula*
Red-shouldered hawk	*Buteo lineatus*
Red-tailed hawk	*Buteo jamaicensis*
Snowy egret	*Egretta thula*
Wood duck	*Aix sponsa*

MAMMALS

Armadillo	*Dasypus novemcinctus*
Bobcat	*Lynx rufus*
Cotton mouse	*Peromyscus gossypinus*
Eastern cottontail rabbit	*Sylvilagus floridanus*
Fox	*Vulpes vulpes*
	Urocyon cinereoargenteus
Fox squirrel	*Sciurus niger*

Grey squirrel	*Sciurus carolinensis*
Hispid cotton rat	*Sigmodon hispidus*
Mink	*Mustela vison*
Muskrat	*Ondatra zibethicus rivalicius*
Northern raccoon	*Procyon lotor*
Nutria	*Myocaster coypus*
River Otter	*Lutra canadensis*
Swamp rabbit	*Sylvaligus aquaticus*
Virginia opossum	*Didelphis virginiana*
White-tailed deer	*Odocoileus virginianus*

BOBBY JINDAL
GOVERNOR

HAROLD LEGGETT, PH.D.
SECRETARY

State of Louisiana

DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

APR 20 2009

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

Attention: Gib Owen

RE: Water Quality Certification (WQC 080327-02/AI 156863/CER 20080002)
Supplemental Individual Environmental Report (SIER #1)
St. Charles Parish

Dear Mr. Owen:

The Department has reviewed your revised application for the construction of the LaBranche Wetlands Levee in St. Charles Parish. This revision concerns the realignment of levee reach LPV 03 d, the redesign of levee reaches LPV 04 1a and LPV 06, the preservation of the Cross Bayou and St. Rose drainage structures, the construction of new drainage structures, the relocation of several access roads, the construction of several bridges & other related activities described in SIER #1.

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

Sincerely,

Thomas F. Harris
Administrator
Waste Permits Division

TFH/jjp

Lyncker, Lissa A MVN-Contractor

From: Owen, Gib A MVN
Sent: Monday, June 08, 2009 12:03 PM
To: Lyncker, Lissa A MVN-Contractor
Cc: Behrens, Elizabeth H MVN
Subject: Fw: DEQ SOV:90520/1245 USACE Draft IER #1

Lissa
IERS 1 DEQ comments.
Gib
Gib Owen
USACE, Chief, Ecological and Restoration Section, New Orleans District Sent from device stuck in my right hand.

From: Diane Hewitt
To: Owen, Gib A MVN
Sent: Mon Jun 08 11:41:44 2009
Subject: DEQ SOV:90520/1245 USACE Draft IER #1

June 8, 2009

Gib Owen, USACE
CEMVN-PM-RS
P.O. Box 60267
New Orleans, LA 70160-0267
gib.a.owen@usace.army.mil <mailto:gib.a.owen@usace.army.mil>

RE:
90520/1245 USACE Draft IER #1
NOTICE OF AVAILABILITY

Dear Mr. Owen:

The Department of Environmental Quality, Office of Environmental Assessment and Office of Environmental Services received your request for comments on the above referenced project. Please take the appropriate steps to obtain and/or update all necessary approvals and environmental permits regarding this proposed project.

There were no objections based on the limited information submitted to us. However, the following comments have been included. Should you encounter a problem during the implementation of this project, please make the appropriate notification to this Department.

The Office of Environmental Services/Permits Division recommends that you investigate the following requirements that may influence your proposed project:

* If your project results in a discharge to waters of the state, submittal of a Louisiana Pollutant Discharge Elimination System (LPDES) application may be necessary.
* If the project results in a discharge of wastewater to an existing wastewater treatment system, that wastewater treatment system may need to modify their LPDES permit before accepting the additional wastewater.
* LDEQ has stormwater general permits for construction areas equal to or greater than one acre. It is recommended that you contact Melissa Conti at (225) 219-3078 to determine if your proposed improvements require one of these permits.
* All precautions should be observed to control nonpoint source pollution from construction activities.
* If any of the proposed work is located in wetlands or other areas subject to the jurisdiction of the U.S. Army Corps of Engineers, you should contact the Corps to inquire

about the possible necessity for permits. If a Corps permit is required, part of the application process may involve a Water Quality Certification from LDEQ.

* All precautions should be observed to protect the groundwater of the region.
* Please be advised that water softeners generate waste waters that may require special limitations depending on local water quality considerations. Therefore if your water system improvements include water softeners, you are advised to contact DEQ, Water Permits to determine if special water quality based limitations will be necessary
* Any renovation or remodeling must comply with LAC 33:III.Chapter 28.Lead-Based Paint Activities, LAC 33:III.Chapter 27.Asbestos-Containing Materials in Schools and State Buildings (includes all training and accreditation) and LAC 33:III.5151.Emission Standard for Asbestos for any renovations or demolitions.

\
Currently, St. Charles Parish is classified as an attainment parish with the National Ambient Air Quality Standards for all criteria air pollutants.

Please forward all future requests to Ms. Diane Hewitt, LDEQ/Performance Management/ P.O. Box 4301, Baton Rouge, LA 70821-4301 and we will expedite it as quickly as possible.

If you have any questions, please contact me at (225)219-4079 or by email at diane.hewitt@la.gov <mailto:diane.hewitt@la.gov> . Permitting questions should be directed to the Office of Environmental Services at 225-219-3181.

Sincerely,

Diane Hewitt
LDEQ/Community and Industry Relations
Business and Community Outreach Division Office of the Secretary P.O. Box 4301 (602 N. 5th Street) Baton Rouge, LA 70821-4301
Phone: 225-219-4079
Fx: 225-325-8208
Email: diane.hewitt@la.gov

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

REPLY TO
ATTENTION OF:

March 27, 2009

Planning, Programs, and
Project Management Division
Environmental Planning
and Compliance Branch
Attn: CEMVN-PM-RN

No known historic properties will be affected by this undertaking. This effect determination could change should new information come to our attention.

Scott Hutcheson 4-16-09
Scott Hutcheson Date
State Historic Preservation Officer

Mr. Scott Hutcheson
State Historic Preservation Officer
Office of Cultural Development
Department of Culture, Recreation, and Tourism
P.O. Box 44247
Baton Rouge, Louisiana 70804

RE: Request to Continue Consultation Under Section 106 of the National Historic Preservation Act for the Lake Pontchartrain and Vicinity Hurricane Protection Project, Individual Environmental Report #1, St. Charles Parish, Louisiana.

Dear Mr. Hutcheson:

The U.S. Army Corps of Engineers, Mississippi Valley Division, New Orleans District (CEMVN), is expanding the Area of Potential Effects (APE) for the project area currently being studied under Individual Environmental Report #1, Lake Pontchartrain and Vicinity Hurricane Protection Project, St. Charles Parish, Louisiana. This proposed expansion is located on the eastern end of the IER #1 project area and includes a new 2400 foot long access road. (see enclosed maps).

In our letter to your office dated June 26, 2007, the CEMVN evaluated project documentation and provided a "no historic properties affected" finding for the original APE. Your office concurred with our opinion in a letter dated August 3, 2007. In our second letter to your office dated October 31, 2007, the CEMVN evaluated an expanded APE that included 3000 linear feet of additional existing levee alignment. Your office concurred with our second "no historic properties affected" finding in a letter dated December 13, 2007. Copies of these letters are attached herein.

Pursuant to Section 106 of the National Historic Preservation Act (NHPA), the CEMVN, in consultation with the State Historic Preservation Officer (SHPO) and Indian Tribes, will determine if the expanded area of potential effects (APE) established for the proposed IER #1 project contains historic properties. The expanded APE, as proposed, is a new access road that

extends from an existing industrial park to the Walker Road Drainage Structure. The new road measures approximately 2400 feet long by 54 feet wide for a total of 2.75 acres. Proposed construction activities in the expanded APE will include the placement of sand fill on geotextile and perpendicular drainage pipes.

The CEMVN reviewed the cultural resources assessment of the original APE for IER #1 prepared in June, 2007 (Lackowicz et al. 2007) and for the first expanded APE prepared in October, 2007 (Lackowicz 2007). No areas exhibiting a high potential for cultural resources were identified in the portion of the new access road that is located in the original study area, which includes a 500 foot-wide corridor on the protected side of the levee center line. The CEMVN recently contacted Mr. Nathanael Heller, who conducted the fieldwork for the original studies, and asked him to provide an opinion on the potential for cultural resources in the expanded APE roadway. Field reconnaissance of the expanded APE roadway was not conducted due to site access and standing water safety issues.

Heller determined that the expanded APE roadway exhibits a very low potential for cultural resources and does not recommend a cultural resources survey. The nearest previously recorded archaeological sites (16SC87 and 16JE219) are located approximately 0.9 miles from the southern end of the roadway and no previously recorded historic standing structures are identified within one mile. Soils mapped within the proposed road right of way consist of developed urban land at the southern end of the road, Udorthents (sanitary landfill deposits) in the central portion of the roadway, and partially inundated Barbary muck at the northern end.

Based on a review of the information summarized above, it is our view that the proposed project activities in the expanded APE will not impact any significant cultural resources. However, in the event that cultural resources are encountered during construction activities, work will be halted and your office will be contacted for further consultation. Any resources encountered will be recorded and documented, and state archaeological site forms will be provided.

Please review the enclosed project documentation and provide this office with your opinion regarding our "no historic properties affected" finding within 30 days of receipt of this letter. If you have any questions and/or concerns, please contact Mr. Michael Swanda at (504) 862-2036.

Sincerely,

Joan Exnicios

Joan Exnicios
Acting Chief, Environmental Planning
and Compliance Branch

ALABAMA-COUSHATTA TRIBE OF TEXAS
571 State Park Rd 56 • Livingston, Texas 77351 • (936) 563-1100

April 17, 2009

Michael Swanda
U.S. Army Corps of Engineers
New Orleans District
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Mr. Swanda:

On behalf of Chief Oscola Clayton Sylestine and the Alabama-Coushatta Tribe, our appreciation is expressed on your agency's efforts to consult us regarding the amended area of potential effect for the Lake Pontchartrain and Vicinity, La Branch Wetlands Levee in St. Charles Parish.

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

Upon review of your March 27, 2009 reports electronically submitted to our Tribe, no impact to religious, cultural, or historical assets of the Alabama-Coushatta Tribe of Texas should occur in conjunction with this proposal. Therefore, we concur with the "no historic properties affected" recommendation

In the event of inadvertent discovery of human remains and/or archaeological artifacts, we would appreciate compliance with your "work will be halted and your office will be contacted for further consultation" statement. Should you require additional assistance, please do not hesitate to contact us.

Respectfully submitted,

Bryant J. Celestine
Historic Preservation Officer

Telephone: 936 – 563 – 1181 celestine.bryant@actribe.org Fax: 936 – 563 – 1183

SEMINOLE TRIBE OF FLORIDA
TRIBAL HISTORIC PRESERVATION OFFICE

TRIBAL HISTORIC
PRESERVATION OFFICE

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

HC-61, BOX 21A
CLEWISTON, FL 33440

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

TRIBAL OFFICERS

CHAIRMAN
MITCHELL CYPRESS

VICE CHAIRMAN
RICHARD BOWERS JR.

SECRETARY
PRISCILLA D. SAYEN

TREASURER
MICHAEL D. TIGER

Michael Swanda
U.S Army Corps of Engineers
P.O. Box 60267
New Orleans, LA 70160-0267

Friday, April 17, 2009

Subject: Lake Pontchartrain and Vicinity Hurricane Protection Project, EIR #1, St. Charles Parish, LA

Dear Mr.Swanda,

The Tribal Historic Preservation Office of the Seminole Tribe of Florida (STOF-THPO) has received your correspondence concerning the aforementioned project. The STOF-THPO concurs with the findings of "no historical properties." However, the STOF-THPO would like to be informed should any archaeological and/or historic resources be inadvertently discovered during the construction process. We thank you for the submission of this information for our review. In any future correspondence regarding this issue please reference ***THPO-003258.***

Sincerely,

FOR

Direct routine inquiries to:

Willard Steele,
Tribal Historic Preservation Officer

Dawn Hutchins,
Compliance Review Supervisor

JLP:dh

Choctaw Nation of Oklahoma

P.O. Box 1210 • Durant, OK 74702-1210 • (580) 924-8280

Gregory E. Pyle
Chief

Gary Batton
Assistant Chief

April 20, 2009

Joan M. Exnicios
Dept of the Army New Orleans Dist,
Corps of Engineers
PO Box 60267
New Orleans, Louisiana 70160-0267

Dear Joan M. Exnicios:

We have reviewed the following proposed project (s) as to its effect regarding religious and/or cultural significance to historic properties that may be affected by an undertaking of the projects area of potential effect.

Project Description: Individual Environmental Report #1 for the Lake Ponchartrain and Vicinity Hurricane Protection Project in St. Charles Parish, Louisiana

Comments: After further review of the above-mentioned project (s), The Choctaw Nation of Oklahoma agrees with the finding of "no effect."

Sincerely,

Terry D. Cole
Tribal Historic Preservation Officer
Choctaw Nation of Oklahoma

By: Caren A. Johnson
Caren A. Johnson
Administrative Assistant

CAJ: vr

Lyncker, Lissa A MVN-Contractor

From: Carrie V. Wilson [nagpra.106@earthlink.net]
Sent: Friday, March 27, 2009 4:07 PM
To: Swanda, Michael L MVN
Subject: Re: IER #1 - March 27, 2009 Quapaw Tribe of Oklahoma Request to Continue Consultation

I agree with your finds of no effect
Carrie Wilson

-----Original Message-----
From: "Swanda, Michael L MVN"
Sent: Mar 27, 2009 3:38 PM
To: nagpra.106@earthlink.net
Subject: IER #1 - March 27, 2009 Quapaw Tribe of Oklahoma Request to Continue Consultation

Dear Carrie,

The U.S. Army Corps of Engineers, New Orleans District, is amending the Area of Potential Effects (APE) for the project area currently being studied under the Lake Pontchartrain and Vicinity, La Branch Wetlands Levee, St. Charles Parish, Louisiana project, which is part of the Greater New Orleans Hurricane and Storm Damage Risk Reduction System. Information relating to this proposed project amendment will appear in the Individual Environmental Report Supplemental #1, a National Environmental Policy Act document.

Based on a review of the cultural resources evaluations conducted by R. Christopher Goodwin & Associates, Inc.
(Lackowicz et al. 2007, Lackowicz 2007), the Corps has found that the proposed APE expansion for access road construction will have no impact on historic properties. A copy of our March 27, 2009 letter to Chairman Berrey, project documentation, and previous consultation letters are attached herein. If you wish to respond, please review these attachments and provide our office with your opinion regarding our "no historic properties affected" finding within 30 days of receipt of this email. If you have any questions or require additional information, please contact me at (504) 862-2036.

Thank you.

Michael Swanda
Archaeologist
U.S. Army Corps of Engineers, New Orleans District
(504) 862-2036

<<June 26, 2007 SHPO Letter Request to Continue.pdf>> <<October 31, 2007 SHPO letter requesting concurrence on expanded APE.pdf>> <<August 3, 2007 SHPO concurrence letter.pdf>> <<December 13, 2007 SHPO response to expanded APE.pdf>> <<IER #1 - March 27, 2009 Figures #1 & #2.pdf>> <<IER #1 - March 27, 2009 Quapaw Tribe of Oklahoma Request to Continue Consultation.pdf>>

Cultural Resouces
223 E. Lafayette St.
Fayetteville, AR 72701
Phone: 479-442-7576, Fax: 479-575-5453

BOBBY JINDAL
GOVERNOR

SCOTT A. ANGELLE
SECRETARY

State of Louisiana

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF COASTAL RESTORATION AND MANAGEMENT

May 8, 2009

Joan Exnicios
Acting Chief, Environmental Planning and Compliance Branch
U. S. Army Corps of Engineers, New Orleans District
P. O. Box 60267
New Orleans, Louisiana 70160-0267

RE: **C20080104,** Coastal Zone Consistency modification
U. S. Army Corps of Engineers, New Orleans District
Direct Federal Action
IER 1: Lake Pontchartrain and Vicinity, Labranche Wetlands Hurricane Protection Levee; modification to Reaches LPV 03b; LPV 04; LPV 05; LPV 06b and e; and LPV 07b, c, d, and e, **St. Charles Parish, Louisiana**

Dear Ms Exnicios:

The above referenced project modification has been reviewed for consistency with the approved Louisiana Coastal Resource Program (LCRP) as required by Section 307 of the Coastal Zone Management Act of 1972, as amended. The project, as proposed in the application, is consistent with the LCRP. If you have any questions concerning this determination please contact Jeff Harris of the Consistency Section at (225) 342-7949.

Sincerely yours,

Gregory J. DuCote
Administrator

GJD/jdh

cc: David Butler, LDWF
David Walther, USFWS
Angela Trahan, USFWS
Barbara Keeler, USEPA
John Ettinger, USEPA
Rick Hartman, NMFS
Tim Killeen, CMD FI

Coastal Management Division • Post Office Box 44487 • Baton Rouge, Louisiana 70804-4487
(225) 342-7591 • Fax (225) 342-9439 • http://www.dnr.state.la.us
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Lyncker, Lissa A MVN-Contractor

From: Owen, Gib A MVN
Sent: Tuesday, May 26, 2009 5:11 PM
To: Lyncker, Lissa A MVN-Contractor
Cc: Anderson, Carl E MVN; Dunn, Christopher L MVN
Subject: Fw: LPV, LA BRANCHE WETLANDS LEVEE, ST. CHARLES PARISH, LA. IER 1 SUPPLEMENTAL

Lissa
IERS 1 comment.
Gib
Gib Owen
USACE
Chief, Ecological and Restoration Section New Orleans

From: Robert.Mahoney@dot.gov
To: Owen, Gib A MVN
Cc: Carl.Highsmith@dot.gov ; MSTINSON@dot.gov ; HosseinGhara@dotd.la.gov ; Noel.Ardoin@LA.GOV
Sent: Tue May 26 16:54:37 2009
Subject: LPV, LA BRANCHE WETLANDS LEVEE, ST. CHARLES PARISH, LA. IER 1 SUPPLEMENTAL

Gib Owen; received Public Notice Dated May 15, 2009 by Richard E. Boe, Acting Chief, Environmental Planning and Compliance Branch regard the subject document. Found the document on line at
http://www.nolaenvironmental.gov/nola_public_data/projects/usace_levee/docs/original/DRAFTIER1LaBranchWetLeveesStCharles.pdf

It appears that coordination has taken place with LDOTD in regards to the location and construction of the levee/floodwalls in relationship to State owned and operated roadways. It is noted that a T-wall is proposed thru the I-310 Interchange with US 61 along with slope paving in selected locations.
Our main comment on other agency actions in the vicinity of transportation roadways deals with reminders to coordinate with proper personnel within each government unit, whether it be the State, Parish or local government.

A copy of this e-mail is being shared with the States Bridge Engineer and Environmental Manager.

Please advise if a letter is needed.

Thanks, BobM.

Lyncker, Lissa A MVN-Contractor

From: Owen, Gib A MVN
Sent: Wednesday, May 27, 2009 12:37 PM
To: Lyncker, Lissa A MVN-Contractor; Anderson, Carl E MVN
Subject: FW: LPV, LA BRANCHE WETLANDS LEVEE, ST. CHARLES PARISH, LA. IER 1 SUPPLEMENTAL

FYI

Gib Owen
US Army Corps of Engineers
Chief, Ecological Planning and Restoration Section/ HSDRRS Environmental Team Leader New Orleans District
504 862-1337

-----Original Message-----
From: Hossein Ghara [mailto:Hossein.Ghara@LA.GOV]
Sent: Wednesday, May 27, 2009 12:35 PM
To: 'Robert.Mahoney@dot.gov'; Owen, Gib A MVN
Cc: Carl.Highsmith@dot.gov; MSTINSON@dot.gov; HosseinGhara@dotd.la.gov; Noel Ardoin
Subject: RE: LPV, LA BRANCHE WETLANDS LEVEE, ST. CHARLES PARISH, LA. IER 1 SUPPLEMENTAL

We are aware of these projects and have been reviewing plans as they have been offered to us. Arthur D'Andrea of my office has been the point of contact.

From: Robert.Mahoney@dot.gov [mailto:Robert.Mahoney@dot.gov]
Sent: Tuesday, May 26, 2009 4:55 PM
To: Gib.A.Owen@usace.army.mil
Cc: Carl.Highsmith@dot.gov; MSTINSON@dot.gov; HosseinGhara@dotd.la.gov; Noel Ardoin
Subject: LPV, LA BRANCHE WETLANDS LEVEE, ST. CHARLES PARISH, LA. IER 1 SUPPLEMENTAL

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Our main comment on other agency actions in the vicinity of transportation roadways deals with reminders to coordinate with proper personnel within each government unit, whether it be the State, Parish or local government.

A copy of this e-mail is being shared with the States Bridge Engineer and Environmental Manager.

Please advise if a letter is needed.

Thanks, BobM.

UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701

May 20, 2009 F/SER46/RH:jk
225/389-0508

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

Dear Mr. Owen:

NOAA's National Marine Fisheries Service (NMFS) has received the May 15, 2009, public notice titled "**LPV, La Branche Wetlands Levee; St. Charles Parish, Louisiana; IER 1 Supplemental**". The public notice describes the intention of the New Orleans District to revise previously advertised plans to provide100 year level of storm surge protection to the St. Charles Parish area in the vicinity of the La Branche wetlands. Modifications to the project include a levee flood side shift, replacement of a floodwall with a levee, and the intention to use high strength geotextile fabric, cofferdams and existing roads.

NMFS has reviewed the work described in the public notice and information pertaining to the project included in Interim Environmental Report #1 Supplemental and does not believe the proposed project revisions constitute a significant adverse impact to essential fish habitat or associated marine fishery resources. As such, we have no recommended revisions to the work proposed in the public notice and do not object to project implementation.

We appreciate the opportunity to review and comment on this public notice.

Sincerely,

for Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division

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

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

Southeast Regional Office
263 13th Avenue South
St. Petersburg, Florida 33701

May 20, 2009 F/SER46/RH:jk
225/389-0508

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

Dear Mr. Owen:

NOAA's National Marine Fisheries Service (NMFS) has received the draft **Individual Environmental Report (IER) #1 Supplemental** provided by letter from Mr. Richard Boe dated May 15, 2009. The draft IER evaluates and quantifies the impacts associated with providing 100-year level of hurricane protection to the section of levee adjacent to the LaBranche Wetlands in St. Charles Parish, Louisiana.

NMFS has reviewed the supplemental draft IER and finds that impacts to resources of concern have been adequately described and quantified. Based on our review of the IER, it appears that impacts to wetlands have been reduced from that described in an IER #1 document provided for our review in 2008. As with our review of the previous IER #1, NMFS has no comments to provide on this document.

We appreciate the opportunity to review and comment on the draft IER #1 Supplemental.

Sincerely,

Rachel Hunter

for Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division

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