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

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

Decision Record

Individual Environmental Report Supplemental 2
Lake Pontchartrain and Vicinity, West Return Flood Wall,
Jefferson and Orleans Parishes, Louisiana

IERS 2

Description of Proposed Action. The New Orleans District, US Army Corps of Engineers (CEMVN) proposes to replace the existing floodwall with a new T-wall approximately 35 ft to the west of the current alignment, along the east embankment of the Parish Line Canal on the border of Jefferson and Orleans Parishes, Louisiana.

Draft IERS 2, which detailed the impacts of the proposed actions, was released for public review on September 18, 2009. Stakeholders had until October 17, 2009 to comment on the document. Two governmental agencies, one Indian Tribe and one member of the public commented. The public meeting pertaining to IERS 2 occurred on September 17, 2009.

Factors Considered in Determination. CEMVN has assessed the impacts of the proposed action on significant resources in the proposed project area, including Lake Pontchartrain, Parish Line Canal, wetlands, fisheries, essential fish habitat, wildlife, 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, and Section 906 (b) WRDA 1986 requirements. The impacts for the proposed action are as follows:

Lake Pontchartrain

- LPV 03a, 03c (Jefferson Parish Western Return Floodwall) and LPV 13 (Recurve I-Wall North of Kenner) – no additional impacts.

Parish Line Canal

- LPV 03a (Jefferson Parish Western Return Floodwall) – 3 acres of canal filled due to floodwall realignment; very minor impacts associated with additional pile driving for the

9 turn-around pads (15, approximately 2ft in diameter, concrete piles per turn-around pad)

- 03c and LPV 13 (Recurve I-Wall North of Kenner) – No additional impacts to the canal.

Wetlands

- LPV 03a – Approximately 16.5 acres of wetland habitat would be lost due to the system realignment near the airport [to be mitigated with 13 AHHUs (11.45 AAHUs of brackish marsh and 1.55 AAHUs of swamp)].
- LPV 03c and 13 – No habitat loss.

Fisheries

- LPV 03a (Jefferson Parish Western Return Floodwall) – Approximately 16.5 acres of wetlands habitat designated as EFH would be lost due to the system realignment near the airport [to be mitigated with 13 AHHUs (11.45 AAHUs of brackish marsh and 1.55 AAHUs of swamp)]; 3 acres of canal open water and water bottom filled due to floodwall realignment; very minor impacts associated with additional pile driving for the 9 turn-around pads (15 concrete piles, approximately 2ft in diameter, per turn-around pad)
- LVP 03c and LPV 13 – no additional impacts.

EFH

- LPV 03a (Jefferson Parish Western Return Floodwall) – Approximately 16.5 acres of wetlands habitat designated as EFH would be lost due to the system realignment near the airport [to be mitigated with 13 AAHUs (11.45 AAHUs of brackish marsh and 1.55 AAHUs of swamp)]; 3 acres of canal open water and water bottom filled due to floodwall realignment; very minor impacts associated with additional pile driving for the 9 turn-around pads (15 concrete piles, approximately 2ft in diameter, per turn-around pad)
- LPV 03c and 13 – No habitat loss.

Wildlife

- LPV 03a (Jefferson Parish Western Return Floodwall) – Approximately 16.5 acres of wetlands habitat designated as EFH would be lost due to the system realignment near the airport [to be mitigated with 13 AHHUs (11.45 AAHUs of brackish marsh and 1.55 AAHUs of swamp)]; 3 acres of canal open water and water bottom filled due to floodwall realignment; very minor impacts associated with additional pile driving for the 9 turn-around pads (15 concrete piles, approximately 2ft in diameter, per turn-around pad); temporary impacts associated with the new staging area north of Vintage Drive.
- LVP 03c and LPV 13 – no additional impacts. Most species of birds and mammals would avoid the project area during construction of the floodwall under the proposed

action. There are extensive wetland and shoreline habitats adjacent to the project area to which these species could relocate.

Endangered or Threatened Species

- LPV 03a and 03c and LPV 13 – No adverse impacts to T&E species due to the proposed action.

Cultural Resources

- LPV 03a and 03c and LPV 13 – no additional impacts.

Recreation

- LPV 03a and 03c and LPV 13 – no additional impacts.

Aesthetic (Visual) Resources

- LPV 03a and 03c and LPV 13 – no additional impacts.

Air Quality

- LPV 03a and 03c and LPV 13 – no additional impacts.

Noise

- LPV 03a and 03c and LPV 13 – no additional impacts.

Transportation

- LPV 03a and 03c and LPV 13 – no additional impacts.

Socioeconomic Resources

- LPV 03a and 03c and LPV 13 – no additional impacts.

Environmental Justice

- LPV 03a and 03c and LPV 13 – no additional impacts.

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 2 project area, the CEMVN is cautioned that colonies may be present in the project area that are not currently listed. 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.) In order to minimize the potential for construction activities under the proposed action to cause adverse impacts to manatees during the construction period (approximately 2 to 2.5 years), standard manatee protection measures would be implemented.

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

4.) 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]

5.) On site personnel should be informed of the possible presence of nesting bald eagles in the vicinity of the project area, and should identify, avoid, and immediately report any such nests within 1,000 ft of the levee centerline to CEMVN-PM-RS.

Agency & Public Involvement. Various governmental agencies, non-governmental organizations, and citizens were engaged throughout the preparation of IER 2. Agency staff from US Fish and Wildlife Service (USFWS), National Marine Fisheries Service (NMFS), US Environmental Protection Agency (EPA), US Geologic Survey (USGS), National Park Service (NPS), Louisiana Department of Natural Resources (LDNR), and Louisiana Department of Wildlife and Fisheries (LDWF) 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).

There have been over 130 public meetings since March 2007 about proposed HSDRRS 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 has recently

started sending out e-mail notifications of the meetings to approximately 3000 stakeholders who requested to be notified by this method. Public meetings will continue throughout the planning process.

Draft IERS 2 Public Review Period

1. Agency Comments (found in Appendix C)
    a. NMFS: Comment letter dated September 23, 2009
    b. NRCS: Comment letter dated October 9, 2009
    c Alabama-Coushatta Tribe of Texas: Comment letter dated October 16, 2009.

2. Public Comments (found in Appendix B)
    a. Coastal Environments, Incorporated: Comment letter dated October 15, 2009.

Decision. The CEMVN Environmental Planning and Compliance Branch has assessed the potential environmental impacts of the proposed action described in this IER, and performed a review of the comments received during the public review period for Draft IERS 2. Furthermore, all practicable means to avoid or minimize adverse environmental effects have been incorporated into the recommended plan. Approximately 22 AAHUs of jurisdictional wetland impacts 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 2 in accordance with the environmental considerations discussed above.

CEMVN will prepare a Comprehensive Environmental Document (CED) that may contain additional information related to the IER 2 project area that becomes available after the execution of the Final IER Supplemental. 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 2, and have considered agency recommendations and comments received from the public during the comment period. 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.

10/29/09
Date

Alvin B. Lee
Colonel, US Army
District Commander

APPENDIX C
INTERAGENCY CORRESPONDENCE

- USFWS Threatened and Endangered Species Concurrence
- LDEQ Water Quality Certification
- USFWS Fish and Wildlife Coordination Act Report
- LDNR LCRP Consistency Determination
- NMFS Response Letter
- NRCS Response Letter
- Alabama-Coushatta Tribe of Texas Response Letter

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

July 22, 2009

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

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

20 L 09
Acting Supervisor
Louisiana Field Office
U.S. Fish and Wildlife Service
Date

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

Dear Mr. Boggs:

The CEMVN has proposed modifications to the Government's approved action within the Individual Environmental Report (IER) 2, West Return Floodwall Jefferson and St. Charles Parishes, Louisiana. Associated with the IER 2 project, the CEMVN received from the US Fish and Wildlife Service a letter dated August 6, 2007 stating in accordance with the provisions of the Endangered Species Act and the Migratory Bird Treaty Act of 1918 (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.) only the West Indian manatee was identified as a federally listed species that could occur within the IER 2 project area and potentially be affected by the project. In addition, in a letter dated June 5, 2008, the NMFS identified the threatened Gulf sturgeon (*Acipenser oxyrinchus desotoi*), the endangered Kemp's ridley sea turtle (*Lepidochelys kempii*), the threatened loggerhead sea turtle (*Caretta caretta*), and the threatened green sea turtle (*Chelonia mydas*) as federally listed endangered and threatened species under NMFS jurisdiction that may occur at the project site and potentially be affected by the project. Due to the proposed modifications to the Government's approved action, a modified project description, location map, and determination of the effect the proposed action modifications would have on Threatened and Endangered (T&E) species within the IER 2 project area are enclosed for your review and comment. It is the CEMVN determination that impacts from the proposed action would have no effect on T&E species within the IER 2 project area. The proposed modifications for the project will be addressed within IER Supplemental (IERS) 2, West Return Floodwall, Jefferson and St. Charles Parishes, Louisiana. The IERS 2 will be completed in the next few weeks and will be forwarded to you upon completion.

Project description

The proposed action is located on the border of consists of the following features (Figure 1):

- LPV 03a and 03c West Return Floodwall

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL # of pages ▸ 1

To Gib Owen	From David Walther
Dept./Agency	Phone #
Fax #	Fax #

NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

BOBBY JINDAL
GOVERNOR

HAROLD LEGGETT, PH.D.
SECRETARY

State of Louisiana

DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

AUG 0 6 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 080430-01/AI 157567/CER 20090001)
Corps of Engineers Individual Environmental Report (IER #2)
Jefferson & St. Charles Parishes

Dear Mr. Owen:

The Department has reviewed your revised application to construct the West Return Floodwall Levee between Jefferson & St. Charles Parishes. This revision concerns realignment of a portion of the T-wall levee near the Louis Armstrong International Airport, the realignment and use of T-wall levee for reach LPV 13, construction of an access road, vehicular gates and turn-arounds and the inclusion of a new staging area.

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,

Melvin C. Mitchell, Sr.
Administrator
Water Permits Division

MCM/jjp

Post Office Box 4313 • Baton Rouge, Louisiana 70821-4313 • Phone 225-219-3181 • Fax 225-219-3309
www.deq.louisiana.gov

United States Department of the Interior

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

September 9, 2009

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

Dear Colonel Lee:

Please reference the "Individual Environmental Report (IER) Lake Pontchartrain and Vicinity (LPV) West Return Floodwall, Jefferson and St. Charles Parishes, Louisiana" (IER 2). 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 IER 2 project. The U.S. Fish and Wildlife Service (Service) provided recommendations on the previously proposed IER 2 project to the Corps in our July 8, 2008, Fish and Wildlife Coordination Act Report. This letter supplements that report and is submitted in accordance with provisions of the Fish and Wildlife Coordination Act (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 (available at: http://www.fws.gov/filedownloads/ftp_gis/R4/Louisiana_ES/Walther/IER%202/). For brevity, that information and discussion is incorporated by reference herein. Modifications to the approved action in IER 2 were proposed in order to incorporate a flood side inspection road with vehicular access and turn-around points, a gate removal, and the removal of a sharp turn in the levee alignment near the Louis Armstrong International Airport in Jefferson Parish, Louisiana.

IER 2 project impacts prior to the modification would impact approximately 17 acres of marsh and -9 average annual habitat units (AAHU). As a result of the modifications an additional 14.5 acres of marsh and an additional 2 acres of swamp for a total of 34 acres of wetlands and -22 AAHUs would be impacted.

The Service does not object to the proposed modifications to IER 2 provided compensation for 22 AAHUs is achieved to replace the project-related loss. The Service believes that the impact

TAKE PRIDE IN AMERICA

analysis and recommendations (presented below and adjusted to reflect the modifications) provided in our July 2008, FWCA Report continue to remain valid.

1. The Corps and local sponsor shall provide 22 AAHUs to compensate for the unavoidable, project-related loss of intermediate marsh. The Service, National Marine Fisheries Service (NMFS), LDWF, and Louisiana Department of Natural Resources (LDNR) should be consulted regarding the adequacy of any proposed alternative mitigation sites.

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

3. The Service recommends backfilling all access channels in Lake Pontchartrain after construction is complete. In order to have sufficient material to backfill the access channels and minimize turbidity in the lake, the Service also recommends the use of silt curtains.

4. Avoid adverse impacts to wading bird colonies through careful design project features and timing of construction. In addition, the Service recommends that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season.

5. The Service shall be provided an opportunity to review and submit recommendations on the draft plans and specifications for all floodwalls, gates, associated berms and breakwater work addressed in this report.

6. Any proposed change in breakwaters, floodwalls, or gate structure features, locations or plans shall be coordinated in advance with the Service, NMFS, LDWF, and LDNR.

7. 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.

8. Coordination should continue with the Service and NMFS on detailed contract specifications to avoid and minimize potential impacts to manatees, Gulf sturgeon, and bald eagles.

9. 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.

We appreciate the opportunity to provide comments in the planning stages of the proposed project. If you or your staff have further questions, or would like to meet and discuss our recommendations, please contact Catherine Breaux of this office at (504) 862-2689.

Sincerely,

James F. Boggs
Supervisor
Louisiana Field Office

cc: Environmental Protection Agency, Dallas, TX
National Marine Fisheries Service, Baton Rouge, LA
Natural Resources Conservation Service, Alexandria, LA
LA Dept. of Wildlife and Fisheries, Baton Rouge, LA
LA Dept. of Natural Resources (CRD & CMD), Baton Rouge, LA

BOBBY JINDAL
GOVERNOR

SCOTT A. ANGELLE
SECRETARY

State of Louisiana

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF COASTAL RESTORATION AND MANAGEMENT

September 15, 2009

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

RE: **C20080223 (mod1)** Coastal Zone Consistency Modification
COE-NOD
Direct Federal Action
IER 2: West Return Floodwall, Lake Pontchartrain and Vicinity Hurricane Storm Damage Risk Reduction System, **Jefferson Parish, Louisiana**

Dear Ms. Exnicios:

The above referenced 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 modification, as proposed in the application, is consistent with the LCRP.

If you have any questions concerning this determination, please contact Carol Crapanzano of the Consistency Section at (225) 342-9425 or 1-800-267-4019.

Sincerely yours,

Gregory J. DuCote
Administrator
Interagency Affairs/Field Services Division

GJD/JDH/cmc

cc: Gib Owen, COE-NOD
Dave Butler, LDWF
Jason Smith, Jefferson Parish
Frank Cole, IA/FSD FI

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

September 23, 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) Supplemental #2** transmitted by letter from Ms. Elizabeth Wiggins dated September 18, 2009. The draft IERS evaluates and quantifies the impacts associated with providing 100-year level of hurricane protection to the section of floodwall adjacent to Parish Line Canal and the recurve I wall in Kenner, Louisiana.

Based on our review of the document, project related impacts to wetlands, essential fish habitat (EFH), and marine fishery resources have increased over that disclosed in a previous IER primarily due to proposed changes in the alignment of T-walls in the vicinity of the Louis Armstrong International Airport. The previously approved alignment with sharp turns created a number of logistical problems that would be alleviated by the proposed alignment.

NMFS staff have reviewed the proposed project revisions and understand the need for the increased level of impact to resources of concern. In addition, NMFS has reviewed the IER Supplemental #2 document and finds it adequately describes and quantifies impacts to resources of concern. As is s stated in the IER Supplemental document, all unavoidable impacts to wetlands and EFH would be mitigated. The actual identification and evaluation of mitigation activities to offset impacts related to this hurricane protection effort would be undertaken in a separate IER which will be provided to NMFS for our review.

Given the documented need for the increased level of impact, the adequacy of the document in describing and quantifying impacts, and the expectation those impacts to resources of concern would be compensated through the implementation of appropriate mitigation, NMFS has no comments to provide on the draft IER Supplemental #2 document.

Sincerely,

for Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

(318) 473-7795
Fax: (318) 473-7750

October 9, 2009

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

Dear Mr. Owen:

RE: **IER # 2 SUPPLEMENTAL**
LAKE PONCHARTRAIN & VICINITY
WEST RETURN FLOODWALL
JEFFERSON & ST. CHARLES PARISHES, LOUISIANA

In response to your request for NRCS review of the referenced project site location to identify natural resource constraints, if any, that may impact design and permitting, I have reviewed the Farmland and Hydric Soil Classifications.

Farmland Classification

The Farmland Protection Policy Act (FPPA)-Subtitle I of Title XV, Section 1539-1549 of PL 97-98, final rules and regulations were published in the Federal Register on June 17, 1994. These rules state that projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency or with assistance from a federal agency. For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forestland, pastureland, cropland, or other land, but not water or urban built-up land.

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

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

A portion of the soils on the proposed project site are Prime Farmland, however, since the project area is within the city limits of New Orleans, it is considered an urban area and is "built-up", thus there will be no impact to prime farmland and it appears the project will not impact any NRCS work in the immediate area. Also, this project will not impact any farmland protection efforts in the area.

Furthermore, NRCS does not believe that the proposed project will impact any NRCS work in the vicinity. However, NRCS does recommend that appropriate erosion control measures are employed during the construction of the project to minimize any adverse effect on the surrounding environment.

Should you have any questions regarding the above comments, feel free to contact Mike Trusclair, District Conservationist, in our Boutte Field Office at (985) 758-2162, Ext. 3.

Sincerely,

E.J. "Ed" Giering III, P.E.
State Conservation Engineer

cc: Mike Trusclair, District Conservationist, NRCS, Boutte, Louisiana

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

October 16, 2009

Gib Owen
New Orleans District, Corps of Engineers
Attn: CEMVN-PM-RP
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Mr. Owen:

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 Individual Environmental Report Supplemental (IERS) 2.

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

Upon review of the September 18, 2009 submission, we have no objections to the IERS. No known impacts to religious, cultural, or historical assets of the Alabama-Coushatta Tribe of Texas should occur in conjunction with this activity. However, in the event of inadvertent discovery of human remains and/or archaeological artifacts, activity in proximity to the location must cease and appropriate authorities, including this office, notified without delay.

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

Coastal Environments , Incorporated

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Applied Science & Planning

Environmental Restoration & Monitoring

Cultural Resources Management

Geographic Information Systems

Litigation Support

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mgagliano@coastalenv.com

October 15, 2009

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, West Return Floodwall, Jefferson and St. Charles Parishes, LA, IERS 2

Dear Mr. Owen:

On behalf of St. Charles Land Syndicate (SCLS), landowner in the LaBranche Wetlands of St. Charles Parish whose property will be directly impacted by the IER2 project, Coastal Environments, Inc. respectfully submits the following comments regarding the aforementioned project.

While it remains unclear how much wetland habitat will be directly impacted in LaBranche (e.g., differing acreage values as provided in IERS 2 document and Appendix C, USFWS correspondence) as the result of the proposed work, SCLS steadfastly requests that all compensatory wetland mitigation obligations be fulfilled in LaBranche.

Thank you for the opportunity to make these comments.

Sincerely yours,

Ed Fike
Project Scientist

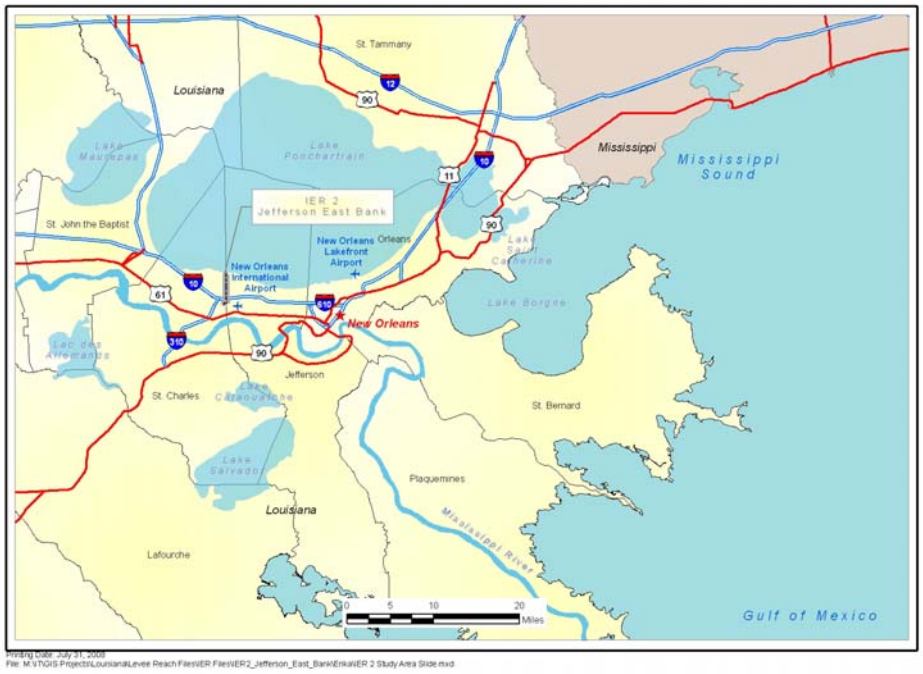
xc: SCLS

FINAL INDIVIDUAL ENVIRONMENTAL REPORT SUPPLEMENTAL

LPV, WEST RETURN FLOODWALL

JEFFERSON AND ST. CHARLES PARISHES, LOUISIANA

IERS 2.a



US Army Corps of Engineers®

October 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 Individual Environmental Report Supplemental 2 (IERS 2) to evaluate the potential impacts associated with the proposed project revisions to the original IER 2. The proposed action is located on the border of Jefferson and St. Charles Parishes, Louisiana (figure 1). For the purposes of this IERS, the Lake Pontchartrain and Vicinity (LPV) has been divided into numerous reaches, and each reach is identified by a project identification number (for example, LPV 03a; figure 2).

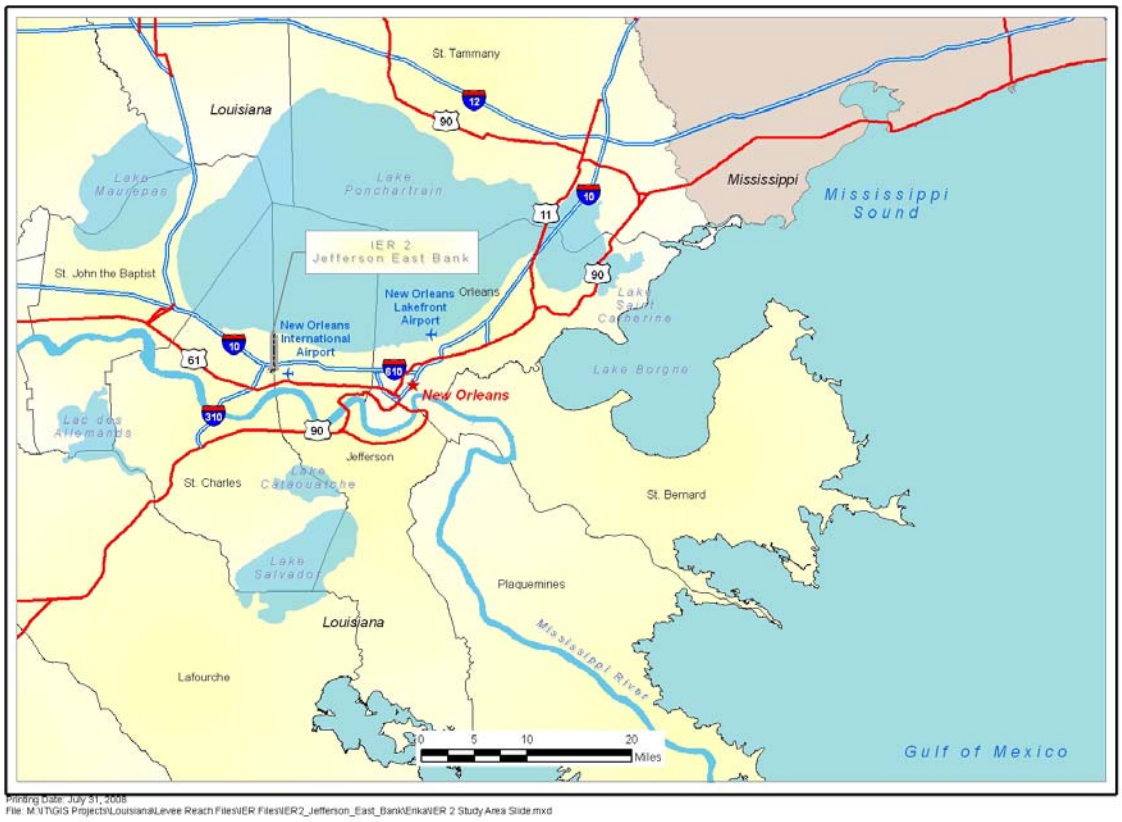


Figure 1. Vicinity Map, West Return Floodwall Jefferson and Recurve I-Wall Kenner

On July 18, 2008, the District Commander signed the Decision Record for IER 2. IER 2 is hereby incorporated by reference into this supplemental document. Copies of the original IER 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 and proposed modifications associated with the IERS 2 proposed action.

1.1 PRIOR REPORTS

A number of studies and reports in the proposed project area have been prepared by the USACE, other Federal, state, and local agencies, research institutes, and individuals. Pertinent studies, reports and projects since July 2008 are discussed below. All other relevant reports are listed in the original IER 2 and are incorporated herein by reference.

<u>Lake Pontchartrain and Vicinity HSDRRS Projects:</u>

- On 8 September 2009, the CEMVN Commander signed the Decision Record on IER # 29 entitled "Pre-approved Contractor Furnished Borrow Material # 4, Orleans, St. John the Baptist, and St. Tammany Parishes, Louisiana." 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 30 August 2009, the CEMVN Commander signed the Decision Record on IER # 28 entitled "Government Furnished Borrow material # 4 Plaquemines, St Bernard and Jefferson Parishes, Louisiana." The document was prepared to evaluate the potential impacts associated with the possible excavation of two Government Furnished borrow areas and the construction of a separate borrow access road.

- On 30 June 2009, the CEMVN Commander signed the Decision Record on IER # 5 entitled "Lake Pontchartrain and Vicinity, Permanent Protection System for the Outfall Canals Project on 17th Street, Orleans Avenue, and London Avenue Canals, Jefferson and Orleans Parishes, Louisiana." The document evaluates the potential effects associated with the construction and maintenance of a permanent protection system for the 17th Street, Orleans Avenue, and London Avenue Canals.

- On 29 June 2009, the CEMVN signed the Decision Record on Individual Environmental Report Supplemental (IERS) # 1 entitled "Lake Pontchartrain and Vicinity, La Branche Wetlands Levee, St. Charles Parish, Louisiana." The supplemental document evaluates the potential effects associated with the proposed project revisions to the original IER # 1.

- On 25 June 2009, the CEMVN signed the Decision Record on IER # 6 entitled "Lake Pontchartrain and Vicinity, New Orleans East Citrus Lakefront Levee, Orleans Parish, Louisiana." The document evaluates the potential effects associated with proposed improvements to three reaches of the East Orleans Hurricane Risk Reduction Levee that were originally constructed as part of the LPV project.

- On 23 June 2009, the CEMVN signed the Decision Record on IER # 8 entitled "Lake Pontchartrain and Vicinity, Bayou Dupre Control Structure, St. Bernard Parish, Louisiana." The document evaluates the potential effects associated with the proposed improvement or replacement of a flood control structure on Bayou Dupre.

- On 19 June 2009, the CEMVN signed the Decision Record on IER # 7 entitled "Lake Pontchartrain and Vicinity, New Orleans Lakefront to Michoud Canal, Orleans Parish, Louisiana." The document evaluates the potential effects associated with proposed improvements to three reaches of the East Orleans Hurricane Risk Reduction Levee that were originally constructed as part of the LPV project.

- On 26 May 2009, the CEMVN signed the Decision Record on IER # 10 entitled "Lake Pontchartrain and Vicinity, Chalmette Loop Levee, St. Bernard Parish, Louisiana." The document evaluates the potential impacts associated with the proposed construction of a T-wall floodwall on top of the existing Chalmette Loop levee.

- On 13 March 2009, the CEMVN signed the Decision Record on 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 the 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 the 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 October 2008, the CEMVN signed the 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 near Lake Borgne.

- On 20 October 2008, the CEMVN signed the 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.

2.0 ALTERNATIVES

At the time of completion of the original IER 2 report, engineering designs had not been finalized for all of the actions and alternatives. Since that time, engineering details (e.g., the floodwall alignment near the airport) 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 2 Supplemental.

2.1 DESCRIPTION OF THE ALTERNATIVES

No Action. Under the no-action alternative, the Government-approved action, as described in IER 2 would be constructed

Proposed Action. The proposed action would be instrumental in providing 100-year level of risk reduction for Jefferson Parish, Louisiana. 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 03a - West Return Floodwall - consists of approximately 14,700 ft of floodwall at a current elevation of 13.5 to 17 ft North American Vertical Datum of 1988 (NAVD88). All references to elevation in this document are in NAVD88 unless otherwise specified. The LPV03a floodwall begins at the entrance to Parish Line Canal from Lake Pontchartrain and continues to the north side of I-10, where it connects to

LPV 03c. LPV 03a resumes on the other side of LPV 03c, on the south side of I-10, to its terminus at the Louis Armstrong New Orleans International Airport.

- LPV 03c - Floodwall under I-10 - consists of approximately 3,100 ft of floodwall at a current height of approximately 11.5 ft.
- LPV 13 - Recurve I-Wall in Northwest Kenner - consists of a floodwall at a current height of 16 ft, starting at the entrance to Parish Line Canal from Lake Pontchartrain and continuing for approximately 1,025 ft to the northeast. LPV 13 also includes an existing swing gate with a 20 ft clear opening at a current height of approximately 16 ft.

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

Modifications to the action approved in IER 2 were proposed in order to remove the sharp angle from the system alignment near the Louis Armstrong International Airport in Jefferson Parish, Louisiana; to widen the flood side base slab along the entire stretch of floodwall to create an inspection road; to convert pedestrian gates to vehicular gates and turn-arounds to accommodate flood side inspections; to construct certain floodwall reaches 20-25 ft flood side of the existing location versus the approved 35 ft shift flood side; and to remove a gate near the Recurve I-Wall (see figure 2).

For each reach addressed in this IER 2 Supplemental, the Government's action as approved in IER 2 is described first as the No Action Alternative, and the proposed action is described second.

LPV 03a and 03c West Return Floodwall

No Action

The approved action for these reaches will consist of replacing the existing floodwall with a new T-wall alignment approximately 35 ft to the west along the east embankment of the Parish Line Canal. The new T-wall will be constructed to an elevation of 17.5 ft north of I-10 and 16.5 ft south of I-10. Based on construction restrictions under the I-10 Bridge, the new T-wall elevation will be approximately 13.5 ft under the bridge. Following the construction of the new T-wall, the existing floodwall would be demolished to 2 inches below ground surface, and the area would be regraded.

At the I-10 bridge (LPV 03c) a rock breakwater was approved in IER 2 to be constructed on a geotextile fabric to provide further flood protection in that area. The breakwater was designed to be at an elevation of approximately 19.5 ft with a width of approximately 105 ft and a length of approximately 500 ft. Finalized engineering design determined the rock breakwater approved to be constructed at the I-10 Bridge would no longer be necessary to reduce the risk of flood damage in the bridge vicinity.

Flood-side and protected-side berms will be incorporated into the construction design. The berms will be at an elevation of 4.5 ft from the Louis Armstrong New Orleans International Airport to I-10 and at an elevation of 2.5 ft from I-10 to the lake front. Armoring with rock will

be incorporated to protect against erosion and scour on the flood side of the floodwall. In addition, the Parish Line Canal Pump Station discharge will be incorporated into the new T-wall, with no additional fronting protection. Approximately six pile test sites, along the footprint of the proposed action, are proposed and will be sampled prior to construction.

Proposed Action

The 1,450 ft stretch of existing T-wall and I-wall near the Louis Armstrong International Airport that forms a sharp corner and ties into the levee would be realigned and replaced with approximately 1,300 ft of T-wall with flood and protected side earthen berms (figure 3a and 3b).

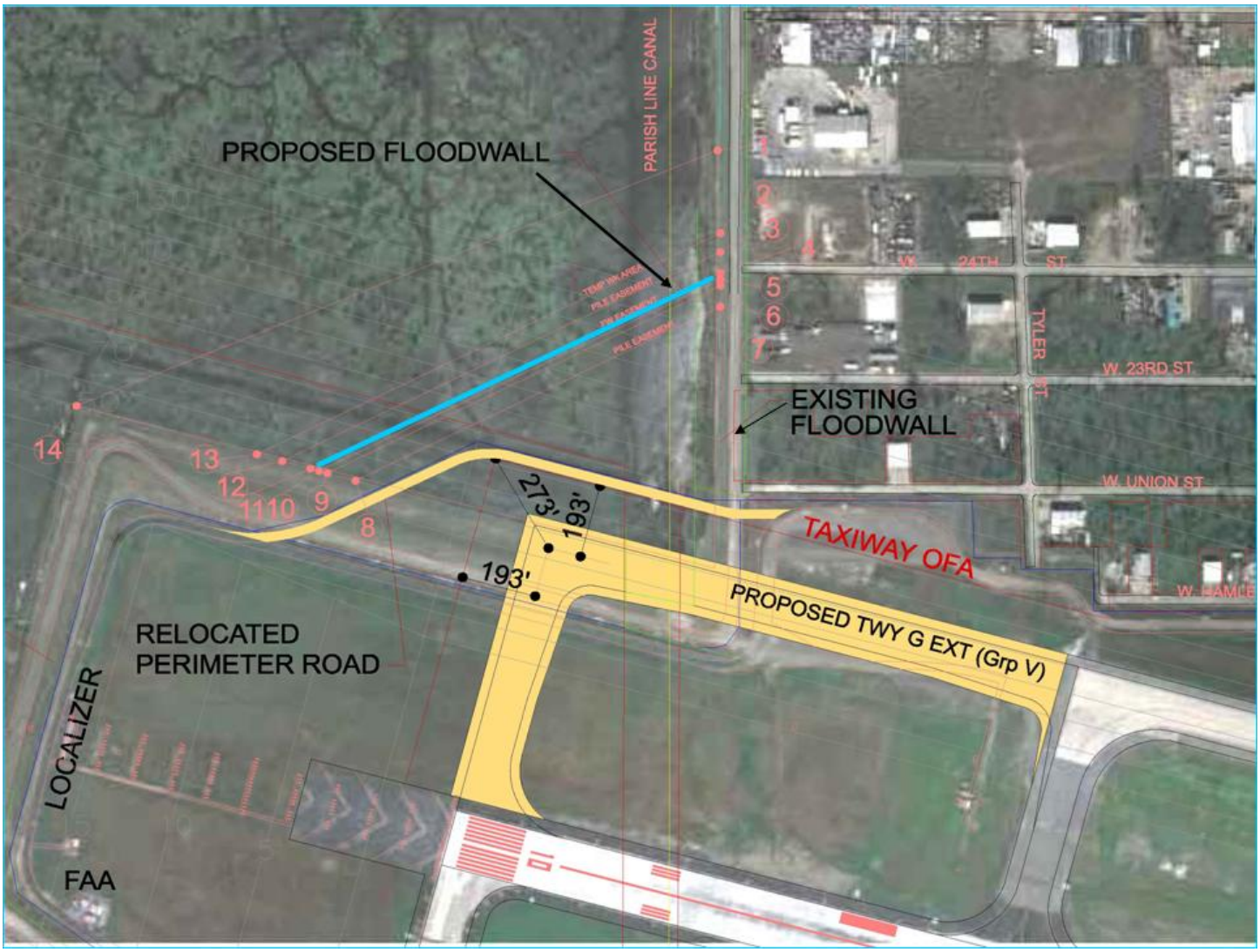
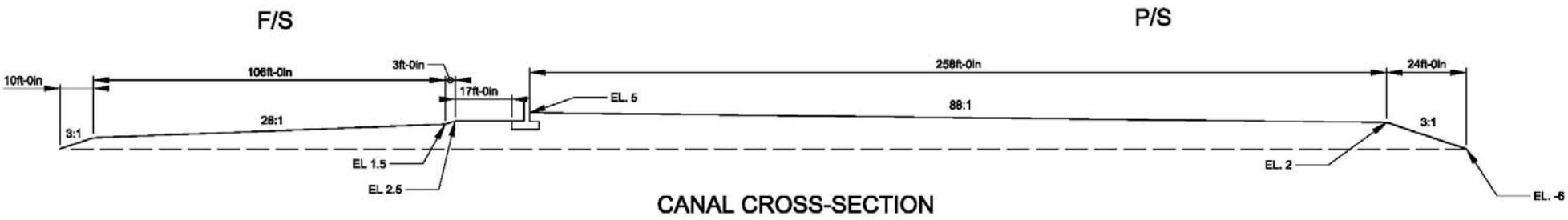


Figure 3a. Floodwall realignment near the Louis Armstrong International Airport.



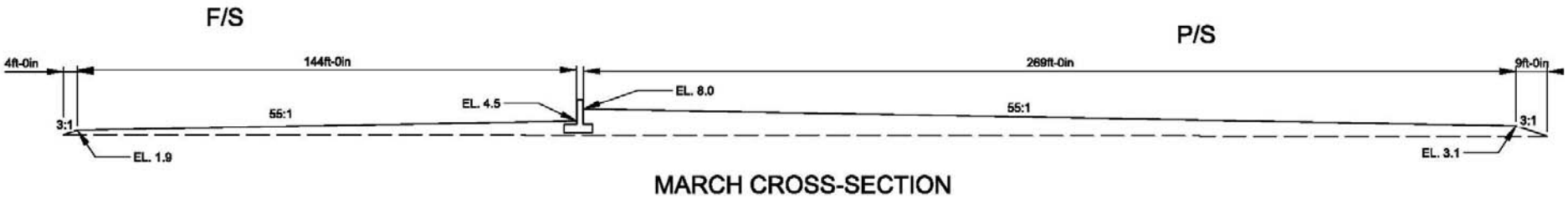


Figure 3b. Floodwall cross-section for alignment near Louis Armstrong International Airport.

HSDRRS realignment in the area would eliminate the sharp corner in the floodwall and provide a smoother transition when tying into the adjacent levee. Construction of the floodwall in the approved alignment would create many logistical problems. Pile interference (pile driving paths would intersect) and other construction issues would have made it extremely difficult to drive the new piles. Removing the sharp corner from the alignment would also aid in reducing debris build-up and wave eccentricities. As a result of system realignment, soil borings near the proposed alignment revealed unstable subsurface conditions, thus flood and protected side berms would be required to increase stability and meet design standards. The flood and protected side berms would minimize the unbalanced soil loads (due to the driving forces being greater than the resisting forces) on the new structure. The area enclosed by the wall would be filled and graded for drainage (approximately 7 acres).

A 12.5 ft base slab on the flood side of the wall would be constructed to allow for inspection and maintenance of the new floodwall throughout the entire stretch of floodwall within the proposed IERS 2 project area (see figures 4a and 4b). To accommodate inspection vehicles, pedestrian gates through the floodwall in various locations (end of West Esplanade Avenue, end of Vintage Drive and the south side of the Parish Line pump station) would be converted to vehicular gates with turn-around pads (see figures 4a and 4b). A new vehicular gate and turn-around pad would also be constructed near W 27th Street, between Louis Armstrong International Airport and the I-10 Bridge to accommodate inspection vehicles. The gates would provide an approximately 15 ft opening for vehicles to inspect and maintain the flood side of the new T-wall. Turning pads (8 ft by 20 ft, pile supported slabs) would be provided at each gate location and at 5 other locations for "turn-arounds". The turn-around pads would not require additional canal fill.

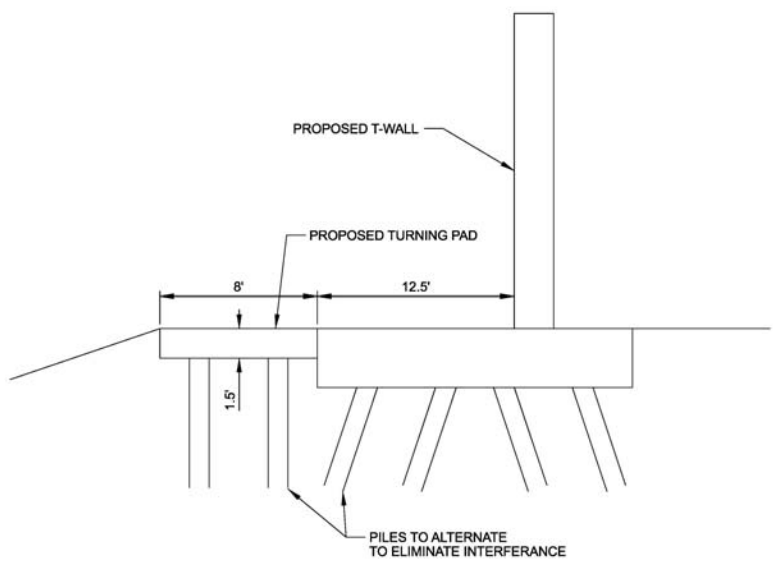


Figure 4a. Cross-section of base slab and turn-around pad of floodwall

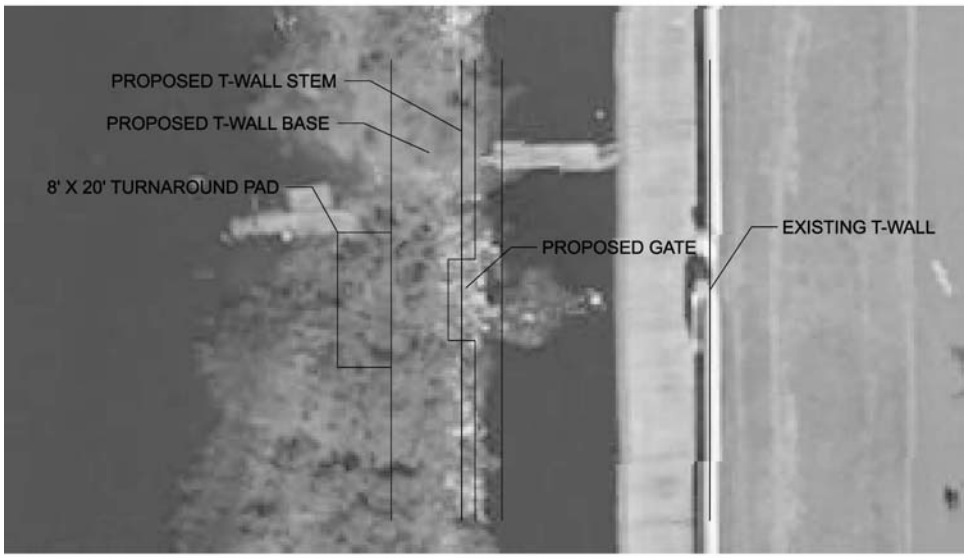


Figure 4b. Plan view of proposed vehicular gate.

LPV 13 Recurve I-Wall Northwest of Kenner

No Action

The approved action for this reach is a continuation of the approved alternative for LPV 03a. This approved action would include replacing the existing floodwall with a new T-wall alignment approximately 35 ft to the west, between the existing floodwall and the shoreline of Lake Pontchartrain near the mouth of the Parish Line Canal. The new T-wall would be constructed to an elevation of 17.5 ft. Following the construction of the new T-wall, the existing floodwall would be demolished to 2 inches below ground surface and the area would be regraded.

The existing gate closure would be replaced with a new gate closure. The approved gate would consist of a new swing gate closure structure with a clear opening of 20 ft. The sill elevation would be at 10 ft and the top of the gate would be at 17.5 ft. The swing gate would require one person to operate the gate.

Proposed Action

The proposed action within this reach would consist of replacing the existing floodwall with a new T-wall alignment approximately 20-25 ft to the west, between the existing floodwall and the shoreline of Lake Pontchartrain near the mouth of the Parish Line Canal. Just as described for the approved alignment, the new T-wall would be constructed to an elevation of 17.5 ft, and upon completion of the new T-wall, the existing floodwall would be demolished to 2 inches below ground surface and the area would be regraded.

In addition, the existing gate closure would not be replaced with another gate but would be removed completely. Inspection access would be provided via an earthen ramp to be constructed

near where the Recurve I-Wall would tie into the adjacent levee to the east. As the proposed earthen ramp would be associated with the adjacent levee reach, further details on the proposed earthen ramp are to be discussed in a separate environmental document, IER 3 Supplemental, Jefferson Lakefront, which is expected to be released for public review in late 2009 or early 2010.

Armoring of Levees and Floodwalls

Armoring would be incorporated as an additional feature of floodwalls and levees to protect against erosion and scour on the protected and/or flood sides of critical areas. These critical areas include: transition points (where levees transition into any hardened feature such as other levees, floodwalls, pump stations, etc.), utility pipeline crossings, floodwall protected side slopes, and earthen levees that are exposed to wave and surge overtopping during a 500-year hurricane event. The proposed method of armoring could be one of the following: cast-in-place reinforced concrete slabs; articulated concrete blocks (ACB) covered with soil and grass; turf reinforcement mattress (TRM); ACB/TRM; TRM/grass; or good grass cover. The armoring would be incorporated into the existing levee or floodwall footprint, and no additional environmental impacts would be anticipated.

Construction-Related Information for Proposed Alternatives

Construction of the proposed action could begin in late 2009, and the construction activities are expected to last for approximately 2 years. A significant amount of construction equipment would be required to conduct the work, including, but not limited to, generators, barges, boats, cranes, trucks, bulldozers, excavators, pile hammers, graders, tractors, and front-end loaders. Truck access to the project site would be via I-10 to Loyola Dr. to either Veterans Memorial Blvd., West Esplanade Ave., or Vintage Dr.

For construction under the proposed action, earthen fill material would be obtained from the Bonnet Carré Spillway, which is located approximately 10 miles from the IER 2 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.

Barges would be used during construction and would access the project area via Lake Pontchartrain to the Parish Line Canal. Barge access to the lakefront and to Parish Line Canal from Lake Pontchartrain would require dredging; however, no additional dredging is required beyond what was previously discussed and approved in IER 2. An additional staging area would be required north of Vintage Drive (figure 5).

Figure 5. Proposed staging area at Vintage Drive.

Table 1. Estimated Additional Construction Material Quantities Required to Complete the Proposed Action		
	West Return Wall	**Recurve Wall**
Concrete cubic yard (cy)	4,950	N/A
H-Piling linear feet (lft)	85,800	N/A
Concrete Piles(lf)	10,125	N/A
Fill (cy)	150,000	N/A

2.2 ALTERNATIVES TO THE PROPOSED ACTION

No-Action Alternative

Without implementation of the proposed action, the Government's action, which was approved in IER 2, described as the no action alternative in this supplemental document, would be constructed. Please reference Section 2.1 for more detailed description of the Government's approved action as described in IER 2.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 ENVIRONMENTAL SETTING

IER 2 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 alternatives. Direct impacts are those that are caused by the action taken and occur at the same time and place (40 CFR 1508.8(a)). Indirect impacts are those that are caused by the action and are later in time or further removed in distance, but are still reasonably foreseeable (40 CFR 1508.8(b)). Cumulative impacts, the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions (40 CFR §1508.7). Cumulative impacts are discussed in conjunction with each resource and are also discussed in section 4.

The resources described in this section are those recognized as significant by laws, executive orders, regulations, and other standards of 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 the proposed action.

Table 2
Significant Resources in Project Study Area

Significant Resource	Impacted	Not Impacted
Water	X	
Lake Pontchartrain		X*
Parish Line Canal	X	
Wetlands and Misc. 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*
Socioeconomic Resources • Land Use, Population, Employment • Environmental Justice		X*
* - Proposed action poses no or de minimus additional impacts from those described in IER 2 and as such are not discussed in this document Impacts to those resources from the approved project were described in detail in IER 2.		

Existing Conditions were discussed in IER 2 and are incorporated by reference for each significant resource discussed.

3.2.1 Lake Pontchartrain

Future Conditions with No-Action

Under the no action alternative, the Government's action, as approved in IER 2 would be constructed. Consequently, direct, indirect, and cumulative impacts to Lake Pontchartrain would not differ from those described previously in the original IER 2.

Future Conditions with the Proposed Action

LPV 03a, 03c West Return Floodwall and LPV 13 – Recurve I-Wall Northwest of Kenner

The proposed action would have no additional direct, indirect or cumulative impacts to Lake Pontchartrain beyond what was discussed in IER 2.

3.2.2 Parish Line Canal

Future Conditions with No-Action

Under the no action alternative, the Government's action, as approved in IER 2 would be constructed. Consequently, direct, indirect, and cumulative impacts to Parish Line Canal would not differ from those described previously in the original IER 2.

Future Conditions with the Proposed Action

LPV 03a

Proposed Action (floodwall realignment near airport and pile driving for turn-around pads)

Direct Impacts

The proposed action would directly impact and permanently replace water and water bottom where the new floodwall alignment would cross the canal and where each pile for the turn-around pads would be driven. The T-wall would be placed in the open water of the canal, and the open water of the canal would be filled to allow for wave and stability berms. Approximately 3 acres of canal habitat would be impacted, permanently removing the existing habitat including water and water bottom (see Table 3). Each of the 9 turn-around pads would require driving 15 concrete piles, approximately 2ft in diameter, adjacent to the floodwall base slab on the flood side.

Additionally, slightly less than an acre of canal habitat (water and water bottom) that would have been impacted by the construction of the rock breakwater on geotextile fabric near I-10 approved in IER 2 would not be impacted as the breakwater is no longer required.

A total of 3 acres of canal habitat (water and water bottom) that would be lost was previously wetland habitat that was converted to canal from dredging activities for borrow. The habitat that would be impacted represents only a very small portion of similar habitat available within southeastern Louisiana.

Indirect Impacts

Potential indirect impacts to Parish Line Canal from the proposed action would primarily consist of effects from increased turbidity. However, construction-related runoff into the canal would be managed through best management practices when possible and impacts would be temporary, lasting from 2 to 2.5 years. Only a small area of the canal would be affected by the proposed action.

Cumulative Impacts

Potential cumulative impacts to the canal from the proposed action would involve the combined effects to the canal from the multiple LPV projects in the New Orleans area. However, several wetland restoration projects are proposed or recently approved that would positively impact the habitat within Lake Pontchartrain and its adjoining wetlands. Impacts from the proposed action

on the canal would be primarily short-term. Permanent impacts to the canal habitat represent only a small portion of similar habitat available in southeastern Louisiana.

LPV 03c West Return Floodwall and LPV 13 – Recurve I-Wall Northwest of Kenner
There would be no additional direct, indirect or cumulative impacts to these reaches associated with the proposed action.

Table 3. Water Bottom Impacts (acres)				
	Approved in IER 2		Additional Impacts Proposed in IERS 2	
Reach	Acres	AAHUs	Acres	AAHUs
LPV 03a	16.5	-5.4	3	N/A
LPV 03c			0	0
LPV 13	0	0	0	0
Total	16.5	-5.4	3	N/A
Cumulative Impacts IER 2 and IERS 2	19.5 acres of water bottom; -5.4 AAHUs			

3.2.3 Wetlands and Miscellaneous Drainageways/Canals

<u>Future Conditions with No-Action</u>
Under the no action alternative, the Government's action, as approved in IER 2 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 2.

<u>Future Conditions with the Proposed Action</u>

LPV 03a
Proposed Action (floodwall realignment near airport and pile driving for turn-around pads)

Direct Impacts

The proposed new alignment near the airport places the new T-wall centerline through wetland and canal habitat and a small drainage ditch that runs parallel to the airport taxiway. Wetlands, the Parish Line Canal and the small drainage ditch within the footprint of this proposed alternative would be impacted by construction of the T-wall and fill associated with the wave and stability berms. Approximately 16.5 acres of high quality wetland habitat, consisting primarily of marsh with some swamp, along with open water within Parish Line Canal and the small drainage ditch would be lost with construction of the proposed action (figure 6; table 4). Approximately 7 acres of the 16.5 acres of wetlands, open water and water bottom would be enclosed by the proposed action and all wetlands function for the area would be lost as the land in the area would be drained, filled, graded and would serve as a component of the project within Reach LPV 03a. Each of the 9 turn-around pads would require driving 15 concrete piles,

approximately 2ft in diameter, within the canal adjacent to the floodwall base slab on the flood side. The wetland loss due to the proposed action would be mitigated as discussed in section 7.0.

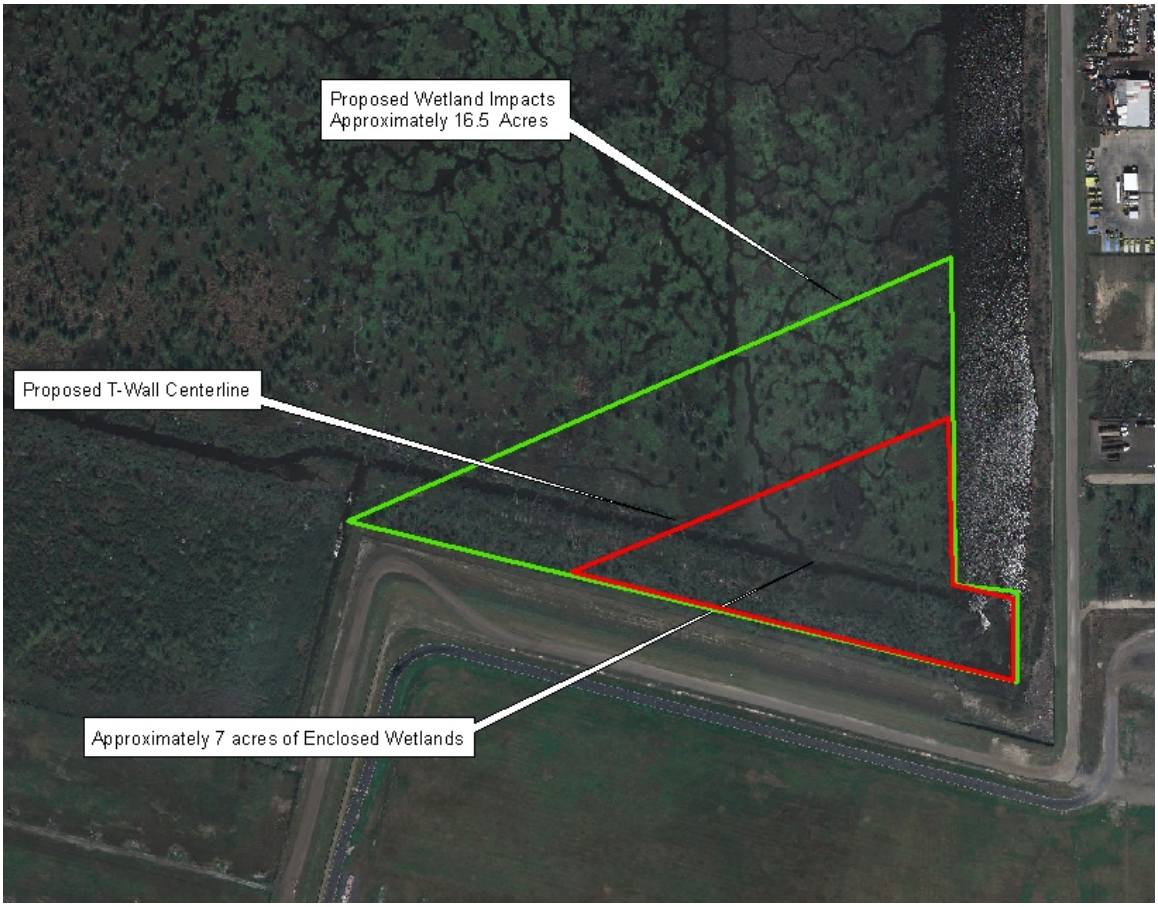


Figure 6. Proposed wetlands impacts near the Louis Armstrong International Airport

Indirect Impacts

Potential indirect impacts from the proposed action would primarily consist of construction-related effects from increased turbidity on the wetland areas surrounding the project area from the construction site runoff. The area affected would be small relative to the size of the adjacent wetlands. Construction-related runoff into the wetlands would be managed through best management practices where possible, and the effects from construction would be temporary, lasting from 2 to 2.5 years.

Cumulative Impacts

Potential cumulative impacts to the wetlands from the proposed action would involve the combined effects to wetlands from the multiple LPV projects in the New Orleans area. The amount of wetlands lost by construction of the proposed action is a small fraction of similar habitat available in southeastern Louisiana.

LPV 03c West Return Floodwall and LPV 13 – Recurve I-Wall Northwest of Kenner
There would be no additional direct, indirect or cumulative impacts to these reaches associated with the proposed action.

Table 4. Wetlands Impacts (acres)				
	Approved in IER 2		Additional Impacts Proposed in IERS 2	
Reach	Acres	AAHUs	Acres	AAHUs
LPV 03a	17	-9	16.5*	-13**
LPV 03c			0	0
LPV 13	0	0	0	0
Total	17	-9	16.5	-13**
Cumulative Impacts IER 2 and IERS 2	34 acres of marsh; -22 AAHUs			
* This value includes 2 acres of swamp and 14.5 acres of marsh habitat. ** This value includes 1.55 AAHUs of swamp and 11.45 AAHUs of marsh.				

3.2.4 Fisheries

Future Conditions with No-Action
Under the no action alternative, the Government's action, as approved in IER 2 would be constructed. Consequently, direct, indirect, and cumulative impacts to fisheries would not differ from those described previously in the original IER 2.

Future Conditions with the Proposed Action

LPV 03a
Proposed Action (floodwall realignment near airport and pile driving for turn-around pads)

Direct Impacts

Construction of the new floodwall along the new alignment (through wetlands, Parish Line Canal and a small drainage ditch) could potentially impact 3 acres of aquatic habitat (open water and water bottom) and would destroy the immobile and less-mobile species in the filled area. Approximately 16.5 acres of high quality wetland habitat would be impacted by the floodwall realignment near the airport for the proposed action. These wetlands are designated Essential Fish Habitat (EFH) and provide a significant amount of nursery/foraging/cover habitat for fish species. Most mobile species within the wetlands, canal and ditch would avoid the areas impacted by construction and could move from areas being permanently filled by the proposed action to adjacent wetland and canal habitat. Each of the 9 turn-around pads would require driving 15 concrete piles, approximately 2ft in diameter, within the canal adjacent to the floodwall base slab on the flood side. Impacts on less-mobile benthic populations, such as Rangia clams, from construction activities would be short-term, approximately 2 to 2.5 years in

duration, with turbidity effects potentially lasting up to several months after completion. The existing aquatic and wetland habitat destroyed under the proposed action would be replaced by mostly hard rock surfaces that could be suitable for colonization by periphyton and other sessile organisms. This new habitat could provide protective cover for various species of shellfish and finfish providing a more productive aquatic community. The area that would be disturbed for the proposed action is a small proportion of the similar aquatic habitat available in the vicinity (e.g., there is over 410,000 acres of water surface area available in Lake Pontchartrain). Once the proposed action is complete, sediment would settle, benthos would repopulate, and other mobile aquatic species would return.

Additionally, impacts to aquatic habitat near the I-10 will be reduced by approximately 1 acre, since the approved breakwater is no longer required for risk reduction and will not be constructed.

Indirect Impacts

Potential indirect impacts from the proposed action would primarily consist of effects from increased turbidity from terrestrial construction activities which could immediately reduce water quality in the project area and negatively impact fish. However, construction-related runoff into the canal would be managed through best management practices and would be reduced by the movement of the tides. Those impacts on fisheries, prey species, or their habitat would be short-term, approximately 2 to 2.5 years in duration, with turbidity effects potentially lasting up to several months after completion.

Cumulative Impacts

Potential cumulative impacts on fish habitat from the proposed action would involve the combined effects on suitable fish habitat in wetlands, canals, and lakes from the multiple LPV projects in the New Orleans area. However, several wetland restoration projects are proposed or recently approved that would positively impact the fish habitat of Lake Pontchartrain, the Parish Line Canal, and associated wetlands. The actions affecting aquatic habitat would be primarily short-term during the construction period. The project area would be modified very slightly in context of the size of Lake Pontchartrain and the magnitude of historical changes to the shoreline.

LPV 03c West Return Floodwall and LPV 13 – Recurve I-Wall Northwest of Kenner

There would be no additional direct, indirect or cumulative impacts to these reaches associated with the proposed action.

3.2.5 Essential Fish Habitat

Future Conditions with No-Action

Under the no action alternative, the Government's action, as approved in IER 2 would be constructed. Consequently, direct, indirect, and cumulative impacts to Essential Fish Habitat would not differ from those described previously in the original IER 2.

Future Conditions with the Proposed Action

LPV 03a
Proposed Action (floodwall realignment near airport and pile driving for turn-around pads)

Direct Impacts

Direct impacts to EFH from the proposed action at LPV 03a would be similar to those described for the fisheries resource in Section 3.2.4.

Construction of the new floodwall along the new alignment (through wetlands, the Parish Line Canal and a small drainage ditch) could potentially impact 3 acres of aquatic habitat (open water and water bottom) and would destroy the immobile and less-mobile species in the filled area. Approximately 16.5 acres of high quality wetland habitat would be impacted by the floodwall realignment near the airport for the proposed action. These wetlands are designated Essential Fish Habitat (EFH) and provide a significant amount of nursery/foraging/cover habitat for fish species. Each of the 9 turn-around pads would require driving 15 concrete piles, approximately 2ft in diameter, within the canal adjacent to the floodwall base slab on the flood side. Most mobile species within the wetlands, canal and ditch would avoid the areas impacted by construction and could move from areas being permanently filled by the proposed action to adjacent wetland and canal habitat. Impacts on less-mobile benthic populations, such as Rangia clams, from construction activities would be short-term, approximately 2 to 2.5 years in duration, with turbidity effects potentially lasting up to several months after completion. The existing aquatic and wetland habitat destroyed under the proposed action would be replaced by mostly hard rock surfaces that could be suitable for colonization by periphyton and other sessile organisms. This new habitat could provide protective cover for various species of shellfish and finfish providing a more productive aquatic community. The area that would be disturbed for the proposed action is a small proportion of the similar aquatic habitat available in vicinity (e.g., there is over 410,000 acres of water surface area available in Lake Pontchartrain). Once the proposed action is complete, sediment would settle, benthos would repopulate, and other mobile aquatic species would return.

Additionally, impacts to aquatic habitat near the I-10 will be reduced by approximately 1 acre, since the approved breakwater is no longer required for risk reduction and will not be constructed.

Indirect Impacts

Potential indirect impacts from the proposed action would primarily consist of effects from increased turbidity from terrestrial construction activities which could immediately reduce water quality in the project area and negatively impact fish. However, construction-related runoff into the canal would be managed through best management techniques and would be reduced by the movement of the tides. Those impacts on fisheries, prey species, or their habitat would be short-term, approximately 2 to 2.5 years in duration, with turbidity effects potentially lasting up to several months after completion.

Cumulative Impacts

Potential cumulative impacts from the proposed action would involve the combined effects on EFH in southeastern Louisiana from the multiple LPV projects. The actions affecting EFH would be primarily short-term during the construction period.

LPV 03c West Return Floodwall and LPV 13 – Recurve I-Wall Northwest of Kenner

There would be no additional direct, indirect or cumulative impacts to EFH in these reaches associated with the proposed action.

3.2.6 Wildlife

Future Conditions with No-Action

Under the no action alternative, the Government's action, as approved in IER 2 would be constructed. Consequently, direct, indirect, and cumulative impacts to wildlife would not differ from those described previously in the original IER 2.

Future Conditions with the Proposed Action

LPV 03a

Proposed Action (floodwall realignment near airport, pile driving for turn-around pads and stockpiling/staging area north of Vintage Drive)

Direct Impacts

The increase in the height and width of the floodwall and ROW under the proposed action would result in the loss of high quality wildlife habitat because of the location of the footprint of the new floodwall alignment near the airport. Approximately 16.5 acres of high quality wetland would be impacted by the realigned floodwall and associated stability berms. The realignment would also result in a loss of approximately 3 acres of open water and water bottom. Each of the 9 turn-around pads would require driving 15concrete piles, approximately 2ft in diameter, within the canal adjacent to the floodwall base slab on the flood side. Most species of birds and mammals would avoid the project area during construction of the floodwall under the proposed action. There are extensive wetland and shoreline habitats adjacent to the project area to which these species could relocate.

The breakwater approved in IER 2 to be constructed near the I-10 is no longer required for risk reduction and will not be constructed.

The greatest potential for effects on wildlife associated with the implementation of the proposed action would occur during the construction period (approximately 2.5 years). The presence of construction-related activity, machinery, and noise would be expected to cause most wildlife to avoid the area during the construction period. Although birds are highly mobile and able to move to other habitats in the vicinity, local populations of species that nest in colonies could be

adversely affected if construction activities caused abandonment of nesting sites. The reproductive capacity of local or regional populations of one or more species may depend on a given nesting colony, so disturbance of a colony could adversely effect these populations. In order to minimize the potential for construction under the proposed action to disturb colonial-nesting birds should they occur in the La Branche Wetlands near the proposed IERS 2 project area, procedures recommended by the USFWS would be followed. Prior to construction, the project area would be inspected by the USFWS staff or other qualified personnel for the presence of nesting colonies during the nesting season. Construction-related activities that would occur within 1,000 ft radius of a colony would be restricted to the non-nesting period, which in this region generally extends from 1 September to 15 February, depending on the species present. This 1,000-ft buffer would be maintained unless coordination with the USFWS indicates that the buffer zone may be reduced based on the species present and other specifics of the situation.

Bald eagles also have the potential to nest in the project vicinity. In order to minimize the possibility that construction activities under the proposed action could disturb nesting bald eagles, procedures recommended by the USFWS based on the National Bald Eagle Management Guidelines would be followed. The recommended guidelines include: (1) distance buffers – keeping a distance between the activity and the nest, (2) landscape buffers – maintaining forested (preferably) or natural areas between the activity and nest trees, and (3) avoiding certain activities during the breeding season. Prior to construction, the project area would be inspected by the USFWS or other qualified personnel for the presence of nest trees, including both active and alternate nests. Construction-related activities that would occur within 660 ft of a nest would be performed outside the bald eagle nesting season, which in this region generally extends from October 1 to May 15. This 660-ft buffer would be maintained unless coordination with USFWS indicates that the buffer zone may be reduced based on the specifics of the situation. Damage to nest trees would be avoided, including damage to their root systems through soil disturbance or compaction.

The above procedures for preventing disturbance of colonial-nesting birds and bald eagle nesting sites, should they become established in the area prior to construction, would minimize the potential for adverse impacts on these species from the proposed action.

As discussed in IER 2, some of the materials used in the construction would be shipped to the project area by barge on Lake Pontchartrain. Either staging/stockpile areas on land or flotation channels along the lakefront would be utilized to deliver and store the materials. No additional dredging would be required due to the proposed action.

The new potential staging/stockpile area described in this IER Supplemental is an open, grassy area, north of Vintage Drive, adjacent to the floodwall ROW on the protected side (see figure 5).

The greatest potential for effects on terrestrial wildlife associated with the stockpiling of materials would occur during the construction period (approximately 2 to 2.5 years). The presence of rock stockpiles and construction-related activity, machinery, and noise would cause wildlife to avoid the terrestrial habitat of the stockpile areas during construction. These effects on wildlife would be short-term and would not continue beyond the construction period. The potential direct, adverse impacts on terrestrial wildlife from the proposed action within LPV 03a

would be moderated by the ability of the predominant wildlife present (birds and mammals) to move to adjacent terrestrial habitats during construction. In addition, after having been temporarily avoided during construction, the terrestrial habitat could be utilized again after completion of construction. Direct impacts on aquatic wildlife from the proposed action would be moderated by the small area of shoreline and aquatic habitat that would be affected.

Indirect Impacts

Potential indirect impacts on wildlife from the proposed action for LPV 03a mainly would involve the displacement of wildlife populations from the project area. Movement of these species to adjacent, unimpacted habitats would not be expected to result in exceedances of the carrying capacity of the extensive, similar terrestrial and aquatic habitats in the vicinity. Thus, the populations and habitat areas affected would be relatively small and the adjacent, extensive habitats would have the capacity to support the immigrants.

Cumulative Impacts

Potential cumulative impacts on wildlife from the proposed action for LPV 03a would involve the combined effects of habitat loss and displacement of wildlife populations from the multiple LPV projects in the New Orleans area. The displacement of the majority of wildlife would be short-term during the construction period, and the displaced individuals would likely return following project completion. The terrestrial habitat that would be permanently affected is not a high-quality or unique habitat, but frequently mowed turf grass or small fragments of wetland. Wetland habitats similar to those being affected in the project area occur along constructed and/or armored shorelines along Lake Pontchartrain and the canals that drain to the lake. Turf grass habitat similar to that in the project area is found extensively in ROWs along levees and floodwalls, residential lawns, parks, and pastures.

Movement of the limited numbers of wildlife that currently inhabit the project area's terrestrial and aquatic habitats into surrounding, unimpacted habitats would not be expected to result in exceedances of the carrying capacity of the extensive, adjacent habitats. Thus, the potential cumulative impacts on wildlife from the proposed action for LPV 03a in conjunction with other projects in the region would affect relatively small populations and habitat areas, and the extensive habitats remaining in the region would have the capacity to accommodate those populations.

LPV 03c West Return Floodwall and LPV 13 – Recurve I-Wall Northwest of Kenner

There would be no additional direct, indirect or cumulative impacts to wildlife in these reaches associated with the proposed action.

3.2.7 Threatened or Endangered Species

Future Conditions with No-Action

Under the no action alternative, the Government's action, as approved in IER 2 would be constructed. Consequently, direct, indirect, and cumulative impacts to wetlands would not differ from those described previously in the original IER 2.

Future Conditions with the Proposed Action

There would be no additional impacts to the above mentioned T&E species associated with this proposed action beyond what was previously discussed and approved in the original IER 2.

4.0 CUMULATIVE IMPACTS

Aside from approved impacts disclosed in the IER 2, 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 remove the sharp angle from the HSDRRS alignment near the Louis Armstrong International Airport in Jefferson Parish, Louisiana; to widen the flood side base slab along the entire stretch of floodwall to create an inspection road; to convert pedestrian gates to vehicular gates and turn-arounds to accommodate flood side inspections; to construct certain floodwall reaches 20-25 ft flood side of the existing location versus the approved 35 ft shift flood side; and to remove a gate near the Recurve I-Wall. The proposed action discussed in this IER Supplemental was proposed because at the time of completion of the original IER 2 report, engineering evaluations had not been completed for all of the approved actions and alternatives. Since that time, final selection and engineering details (e.g., floodwall alignment near the airport) of the original approved action have been revised based on the final engineering reports. The proposed modifications to the Government-approved action in IER 2 were brought forward to ensure the most reliable, time and cost effective and least environmentally damaging alternative was implemented. In addition, for the southern segment of LPV 03a, 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 taxiways, 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 PDT to assist in the planning of this project and to complete a mitigation determination of the potential direct and indirect impacts of the proposed action. Monthly meetings with resource agencies were also held concerning this IER Supplemental and other IER projects.

The USFWS reviewed the proposed action in relation to the original IER 2 to see if the proposed action would affect any threatened or endangered species or their critical habitat. In a letter dated 5 May 2008, the USFWS concurred with the CEMVN that the actions approved in IER 2 would not have adverse impacts on threatened or endangered species. The USFWS also reviewed the IER 2 Supplemental proposed actions, and in a letter dated 20 August 2009, the USFWS concurred with the CEMVN that the proposed actions would not have adverse impacts on threatened or endangered species (Appendix C).

NMFS Protected Species division was sent the CEMVN's determination of the effects that the action approved in IER 2 would have on threatened and endangered (T&E) species on 16 April 2008 and on EFH on 2 May 2008. No T&E species under NMFS jurisdiction or their critical habitat would be adversely affected by construction of the action approved in IER 2. NMFS concurred with this conclusion in a letter on 5 June 2008. CEMVN reexamined the potential T&E impacts and reconfirmed the determination for the IERS 2 proposed action that no T&E species under NMFS jurisdiction or their critical habitat would be adversely affected by construction of the proposed action described in this IER Supplemental.

Additional impacts to EFH were coordinated with NMFS staff via teleconference on 20 July 2009. Permanent removal of EFH within the project area would be mitigated by the creation of higher quality fish habitat through the placement of the rock foreshore protection and through mitigation of wetland habitat.

The LaDNR reviewed the action approved in IER 2 for consistency with the Louisiana Coastal Resource Program (LCRP). The action approved in IER 2 was found to be consistent with the LCRP, as per a letter dated 23 May 2008. The LDNR then reviewed the IER 2 Supplemental proposed action for consistency with the LCRP, and the proposed action was found to be consistent with the LCRP, as per a letter dated 15 September 2009.

Section 106 of the National Historic Preservation Act (NHPA), as amended, requires consultation with the Louisiana SHPO 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 concurred with the CEMVN "no historic properties affected" finding in a letter dated 15 February 2008 and the Mississippi Band of Choctaw Indians, Tunic-Biloxi Tribe of

Louisiana, and the Choctaw Nation of Oklahoma concurred with the effect determination in an email dated 15 January 2008 and letters dated 9 January 2008 and 15 January 2008, respectively (See Appendix D within the original IER 2). No other Indian tribes responded to the requests for comment. No additional 106 consultation was required for this proposed action.

Coordination with the USFWS regarding the proposed action described in this IER Supplemental was initiated on 22 July 2009. A draft supplemental Fish and Wildlife Coordination Act Report (CAR) was provided by the USFWS on 9 September 2009. The draft CAR concluded that the USFWS does not object to the proposed modifications to IER 2 provided compensation for 22 AAHUs is achieved to replace the project-related loss. The Service believes that the impact analysis and recommendations (presented below and adjusted to reflect the modifications) provided in the July 2008, FWCA Report continue to remain valid. This report is discussed in more detail in the following section and a copy of the CAR is provided in Appendix C.

The USFWS' programmatic recommendations are available in IER 2 and hereby incorporated by reference.

The USFWS project-specific recommendations for the IERS 2 proposed action are listed below. Each recommendation is followed by the CEMVN response.

> Recommendation 1: The Corps and local sponsor shall provide 22 average annual habitat units (AAHUs) to compensate for the unavoidable, project-related loss of intermediate marsh. The Service, NMFS, LDWF, and LDNR should be consulted regarding the adequacy of any proposed alternative mitigation sites.
>
> CEMVN Response 1: Concur.
>
> Recommendation 2: The Service recommends that any impacts to marsh should be avoided or minimized to the greatest extent practicable.
>
> CEMVN Response 2: Concur.
>
> Recommendation 3: The Service recommends backfilling all access channels in Lake Pontchartrain after construction is complete. In order to have sufficient material to backfill the access channels and minimize turbidity in the lake, the Service also recommends the use of silt curtains.
>
> CEMVN Response 3: Concur that all access channels will be backfilled. Silt curtains will be used to contain material in the stockpile site if deemed effective and maintainable at the time of construction.
>
> Recommendation 4: Avoid adverse impacts to wading bird colonies through careful design project features and timing of construction. In addition, 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 4: Concur.

Recommendation 5: The Service shall be provided an opportunity to review and submit recommendations on the draft plans and specifications for all floodwalls, gates, associated berms and breakwater work addressed in this report.

CEMVN Response 5: Concur.

Recommendation 6: Any proposed change in breakwaters, floodwalls, or gate structure features, locations or plans shall be coordinated in advance with the Service, NMFS, LDWF, and LDNR.

CEMVN Response 6: Concur.

Recommendation 7: 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 7: Corps PPAs do not contain language mandating the availability of funds for specific project features, but require the non-Federal Sponsor to provide certification of sufficient funding for the entire project. Further, mitigation components are considered a feature of the entire project. The non-Federal Sponsor is responsible for OMRR&R of all project features in accordance with the OMRR&R manual that the Corps provides upon completion of the project

Recommendation 8: Coordination should continue with the Service and the NMFS on detailed contract specifications to avoid and minimize potential impacts to manatees, Gulf sturgeon, and bald eagles.

CEMVN Response 8: Concur.

Recommendation 9: 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.

CEMVN Response 9: Concur.

7.0 MITIGATION

Quantitative analysis utilizing existing methodologies for water resource planning has identified the acreages and habitat types affected by the direct or indirect impacts of implementing the proposed action. It is anticipated that approximately 19.5 acres of wetland, canal, and lake habitat could be permanently impacted.

Best management practices would be used to reduce sediment loading to the surface waters of Lake Pontchartrain, the Parish Line Canal, and wetland areas and could reduce effects on water quality and aquatic life, specifically EFH. Permanent removal of EFH would be mitigated by the creation of higher quality fish habitat through the placement of rock foreshore protection and through mitigation of wetland habitat.

A habitat evaluation was conducted by the USFWS using habitat assessment models developed by the state of Louisiana for all reaches evaluated in this IER Supplemental. The wetland value assessment (WVA) was conducted independently of this IER Supplemental to determine the changes in fish and wildlife habitat that would be projected to occur as a result of the proposed action. The WVA identifies the quality and quantity of available habitat for fish and wildlife species that utilize wetland communities under existing conditions, and it predicts the future suitability of the habitat for such species under conditions without the project (proposed action) and with the project.

The evaluation was performed for wetlands (brackish marsh and swamp) habitat within the project area. The USFWS identified approximately 16.5 acres of wetlands habitat that would be impacted due to the floodwall realignment near the airport. Of the 16.5 acres of wetlands, there are 14.5 acres of marsh and 2 acres of swamp. The results of the evaluation are expressed in habitat units (HUs), representing the acreage and quality of the habitat. HUs were derived by multiplying the number of acres of a particular habitat times the habitat suitability index (HSI) representing the quality of that habitat. The HSI is based on seven different variables that address both site-specific habitat quality features and how a site fits into the overall "landscape." HUs were calculated for the two scenarios (without project and with the project) from the current time to 50 years into the future, the assumed life of the proposed action.

The HUs were summed to determine the total number of HUs gained or lost without the project and as a result of the proposed action. These cumulative HU values were then divided by the life of the action (50 years) to determine the average annual habitat unit (AAHU) value. Finally, in order to obtain an estimate of the impact of the proposed action on the fish and wildlife habitat, the AAHU value for the future with the project was subtracted from the AAHU value for the future without the project. A positive AAHU indicates that the proposed action would result in an increase in the "value" of the wetland habitat, while a negative result indicates that the proposed action would result in a decrease in the wetland habitat "value."

The results of the WVA indicate that the impact on wetlands from the proposed action would decrease the wetland habitat value of emergent brackish marsh and swamp habitat in the project area. Brackish marsh habitat would have a net change in AAHUs of -11.45 if the proposed project were constructed. Swamp habitat would have a net change in AAHUs of -1.55 if the proposed project were constructed. Consequently, the total change in AAHUs for brackish marsh and swamp within the project area (including IER 2 and IERS 2 impacts) would be approximately 22 acres (-20.45 brackish marsh and -1.55 swamp). These AAHUs will be used to adequately mitigate the loss of these habitats due to permanent impacts within the project area. The draft USFWS Coordination Act Report for the IERS 2 project, which contains a discussion of the WVA, is included in Appendix C of this document.

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

These forthcoming mitigation IERs will implement compensatory mitigation as early as possible. All mitigation activities would be consistent with standards and policies established in the Clean Water Act Section 404 and the appropriate USACE policies and regulations governing this activity.

8.0 COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

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

Environmental compliance for the proposed action will be achieved upon coordination of this IER Supplemental with appropriate agencies, organizations, and individuals for their review and comments; the USFWS confirmation that the proposed action would not be likely to adversely affect any endangered or threatened species; 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.

Agency / Organization	Date Responded
Endangered Species Act Section 7 concluded (USFWS):	Aug 20, 2009
Endangered Species Act Section 7 concluded (NMFS):	N/A - "No Effect"
Coastal Zone Management Consistency Determination:	Sept 15, 2009
Clean Water Act Section 401 Water Quality Certification:	Aug 6, 2009
USFWS Draft Coordination Act Report:	Sept 9, 2009
National Historic Preservation Act Sect. 106 (SHPO and/or ACHP):	Feb 15, 2009
Federal tribes with vested interests (that responded):	
Mississippi Band of Choctaw Indians	Jan 15, 2009
Tunic-Biloxi Tribe of Louisiana	Jan 9, 2009
Choctaw Nation of Oklahoma	Jan 15, 2009
MPRSA Section 103 Evaluation:	N/A
Clean Air Act:	June 26, 2008
Clean Water Act Section 404(b)(1) signed:	October 21, 2009
USFWS Final Coordination act Report:	Sept 9, 2009

9.0 CONCLUSIONS

9.1 FINAL DECISION

The proposed action for the LPV 03a and 03c West Return Floodwall and the LPV 13 Recurve I-Wall in Northwest Kenner was developed in order to remove the sharp angle from the system alignment near the Louis Armstrong International Airport in Jefferson Parish, Louisiana; to widen the flood side base slab along the entire stretch of floodwall to create an inspection road; to convert pedestrian gates to vehicular gates and turn-arounds to accommodate flood side inspections; to construct certain floodwall reaches 20-25 ft flood side of the existing location versus the approved 35 ft shift flood side; and to remove a gate near the Recurve I-Wall.

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

Lake Pontchartrain

- LPV 03a , 03c (Jefferson Parish Western Return Floodwall) and LPV 13 (Recurve I-Wall North of Kenner) – no additional impacts.

Parish Line Canal

- LPV 03a (Jefferson Parish Western Return Floodwall) – 3 acres of canal filled due to floodwall realignment; very minor impacts associated with additional pile driving for the 9 turn-around pads (15, approximately 2ft in diameter, concrete piles per turn-around pad)
- 03c and LPV 13 (Recurve I-Wall North of Kenner) – No additional impacts to the canal.

Wetlands

- LPV 03a – Approximately 16.5 acres of wetland habitat would be lost due to the system realignment near the airport (to be mitigated with 11.45 AAHUs of marsh habitat and 1.55 AAHUs of swamp habitat).
- LPV 03c and 13 – No habitat loss.

Fisheries

- LPV 03a (Jefferson Parish Western Return Floodwall) – Approximately 16.5 acres of wetlands habitat designated as EFH would be lost due to the system realignment near the airport (to be mitigated with 11.45 AAHUs of marsh habitat and 1.55 AAHUs of swamp habitat); 3 acres of canal open water and water bottom filled due to floodwall realignment; very minor impacts associated with additional pile driving for the 9 turn-around pads (15 concrete piles, approximately 2ft in diameter, per turn-around pad)
- LVP 03c and LPV 13 – no additional impacts.

EFH

- LPV 03a (Jefferson Parish Western Return Floodwall) – Approximately 16.5 acres of wetlands habitat designated as EFH would be lost due to the system realignment near the airport (to be mitigated with 11.45 AAHUs of marsh habitat and 1.55 AAHUs of swamp habitat); 3 acres of canal open water and water bottom filled due to floodwall realignment; very minor impacts associated with additional pile driving for the 9 turn-around pads (15 concrete piles, approximately 2ft in diameter, per turn-around pad)
- LPV 03c and 13 – No habitat loss.

Wildlife

- LPV 03a (Jefferson Parish Western Return Floodwall) – Approximately 16.5 acres of wetlands habitat designated as EFH would be lost due to the system realignment near the airport (to be mitigated with 11.45 AAHUs of marsh habitat and 1.55 AAHUs of swamp habitat); 3 acres of canal open water and water bottom filled due to floodwall realignment; very minor impacts associated with additional pile driving for the 9 turn-around pads (15 concrete piles, approximately 2ft in diameter, per turn-around pad); temporary impacts associated with the new staging area north of Vintage Drive.
- LVP 03c and LPV 13 – no additional impacts. Most species of birds and mammals would avoid the project area during construction of the floodwall under the proposed action. There are extensive wetland and shoreline habitats adjacent to the project area to which these species could relocate.

Endangered or Threatened Species

- LPV 03a and 03c and LPV 13 – No adverse impacts to T&E species due to the proposed action..

Cultural Resources

- LPV 03a and 03c and LPV 13 – no additional impacts.

Recreation

- LPV 03a and 03c and LPV 13 – no additional impacts.

Aesthetic (Visual) Resources

- LPV 03a and 03c and LPV 13 – no additional impacts.

Air Quality

- LPV 03a and 03c and LPV 13 – no additional impacts.

Noise

- LPV 03a and 03c and LPV 13 – no additional impacts.

Transportation

- LPV 03a and 03c and LPV 13 – no additional impacts.

Socioeconomic Resources

- LPV 03a and 03c and LPV 13 – no additional impacts.

Environmental Justice

- LPV 03a and 03c and LPV 13 – no additional impacts.

9.2 PREPARED BY

The point of contact for this IER 2 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	
IER Section	**Team Member**
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Environmental Manager	Lissa Lyncker, HDR
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Internal Technical Review	Thomas Keevin, USACE

APPENDIX A

LIST OF ABBREVIATIONS AND ACRONYMS

$\mu g/m^3$	micrograms per cubic meter
AAHU	average annual habitat unit
ADT	average daily traffic
ASTM	American Society for Testing and Materials
°C	degree Celsius
CAA	Clean Air Act
CAR	Coordination Act Report
CED	Comprehensive Environmental Document
CEMVN	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
DDT	dichloro-diphenyl-trichloroethane
DNL	day-night average sound level
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EJ	Environmental Justice
ER	Engineering Regulation
ESA	Endangered Species Act
ESRI	Environmental Systems Research Institute
°F	degree Fahrenheit
ft	feet
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FMC	Fishery Management Council
FMP	Fishery Management Plan
FONSI	Finding of No Significant Impact
GMFMC	Gulf of Mexico Fishery Management Council
GNOHSDRRS	Greater New Orleans Hurricane and Storm Damage Risk Reduction System
HPS	Hurricane Protection System
HSI	habitat suitability index
HTRW	hazardous, toxic, and radioactive waste
HU	habitat unit
I-10	Interstate 10
I-310	Interstate 310
IER	Individual Environmental Report

IHNC	Inner Harbor Navigation Canal
III	Insurance Information Institute
IPCC	Intergovernmental Panel on Climate Change
LADOTD	Louisiana Department of Transportation and Development
LCRP	Louisiana Coastal Resource Program
LCWCRTF	Louisiana Coastal Wetlands Conservation and Restoration Task Force
LaDEQ	Louisiana Department of Environmental Quality
LaDNR	Louisiana Department of Natural Resources
LaDOL	Louisiana Department of Labor
Lft	linear feet
LNHP	Louisiana Natural Heritage Program
LaDWF	Louisiana Department of Wildlife and Fisheries
LOS	level of service
LPV	Lake Pontchartrain and Vicinity
Mi^2	square mile
mph	miles per hour
MRGO	Mississippi River Gulf Outlet
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NAAQS	National Ambient Air Quality Standard
NAVD88	North American Vertical Datum of 1988
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic and Safety Administration
NMFS	National Marine Fisheries Service
NRC	National Research Council
NRCS	Natural Resources Conservation Service
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NWUS	Navigable Waters of the United States
O_3	ozone
OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
PA	Programmatic Agreement
Pb	lead
PDT	Project Delivery Team
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
SAV	submerged aquatic vegetation
SHPO	State Historic Preservation Officer
SIR	Supplemental Information Report

SO_2	sulfur dioxide
sq ft	square feet
STWAVE	steady-state spectral wave
T&E	threatened and endangered
TRB	Transportation Research Board
U.S.	United States
U.S.C.	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
vlf	volume per linear foot
vpd	vehicles per day
WCRA	Wetlands Conservation and Restoration Authority
WRDA	Water Resources Development Act
WVA	wetland value assessment

APPENDIX B

PUBLIC COMMENTS

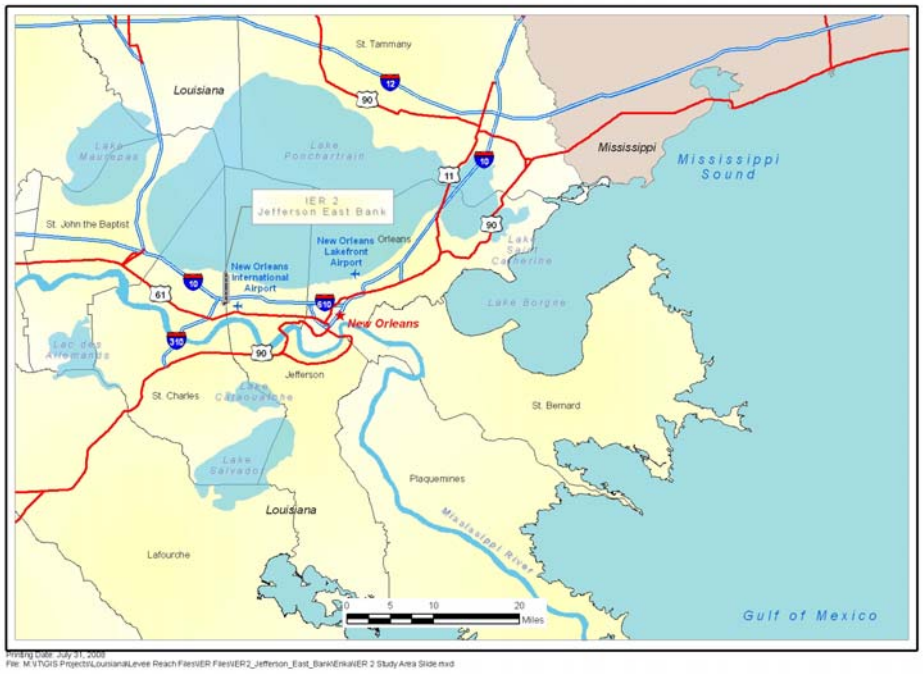
- Coastal Environments, Incorporated

FINAL INDIVIDUAL ENVIRONMENTAL REPORT SUPPLEMENTAL

LPV, WEST RETURN FLOODWALL

JEFFERSON AND ST. CHARLES PARISHES, LOUISIANA

IERS 2.a



US Army Corps of Engineers®

October 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 Individual Environmental Report Supplemental 2 (IERS 2) to evaluate the potential impacts associated with the proposed project revisions to the original IER 2. The proposed action is located on the border of Jefferson and St. Charles Parishes, Louisiana (figure 1). For the purposes of this IERS, the Lake Pontchartrain and Vicinity (LPV) has been divided into numerous reaches, and each reach is identified by a project identification number (for example, LPV 03a; figure 2).

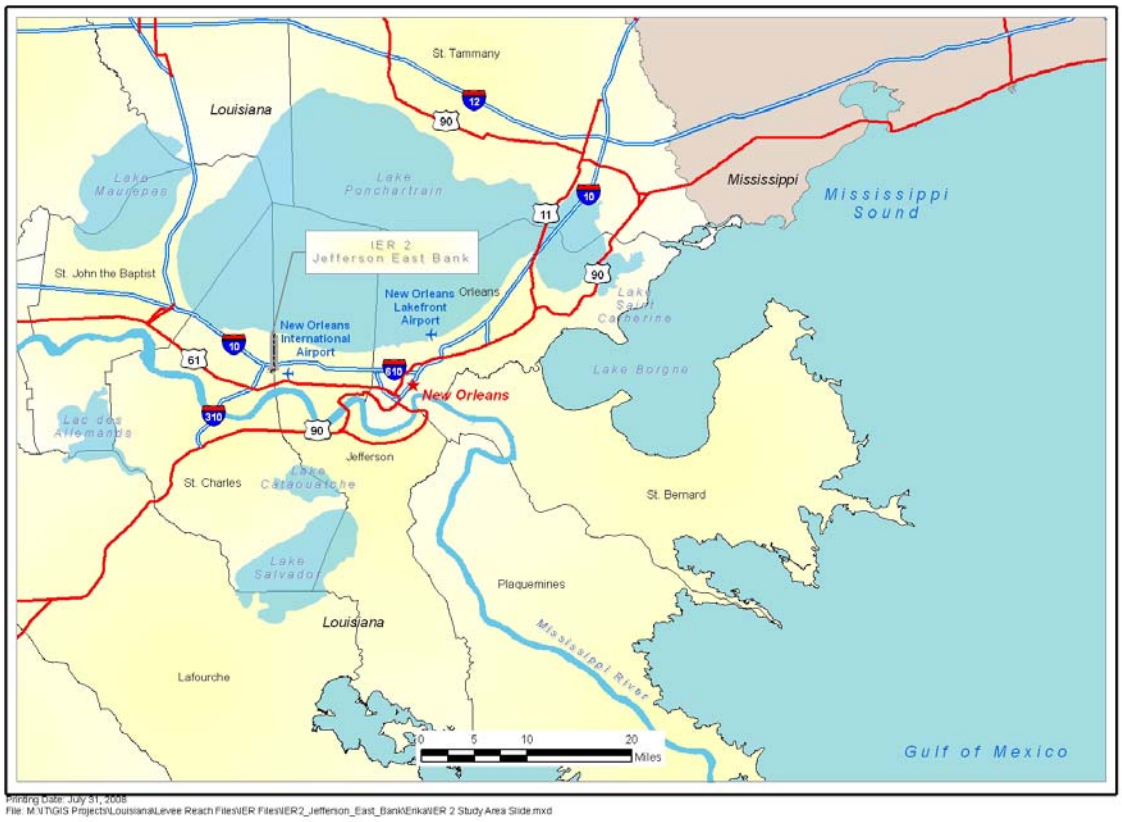


Figure 1. Vicinity Map, West Return Floodwall Jefferson and Recurve I-Wall Kenner

On July 18, 2008, the District Commander signed the Decision Record for IER 2. IER 2 is hereby incorporated by reference into this supplemental document. Copies of the original IER 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 and proposed modifications associated with the IERS 2 proposed action.

1.1 PRIOR REPORTS

A number of studies and reports in the proposed project area have been prepared by the USACE, other Federal, state, and local agencies, research institutes, and individuals. Pertinent studies, reports and projects since July 2008 are discussed below. All other relevant reports are listed in the original IER 2 and are incorporated herein by reference.

<u>Lake Pontchartrain and Vicinity HSDRRS Projects:</u>

- On 8 September 2009, the CEMVN Commander signed the Decision Record on IER # 29 entitled "Pre-approved Contractor Furnished Borrow Material # 4, Orleans, St. John the Baptist, and St. Tammany Parishes, Louisiana." 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 30 August 2009, the CEMVN Commander signed the Decision Record on IER # 28 entitled "Government Furnished Borrow material # 4 Plaquemines, St Bernard and Jefferson Parishes, Louisiana." The document was prepared to evaluate the potential impacts associated with the possible excavation of two Government Furnished borrow areas and the construction of a separate borrow access road.

- On 30 June 2009, the CEMVN Commander signed the Decision Record on IER # 5 entitled "Lake Pontchartrain and Vicinity, Permanent Protection System for the Outfall Canals Project on 17th Street, Orleans Avenue, and London Avenue Canals, Jefferson and Orleans Parishes, Louisiana." The document evaluates the potential effects associated with the construction and maintenance of a permanent protection system for the 17th Street, Orleans Avenue, and London Avenue Canals.

- On 29 June 2009, the CEMVN signed the Decision Record on Individual Environmental Report Supplemental (IERS) # 1 entitled "Lake Pontchartrain and Vicinity, La Branche Wetlands Levee, St. Charles Parish, Louisiana." The supplemental document evaluates the potential effects associated with the proposed project revisions to the original IER # 1.

- On 25 June 2009, the CEMVN signed the Decision Record on IER # 6 entitled "Lake Pontchartrain and Vicinity, New Orleans East Citrus Lakefront Levee, Orleans Parish, Louisiana." The document evaluates the potential effects associated with proposed improvements to three reaches of the East Orleans Hurricane Risk Reduction Levee that were originally constructed as part of the LPV project.

- On 23 June 2009, the CEMVN signed the Decision Record on IER # 8 entitled "Lake Pontchartrain and Vicinity, Bayou Dupre Control Structure, St. Bernard Parish, Louisiana." The document evaluates the potential effects associated with the proposed improvement or replacement of a flood control structure on Bayou Dupre.

- On 19 June 2009, the CEMVN signed the Decision Record on IER # 7 entitled "Lake Pontchartrain and Vicinity, New Orleans Lakefront to Michoud Canal, Orleans Parish, Louisiana." The document evaluates the potential effects associated with proposed improvements to three reaches of the East Orleans Hurricane Risk Reduction Levee that were originally constructed as part of the LPV project.

- On 26 May 2009, the CEMVN signed the Decision Record on IER # 10 entitled "Lake Pontchartrain and Vicinity, Chalmette Loop Levee, St. Bernard Parish, Louisiana." The document evaluates the potential impacts associated with the proposed construction of a T-wall floodwall on top of the existing Chalmette Loop levee.

- On 13 March 2009, the CEMVN signed the Decision Record on 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 the 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 the 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 October 2008, the CEMVN signed the 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 near Lake Borgne.

- On 20 October 2008, the CEMVN signed the 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.

2.0 ALTERNATIVES

At the time of completion of the original IER 2 report, engineering designs had not been finalized for all of the actions and alternatives. Since that time, engineering details (e.g., the floodwall alignment near the airport) 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 2 Supplemental.

2.1 DESCRIPTION OF THE ALTERNATIVES

No Action. Under the no-action alternative, the Government-approved action, as described in IER 2 would be constructed

Proposed Action. The proposed action would be instrumental in providing 100-year level of risk reduction for Jefferson Parish, Louisiana. 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 03a - West Return Floodwall - consists of approximately 14,700 ft of floodwall at a current elevation of 13.5 to 17 ft North American Vertical Datum of 1988 (NAVD88). All references to elevation in this document are in NAVD88 unless otherwise specified. The LPV03a floodwall begins at the entrance to Parish Line Canal from Lake Pontchartrain and continues to the north side of I-10, where it connects to

LPV 03c. LPV 03a resumes on the other side of LPV 03c, on the south side of I-10, to its terminus at the Louis Armstrong New Orleans International Airport.

- LPV 03c - Floodwall under I-10 - consists of approximately 3,100 ft of floodwall at a current height of approximately 11.5 ft.
- LPV 13 - Recurve I-Wall in Northwest Kenner - consists of a floodwall at a current height of 16 ft, starting at the entrance to Parish Line Canal from Lake Pontchartrain and continuing for approximately 1,025 ft to the northeast. LPV 13 also includes an existing swing gate with a 20 ft clear opening at a current height of approximately 16 ft.

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

Modifications to the action approved in IER 2 were proposed in order to remove the sharp angle from the system alignment near the Louis Armstrong International Airport in Jefferson Parish, Louisiana; to widen the flood side base slab along the entire stretch of floodwall to create an inspection road; to convert pedestrian gates to vehicular gates and turn-arounds to accommodate flood side inspections; to construct certain floodwall reaches 20-25 ft flood side of the existing location versus the approved 35 ft shift flood side; and to remove a gate near the Recurve I-Wall (see figure 2).

For each reach addressed in this IER 2 Supplemental, the Government's action as approved in IER 2 is described first as the No Action Alternative, and the proposed action is described second.

LPV 03a and 03c West Return Floodwall

No Action

The approved action for these reaches will consist of replacing the existing floodwall with a new T-wall alignment approximately 35 ft to the west along the east embankment of the Parish Line Canal. The new T-wall will be constructed to an elevation of 17.5 ft north of I-10 and 16.5 ft south of I-10. Based on construction restrictions under the I-10 Bridge, the new T-wall elevation will be approximately 13.5 ft under the bridge. Following the construction of the new T-wall, the existing floodwall would be demolished to 2 inches below ground surface, and the area would be regraded.

At the I-10 bridge (LPV 03c) a rock breakwater was approved in IER 2 to be constructed on a geotextile fabric to provide further flood protection in that area. The breakwater was designed to be at an elevation of approximately 19.5 ft with a width of approximately 105 ft and a length of approximately 500 ft. Finalized engineering design determined the rock breakwater approved to be constructed at the I-10 Bridge would no longer be necessary to reduce the risk of flood damage in the bridge vicinity.

Flood-side and protected-side berms will be incorporated into the construction design. The berms will be at an elevation of 4.5 ft from the Louis Armstrong New Orleans International Airport to I-10 and at an elevation of 2.5 ft from I-10 to the lake front. Armoring with rock will

be incorporated to protect against erosion and scour on the flood side of the floodwall. In addition, the Parish Line Canal Pump Station discharge will be incorporated into the new T-wall, with no additional fronting protection. Approximately six pile test sites, along the footprint of the proposed action, are proposed and will be sampled prior to construction.

Proposed Action

The 1,450 ft stretch of existing T-wall and I-wall near the Louis Armstrong International Airport that forms a sharp corner and ties into the levee would be realigned and replaced with approximately 1,300 ft of T-wall with flood and protected side earthen berms (figure 3a and 3b).

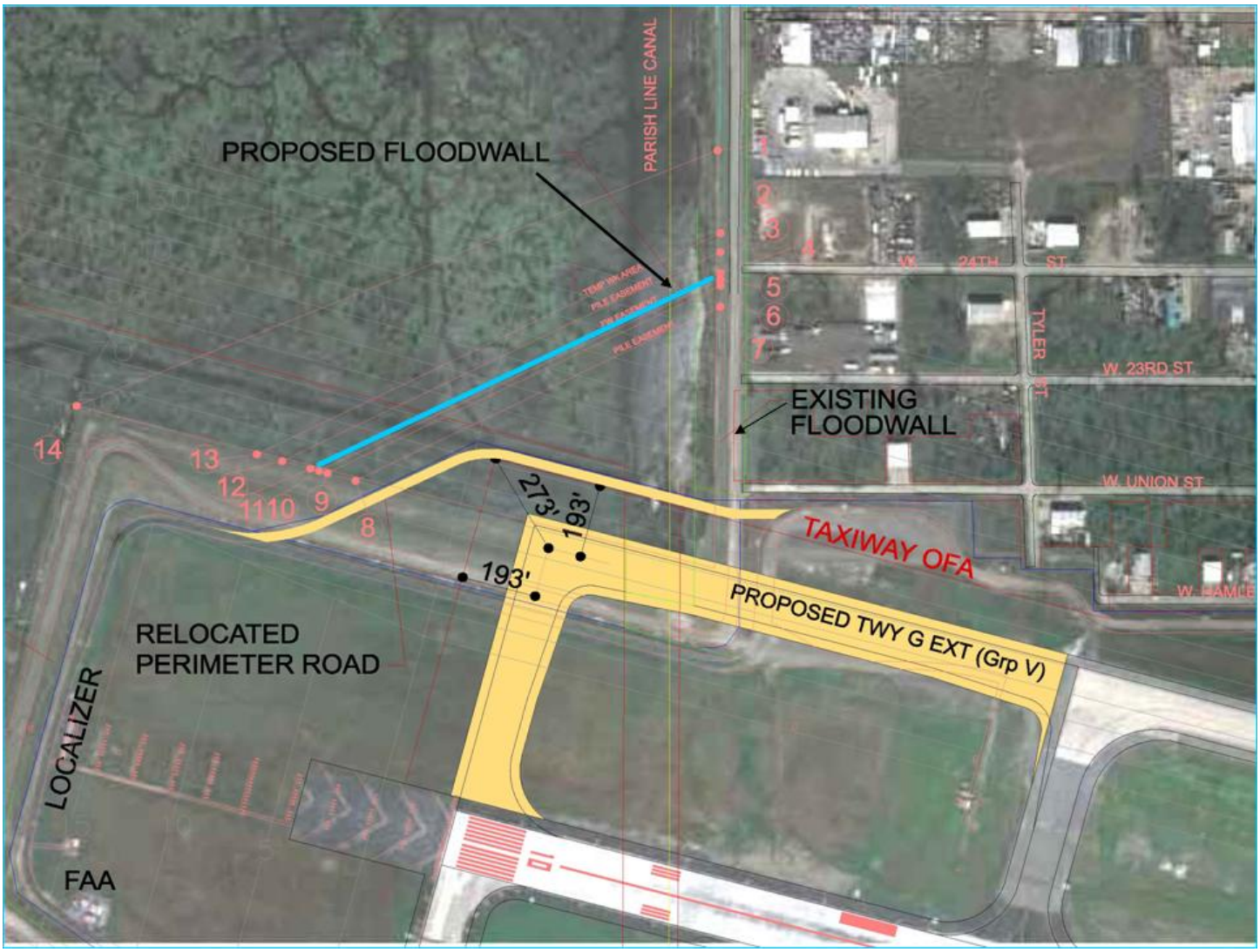
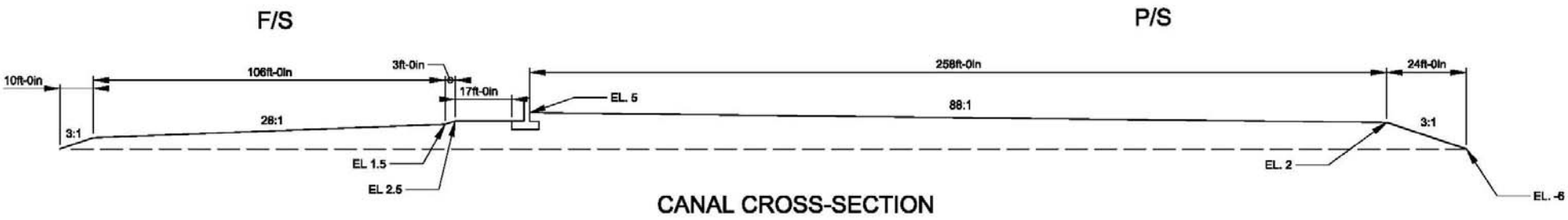


Figure 3a. Floodwall realignment near the Louis Armstrong International Airport.



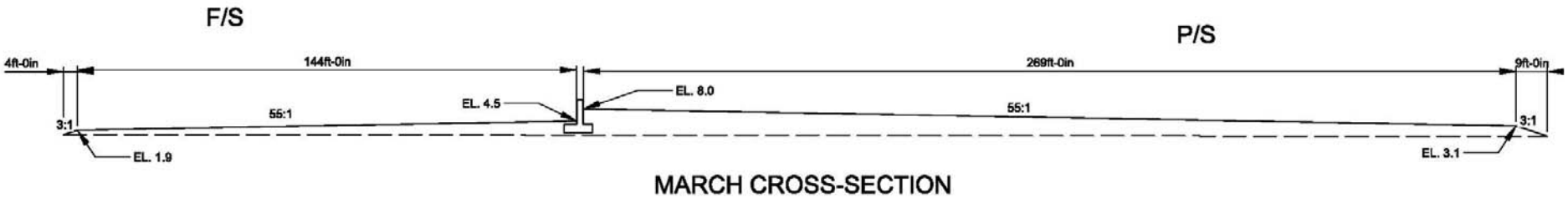


Figure 3b. Floodwall cross-section for alignment near Louis Armstrong International Airport.

HSDRRS realignment in the area would eliminate the sharp corner in the floodwall and provide a smoother transition when tying into the adjacent levee. Construction of the floodwall in the approved alignment would create many logistical problems. Pile interference (pile driving paths would intersect) and other construction issues would have made it extremely difficult to drive the new piles. Removing the sharp corner from the alignment would also aid in reducing debris build-up and wave eccentricities. As a result of system realignment, soil borings near the proposed alignment revealed unstable subsurface conditions, thus flood and protected side berms would be required to increase stability and meet design standards. The flood and protected side berms would minimize the unbalanced soil loads (due to the driving forces being greater than the resisting forces) on the new structure. The area enclosed by the wall would be filled and graded for drainage (approximately 7 acres).

A 12.5 ft base slab on the flood side of the wall would be constructed to allow for inspection and maintenance of the new floodwall throughout the entire stretch of floodwall within the proposed IERS 2 project area (see figures 4a and 4b). To accommodate inspection vehicles, pedestrian gates through the floodwall in various locations (end of West Esplanade Avenue, end of Vintage Drive and the south side of the Parish Line pump station) would be converted to vehicular gates with turn-around pads (see figures 4a and 4b). A new vehicular gate and turn-around pad would also be constructed near W 27th Street, between Louis Armstrong International Airport and the I-10 Bridge to accommodate inspection vehicles. The gates would provide an approximately 15 ft opening for vehicles to inspect and maintain the flood side of the new T-wall. Turning pads (8 ft by 20 ft, pile supported slabs) would be provided at each gate location and at 5 other locations for "turn-arounds". The turn-around pads would not require additional canal fill.

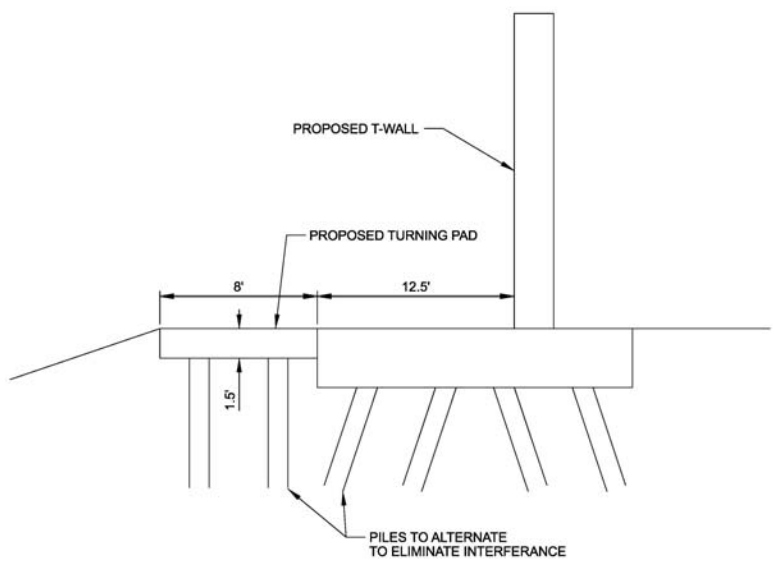


Figure 4a. Cross-section of base slab and turn-around pad of floodwall

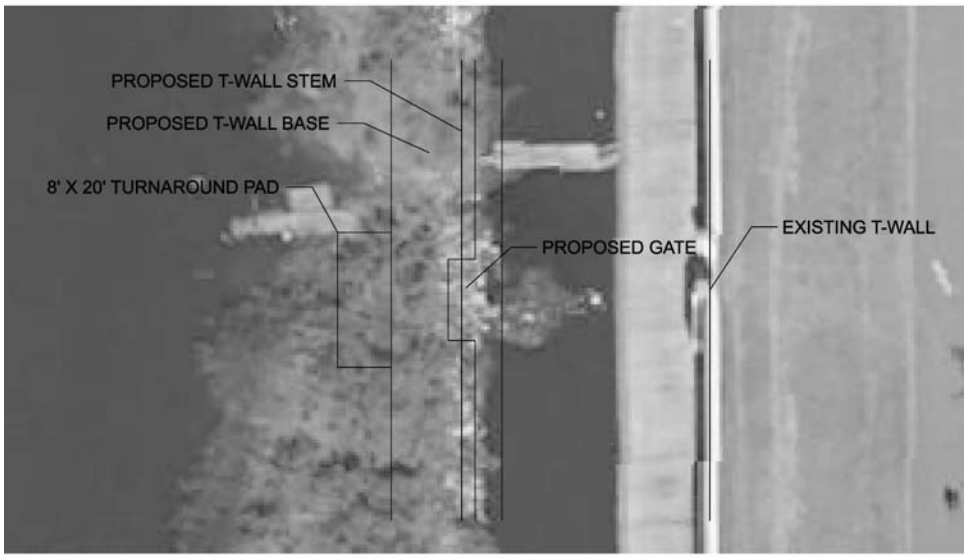


Figure 4b. Plan view of proposed vehicular gate.

LPV 13 Recurve I-Wall Northwest of Kenner

No Action

The approved action for this reach is a continuation of the approved alternative for LPV 03a. This approved action would include replacing the existing floodwall with a new T-wall alignment approximately 35 ft to the west, between the existing floodwall and the shoreline of Lake Pontchartrain near the mouth of the Parish Line Canal. The new T-wall would be constructed to an elevation of 17.5 ft. Following the construction of the new T-wall, the existing floodwall would be demolished to 2 inches below ground surface and the area would be regraded.

The existing gate closure would be replaced with a new gate closure. The approved gate would consist of a new swing gate closure structure with a clear opening of 20 ft. The sill elevation would be at 10 ft and the top of the gate would be at 17.5 ft. The swing gate would require one person to operate the gate.

Proposed Action

The proposed action within this reach would consist of replacing the existing floodwall with a new T-wall alignment approximately 20-25 ft to the west, between the existing floodwall and the shoreline of Lake Pontchartrain near the mouth of the Parish Line Canal. Just as described for the approved alignment, the new T-wall would be constructed to an elevation of 17.5 ft, and upon completion of the new T-wall, the existing floodwall would be demolished to 2 inches below ground surface and the area would be regraded.

In addition, the existing gate closure would not be replaced with another gate but would be removed completely. Inspection access would be provided via an earthen ramp to be constructed

near where the Recurve I-Wall would tie into the adjacent levee to the east. As the proposed earthen ramp would be associated with the adjacent levee reach, further details on the proposed earthen ramp are to be discussed in a separate environmental document, IER 3 Supplemental, Jefferson Lakefront, which is expected to be released for public review in late 2009 or early 2010.

Armoring of Levees and Floodwalls

Armoring would be incorporated as an additional feature of floodwalls and levees to protect against erosion and scour on the protected and/or flood sides of critical areas. These critical areas include: transition points (where levees transition into any hardened feature such as other levees, floodwalls, pump stations, etc.), utility pipeline crossings, floodwall protected side slopes, and earthen levees that are exposed to wave and surge overtopping during a 500-year hurricane event. The proposed method of armoring could be one of the following: cast-in-place reinforced concrete slabs; articulated concrete blocks (ACB) covered with soil and grass; turf reinforcement mattress (TRM); ACB/TRM; TRM/grass; or good grass cover. The armoring would be incorporated into the existing levee or floodwall footprint, and no additional environmental impacts would be anticipated.

Construction-Related Information for Proposed Alternatives

Construction of the proposed action could begin in late 2009, and the construction activities are expected to last for approximately 2 years. A significant amount of construction equipment would be required to conduct the work, including, but not limited to, generators, barges, boats, cranes, trucks, bulldozers, excavators, pile hammers, graders, tractors, and front-end loaders. Truck access to the project site would be via I-10 to Loyola Dr. to either Veterans Memorial Blvd., West Esplanade Ave., or Vintage Dr.

For construction under the proposed action, earthen fill material would be obtained from the Bonnet Carré Spillway, which is located approximately 10 miles from the IER 2 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.

Barges would be used during construction and would access the project area via Lake Pontchartrain to the Parish Line Canal. Barge access to the lakefront and to Parish Line Canal from Lake Pontchartrain would require dredging; however, no additional dredging is required beyond what was previously discussed and approved in IER 2. An additional staging area would be required north of Vintage Drive (figure 5).

Figure 5. Proposed staging area at Vintage Drive.

Table 1. Estimated Additional Construction Material Quantities Required to Complete the Proposed Action		
	West Return Wall	**Recurve Wall**
Concrete cubic yard (cy)	4,950	N/A
H-Piling linear feet (lft)	85,800	N/A
Concrete Piles(lf)	10,125	N/A
Fill (cy)	150,000	N/A

2.2 ALTERNATIVES TO THE PROPOSED ACTION

No-Action Alternative

Without implementation of the proposed action, the Government's action, which was approved in IER 2, described as the no action alternative in this supplemental document, would be constructed. Please reference Section 2.1 for more detailed description of the Government's approved action as described in IER 2.

3.0 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

3.1 ENVIRONMENTAL SETTING

IER 2 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 alternatives. Direct impacts are those that are caused by the action taken and occur at the same time and place (40 CFR 1508.8(a)). Indirect impacts are those that are caused by the action and are later in time or further removed in distance, but are still reasonably foreseeable (40 CFR 1508.8(b)). Cumulative impacts, the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such actions (40 CFR §1508.7). Cumulative impacts are discussed in conjunction with each resource and are also discussed in section 4.

The resources described in this section are those recognized as significant by laws, executive orders, regulations, and other standards of 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 the proposed action.

Table 2
Significant Resources in Project Study Area

Significant Resource	Impacted	Not Impacted
Water	X	
Lake Pontchartrain		X*
Parish Line Canal	X	
Wetlands and Misc. 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*
Socioeconomic Resources • Land Use, Population, Employment • Environmental Justice		X*
* - Proposed action poses no or de minimus additional impacts from those described in IER 2 and as such are not discussed in this document Impacts to those resources from the approved project were described in detail in IER 2.		

Existing Conditions were discussed in IER 2 and are incorporated by reference for each significant resource discussed.

3.2.1 Lake Pontchartrain

Future Conditions with No-Action

Under the no action alternative, the Government's action, as approved in IER 2 would be constructed. Consequently, direct, indirect, and cumulative impacts to Lake Pontchartrain would not differ from those described previously in the original IER 2.

Future Conditions with the Proposed Action

LPV 03a, 03c West Return Floodwall and LPV 13 – Recurve I-Wall Northwest of Kenner

The proposed action would have no additional direct, indirect or cumulative impacts to Lake Pontchartrain beyond what was discussed in IER 2.

3.2.2 Parish Line Canal

Future Conditions with No-Action

Under the no action alternative, the Government's action, as approved in IER 2 would be constructed. Consequently, direct, indirect, and cumulative impacts to Parish Line Canal would not differ from those described previously in the original IER 2.

Future Conditions with the Proposed Action

LPV 03a

Proposed Action (floodwall realignment near airport and pile driving for turn-around pads)

Direct Impacts

The proposed action would directly impact and permanently replace water and water bottom where the new floodwall alignment would cross the canal and where each pile for the turn-around pads would be driven. The T-wall would be placed in the open water of the canal, and the open water of the canal would be filled to allow for wave and stability berms. Approximately 3 acres of canal habitat would be impacted, permanently removing the existing habitat including water and water bottom (see Table 3). Each of the 9 turn-around pads would require driving 15 concrete piles, approximately 2ft in diameter, adjacent to the floodwall base slab on the flood side.

Additionally, slightly less than an acre of canal habitat (water and water bottom) that would have been impacted by the construction of the rock breakwater on geotextile fabric near I-10 approved in IER 2 would not be impacted as the breakwater is no longer required.

A total of 3 acres of canal habitat (water and water bottom) that would be lost was previously wetland habitat that was converted to canal from dredging activities for borrow. The habitat that would be impacted represents only a very small portion of similar habitat available within southeastern Louisiana.

Indirect Impacts

Potential indirect impacts to Parish Line Canal from the proposed action would primarily consist of effects from increased turbidity. However, construction-related runoff into the canal would be managed through best management practices when possible and impacts would be temporary, lasting from 2 to 2.5 years. Only a small area of the canal would be affected by the proposed action.

Cumulative Impacts

Potential cumulative impacts to the canal from the proposed action would involve the combined effects to the canal from the multiple LPV projects in the New Orleans area. However, several wetland restoration projects are proposed or recently approved that would positively impact the habitat within Lake Pontchartrain and its adjoining wetlands. Impacts from the proposed action

on the canal would be primarily short-term. Permanent impacts to the canal habitat represent only a small portion of similar habitat available in southeastern Louisiana.

LPV 03c West Return Floodwall and LPV 13 – Recurve I-Wall Northwest of Kenner
There would be no additional direct, indirect or cumulative impacts to these reaches associated with the proposed action.

Table 3. Water Bottom Impacts (acres)				
	Approved in IER 2		Additional Impacts Proposed in IERS 2	
Reach	Acres	AAHUs	Acres	AAHUs
LPV 03a	16.5	-5.4	3	N/A
LPV 03c			0	0
LPV 13	0	0	0	0
Total	16.5	-5.4	3	N/A
Cumulative Impacts IER 2 and IERS 2	19.5 acres of water bottom; -5.4 AAHUs			

3.2.3 Wetlands and Miscellaneous Drainageways/Canals

<u>Future Conditions with No-Action</u>
Under the no action alternative, the Government's action, as approved in IER 2 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 2.

<u>Future Conditions with the Proposed Action</u>

LPV 03a
Proposed Action (floodwall realignment near airport and pile driving for turn-around pads)

Direct Impacts

The proposed new alignment near the airport places the new T-wall centerline through wetland and canal habitat and a small drainage ditch that runs parallel to the airport taxiway. Wetlands, the Parish Line Canal and the small drainage ditch within the footprint of this proposed alternative would be impacted by construction of the T-wall and fill associated with the wave and stability berms. Approximately 16.5 acres of high quality wetland habitat, consisting primarily of marsh with some swamp, along with open water within Parish Line Canal and the small drainage ditch would be lost with construction of the proposed action (figure 6; table 4). Approximately 7 acres of the 16.5 acres of wetlands, open water and water bottom would be enclosed by the proposed action and all wetlands function for the area would be lost as the land in the area would be drained, filled, graded and would serve as a component of the project within Reach LPV 03a. Each of the 9 turn-around pads would require driving 15 concrete piles,

approximately 2ft in diameter, within the canal adjacent to the floodwall base slab on the flood side. The wetland loss due to the proposed action would be mitigated as discussed in section 7.0.

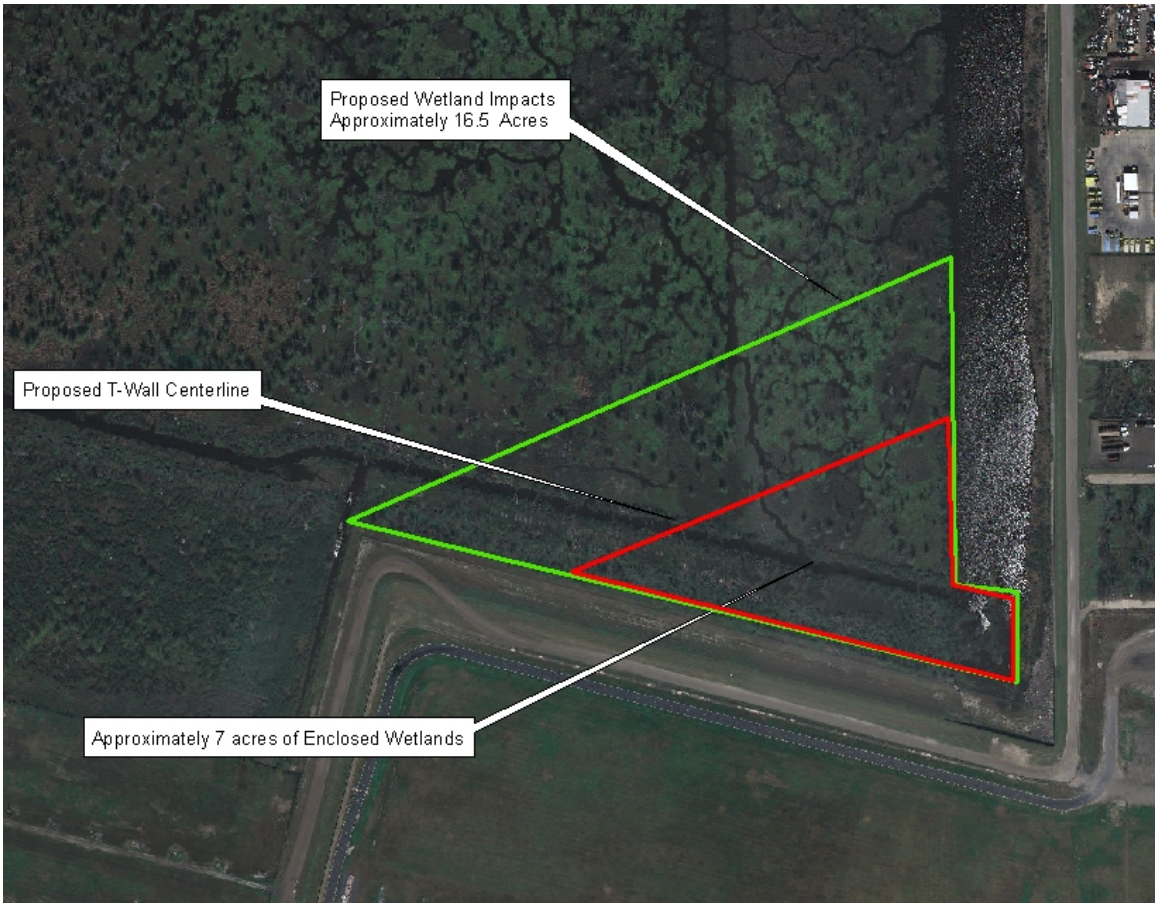


Figure 6. Proposed wetlands impacts near the Louis Armstrong International Airport

Indirect Impacts

Potential indirect impacts from the proposed action would primarily consist of construction-related effects from increased turbidity on the wetland areas surrounding the project area from the construction site runoff. The area affected would be small relative to the size of the adjacent wetlands. Construction-related runoff into the wetlands would be managed through best management practices where possible, and the effects from construction would be temporary, lasting from 2 to 2.5 years.

Cumulative Impacts

Potential cumulative impacts to the wetlands from the proposed action would involve the combined effects to wetlands from the multiple LPV projects in the New Orleans area. The amount of wetlands lost by construction of the proposed action is a small fraction of similar habitat available in southeastern Louisiana.

LPV 03c West Return Floodwall and LPV 13 – Recurve I-Wall Northwest of Kenner
There would be no additional direct, indirect or cumulative impacts to these reaches associated with the proposed action.

Table 4. Wetlands Impacts (acres)				
	Approved in IER 2		Additional Impacts Proposed in IERS 2	
Reach	Acres	AAHUs	Acres	AAHUs
LPV 03a	17	-9	16.5*	-13**
LPV 03c			0	0
LPV 13	0	0	0	0
Total	17	-9	16.5	-13**
Cumulative Impacts IER 2 and IERS 2	34 acres of marsh; -22 AAHUs			
* This value includes 2 acres of swamp and 14.5 acres of marsh habitat. ** This value includes 1.55 AAHUs of swamp and 11.45 AAHUs of marsh.				

3.2.4 Fisheries

Future Conditions with No-Action
Under the no action alternative, the Government's action, as approved in IER 2 would be constructed. Consequently, direct, indirect, and cumulative impacts to fisheries would not differ from those described previously in the original IER 2.

Future Conditions with the Proposed Action

LPV 03a
Proposed Action (floodwall realignment near airport and pile driving for turn-around pads)

Direct Impacts

Construction of the new floodwall along the new alignment (through wetlands, Parish Line Canal and a small drainage ditch) could potentially impact 3 acres of aquatic habitat (open water and water bottom) and would destroy the immobile and less-mobile species in the filled area. Approximately 16.5 acres of high quality wetland habitat would be impacted by the floodwall realignment near the airport for the proposed action. These wetlands are designated Essential Fish Habitat (EFH) and provide a significant amount of nursery/foraging/cover habitat for fish species. Most mobile species within the wetlands, canal and ditch would avoid the areas impacted by construction and could move from areas being permanently filled by the proposed action to adjacent wetland and canal habitat. Each of the 9 turn-around pads would require driving 15 concrete piles, approximately 2ft in diameter, within the canal adjacent to the floodwall base slab on the flood side. Impacts on less-mobile benthic populations, such as Rangia clams, from construction activities would be short-term, approximately 2 to 2.5 years in

duration, with turbidity effects potentially lasting up to several months after completion. The existing aquatic and wetland habitat destroyed under the proposed action would be replaced by mostly hard rock surfaces that could be suitable for colonization by periphyton and other sessile organisms. This new habitat could provide protective cover for various species of shellfish and finfish providing a more productive aquatic community. The area that would be disturbed for the proposed action is a small proportion of the similar aquatic habitat available in the vicinity (e.g., there is over 410,000 acres of water surface area available in Lake Pontchartrain). Once the proposed action is complete, sediment would settle, benthos would repopulate, and other mobile aquatic species would return.

Additionally, impacts to aquatic habitat near the I-10 will be reduced by approximately 1 acre, since the approved breakwater is no longer required for risk reduction and will not be constructed.

Indirect Impacts

Potential indirect impacts from the proposed action would primarily consist of effects from increased turbidity from terrestrial construction activities which could immediately reduce water quality in the project area and negatively impact fish. However, construction-related runoff into the canal would be managed through best management practices and would be reduced by the movement of the tides. Those impacts on fisheries, prey species, or their habitat would be short-term, approximately 2 to 2.5 years in duration, with turbidity effects potentially lasting up to several months after completion.

Cumulative Impacts

Potential cumulative impacts on fish habitat from the proposed action would involve the combined effects on suitable fish habitat in wetlands, canals, and lakes from the multiple LPV projects in the New Orleans area. However, several wetland restoration projects are proposed or recently approved that would positively impact the fish habitat of Lake Pontchartrain, the Parish Line Canal, and associated wetlands. The actions affecting aquatic habitat would be primarily short-term during the construction period. The project area would be modified very slightly in context of the size of Lake Pontchartrain and the magnitude of historical changes to the shoreline.

LPV 03c West Return Floodwall and LPV 13 – Recurve I-Wall Northwest of Kenner

There would be no additional direct, indirect or cumulative impacts to these reaches associated with the proposed action.

3.2.5 Essential Fish Habitat

Future Conditions with No-Action

Under the no action alternative, the Government's action, as approved in IER 2 would be constructed. Consequently, direct, indirect, and cumulative impacts to Essential Fish Habitat would not differ from those described previously in the original IER 2.

Future Conditions with the Proposed Action

LPV 03a
Proposed Action (floodwall realignment near airport and pile driving for turn-around pads)

Direct Impacts

Direct impacts to EFH from the proposed action at LPV 03a would be similar to those described for the fisheries resource in Section 3.2.4.

Construction of the new floodwall along the new alignment (through wetlands, the Parish Line Canal and a small drainage ditch) could potentially impact 3 acres of aquatic habitat (open water and water bottom) and would destroy the immobile and less-mobile species in the filled area. Approximately 16.5 acres of high quality wetland habitat would be impacted by the floodwall realignment near the airport for the proposed action. These wetlands are designated Essential Fish Habitat (EFH) and provide a significant amount of nursery/foraging/cover habitat for fish species. Each of the 9 turn-around pads would require driving 15 concrete piles, approximately 2ft in diameter, within the canal adjacent to the floodwall base slab on the flood side. Most mobile species within the wetlands, canal and ditch would avoid the areas impacted by construction and could move from areas being permanently filled by the proposed action to adjacent wetland and canal habitat. Impacts on less-mobile benthic populations, such as Rangia clams, from construction activities would be short-term, approximately 2 to 2.5 years in duration, with turbidity effects potentially lasting up to several months after completion. The existing aquatic and wetland habitat destroyed under the proposed action would be replaced by mostly hard rock surfaces that could be suitable for colonization by periphyton and other sessile organisms. This new habitat could provide protective cover for various species of shellfish and finfish providing a more productive aquatic community. The area that would be disturbed for the proposed action is a small proportion of the similar aquatic habitat available in vicinity (e.g., there is over 410,000 acres of water surface area available in Lake Pontchartrain). Once the proposed action is complete, sediment would settle, benthos would repopulate, and other mobile aquatic species would return.

Additionally, impacts to aquatic habitat near the I-10 will be reduced by approximately 1 acre, since the approved breakwater is no longer required for risk reduction and will not be constructed.

Indirect Impacts

Potential indirect impacts from the proposed action would primarily consist of effects from increased turbidity from terrestrial construction activities which could immediately reduce water quality in the project area and negatively impact fish. However, construction-related runoff into the canal would be managed through best management techniques and would be reduced by the movement of the tides. Those impacts on fisheries, prey species, or their habitat would be short-term, approximately 2 to 2.5 years in duration, with turbidity effects potentially lasting up to several months after completion.

Cumulative Impacts

Potential cumulative impacts from the proposed action would involve the combined effects on EFH in southeastern Louisiana from the multiple LPV projects. The actions affecting EFH would be primarily short-term during the construction period.

LPV 03c West Return Floodwall and LPV 13 – Recurve I-Wall Northwest of Kenner

There would be no additional direct, indirect or cumulative impacts to EFH in these reaches associated with the proposed action.

3.2.6 Wildlife

Future Conditions with No-Action

Under the no action alternative, the Government's action, as approved in IER 2 would be constructed. Consequently, direct, indirect, and cumulative impacts to wildlife would not differ from those described previously in the original IER 2.

Future Conditions with the Proposed Action

LPV 03a

Proposed Action (floodwall realignment near airport, pile driving for turn-around pads and stockpiling/staging area north of Vintage Drive)

Direct Impacts

The increase in the height and width of the floodwall and ROW under the proposed action would result in the loss of high quality wildlife habitat because of the location of the footprint of the new floodwall alignment near the airport. Approximately 16.5 acres of high quality wetland would be impacted by the realigned floodwall and associated stability berms. The realignment would also result in a loss of approximately 3 acres of open water and water bottom. Each of the 9 turn-around pads would require driving 15concrete piles, approximately 2ft in diameter, within the canal adjacent to the floodwall base slab on the flood side. Most species of birds and mammals would avoid the project area during construction of the floodwall under the proposed action. There are extensive wetland and shoreline habitats adjacent to the project area to which these species could relocate.

The breakwater approved in IER 2 to be constructed near the I-10 is no longer required for risk reduction and will not be constructed.

The greatest potential for effects on wildlife associated with the implementation of the proposed action would occur during the construction period (approximately 2.5 years). The presence of construction-related activity, machinery, and noise would be expected to cause most wildlife to avoid the area during the construction period. Although birds are highly mobile and able to move to other habitats in the vicinity, local populations of species that nest in colonies could be

adversely affected if construction activities caused abandonment of nesting sites. The reproductive capacity of local or regional populations of one or more species may depend on a given nesting colony, so disturbance of a colony could adversely effect these populations. In order to minimize the potential for construction under the proposed action to disturb colonial-nesting birds should they occur in the La Branche Wetlands near the proposed IERS 2 project area, procedures recommended by the USFWS would be followed. Prior to construction, the project area would be inspected by the USFWS staff or other qualified personnel for the presence of nesting colonies during the nesting season. Construction-related activities that would occur within 1,000 ft radius of a colony would be restricted to the non-nesting period, which in this region generally extends from 1 September to 15 February, depending on the species present. This 1,000-ft buffer would be maintained unless coordination with the USFWS indicates that the buffer zone may be reduced based on the species present and other specifics of the situation.

Bald eagles also have the potential to nest in the project vicinity. In order to minimize the possibility that construction activities under the proposed action could disturb nesting bald eagles, procedures recommended by the USFWS based on the National Bald Eagle Management Guidelines would be followed. The recommended guidelines include: (1) distance buffers – keeping a distance between the activity and the nest, (2) landscape buffers – maintaining forested (preferably) or natural areas between the activity and nest trees, and (3) avoiding certain activities during the breeding season. Prior to construction, the project area would be inspected by the USFWS or other qualified personnel for the presence of nest trees, including both active and alternate nests. Construction-related activities that would occur within 660 ft of a nest would be performed outside the bald eagle nesting season, which in this region generally extends from October 1 to May 15. This 660-ft buffer would be maintained unless coordination with USFWS indicates that the buffer zone may be reduced based on the specifics of the situation. Damage to nest trees would be avoided, including damage to their root systems through soil disturbance or compaction.

The above procedures for preventing disturbance of colonial-nesting birds and bald eagle nesting sites, should they become established in the area prior to construction, would minimize the potential for adverse impacts on these species from the proposed action.

As discussed in IER 2, some of the materials used in the construction would be shipped to the project area by barge on Lake Pontchartrain. Either staging/stockpile areas on land or flotation channels along the lakefront would be utilized to deliver and store the materials. No additional dredging would be required due to the proposed action.

The new potential staging/stockpile area described in this IER Supplemental is an open, grassy area, north of Vintage Drive, adjacent to the floodwall ROW on the protected side (see figure 5).

The greatest potential for effects on terrestrial wildlife associated with the stockpiling of materials would occur during the construction period (approximately 2 to 2.5 years). The presence of rock stockpiles and construction-related activity, machinery, and noise would cause wildlife to avoid the terrestrial habitat of the stockpile areas during construction. These effects on wildlife would be short-term and would not continue beyond the construction period. The potential direct, adverse impacts on terrestrial wildlife from the proposed action within LPV 03a

would be moderated by the ability of the predominant wildlife present (birds and mammals) to move to adjacent terrestrial habitats during construction. In addition, after having been temporarily avoided during construction, the terrestrial habitat could be utilized again after completion of construction. Direct impacts on aquatic wildlife from the proposed action would be moderated by the small area of shoreline and aquatic habitat that would be affected.

Indirect Impacts

Potential indirect impacts on wildlife from the proposed action for LPV 03a mainly would involve the displacement of wildlife populations from the project area. Movement of these species to adjacent, unimpacted habitats would not be expected to result in exceedances of the carrying capacity of the extensive, similar terrestrial and aquatic habitats in the vicinity. Thus, the populations and habitat areas affected would be relatively small and the adjacent, extensive habitats would have the capacity to support the immigrants.

Cumulative Impacts

Potential cumulative impacts on wildlife from the proposed action for LPV 03a would involve the combined effects of habitat loss and displacement of wildlife populations from the multiple LPV projects in the New Orleans area. The displacement of the majority of wildlife would be short-term during the construction period, and the displaced individuals would likely return following project completion. The terrestrial habitat that would be permanently affected is not a high-quality or unique habitat, but frequently mowed turf grass or small fragments of wetland. Wetland habitats similar to those being affected in the project area occur along constructed and/or armored shorelines along Lake Pontchartrain and the canals that drain to the lake. Turf grass habitat similar to that in the project area is found extensively in ROWs along levees and floodwalls, residential lawns, parks, and pastures.

Movement of the limited numbers of wildlife that currently inhabit the project area's terrestrial and aquatic habitats into surrounding, unimpacted habitats would not be expected to result in exceedances of the carrying capacity of the extensive, adjacent habitats. Thus, the potential cumulative impacts on wildlife from the proposed action for LPV 03a in conjunction with other projects in the region would affect relatively small populations and habitat areas, and the extensive habitats remaining in the region would have the capacity to accommodate those populations.

LPV 03c West Return Floodwall and LPV 13 – Recurve I-Wall Northwest of Kenner

There would be no additional direct, indirect or cumulative impacts to wildlife in these reaches associated with the proposed action.

3.2.7 Threatened or Endangered Species

Future Conditions with No-Action

Under the no action alternative, the Government's action, as approved in IER 2 would be constructed. Consequently, direct, indirect, and cumulative impacts to wetlands would not differ from those described previously in the original IER 2.

Future Conditions with the Proposed Action

There would be no additional impacts to the above mentioned T&E species associated with this proposed action beyond what was previously discussed and approved in the original IER 2.

4.0 CUMULATIVE IMPACTS

Aside from approved impacts disclosed in the IER 2, 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 remove the sharp angle from the HSDRRS alignment near the Louis Armstrong International Airport in Jefferson Parish, Louisiana; to widen the flood side base slab along the entire stretch of floodwall to create an inspection road; to convert pedestrian gates to vehicular gates and turn-arounds to accommodate flood side inspections; to construct certain floodwall reaches 20-25 ft flood side of the existing location versus the approved 35 ft shift flood side; and to remove a gate near the Recurve I-Wall. The proposed action discussed in this IER Supplemental was proposed because at the time of completion of the original IER 2 report, engineering evaluations had not been completed for all of the approved actions and alternatives. Since that time, final selection and engineering details (e.g., floodwall alignment near the airport) of the original approved action have been revised based on the final engineering reports. The proposed modifications to the Government-approved action in IER 2 were brought forward to ensure the most reliable, time and cost effective and least environmentally damaging alternative was implemented. In addition, for the southern segment of LPV 03a, 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 taxiways, 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 PDT to assist in the planning of this project and to complete a mitigation determination of the potential direct and indirect impacts of the proposed action. Monthly meetings with resource agencies were also held concerning this IER Supplemental and other IER projects.

The USFWS reviewed the proposed action in relation to the original IER 2 to see if the proposed action would affect any threatened or endangered species or their critical habitat. In a letter dated 5 May 2008, the USFWS concurred with the CEMVN that the actions approved in IER 2 would not have adverse impacts on threatened or endangered species. The USFWS also reviewed the IER 2 Supplemental proposed actions, and in a letter dated 20 August 2009, the USFWS concurred with the CEMVN that the proposed actions would not have adverse impacts on threatened or endangered species (Appendix C).

NMFS Protected Species division was sent the CEMVN's determination of the effects that the action approved in IER 2 would have on threatened and endangered (T&E) species on 16 April 2008 and on EFH on 2 May 2008. No T&E species under NMFS jurisdiction or their critical habitat would be adversely affected by construction of the action approved in IER 2. NMFS concurred with this conclusion in a letter on 5 June 2008. CEMVN reexamined the potential T&E impacts and reconfirmed the determination for the IERS 2 proposed action that no T&E species under NMFS jurisdiction or their critical habitat would be adversely affected by construction of the proposed action described in this IER Supplemental.

Additional impacts to EFH were coordinated with NMFS staff via teleconference on 20 July 2009. Permanent removal of EFH within the project area would be mitigated by the creation of higher quality fish habitat through the placement of the rock foreshore protection and through mitigation of wetland habitat.

The LaDNR reviewed the action approved in IER 2 for consistency with the Louisiana Coastal Resource Program (LCRP). The action approved in IER 2 was found to be consistent with the LCRP, as per a letter dated 23 May 2008. The LDNR then reviewed the IER 2 Supplemental proposed action for consistency with the LCRP, and the proposed action was found to be consistent with the LCRP, as per a letter dated 15 September 2009.

Section 106 of the National Historic Preservation Act (NHPA), as amended, requires consultation with the Louisiana SHPO 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 concurred with the CEMVN "no historic properties affected" finding in a letter dated 15 February 2008 and the Mississippi Band of Choctaw Indians, Tunic-Biloxi Tribe of

Louisiana, and the Choctaw Nation of Oklahoma concurred with the effect determination in an email dated 15 January 2008 and letters dated 9 January 2008 and 15 January 2008, respectively (See Appendix D within the original IER 2). No other Indian tribes responded to the requests for comment. No additional 106 consultation was required for this proposed action.

Coordination with the USFWS regarding the proposed action described in this IER Supplemental was initiated on 22 July 2009. A draft supplemental Fish and Wildlife Coordination Act Report (CAR) was provided by the USFWS on 9 September 2009. The draft CAR concluded that the USFWS does not object to the proposed modifications to IER 2 provided compensation for 22 AAHUs is achieved to replace the project-related loss. The Service believes that the impact analysis and recommendations (presented below and adjusted to reflect the modifications) provided in the July 2008, FWCA Report continue to remain valid. This report is discussed in more detail in the following section and a copy of the CAR is provided in Appendix C.

The USFWS' programmatic recommendations are available in IER 2 and hereby incorporated by reference.

The USFWS project-specific recommendations for the IERS 2 proposed action are listed below. Each recommendation is followed by the CEMVN response.

> Recommendation 1: The Corps and local sponsor shall provide 22 average annual habitat units (AAHUs) to compensate for the unavoidable, project-related loss of intermediate marsh. The Service, NMFS, LDWF, and LDNR should be consulted regarding the adequacy of any proposed alternative mitigation sites.
>
> CEMVN Response 1: Concur.
>
> Recommendation 2: The Service recommends that any impacts to marsh should be avoided or minimized to the greatest extent practicable.
>
> CEMVN Response 2: Concur.
>
> Recommendation 3: The Service recommends backfilling all access channels in Lake Pontchartrain after construction is complete. In order to have sufficient material to backfill the access channels and minimize turbidity in the lake, the Service also recommends the use of silt curtains.
>
> CEMVN Response 3: Concur that all access channels will be backfilled. Silt curtains will be used to contain material in the stockpile site if deemed effective and maintainable at the time of construction.
>
> Recommendation 4: Avoid adverse impacts to wading bird colonies through careful design project features and timing of construction. In addition, 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 4: Concur.

Recommendation 5: The Service shall be provided an opportunity to review and submit recommendations on the draft plans and specifications for all floodwalls, gates, associated berms and breakwater work addressed in this report.

CEMVN Response 5: Concur.

Recommendation 6: Any proposed change in breakwaters, floodwalls, or gate structure features, locations or plans shall be coordinated in advance with the Service, NMFS, LDWF, and LDNR.

CEMVN Response 6: Concur.

Recommendation 7: 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 7: Corps PPAs do not contain language mandating the availability of funds for specific project features, but require the non-Federal Sponsor to provide certification of sufficient funding for the entire project. Further, mitigation components are considered a feature of the entire project. The non-Federal Sponsor is responsible for OMRR&R of all project features in accordance with the OMRR&R manual that the Corps provides upon completion of the project

Recommendation 8: Coordination should continue with the Service and the NMFS on detailed contract specifications to avoid and minimize potential impacts to manatees, Gulf sturgeon, and bald eagles.

CEMVN Response 8: Concur.

Recommendation 9: 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.

CEMVN Response 9: Concur.

7.0 MITIGATION

Quantitative analysis utilizing existing methodologies for water resource planning has identified the acreages and habitat types affected by the direct or indirect impacts of implementing the proposed action. It is anticipated that approximately 19.5 acres of wetland, canal, and lake habitat could be permanently impacted.

Best management practices would be used to reduce sediment loading to the surface waters of Lake Pontchartrain, the Parish Line Canal, and wetland areas and could reduce effects on water quality and aquatic life, specifically EFH. Permanent removal of EFH would be mitigated by the creation of higher quality fish habitat through the placement of rock foreshore protection and through mitigation of wetland habitat.

A habitat evaluation was conducted by the USFWS using habitat assessment models developed by the state of Louisiana for all reaches evaluated in this IER Supplemental. The wetland value assessment (WVA) was conducted independently of this IER Supplemental to determine the changes in fish and wildlife habitat that would be projected to occur as a result of the proposed action. The WVA identifies the quality and quantity of available habitat for fish and wildlife species that utilize wetland communities under existing conditions, and it predicts the future suitability of the habitat for such species under conditions without the project (proposed action) and with the project.

The evaluation was performed for wetlands (brackish marsh and swamp) habitat within the project area. The USFWS identified approximately 16.5 acres of wetlands habitat that would be impacted due to the floodwall realignment near the airport. Of the 16.5 acres of wetlands, there are 14.5 acres of marsh and 2 acres of swamp. The results of the evaluation are expressed in habitat units (HUs), representing the acreage and quality of the habitat. HUs were derived by multiplying the number of acres of a particular habitat times the habitat suitability index (HSI) representing the quality of that habitat. The HSI is based on seven different variables that address both site-specific habitat quality features and how a site fits into the overall "landscape." HUs were calculated for the two scenarios (without project and with the project) from the current time to 50 years into the future, the assumed life of the proposed action.

The HUs were summed to determine the total number of HUs gained or lost without the project and as a result of the proposed action. These cumulative HU values were then divided by the life of the action (50 years) to determine the average annual habitat unit (AAHU) value. Finally, in order to obtain an estimate of the impact of the proposed action on the fish and wildlife habitat, the AAHU value for the future with the project was subtracted from the AAHU value for the future without the project. A positive AAHU indicates that the proposed action would result in an increase in the "value" of the wetland habitat, while a negative result indicates that the proposed action would result in a decrease in the wetland habitat "value."

The results of the WVA indicate that the impact on wetlands from the proposed action would decrease the wetland habitat value of emergent brackish marsh and swamp habitat in the project area. Brackish marsh habitat would have a net change in AAHUs of -11.45 if the proposed project were constructed. Swamp habitat would have a net change in AAHUs of -1.55 if the proposed project were constructed. Consequently, the total change in AAHUs for brackish marsh and swamp within the project area (including IER 2 and IERS 2 impacts) would be approximately 22 acres (-20.45 brackish marsh and -1.55 swamp). These AAHUs will be used to adequately mitigate the loss of these habitats due to permanent impacts within the project area. The draft USFWS Coordination Act Report for the IERS 2 project, which contains a discussion of the WVA, is included in Appendix C of this document.

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

These forthcoming mitigation IERs will implement compensatory mitigation as early as possible. All mitigation activities would be consistent with standards and policies established in the Clean Water Act Section 404 and the appropriate USACE policies and regulations governing this activity.

8.0 COMPLIANCE WITH ENVIRONMENTAL LAWS AND REGULATIONS

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

Environmental compliance for the proposed action will be achieved upon coordination of this IER Supplemental with appropriate agencies, organizations, and individuals for their review and comments; the USFWS confirmation that the proposed action would not be likely to adversely affect any endangered or threatened species; 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.

Agency / Organization	Date Responded
Endangered Species Act Section 7 concluded (USFWS):	Aug 20, 2009
Endangered Species Act Section 7 concluded (NMFS):	N/A - "No Effect"
Coastal Zone Management Consistency Determination:	Sept 15, 2009
Clean Water Act Section 401 Water Quality Certification:	Aug 6, 2009
USFWS Draft Coordination Act Report:	Sept 9, 2009
National Historic Preservation Act Sect. 106 (SHPO and/or ACHP):	Feb 15, 2009
Federal tribes with vested interests (that responded):	
Mississippi Band of Choctaw Indians	Jan 15, 2009
Tunic-Biloxi Tribe of Louisiana	Jan 9, 2009
Choctaw Nation of Oklahoma	Jan 15, 2009
MPRSA Section 103 Evaluation:	N/A
Clean Air Act:	June 26, 2008
Clean Water Act Section 404(b)(1) signed:	October 21, 2009
USFWS Final Coordination act Report:	Sept 9, 2009

9.0 CONCLUSIONS

9.1 FINAL DECISION

The proposed action for the LPV 03a and 03c West Return Floodwall and the LPV 13 Recurve I-Wall in Northwest Kenner was developed in order to remove the sharp angle from the system alignment near the Louis Armstrong International Airport in Jefferson Parish, Louisiana; to widen the flood side base slab along the entire stretch of floodwall to create an inspection road; to convert pedestrian gates to vehicular gates and turn-arounds to accommodate flood side inspections; to construct certain floodwall reaches 20-25 ft flood side of the existing location versus the approved 35 ft shift flood side; and to remove a gate near the Recurve I-Wall.

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

Lake Pontchartrain

- LPV 03a , 03c (Jefferson Parish Western Return Floodwall) and LPV 13 (Recurve I-Wall North of Kenner) – no additional impacts.

Parish Line Canal

- LPV 03a (Jefferson Parish Western Return Floodwall) – 3 acres of canal filled due to floodwall realignment; very minor impacts associated with additional pile driving for the 9 turn-around pads (15, approximately 2ft in diameter, concrete piles per turn-around pad)
- 03c and LPV 13 (Recurve I-Wall North of Kenner) – No additional impacts to the canal.

Wetlands

- LPV 03a – Approximately 16.5 acres of wetland habitat would be lost due to the system realignment near the airport (to be mitigated with 11.45 AAHUs of marsh habitat and 1.55 AAHUs of swamp habitat).
- LPV 03c and 13 – No habitat loss.

Fisheries

- LPV 03a (Jefferson Parish Western Return Floodwall) – Approximately 16.5 acres of wetlands habitat designated as EFH would be lost due to the system realignment near the airport (to be mitigated with 11.45 AAHUs of marsh habitat and 1.55 AAHUs of swamp habitat); 3 acres of canal open water and water bottom filled due to floodwall realignment; very minor impacts associated with additional pile driving for the 9 turn-around pads (15 concrete piles, approximately 2ft in diameter, per turn-around pad)
- LVP 03c and LPV 13 – no additional impacts.

EFH

- LPV 03a (Jefferson Parish Western Return Floodwall) – Approximately 16.5 acres of wetlands habitat designated as EFH would be lost due to the system realignment near the airport (to be mitigated with 11.45 AAHUs of marsh habitat and 1.55 AAHUs of swamp habitat); 3 acres of canal open water and water bottom filled due to floodwall realignment; very minor impacts associated with additional pile driving for the 9 turn-around pads (15 concrete piles, approximately 2ft in diameter, per turn-around pad)
- LPV 03c and 13 – No habitat loss.

Wildlife

- LPV 03a (Jefferson Parish Western Return Floodwall) – Approximately 16.5 acres of wetlands habitat designated as EFH would be lost due to the system realignment near the airport (to be mitigated with 11.45 AAHUs of marsh habitat and 1.55 AAHUs of swamp habitat); 3 acres of canal open water and water bottom filled due to floodwall realignment; very minor impacts associated with additional pile driving for the 9 turn-around pads (15 concrete piles, approximately 2ft in diameter, per turn-around pad); temporary impacts associated with the new staging area north of Vintage Drive.
- LVP 03c and LPV 13 – no additional impacts. Most species of birds and mammals would avoid the project area during construction of the floodwall under the proposed action. There are extensive wetland and shoreline habitats adjacent to the project area to which these species could relocate.

Endangered or Threatened Species

- LPV 03a and 03c and LPV 13 – No adverse impacts to T&E species due to the proposed action..

Cultural Resources

- LPV 03a and 03c and LPV 13 – no additional impacts.

Recreation

- LPV 03a and 03c and LPV 13 – no additional impacts.

Aesthetic (Visual) Resources

- LPV 03a and 03c and LPV 13 – no additional impacts.

Air Quality

- LPV 03a and 03c and LPV 13 – no additional impacts.

Noise

- LPV 03a and 03c and LPV 13 – no additional impacts.

Transportation

- LPV 03a and 03c and LPV 13 – no additional impacts.

Socioeconomic Resources

- LPV 03a and 03c and LPV 13 – no additional impacts.

Environmental Justice

- LPV 03a and 03c and LPV 13 – no additional impacts.

9.2 PREPARED BY

The point of contact for this IER 2 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	
IER Section	**Team Member**
Environmental Team Leader	Gib Owen, USACE
Environmental 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 ABBREVIATIONS AND ACRONYMS

$\mu g/m^3$	micrograms per cubic meter
AAHU	average annual habitat unit
ADT	average daily traffic
ASTM	American Society for Testing and Materials
°C	degree Celsius
CAA	Clean Air Act
CAR	Coordination Act Report
CED	Comprehensive Environmental Document
CEMVN	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
DDT	dichloro-diphenyl-trichloroethane
DNL	day-night average sound level
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EJ	Environmental Justice
ER	Engineering Regulation
ESA	Endangered Species Act
ESRI	Environmental Systems Research Institute
°F	degree Fahrenheit
ft	feet
FEMA	Federal Emergency Management Agency
FHWA	Federal Highway Administration
FMC	Fishery Management Council
FMP	Fishery Management Plan
FONSI	Finding of No Significant Impact
GMFMC	Gulf of Mexico Fishery Management Council
GNOHSDRRS	Greater New Orleans Hurricane and Storm Damage Risk Reduction System
HPS	Hurricane Protection System
HSI	habitat suitability index
HTRW	hazardous, toxic, and radioactive waste
HU	habitat unit
I-10	Interstate 10
I-310	Interstate 310
IER	Individual Environmental Report

IHNC	Inner Harbor Navigation Canal
III	Insurance Information Institute
IPCC	Intergovernmental Panel on Climate Change
LADOTD	Louisiana Department of Transportation and Development
LCRP	Louisiana Coastal Resource Program
LCWCRTF	Louisiana Coastal Wetlands Conservation and Restoration Task Force
LaDEQ	Louisiana Department of Environmental Quality
LaDNR	Louisiana Department of Natural Resources
LaDOL	Louisiana Department of Labor
Lft	linear feet
LNHP	Louisiana Natural Heritage Program
LaDWF	Louisiana Department of Wildlife and Fisheries
LOS	level of service
LPV	Lake Pontchartrain and Vicinity
Mi^2	square mile
mph	miles per hour
MRGO	Mississippi River Gulf Outlet
MSA	Magnuson-Stevens Fishery Conservation and Management Act
NAAQS	National Ambient Air Quality Standard
NAVD88	North American Vertical Datum of 1988
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NHTSA	National Highway Traffic and Safety Administration
NMFS	National Marine Fisheries Service
NRC	National Research Council
NRCS	Natural Resources Conservation Service
NO_2	nitrogen dioxide
NOAA	National Oceanic and Atmospheric Administration
NWUS	Navigable Waters of the United States
O_3	ozone
OMRR&R	Operation, Maintenance, Repair, Replacement and Rehabilitation
PA	Programmatic Agreement
Pb	lead
PDT	Project Delivery Team
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
SAV	submerged aquatic vegetation
SHPO	State Historic Preservation Officer
SIR	Supplemental Information Report

SO_2	sulfur dioxide
sq ft	square feet
STWAVE	steady-state spectral wave
T&E	threatened and endangered
TRB	Transportation Research Board
U.S.	United States
U.S.C.	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
vlf	volume per linear foot
vpd	vehicles per day
WCRA	Wetlands Conservation and Restoration Authority
WRDA	Water Resources Development Act
WVA	wetland value assessment

APPENDIX B

PUBLIC COMMENTS

- Coastal Environments, Incorporated

Coastal Environments , Incorporated

Services:

Applied Science & Planning

Environmental Restoration & Monitoring

Cultural Resources Management

Geographic Information Systems

Litigation Support

Website:

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Ph/F (985) 845-2879
mgagliano@coastalenv.com

October 15, 2009

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, West Return Floodwall, Jefferson and St. Charles Parishes, LA, IERS 2

Dear Mr. Owen:

On behalf of St. Charles Land Syndicate (SCLS), landowner in the LaBranche Wetlands of St. Charles Parish whose property will be directly impacted by the IER2 project, Coastal Environments, Inc. respectfully submits the following comments regarding the aforementioned project.

While it remains unclear how much wetland habitat will be directly impacted in LaBranche (e.g., differing acreage values as provided in IERS 2 document and Appendix C, USFWS correspondence) as the result of the proposed work, SCLS steadfastly requests that all compensatory wetland mitigation obligations be fulfilled in LaBranche.

Thank you for the opportunity to make these comments.

Sincerely yours,

Ed Fike
Project Scientist

xc: SCLS

APPENDIX C
INTERAGENCY CORRESPONDENCE

- USFWS Threatened and Endangered Species Concurrence
- LDEQ Water Quality Certification
- USFWS Fish and Wildlife Coordination Act Report
- LDNR LCRP Consistency Determination
- NMFS Response Letter
- NRCS Response Letter
- Alabama-Coushatta Tribe of Texas Response Letter

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

July 22, 2009

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

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

20 L 09
Acting Supervisor
Louisiana Field Office
U.S. Fish and Wildlife Service
Date

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

Dear Mr. Boggs:

The CEMVN has proposed modifications to the Government's approved action within the Individual Environmental Report (IER) 2, West Return Floodwall Jefferson and St. Charles Parishes, Louisiana. Associated with the IER 2 project, the CEMVN received from the US Fish and Wildlife Service a letter dated August 6, 2007 stating in accordance with the provisions of the Endangered Species Act and the Migratory Bird Treaty Act of 1918 (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.) only the West Indian manatee was identified as a federally listed species that could occur within the IER 2 project area and potentially be affected by the project. In addition, in a letter dated June 5, 2008, the NMFS identified the threatened Gulf sturgeon (*Acipenser oxyrinchus desotoi*), the endangered Kemp's ridley sea turtle (*Lepidochelys kempii*), the threatened loggerhead sea turtle (*Caretta caretta*), and the threatened green sea turtle (*Chelonia mydas*) as federally listed endangered and threatened species under NMFS jurisdiction that may occur at the project site and potentially be affected by the project. Due to the proposed modifications to the Government's approved action, a modified project description, location map, and determination of the effect the proposed action modifications would have on Threatened and Endangered (T&E) species within the IER 2 project area are enclosed for your review and comment. It is the CEMVN determination that impacts from the proposed action would have no effect on T&E species within the IER 2 project area. The proposed modifications for the project will be addressed within IER Supplemental (IERS) 2, West Return Floodwall, Jefferson and St. Charles Parishes, Louisiana. The IERS 2 will be completed in the next few weeks and will be forwarded to you upon completion.

Project description

The proposed action is located on the border of consists of the following features (Figure 1):

- LPV 03a and 03c West Return Floodwall

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL # of pages ▸ 1

To Gib Owen	From David Walther
Dept./Agency	Phone #
Fax #	Fax #

NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

BOBBY JINDAL
GOVERNOR

HAROLD LEGGETT, PH.D.
SECRETARY

State of Louisiana

DEPARTMENT OF ENVIRONMENTAL QUALITY
ENVIRONMENTAL SERVICES

AUG 0 6 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 080430-01/AI 157567/CER 20090001)
Corps of Engineers Individual Environmental Report (IER #2)
Jefferson & St. Charles Parishes

Dear Mr. Owen:

The Department has reviewed your revised application to construct the West Return Floodwall Levee between Jefferson & St. Charles Parishes. This revision concerns realignment of a portion of the T-wall levee near the Louis Armstrong International Airport, the realignment and use of T-wall levee for reach LPV 13, construction of an access road, vehicular gates and turn-arounds and the inclusion of a new staging area.

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,

Melvin C. Mitchell, Sr.
Administrator
Water Permits Division

MCM/jjp

Post Office Box 4313 • Baton Rouge, Louisiana 70821-4313 • Phone 225-219-3181 • Fax 225-219-3309
www.deq.louisiana.gov

United States Department of the Interior

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

September 9, 2009

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

Dear Colonel Lee:

Please reference the "Individual Environmental Report (IER) Lake Pontchartrain and Vicinity (LPV) West Return Floodwall, Jefferson and St. Charles Parishes, Louisiana" (IER 2). 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 IER 2 project. The U.S. Fish and Wildlife Service (Service) provided recommendations on the previously proposed IER 2 project to the Corps in our July 8, 2008, Fish and Wildlife Coordination Act Report. This letter supplements that report and is submitted in accordance with provisions of the Fish and Wildlife Coordination Act (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 (available at: http://www.fws.gov/filedownloads/ftp_gis/R4/Louisiana_ES/Walther/IER%202/). For brevity, that information and discussion is incorporated by reference herein. Modifications to the approved action in IER 2 were proposed in order to incorporate a flood side inspection road with vehicular access and turn-around points, a gate removal, and the removal of a sharp turn in the levee alignment near the Louis Armstrong International Airport in Jefferson Parish, Louisiana.

IER 2 project impacts prior to the modification would impact approximately 17 acres of marsh and -9 average annual habitat units (AAHU). As a result of the modifications an additional 14.5 acres of marsh and an additional 2 acres of swamp for a total of 34 acres of wetlands and -22 AAHUs would be impacted.

The Service does not object to the proposed modifications to IER 2 provided compensation for 22 AAHUs is achieved to replace the project-related loss. The Service believes that the impact

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analysis and recommendations (presented below and adjusted to reflect the modifications) provided in our July 2008, FWCA Report continue to remain valid.

1. The Corps and local sponsor shall provide 22 AAHUs to compensate for the unavoidable, project-related loss of intermediate marsh. The Service, National Marine Fisheries Service (NMFS), LDWF, and Louisiana Department of Natural Resources (LDNR) should be consulted regarding the adequacy of any proposed alternative mitigation sites.

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

3. The Service recommends backfilling all access channels in Lake Pontchartrain after construction is complete. In order to have sufficient material to backfill the access channels and minimize turbidity in the lake, the Service also recommends the use of silt curtains.

4. Avoid adverse impacts to wading bird colonies through careful design project features and timing of construction. In addition, the Service recommends that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season.

5. The Service shall be provided an opportunity to review and submit recommendations on the draft plans and specifications for all floodwalls, gates, associated berms and breakwater work addressed in this report.

6. Any proposed change in breakwaters, floodwalls, or gate structure features, locations or plans shall be coordinated in advance with the Service, NMFS, LDWF, and LDNR.

7. 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.

8. Coordination should continue with the Service and NMFS on detailed contract specifications to avoid and minimize potential impacts to manatees, Gulf sturgeon, and bald eagles.

9. 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.

We appreciate the opportunity to provide comments in the planning stages of the proposed project. If you or your staff have further questions, or would like to meet and discuss our recommendations, please contact Catherine Breaux of this office at (504) 862-2689.

Sincerely,

James F. Boggs
Supervisor
Louisiana Field Office

cc: Environmental Protection Agency, Dallas, TX
National Marine Fisheries Service, Baton Rouge, LA
Natural Resources Conservation Service, Alexandria, LA
LA Dept. of Wildlife and Fisheries, Baton Rouge, LA
LA Dept. of Natural Resources (CRD & CMD), Baton Rouge, LA

BOBBY JINDAL
GOVERNOR

SCOTT A. ANGELLE
SECRETARY

State of Louisiana

DEPARTMENT OF NATURAL RESOURCES

OFFICE OF COASTAL RESTORATION AND MANAGEMENT

September 15, 2009

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

RE: **C20080223 (mod1)** Coastal Zone Consistency Modification
COE-NOD
Direct Federal Action
IER 2: West Return Floodwall, Lake Pontchartrain and Vicinity Hurricane Storm Damage Risk Reduction System, **Jefferson Parish, Louisiana**

Dear Ms. Exnicios:

The above referenced 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 modification, as proposed in the application, is consistent with the LCRP.

If you have any questions concerning this determination, please contact Carol Crapanzano of the Consistency Section at (225) 342-9425 or 1-800-267-4019.

Sincerely yours,

Gregory J. DuCote
Administrator
Interagency Affairs/Field Services Division

GJD/JDH/cmc

cc: Gib Owen, COE-NOD
Dave Butler, LDWF
Jason Smith, Jefferson Parish
Frank Cole, IA/FSD FI

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

September 23, 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) Supplemental #2** transmitted by letter from Ms. Elizabeth Wiggins dated September 18, 2009. The draft IERS evaluates and quantifies the impacts associated with providing 100-year level of hurricane protection to the section of floodwall adjacent to Parish Line Canal and the recurve I wall in Kenner, Louisiana.

Based on our review of the document, project related impacts to wetlands, essential fish habitat (EFH), and marine fishery resources have increased over that disclosed in a previous IER primarily due to proposed changes in the alignment of T-walls in the vicinity of the Louis Armstrong International Airport. The previously approved alignment with sharp turns created a number of logistical problems that would be alleviated by the proposed alignment.

NMFS staff have reviewed the proposed project revisions and understand the need for the increased level of impact to resources of concern. In addition, NMFS has reviewed the IER Supplemental #2 document and finds it adequately describes and quantifies impacts to resources of concern. As is s stated in the IER Supplemental document, all unavoidable impacts to wetlands and EFH would be mitigated. The actual identification and evaluation of mitigation activities to offset impacts related to this hurricane protection effort would be undertaken in a separate IER which will be provided to NMFS for our review.

Given the documented need for the increased level of impact, the adequacy of the document in describing and quantifying impacts, and the expectation those impacts to resources of concern would be compensated through the implementation of appropriate mitigation, NMFS has no comments to provide on the draft IER Supplemental #2 document.

Sincerely,

for Miles M. Croom
Assistant Regional Administrator
Habitat Conservation Division

United States Department of Agriculture

NRCS

Natural Resources Conservation Service
3737 Government Street
Alexandria, LA 71302

(318) 473-7795
Fax: (318) 473-7750

October 9, 2009

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

Dear Mr. Owen:

RE: **IER # 2 SUPPLEMENTAL**
LAKE PONCHARTRAIN & VICINITY
WEST RETURN FLOODWALL
JEFFERSON & ST. CHARLES PARISHES, LOUISIANA

In response to your request for NRCS review of the referenced project site location to identify natural resource constraints, if any, that may impact design and permitting, I have reviewed the Farmland and Hydric Soil Classifications.

Farmland Classification

The Farmland Protection Policy Act (FPPA)-Subtitle I of Title XV, Section 1539-1549 of PL 97-98, final rules and regulations were published in the Federal Register on June 17, 1994. These rules state that projects are subject to FPPA requirements if they may irreversibly convert farmland (directly or indirectly) to nonagricultural use and are completed by a federal agency or with assistance from a federal agency. For the purpose of FPPA, farmland includes prime farmland, unique farmland, and land of statewide or local importance. Farmland subject to FPPA requirements does not have to be currently used for cropland. It can be forestland, pastureland, cropland, or other land, but not water or urban built-up land.

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

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

A portion of the soils on the proposed project site are Prime Farmland, however, since the project area is within the city limits of New Orleans, it is considered an urban area and is "built-up", thus there will be no impact to prime farmland and it appears the project will not impact any NRCS work in the immediate area. Also, this project will not impact any farmland protection efforts in the area.

Furthermore, NRCS does not believe that the proposed project will impact any NRCS work in the vicinity. However, NRCS does recommend that appropriate erosion control measures are employed during the construction of the project to minimize any adverse effect on the surrounding environment.

Should you have any questions regarding the above comments, feel free to contact Mike Trusclair, District Conservationist, in our Boutte Field Office at (985) 758-2162, Ext. 3.

Sincerely,

E.J. "Ed" Giering III, P.E.
State Conservation Engineer

cc: Mike Trusclair, District Conservationist, NRCS, Boutte, Louisiana

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

October 16, 2009

Gib Owen
New Orleans District, Corps of Engineers
Attn: CEMVN-PM-RP
P.O. Box 60267
New Orleans, LA 70160-0267

Dear Mr. Owen:

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 Individual Environmental Report Supplemental (IERS) 2.

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

Upon review of the September 18, 2009 submission, we have no objections to the IERS. No known impacts to religious, cultural, or historical assets of the Alabama-Coushatta Tribe of Texas should occur in conjunction with this activity. However, in the event of inadvertent discovery of human remains and/or archaeological artifacts, activity in proximity to the location must cease and appropriate authorities, including this office, notified without delay.

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