

MEMORANDUM FOR THE RECORD

SUBJECT: Public Meeting Regarding Investigations and Planned Data Recovery at Historic Property 16PL245 for the New Orleans to Venice (NOV-09) Levee Construction Project.

- 1. A public meeting was held on October 30, 2017 regarding archaeological site 16PL245, the adverse effect to the cultural site resulting from the construction of NOV-09 levee reach, and proposed data recovery excavations to mitigate for adverse effects. Approximately 15-20 residents from the community of Diamond attended the meeting. The community members in attendance seemed interested in the cultural information provided and comments and questions included:
 - a. Where will artifacts that are collected be stored once the excavation is complete? USACE response: Artifacts will be cleaned, boxed and stored at the Louisiana Division of Archaeology curation facility. If a landowner is interested in the artifacts, then the individual landowner can request that the artifacts be returned to them upon completion of any required analysis.
 - Will the final report of findings be available to the public?
 USACE response: The final report will be available to the public upon request.
 - c. Will landowners be able to see where digging occurred when work is complete? USACE response: Our contractor fills any excavated areas in with dirt and sod that was removed during excavation, and does their best to return the area to original condition. Excavated areas may still be noticeable due to slight mounding or depressions once back filled.
 - d. Can local residents volunteer to help with excavation work? USACE response: The consultant doing the work can accept volunteers to perform some tasks associated with the data recovery excavation, and potential volunteers would need to communicate an interest to the USACE consultant.
- 2. POC is Dr. Paul Hughbanks at (504) 862-1100 or email paul.j.hugbanks@usace.army.mil.

Eric M. Williams

Chief, Natural and Cultural Resources Analysis Section



Preserving America's Heritage

November 29, 2017

Eric M. Williams Chief Natural/Cultural Resources Analysis Section RPEDS Corps of Engineers New Orleans District 7400 Leake Avenue New Orleans, LA 70118

Ref: Proposed Improvements to the New Orleans to Venice (NOV) Levee System

Plaquemines Parish, Louisiana

Dear Mr. Williams:

The Advisory Council on Historic Preservation (ACHP) has received your notification and supporting documentation regarding the adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Based upon the information provided, we have concluded that Appendix A, Criteria for Council Involvement in Reviewing Individual Section 106 Cases, of our regulations, "Protection of Historic Properties" (36 CFR Part 800), does not apply to this undertaking. Accordingly, we do not believe that our participation in the consultation to resolve adverse effects is needed. However, if we receive a request for participation from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer (THPO), affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Additionally, should circumstances change, and it is determined that our participation is needed to conclude the consultation process, please notify us.

Pursuant to 36 CFR §800.6(b)(1)(iv), you will need to file the final Memorandum of Agreement (MOA), developed in consultation with the Louisiana State Historic Preservation Office (SHPO), and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the MOA, and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with the notification of adverse effect. If you have any questions or require further assistance, please contact Mr. Christopher Daniel at 202-517-0223 or via e-mail at cdaniel@achp.gov.

Sincerely,

Artisha Thompson

Historic Preservation Technician Office of Federal Agency Programs



BILLY NUNGESSER LIEUTENANT GOVERNOR

State of Conisiana

OFFICE OF THE LIEUTENANT GOVERNOR
DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF CULTURAL DEVELOPMENT
DIVISION OF ARCHAEOLOGY

RENNIE S. BURAS, II DEPUTY SECRETARY

29 November 2017

Eric M. Williams Chief, Natural/Cultural Resources Analysis Section RPEDS, New Orleans District 7400 Leake Ave New Orleans, LA 70118

RE: 16PL245

Dear Mr. Williams:

With regards to the portion of site 16PL245 the lies within the proposed right-of-way for the NOV-09 levee construction project, the State Historic Preservation Office (SHPO) concurs that the undisturbed portion of the site within the right-of-way is eligible for listing on the National Register of Historic Places under criteria D and possibly A. We also concur that a Memorandum of Agreement (MOA) must be developed to address adverse effects, if the proposed levee construction cannot avoid or minimize impacts to the eligible portion of site 16PL245.

In accordance with 36 CFR 800.1(c) Timing, the SHPO agrees that authorizing nondestructive project planning activities within the area of site 16PL245 is acceptable prior to completion of the MOA provided that any authorized activities do not impact the site nor restrict the proposed mitigation of the undertaking's adverse effects on the portion of the site within the proposed right-of-way. As such, we concur that the designation of the area of right-of-way containing the site as a "no work zone" with a 50 foot buffer is an acceptable method of temporary avoidance to allow the NOV-09 project to move forward. We look forward to continuing work with New Orleans District cultural resources staff on the development of the MOA.

If you have any questions, please contact Chip McGimsey at cmcgimsey@crt.la.gov or 225-219-4598.

Sincerely,

Kristin Sanders

Katin P. Sanders

Deputy State Historic Preservation Officer



DEPARTMENT OF THE ARMY CORPS OF ENGINEERS, NEW ORLEANS DISTRICT

7400 LEAKE AVENUE NEW ORLEANS, LOUISIANA 70118

NOV 2 1 2017

Regional Planning and Environment Division, South

Mr. Reid Nelson Office of Federal Agency Programs Advisory Council on Historic Preservation 401 F Street NW, Suite 308 Washington, DC 20001-2637

Dear Mr. Nelson:

The U.S. Army Corps of Engineers, New Orleans District (CEMVN) is proposing to improve the existing New Orleans to Venice (NOV) levee system within Plaquemines Parish. This work has been planned in segments, and some of the levee segments have been completed. The NOV levee system is necessary to reduce the risks from flooding and storms within Plaquemines Parish. The footprint of all improvements, to all of the segments, of the NOV levee system has been and is being coordinated for Section 106 compliance with SHPO and Tribes.

During the review and coordination process for segment NOV-09, it was determined that historic site 16PL245 had not received a National Register of Historic Places (NRHP) eligibility recommendation, and it was not known if any NRHP eligible components of the site existed. Background research indicates that Diamond, Louisiana represents a largely African American community with historical roots extending back at least to Reconstruction, ca. 1880-1900. The community has also been known as City Price, Louisiana, in reference to a local grocery store from the mid-twentieth century that advertised "city prices" for goods sold in that rural location. The community of Diamond was a stop along the New Orleans to Fort Jackson and Grand Isle Railroad, and remnants of the former railroad berm of that line are preserved in the vicinity.

In 2017, the CEMVN issued a task order to R. Christopher Goodwin and Associates, Inc., to conduct Phase II eligibility testing within the area of overlap between the right-of-way (ROW) for NOV-09 and known site boundaries for historic property 16PL245. The testing indicated that most of the area of overlap had been previously disturbed, but that a small area remained intact and was recommended eligible for listing to the NRHP under Criteria A and D. The results and conclusions were presented in a management summary, transmitted to the Louisiana State Historic Preservation Officer (SHPO) on October 6, 2017. In a letter dated October 12, 2017, the SHPO agreed with the conclusions and recommendations of eligibility the portion of the historic property that remained intact. An aerial photograph from the management summary, showing site boundaries of 16PL245, proposed CEMVN right-of-way (ROW), Phase II test units, and proposed area of NRHP eligibility, is enclosed with this letter for your reference.

CEMVN proposes to construct a levee berm that would overlap the portion of historic property 16PL245 that has been determined eligible for listing to the NRHP. Construction of the berm is necessary for the stability of this portion of the NOV-09 levee and the storm and flood protection that the levee system provides to local communities and residents. The undertaking as proposed would adversely affect or make inaccessible, the portions of historic property 16PL245

that are eligible for listing to the NRHP. Alternatives to avoid or minimize impacts to the historic property have been examined, and are not deemed possible while still delivering the required hurricane and storm damage risk protection to local residents and property. Improvements to this portion of the NOV-09 levee segment, will result in an adverse effect to historic property 16PL245. In their response letter of October 12, 2017 (enclosed), the SHPO proposed that a Memorandum of Agreement (MOA) be developed to address adverse effects to historic property 16PL245. In an email dated November 7, 2017 (enclosed), the State Archeologist concurred with the establishment of a "no work zone" with a 50 foot buffer around the historic property while continuing to develop an MOA to address the adverse effect.

A Public Meeting was held on October 30, 2017 with local residents that included descendants of original residents of the Community of Diamond. This meeting presented the findings of the Phase II eligibility testing at historic site 16PL245, and also presented the initial proposal that data recovery excavations would occur. Local residents indicated an interest in the potential findings of past cultural activity in their neighborhood, but also expressed concern with completion of the levee segment that would provide needed storm and flood protection for the residents, their families, and their property.

In consultation with the SHPO, the CEMVN proposes to develop an MOA for this undertaking to mitigate for adverse effects to historic Site 16PL245. Pursuant to 36 CFR 800.6(a)(1), the CEMVN is notifying the Advisory Council on Historic Preservation (Council) of the adverse effect and our intention to develop an MOA in consultation with the SHPO. The CEMVN invites the Council to participate in this consultation and the development of the MOA, if the Council determines that their participation is necessary.

If you have any questions or require additional information regarding this undertaking, please contact Eric M. Williams at 504-862-2862, or by email at eric.m.williams@usace.army.mil; or you can contact Staff Archeologist, Paul Hughbanks, at 504-862-1100 or by email at paul.j.hughbanks@usace.army.mil.

Sincerely,

MARSHALL K. HARPER

Chief, Environmental Planning Branch

Markell K. Hayre

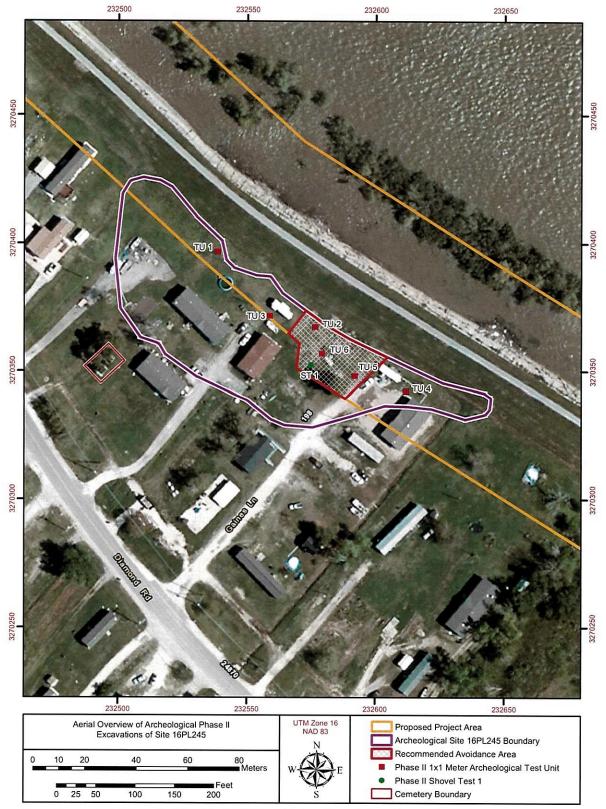


Figure 9 Aerial image depicting Site 16PL245 and the locations of Phase II excavation units.



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DEPARTMENT OF CULTURE, RECREATION & TOURISM
OFFICE OF CULTURAL DEVELOPMENT
DIVISION OF ARCHAEOLOGY

BILL CODY DEPUTY SECRETARY

October 12, 2017

Dr. Paul Hughbanks New Orleans District Archaeologist, Natural/Cultural Resources Analysis RPEDS

Re: LDOA Report # 22-5752

Management Summary: Phase II National Register Testing and Evaluation of Site 16PL245 (Diamond, Louisiana) for the New Orleans to Venice Levee, NOV-9 Improvement Project, Plaquemine Parish, Louisiana R. Cristopher Goodwin, Inc

Dear Dr. Hughbanks:

This is in response to the management summary received October 6, 2017. We concur with the contractor's recommendation that a portion of 16PL245 (see attached map) within the Area of Potential Effects (APE) is eligible for listing on the National Register of Historic Places under criteria D and possibly A. We will need to develop a Memorandum of Agreement, if the proposed levee construction cannot avoid or minimize impacts to the eligible portion of 16PL245.

Furthermore, we concur that the remaining portion of 16PL245 within the APE is not eligible. Please send two copies of the draft report for our review. If you have any questions, please contact Rachel Watson in the Division of Archaeology at (225) 342-8165.

Sincerely,

Kristin Sanders

Deputy State Historic Preservation Officer

Katen P. Sanders

c: Nathanael Heller

Williams, Eric M CIV USARMY CEMVN (US)

From: Chip McGimsey <cmcgimsey@crt.la.gov>

Sent: Tuesday, November 7, 2017 1:30 PM

To: Hughbanks, Paul J CIV USARMY CEMVN (US)

Cc: Williams, Eric M CIV USARMY CEMVN (US); Rachel Watson

Subject: [EXTERNAL] RE: 16PL245 No Work Area, NOV-09, EA #543 (UNCLASSIFIED)

Paul and Eric,

The State Historic Preservation Office concurs with the summary of actions concerning 16PL245 as written below. We are comfortable with the proposed framework for moving forward with the MOA and the Corp's efforts to proceed expeditiously with the construction project. We agree that establishment of the 'no-work' zone, including 50 foot buffers within the project ROW, is an appropriate step to enable the project to move forward. We look forward to working with you on development of the MOA.

Chip McGimsey State Archaeologist Division of Archaeology 1051 N 3rd St. PO Box 44247 Baton Rouge, LA 70804 225-219-4598

----Original Message----

From: Hughbanks, Paul J CIV USARMY CEMVN (US) [mailto:Paul.J.Hughbanks@usace.army.mil]

Sent: Tuesday, November 07, 2017 11:09 AM To: Chip McGimsey <cmcgimsey@crt.la.gov>

Cc: Williams, Eric M CIV USARMY CEMVN (US) < Eric.M. Williams@usace.army.mil>

Subject: 16PL245 No Work Area, NOV-09, EA #543 (UNCLASSIFIED)

CLASSIFICATION: UNCLASSIFIED

Hi Chip,

Eric and I wanted to have a written correspondence and confirmation, stating that he and I both have previously spoken with you about the future of Site 16PL245. That we are all agreed that we need a Memorandum for Agreement, that we have followed upon yours and NHPA suggestions to reach out to the local community near the site (we had a meeting at the Community Center of Port Sulphur, last Monday October 30th. Several residents living in direct proximity to 16PL245 were present. Summary forthcoming.), that we do not expect the Data Recovery needs at 16PL245 to be "complicated" but we will spell these out in an MOA, and lastly - that we all agree that we cannot identify any problem with, and instead are in agreement that it may proceed as such, USACE can move ahead with its need to prepare for Award towards Construction of the NOV-09 levee, and we will have language in place at every step of the way, creating a temporary buffer area around the NRHP-eligible portion of 16PL245 where no construction-related activity may occur until Stipulations of the MOA have been met.

Both Eric and I believe, that there is a very likely probability that the MOA and its Stipulations will be completed, before USACE actually does Award for Construction. The USACE proposed date for Award, is March 31, 2018. Even after that

construction may begin, the length of NOV-09 involves much work area that does not encounter 16PL245, and anticipated completion of construction for NOV-09 is December 2019.

Eric and I discussed an appropriate temporary buffer area for 16PL245, and utilizing the research conducted by RCGA and the data of the resulting Management Summary, we believe that 50ft on all sides of the NRHP-eligible portion, will be sufficient. To both the east and the west of that Eligible portion, RCGA excavated a test unit and did not find intact strata. To the south, 50 ft encounters permanent modern use and structures, and also moves outside of USACE ROW. To the north, 50 ft rapidly encounters the current levee where incidental work will not occur until it also involves 16PL245, which will not begin until after Stipulations for the MOA are met. 50ft also does allow that the top of levee be used for movement of vehicles, which is considerably more likely long before any construction at that area has begun.

Please respond if you agree with the information above, or if you wish to add any detail or change to what I have stated.

Thank you, Paul

Archaeologist, Natural/Cultural Resources Analysis RPEDS, New Orleans District

Office: 504-862-1100

CLASSIFICATION: UNCLASSIFIED



United States Department of the Interior

FISH AND WILDLIFE SERVICE

646 Cajundome Blvd.
Suite 400
Lafayette, Louisiana 70506
October 3, 2017



Colonel Michael N. Clancy District Commander U.S. Army Corps of Engineers Post Office Box 60267 New Orleans, Louisiana 70160-0267

Dear Colonel Clancy:

Please find enclosed the Final Supplemental Fish and Wildlife Coordination Act Report for the proposed New Orleans to Venice, Louisiana, Hurricane Protection Project (NOV) – Incorporation of Nonfederal Levees from Oakville to St. Jude, Plaquemines Parish, Louisiana (NFL), project. This report is transmitted under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 United States Code (U.S.C.) 661 et seq.). The National Marine Fisheries Service and Louisiana Department of Wildlife and Fisheries have been provided a copy for comments; their comments have been incorporated into our final report.

Should your staff have any questions regarding the enclosed report, please have them contact David Walther of this office at 337/291-3122.

Sincerely,

Joseph Ranson Field Supervisor

Louisiana Ecological Services Office

Attachment

cc: EPA, Dallas, TX

NMFS, Baton Rouge, LA LDWF, Baton Rouge, LA LDNR, CMD, Baton Rouge, LA

CPRA, Baton Rouge, LA

Supplemental Fish and Wildlife Coordination Act Report

New Orleans to Venice, LA, Hurricane Protection Project: Incorporation of Nonfederal Levees from Oakville to St. Jude Plaquemines Parish, Louisiana



Provided to: U.S. Army Corps of Engineers New Orleans, Louisiana

> Prepared by: David Walther Ecological Services Lafayette, Louisiana

U.S. Fish and Wildlife Service Southeast Region Atlanta, Georgia

October 2017

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Plaquemines NFL

EXECUTIVE SUMMARY

The U.S. Fish and Wildlife Service (Service) has prepared this supplemental Fish and Wildlife Coordination Act Report for the proposed New Orleans to Venice, Louisiana, Hurricane Protection Project (NOV) – Incorporation of Nonfederal Levees from Oakville to St. Jude, Plaquemines Parish, Louisiana (NFL), under the authority of the Fish and Wildlife Coordination Act (FWCA) (48 Stat. 401, as amended; 16 United States Code (U.S.C.) 661 et seq.). The U.S. Army Corps of Engineers, New Orleans District (CEMVN) is preparing an Environmental Assessment (EA) 543 to fulfill the CEMVN' compliance with the National Environmental Policy Act (NEPA) of 1969 (83 Stat. 852; 42 U.S.C. 4321 et seq.). Work proposed in that EA would be conducted under the authority of 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 CEMVN to upgrade and incorporate certain nonfederal levees into the existing NOV project in Plaquemines Parish, Louisiana.

This report contains a description of the existing fish and wildlife resources of the project area, discusses future with- and without-project habitat conditions, identifies fish and wildlife-related impacts of the proposed project, and provides recommendations for the proposed project. This report incorporates and supplements the November 26, 2007, Draft Programmatic FWCA Report that addresses the hurricane protection improvements authorized in Supplemental 4; our draft and final reports on this project dated December 20, 2010, April 27, 2011, and March 10, 2016 report. Impacts and mitigation needs resulting from government and contractor provided borrow areas have been addressed in the October 25, 2007, and November 1, 2007, FWCA Reports, respectively; therefore, this report will not address those project features. This document differs from the draft in that the mitigation for intermediate, brackish and salt marsh impacts is no longer addressed. This change results from the need to re-design those habitats mitigation to ensure all impacts are adequately mitigated. This report constitutes the report of the Secretary of the Interior as required by Section 2(b) of the FWCA. This report was provided to the Louisiana Department of Wildlife and Fisheries (LDWF) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) for comment; their comments have been incorporated into this final report.

The NFL study area is located within the Barataria Basin of the Mississippi River Deltaic Plain of the Lower Mississippi River Ecosystem. It is defined by the Mississippi River to the east; forested and emergent wetlands to the west; a forested and emergent marsh complex and the town of Oakville, Louisiana, to the north; and the NOV hurricane protection system, emergent marsh, and the town of Magnolia, Louisiana, to the south. Within the NFL hurricane protection system, natural levees and lower lying wetlands have been leveed and drained to accommodate residential, commercial, and agricultural development; however, a majority of the land remains undeveloped. Undeveloped lands generally consist of bottomland hardwood and scrub-shrub habitats.

Study area wetlands support nationally important fish and wildlife resources including fresh marsh and cypress swamp. Factors that will strongly influence future fish and wildlife resource conditions outside of the protection levees include freshwater and sediment input and loss of coastal wetlands. Regardless of which of the above factors ultimately has the greatest influence, emergent wetlands within and adjacent to the project area will likely experience losses due to subsidence, erosion, and relative sea-level rise.

The CEMVN' selected alternative in the previous Final Environmental Impact Statement's (FEIS) included raising the existing hurricane protection levee system to provide a 50-year (yr) level of protection. However, a risk analysis that was prepared for the project recommended changing the level of flood risk reduction from 50-yr to approximately 25-yr for two NFL reaches (i.e., Sections 2 and 3). The decreased level of risk reduction in some of the reaches made it possible to expand some level of flood protection throughout NFL Sections 1-5 and increase the level of risk reduction in areas that currently have limited or no flood protection. Changes addressed in this report include the expansion of levee right-of-way in levee reach NOV 05A that has resulted in additional impacts. Other project modifications are proposed at levee reaches NOV 09 and NOV-NF-W-05a.1 (La Reussite to Wilkinson Pump Station Levee); however these modifications will result in a decrease in impacts to wet bottomland hardwoods and wet pasture, respectively.

Those proposed modifications would require changes to the project's design that would result in realignments of the levees and floodwalls, as well as the need for additional access roads, staging areas, ramps, and other temporary work easements that were identified during design and not accounted for in the FEIS. Construction of the NFL hurricane protection system would result in direct impacts to non-wet and wet bottomland hardwood habitat (-37.5, and 120.2 AAHUs, respectively), swamp habitat (-33.8 AAHUs), fresh marsh and wet pasture (-53 AAHUs), and brackish, saline and intermediate marsh (-105.6 AAHUs).

SERVICE POSITION AND RECOMMENDATIONS

Construction of the NFL hurricane protection system would result in direct impacts to non-wet and wet bottomland hardwood habitat (-37.5, and 120.2 AAHUs, respectively), swamp habitat (-33.8 AAHUs), fresh marsh and wet pasture (-53 AAHUs), and brackish, saline and intermediate marsh (-105.6 AAHUs).

The Service does not object to providing improved hurricane protection to Plaquemines Parish, provided the following fish and wildlife conservation recommendations are incorporated into future project planning and implementation.

- The CEMVN shall fully compensate for any unavoidable losses to non-wet and wet bottomland hardwood habitat (-37.5, and 120.2 AAHUs, respectively), swamp habitat (-33.8 AAHUs), fresh marsh and wet pasture (-53 AAHUs), and brackish, saline and intermediate marsh (-105.6 AAHUs) caused by project features. All aspects of mitigation planning should be coordinated with the Service, NMFS, the Environmental Protection Agency (EPA), the Louisiana Department of Natural Resources (LDNR), Coastal Protection and Restoration Authority (CPRA) and LDWF.
- 2. The Service recommends that mitigation alternatives include locating the mitigation within the basin where impacts occurred.
- 3. If a proposed project feature is changed significantly or is not implemented within one year of our latest Endangered Species Act consultation letter, we recommend that the CEMVN reinitiate coordination with the Service to ensure that the proposed project would not adversely affect any federally listed threatened or endangered species or their critical habitat.

4. Avoid adverse impacts to wading/colonial bird nesting colonies and bald eagle nesting locations through careful design of project features and timing of construction. A qualified biologist should inspect the proposed work site for the presence of undocumented wading bird nesting colonies and bald eagle nests within 1,000 feet of the work during the nesting seasons (i.e., February 16 through August 31 for wading bird colonies, and October through mid-May for bald eagles). In addition, we recommend that on-site contract personnel be informed of the need to identify colonial nesting birds and their nests, and should avoid affecting them during the breeding season.

- 5. For colonies containing nesting gulls, terns, and/or black skimmers (which may nest on newly deposited marsh creation material or retaining dikes), all activity occurring within 650 feet of a nesting site should be restricted to the non-nesting period (i.e., September 16 through April 1, exact dates may vary within this window depending on species present).
- 6. If a bald eagle nest is discovered within or adjacent to the proposed project area, then an evaluation must be performed to determine whether the project is likely to disturb nesting bald eagles. That evaluation may be conducted on-line at: http://www.fws.gov/southeast/es/baldeagle. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary and those results should be forwarded to this office.
- 7. Forest clearing associated with project features should be conducted during the fall or winter to minimize impacts to nesting migratory birds to the maximum extent practicable.
- 8. Impacts to EFH should be avoided and minimized to the greatest extent possible. For proposed project areas that impact designated EFH habitat, coordination with the NMFS should be conducted.
- Construction of mitigation or purchasing credit from an approved mitigation bank for all
 compensatory mitigation should be conducted concurrent with construction of the NOV NFL
 projects, to ensure that mitigation obligations are met on behalf of the public interest.
- 10. We recommend that the CEMVN consider the availability of credits at a bank and within a hydrologic unit when evaluating the mitigation bank alternative to avoid exhausting credits available for individual landowners/permittee within a particular hydrologic unit.
- 11. Further detailed planning of mitigation features (e.g., Design Documentation Report, Engineering Documentation Report, Plans and Specifications, or other similar documents) should be coordinated with the Service, NMFS, EPA, LDNR, and LDWF, and the CEMVN shall provide them with an opportunity to review and submit recommendations on all work addressed in those reports.
- 12. Refinement of the mitigation potential as determined by the Wetland Value Assessment (WVA) for CEMVN constructed projects should be undertaken at the 30, 60 and 90 percent design stages. These refinements should be an interagency task and should utilize the most recent detailed design, geotechnical information, and relative sea level rise rates (RSLR).

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

- 14. If applicable, a General Plan should be developed by the CEMVN, the Service, and the managing natural resource agency in accordance with Section 3(b) of the FWCA for mitigation lands.
- 15. Mitigation success criteria, monitoring and reporting requirements, and adaptive management should adhere to those developed for the Hurricane Storm Damage and Risk Reduction Study (HSDRRS).
- 16. The Service encourages the CEMVN to finalize mitigation plans and proceed to mitigation construction so that it will be concurrent with project construction. If construction is not concurrent with mitigation implementation then revising the impact and mitigation period-of-analysis to reflect additional temporal losses will be required.
- 17. The CEMVN should implement prior to initiation of construction and maintain during construction non-point source erosion control measures to protect wetlands and water bodies.
- 18. The CEMVN should ensure that clearing of forested vegetation does not result in impacts outside of the construction rights-of-way.
- 19. Fee title or an equivalent conservation easement should be acquired for any mitigation lands to preclude incompatible development and to ensure that the recommended mitigation values are maintained.

INTRODUCTION

The New Orleans to Venice Hurricane Protection (NOV) Project provides hurricane protection to developed and agricultural areas of Plaquemines Parish, Louisiana, along the Mississippi River below New Orleans. In coordination with the U.S. Army Corps of Engineers' (CEMVN) New Orleans District and the Louisiana Coastal Protection and Restoration Authority (CPRA, the nonfederal sponsor), the Vicksburg District prepared a Final Environmental Impact Statement (FEIS) for the incorporation of the nonfederal levees from Oakville to St. Jude (NFL), in Plaquemines Parish, Louisiana, into the existing NOV federal levee system. Based on a risk analysis the nonfederal levees revised plan of protection is to provide a 25-year level of protection. Detailed planning and engineering studies have revealed the need to further modify the project to provide access and staging areas, avoid existing oil and gas infrastructure and required rights-of-way (ROW) modifications. In addition, the selection of a tentative mitigation plan for project impacts has been completed. The proposed project would be built under the authority of Public Law 109-234, Emergency Supplemental Appropriations Act for Defense, the Global War on Terror, and Hurricane Recovery 2006 (Supplemental 4).

This report incorporates and supplements the November 26, 2007, Draft Programmatic Fish and Wildlife Coordination Act (FWCA) Report that addressed the hurricane protection improvements authorized in Supplemental 4 and our final reports on this project dated December 20, 2010, April 27, 2011, and March 10, 2016. Impacts and mitigation needs resulting from government and contractor provided borrow areas have been addressed in the October 25, 2007, and November 1, 2007, FWCA Reports, respectively; therefore, this report will not address those project features. This report only addresses the most recent modifications to the project and the tentatively selected mitigation plan. This document differs from the draft in that the mitigation for intermediate, brackish and salt marsh impacts is no longer addressed. This change results from the need to re-design those habitats mitigation to ensure all impacts are adequately mitigated. This report constitutes the report of the Secretary of the Interior as required by Section 2(b) of the FWCA. This report was provided to the Louisiana Department of Wildlife and Fisheries (LDWF) and the National Oceanic and Atmospheric Administration's National Marine Fisheries Service (NMFS) for comment; their comments have been incorporated into this final report.

Our previous reports on this project contain a description of the existing fish and wildlife resources (including habitats) that occur within the study area. For brevity, that discussion is incorporated by reference herein but the following information is provided to supplement the previously mentioned reports and discusses future with- and without-project habitat conditions, identifies fish and wildlife-related impacts of the proposed project, and provides recommendations for the proposed project

Project Description

The goal of the proposed action is to improve the storm damage reduction capability of the NFL system in Plaquemines Parish, Louisiana (Figure 1). The proposed action would involve upgrading and providing new flood protection to the existing NFL system. The CEMVN' selected alternative in the previous FEIS included raising the existing hurricane protection levee system to provide a 50-yr level of protection. However, a risk analysis that was prepared for the project recommended changing the level of flood risk reduction from 50-yr to approximately 25-yr for two NFL reaches (i.e., Sections

2 and 3). The decreased level of risk reduction in some of the reaches would make it possible to expand some level of flood protection throughout NFL Sections 1-5 and increase the level of risk reduction in areas that currently have limited or no flood protection.

The proposed change would require changes to the project's design that would result in realignments of the levees and floodwalls, as well as the need for additional access roads, staging areas, ramps, and other temporary work easements that were identified during design and not accounted for in the FEIS.

DESCRIPTION OF THE STUDY AREA

The NFL study area is located within the Barataria Basin of the Mississippi River Deltaic Plain of the Lower Mississippi River Ecosystem. It is defined by the Mississippi River to the east; forested and emergent wetlands to the west; a forested and emergent marsh complex and the town of Oakville, Louisiana, to the north; and the NOV hurricane protection system, emergent marsh, and the town of Magnolia, Louisiana, to the south. Within the NFL hurricane protection system, natural levees and lower lying wetlands have been leveed and drained to accommodate residential, commercial, and agricultural development; however, a majority of the land remains undeveloped. Undeveloped lands generally consist of bottomland hardwood and scrub-shrub habitats.

Description of Habitats

The major habitat types in the study area can be classified as estuarine emergent marsh, estuarine scrub-shrub wetlands, palustrine forested wetlands, wetland pasture, open water, and developed upland. Due to development and a forced-drainage system, the hydrology of the forested habitat within the Plaquemines Parish hurricane protection system has been altered. The forced-drainage system has been in operation for many years, and subsidence is evident throughout the areas enclosed by levees.

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

Factors that will strongly influence future fish and wildlife resource conditions outside of the protection levees include freshwater input and loss of coastal wetlands. Depending upon the deterioration rate of marshes, the frequency of occasional short-term saltwater events may increase. Under that scenario, tidal action in the project area may increase gradually as the buffering effect of marshes is lost, and use of that area by estuarine-dependent fishes and shellfish tolerant of saltwater conditions would likely increase. Regardless of which of the above factors ultimately has the greatest influence, freshwater wetlands within and adjacent to the project area will probably experience losses due to development, subsidence, and erosion.

The ongoing loss of coastal Louisiana wetlands (approximately 1,149 square miles between 1956 and 2004; average loss rate of 24 square miles per year) was recently exacerbated by Hurricanes Katrina

and Rita in 2005. Those hurricanes caused an initial loss of wetlands equivalent to 9 years (approximately 217 square miles) of mean annual losses. Louisiana wetlands provide 26 percent of the seafood landed in the conterminous United States and over 5 million migratory waterfowl utilize those wetlands every year. In addition, those wetlands provide protection to coastal towns, cities and their infrastructure, as well as important infrastructure for the nation's oil and gas industry.

Non-wet bottomland hardwoods within the project area also provide habitat for wildlife resources. Between 1932 and 1984, the acreage of bottomland hardwoods in Louisiana declined by 45 percent (Rudis and Birdsey 1986). A large percentage of the original bottomland hardwoods within the Mississippi River floodplain in the Deltaic Plain are located within levees. However, losses of that habitat type are not regulated or mitigated with the exception of impacts resulting from CEMVN of Engineers projects as required by Section 906(b) of the Water Resources Development Act of 1986.

Terrestrial Habitats/Wildlife Resources

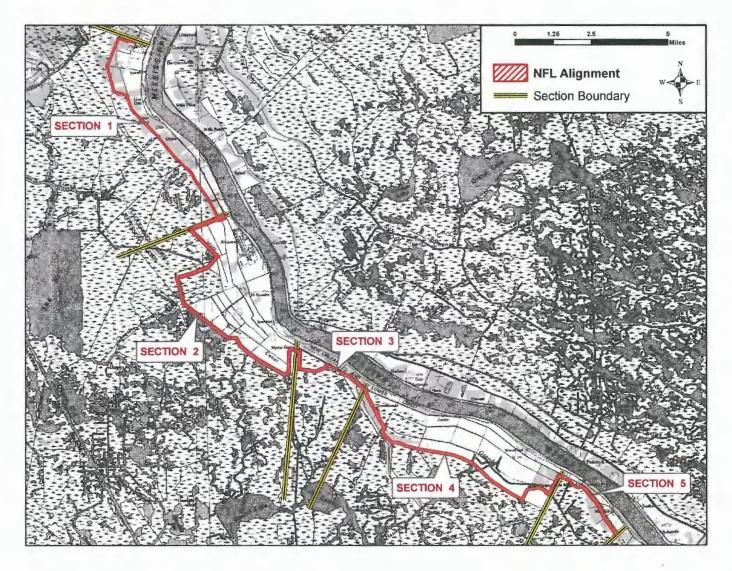
Forested habitats in the study area are divided into two major types; bottomland hardwood forests and cypress-tupelo swamps. Bottomland hardwood forests found in the study area occur primarily on the natural levees of the Mississippi River or former distributary channels. Most bottomland hardwoods that are located within the constructed hurricane protection projects have been degraded by forced drainage and resultant subsidence. Those areas are also often fragmented by development. Conversely, those bottomland hardwoods located outside the protection levees or in areas where structures through the levees maintain a hydrologic connection, still retain many wetland functions and values.

Cypress-tupelo swamps are located along the flanks of larger distributary ridges as a transition zone between bottomland hardwoods and lower-elevation marsh or scrub-shrub habitats. Cypress-tupelo swamps exist where there is little or no salinity, usually minimal daily tidal action and are usually flooded throughout most of the growing season. Cypress swamps that are within the levee system and under forced drainage are often dominated by bald cypress, but vegetative species more typical of bottomland hardwoods dominate the under- and mid-story vegetation. These sites often have ecological functions closer to those of a bottomland hardwood. Because of their altered hydrology, these areas may potentially convert to sites dominated by bottomland hardwood species.

Scrub-shrub habitat is often found along the flanks of distributary ridges and in marshes altered by spoil deposition, drainage projects, or agriculture. Typically it is bordered by marsh at lower elevations and by developed areas, cypress-tupelo swamp, or bottomland hardwoods at higher elevations. Some scrub-shrub habitat is an early successional stage of bottomland hardwood forests. Within the project area, scrub-shrub habitat occurs within abandoned agricultural fields, cattle pastures, at sites disturbed by hurricanes, or at sites experiencing subsidence.

Wetland pasture is often found between the distributary ridges and in marshes altered by spoil deposition, drainage projects, or agriculture. Typically it is bordered by marsh at lower elevations and by active agriculture lands, scrub-shrub habitat, or residential development at higher elevations. Some wetland pasture consists of marsh that is used for grazing cattle. Within the project area, wetland pasture occurs along the development/marsh interface or adjacent to or within the existing hurricane protection system.

Figure 1. New Orleans to Venice – Incorporation of Nonfederal Levees, Plaquemines Parish, Louisiana, (NFL) Study Area.



Marsh types within the study area include fresh, intermediate, brackish, and saline. Fresh marshes occur at the upper ends of inter-distributary basins and are often characterized by floating or semifloating organic soils and minimal daily tidal action. Associated open water habitats may often support extensive beds of floating-leafed and submerged aquatic vegetation. Intermediate marshes are a transitional zone between fresh and brackish marshes and are often characterized by organic, semifloating soils. Typically, intermediate marshes experience low levels of daily tidal action. Salinities are negligible or low throughout much of the year, with salinity peaks occurring during late summer and fall. Ponds and lakes within the intermediate marsh zone often support extensive submerged aquatic vegetation. Brackish marshes are characterized by low to moderate daily tidal energy and by soils ranging from firm mineral soils to organic semi-floating soils. Freshwater conditions may prevail for several months during early spring; however, low to moderate salinities occur during much of the year, with highest salinities in the late summer or fall. Shallow brackish marsh ponds occasionally support abundant beds of wigeongrass. Saline marshes occur along the fringe of the coastal wetlands. Those marshes usually exhibit fairly firm mineral soils and experience moderate to high daily tidal energy. Submerged aquatic vegetation is rare. Within the study area, intertidal mud flats are most common in saline marshes.

Mammals known to occur in the study-area bottomland hardwoods and marshes include white-tailed deer, mink, raccoon, swamp rabbit, nutria, river otter, and muskrat. Those habitats also support a variety of birds including herons, egrets, ibises, least bittern, rails, gallinules, olivaceous cormorant, anhinga, white pelicans, pied-billed grebe, black-necked stilt, sandpipers, gulls, and terns. Forested and scrub-shrub habitats within the study area also provide habitat for many resident passerine birds and essential resting areas for many migratory songbirds; many of these and other passerine birds have undergone a decline in population primarily due to habitat loss.

Given the extent of development and drainage, waterfowl use within the hurricane protection system is likely minimal, except in the adjacent wetlands outside the levees. Swamps and fresh and intermediate marshes usually receive greater waterfowl utilization than brackish and saline marshes because they generally provide more waterfowl food.

Developed Areas

Developed habitats in the study area include residential and commercial areas, as well as roads and existing levees. Those habitats do not support significant wildlife use. Most of the development is located on higher elevations of the Mississippi River natural levees and former distributary channels. Large amounts of agricultural lands occur throughout the area; agriculture includes citrus farming, cattle production, and hay production.

Aquatic Habitat/Fishery Resources

Open-water habitat within the project area consists of ponds, lakes, canals, bays, and bayous. Natural marsh ponds and lakes are typically shallow, ranging in depth from 6 inches to over 2 feet. Typically, the smaller ponds are shallow and the larger lakes and bays are deeper. In fresh and low-salinity areas, ponds and lakes may support varying amounts of submerged and/or floating-leaved aquatic vegetation. Brackish and, much less frequently, saline marsh ponds and lakes may support wigeongrass beds.

Canals and larger bayous typically range in depth from 4 or 5 feet, to over 15 feet. Strong tidal flows may occur at times through those waterways, especially where they provide hydrologic connections to other large waterbodies. Such canals and bayous may have mud or clay bottoms that range from soft to firm. Dead-end canals and small bayous are typically shallow and their bottoms may be filled in to varying degrees with semi-fluid organic material. Erosion due to wave action and boat wakes, together with shading from overhanging woody vegetation, tends to retard the amount of intertidal marsh vegetation growing along the edges of those waterways.

Drainage canals enclosed within the hurricane protection project are stagnant except when pumps are operating to remove water. Runoff from developed areas has likely reduced the habitat value of that aquatic habitat by introducing various urban pollutants, such as oil, grease, and excessive nutrients. Clearing and development has eliminated much of the riparian habitat that would normally provide shade and structure for many aquatic species.

Drainage canals in the study area do not support significant fishery resources because of dense vegetation, poor water quality, and inadequate depth. Estuarine-dependent fishes and shellfishes are found in the intermediate to saline marshes.

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

Deteriorating water quality in the Barataria Basin, at least partially correlated to wetlands loss and a commensurate reduction in the area's waste assimilation capacity, is a major problem affecting fish and wildlife in that portion of the study area. According to Bahr et al. (1983), factors that currently adversely affect water quality in the Barataria Basin are those generally related to urban development and associated urban pollution (including non-point source discharge), altered land-use patterns, and hydrologic modifications (drainage, etc.) within the watershed. Two major human-related causes of water quality degradation include eutrophication and increased levels of toxic substances.

Essential Fish Habitat

Estuarine wetlands and associated intertidal and sub-tidal areas within the study area have been identified as Essential Fish Habitat (EFH) for post-larval, juvenile and sub-adult stages of brown shrimp, white shrimp, red drum, and Gulf stone crab, as well as the adult stages of those species in near-shore and offshore waters. EFH requirements vary depending upon species and life stage. Categories of EFH in the project area include estuarine emergent wetlands, estuarine water column, submerged aquatic vegetation, and estuarine water bottoms. Detailed information on federally managed fisheries and their EFH is provided in the 2005 generic amendment of the Fishery Management Plans for the Gulf of Mexico prepared by the Gulf of Mexico Fishery Management

Council. The generic amendment was prepared as required by the Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act; P.L. 104-297).

In addition to being designated as EFH for various federally managed species, wetlands and water bottoms in the project area provide nursery and foraging habitats for a variety of economically important marine fishery species such as blue crab, gulf menhaden, spotted seatrout, sand seatrout, southern flounder, and striped mullet. Some of these species serve as prey for other fish species managed under the Magnuson-Stevens Act by the Gulf of Mexico Fishery Management Council (e.g., mackerels, snappers, and groupers) and highly migratory species managed by NMFS (e.g., billfishes and sharks). Wetlands in the project area also produce nutrients and detritus, important components of the aquatic food web, which contribute to the overall productivity of the Barataria Bay estuary.

Endangered and Threatened Species

To aid the CEMVN in complying with their proactive consultation responsibilities under the Endangered Species Act (ESA), the Service provided a list of threatened and endangered species and their critical habitats within the coastal parishes of the New Orleans District in an August 7, 2006, letter to the CEMVN regarding construction of and improvements to Federal and nonfederal hurricane/flood protection levees throughout southern Louisiana. The Service recommended that the CEMVN conduct ESA consultation as soon as project-specific plans were developed and impact locations were identified. In our response dated June 9, 2017, the Service provided our concurrence that there are no federally listed species would be adversely impacted by the proposed project. However, should plans be changed significantly, or if work is not implemented within 1 year following that coordination, we recommend that the CEMVN conduct annual re-initiation of ESA coordination with this office to ensure that the proposed project (or any future changes or modifications) would not adversely affect any federally listed threatened or endangered species or their habitat.

Migratory Birds

The Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.) and the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) offer additional protection to many bird species within the project area including colonial nesting birds and the bald eagle (*Haliaeetus leucocephalus*).

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

The study-area forested wetlands provide nesting habitat for the bald eagle, which was officially removed from the List of Endangered and Threatened Species on August 8, 2007. Bald eagles nest in Louisiana from October through mid-May. Bald eagles generally nest in large trees located near coastlines, rivers, or lakes that support adequate food supplies. In the southeastern Parishes, eagles

typically nest in mature trees (e.g., bald cypress, sycamore, willow, etc.) near fresh to intermediate marshes or open water. Eagles may also nest in mature pine trees near large lakes in central and northern Louisiana. Major threats to this species include habitat alteration, human disturbance, and environmental contaminants (i.e., organochlorine pesticides and lead).

Breeding bald eagles defend "territories" that may be reoccupied annually. In addition to the active nest, a territory may include one or more alternate nests that are built and maintained by the eagles, but which are not used for nesting in a given year. Potential nest trees within a territory may, therefore, provide important alternative bald eagle nest sites. Bald eagles are vulnerable to disturbance during courtship, nest building, egg laying, incubation, and brooding. Disturbance during these periods may lead to nest abandonment, cracked and chilled eggs, and exposure of small young to the elements. Human activity near a nest late in the nesting cycle may also cause flightless birds to jump from the nest tree, thus reducing their chance of survival.

There are three known nest locations within 660 feet of Sections 1 and 2 of the NFL alignment. Although the bald eagle has been removed from the List of Endangered and Threatened Species, bald eagles and their nests continue to be protected under the MBTA and the BGEPA. The Service developed the National Bald Eagle Management (NBEM) Guidelines to provide landowners, land managers, and others with information and recommendations to minimize potential project impacts to bald eagles, particularly where such impacts may constitute "disturbance," which is prohibited by the BGEPA. A copy of the NBEM Guidelines is available at:

http://www.fws.gov/southeast/es/baldeagle/NationalBaldEagleManagementGuidelines.pdf. Those guidelines recommend: (1) maintaining a specified distance between the activity and the nest (buffer area); (2) maintaining natural areas (preferably forested) between the activity and nest trees (landscape buffers); and (3) avoiding certain activities during the breeding season. On-site personnel should be informed of the possible presence of nesting bald eagles within the project boundary, and should identify, avoid, and immediately report any such nests to this office. If a bald eagle nest occurs or is discovered within or adjacent to the proposed project area, then an evaluation must be performed to determine whether the project is likely to disturb nesting bald eagles. That evaluation may be conducted on-line at: http://www.fws.gov/southeast/es/baldeagle. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary. Results of that determination should be provided to this office. The Division of Migratory Birds for the Southeast Region of the Service (phone: 404/679-7051, e-mail: SEmigratorybirds@fws.gov) has the lead role in conducting such consultations. If after consulting those guidelines you need further assistance in determining the appropriate size and configuration of buffers or the timing of activities in the vicinity of a bald eagle nest, please contact this office.

Future Fish and Wildlife Resources

The combination of subsidence and sea level rise is called submergence or land sinking. As the land sinks the wetlands become inundated with higher water levels, stressing most non-fresh marsh plants, bottomland hardwood plants and even cypress-tupelo swamps leading to plant death and conversion to open water. Other major causes of wetland losses within the study area include altered hydrology, storms, saltwater intrusion (caused by marine processes invading fresher wetlands), shoreline erosion, herbivory, and development activities including the direct and indirect impacts of dredge and fill (Louisiana Coastal Wetlands Conservation and Restoration Task Force and the Wetlands Conservation

and Restoration Authority 1998). The continued conversion of wetlands and forested habitat to open water or developed land represent the most serious fish and wildlife-related problems in the study area. Those losses could be expected to cause significant declines in coastal fish and shellfish production and in the study area's carrying capacity for numerous migratory waterfowl, wading birds, other migratory birds, alligators, furbearers, and game mammals. Wetland losses will also reduce storm surge protection of developed lands, and will likely contribute to water quality degradation associated with excessive nutrient inputs.

PROJECT MODIFICATIONS AND IMPACTS

Changes addressed in this report include the expansion of levee right-of-way in levee reach NOV 05A that has resulted in additional impacts. Other project modifications are proposed at levee reaches NOV 09 and NOV-NF-W-05a.1 (La Reussite to Wilkinson Pump Station Levee); however these modifications will result in a decrease in impacts to wet bottomland hardwoods and wet pasture, respectively. These modifications are described in greater detail below.

NOV-05A

NOV-05A originally described in the NOV Supplemental Environmental Impact Statement (SEIS) consisted of 3.2 miles of back levee on the West Bank near City Price (see red lines on Figure 2). The earthen levee is bounded on the east by LA 23 and on the west by marsh, open water ditches, and lakes. The NOV-05 levee is currently being brought up to the authorized design grade of 13 feet for which additional ROW in NOV-05A was required to provide for the expanded footprint of the levee and to improve stability.

The modifications to the original design in the NOV SEIS necessary to complete raising the levees in NOV-05A include a floodside shift in the levee alignment to improve stability of the new levee adjacent to LA Highway (Hwy) 23. Since the original ROW was bounded by LA Hwy 23 and an Entergy power line on the east side, the additional levee footprint expanded westward into marsh and open water areas along the entire length of the levee. Additionally twenty temporary access ramps have been added to provide access to construction areas from across LA Hwy 23. On Grand Bayou/Fosters Road, the ROW was increased to account for the construction of one additional permanent ramp to connect to LA Hwy 23. Construction easements and lay down areas on the northern end of the project have also been added. The floodside shift for levee stability and the access ramp on Grand Bayou/Fosters Road are permanent impacts, however, the additional access ramps along HWY 23, construction easements, and laydown areas are temporary (see blue lines on Figure 1). Construction in NOV-05A has increased impacts to 24.4 acres of saline marsh habitat and 2.6 acres of scrub/shrub habitat. Refer to Table 1 for impacts being mitigated from the NOV SEIS as changed by this new ROW design. Construction of NOV-05A is nearly complete.

NOV-09

NOV-09 reach consists of 2.5 miles of the West Bank Mississippi River Levees (MRL) from St. Jude Church to City Price Church. The NOV-09 levees are currently being brought up to the authorized design grade of 18.5 feet (see red lines on Figure 2). The new proposed design required additional ROW to provide working room to tie the NOV-09 levee enlargement into the existing MRL and the NOV-05a levee project, and to provide for two additional staging areas and two access roads for the temporary storage areas and access to locations along the project area (see blue lines on Figure 2). The

staging and access route locations were chosen in areas that would not impact wetlands, and within areas previously investigated for cultural resources to avoid impacts to historic properties. Upon completion of construction activities, the staging areas would be returned to pre-construction conditions allowed to revegetate naturally. Impacts from these modifications will reduce impacts to BLH-Wet in this reach by 17.1 acres; see Table 1 for impacts to being mitigated from the NOV SEIS as changed by this new ROW design.

NOV-NF-W-05a.1 - La Reussite to Wilkinson Pump Station Levee

This levee reach is on the west bank NFL back levee between La Reussite and Myrtle Grove and was originally part of Section 2 as evaluated in the NFL Final Environmental Impact Statement (FEIS), and SEA #537. Design modifications to NOV-NF-W-05a.1 include a shift in the existing ROW as indicated on Figure 2 to avoid existing orphaned and abandoned oil and gas wells, and to eliminate a 90 degree turn in the levee for the purpose of allowing for the safe relocation of the three existing pipelines. The shift in the levee footprint would reduce the permanent impacts as assessed in the NFL EIS and SEA #537 in this reach to wet pasture by 8.4 acres, see Table 1 for impacts to being mitigated from the NFL EIS and SEA #537 as changed by this new ROW design.

Construction of the NFL hurricane protection system would result in direct impacts to wet and non-wet bottomland hardwood habitat (-37.5, and 120.2 AAHUs, respectively), swamp habitat (-33.8 AAHUs), fresh marsh and wet pasture (-53 AAHUs), and brackish, saline and intermediate marsh (-105.6 AAHUs). Previously mentioned design changes have reduced the overall impacts to fish and wildlife habitat (Table 1).

Tentatively Selected Mitigation Plan (TSMP)

The Tentatively Selected Mitigation Plan (TSMP) would mitigate bottomland hardwoods (BLH-Dry), bottomland hardwoods (BLH-Wet), scrub shrub, swamp, wet pasture, and fresh marsh impacts incurred from construction of the NFL NOV improvements through the purchase mitigation bank and ILF credits. Mitigation for intermediate, brackish and saline marsh impacts will be addressed in a forthcoming document to ensure adequate mitigation for those impacts. Impacts to open water habitat has been included in with the marsh type that it was located in and was assessed in that habitats WVA analysis and will be mitigated in that marsh types mitigation.

BLH-wet impacts would be mitigated by purchase of BLH-wet credits from a mitigation bank. Non-wetland bottomland hardwood (BLH-dry) and scrub shrub impacts would be mitigated by purchase of BLH-wet credits. Swamp impacts would be mitigated by purchasing available swamp credits from a mitigation bank. Freshwater marsh and wet pasture impacts would be mitigated by purchasing available ILF credits and mitigation bank credits. Based on the proposals received, if the costs for implementing the mitigation bank projects exceed those for the next ranked project, then the next ranked project would likely become the new plan for this habitat type in the TSMP. To ensure that the assessment of the functions and services provided by the mitigation bank match the assessment of the lost functions and services at the impacted site credits from mitigation banks would be determined by the same version of the WVA model used to assess the impacts from constructing the NFL NOV.

Table 1 details the acreages and average annual habitat units (AAHUs) impacted by the NFL NOV construction including the additional ROW impacts. Table 2 summarizes the mitigation alternatives and components including habitat, type of mitigation, acres required to be created as well as a 10% buffer, the mitigation potential, total net AAHUs generated, and the TSA is identified in bold text.

FISH AND WILDLIFE CONSERVATION AND MITIGATION MEASURES

The President's Council on Environmental Quality (CEQ) defined the term "mitigation" in the NEPA regulations to include:

- 1. avoiding the impact altogether by not taking a certain action or parts of an action;
- 2. minimizing impacts by limiting the degree or magnitude of the action and its implementation;
- 3. rectifying the impact by repairing, rehabilitating, or restoring the affected environment;
- 4. reducing or eliminating the impact over time by preservation and maintenance operations during the life of the action; and
- 5. compensating for the impact by replacing or providing substitute resources or environments.

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

The Service's Mitigation Policy (Federal Register, Volume 46, No. 15, January 23, 1981) identifies four resource categories that are used to ensure that the level of mitigation recommended by Service biologists will be consistent with the fish and wildlife resource values involved. Considering the high value of forested and emergent wetlands and the relative scarcity of those habitat types, those wetlands are usually designated as Resource Category 2 habitats, the mitigation for which is no net less of inkind habitat value. Remaining direct and indirect project impacts to forested wetlands should be mitigated via in-kind compensatory replacement of the habitat values lost. Degraded (i.e., non-wet) bottomland hardwood forest and any wet pastures that me be impacted, however, are placed in Resource Category 3 due to their reduced value to wildlife, fisheries, and lost/degraded wetland functions. The mitigation goal for Resource Category 3 habitats is no net loss of habitat value.

Impacts to open water bottoms are anticipated as a result of construction activities. Regardless of depth, open water bottoms with no submerged aquatic vegetation (SAVs) will remain a Category 4 Resource; impacts to those areas are discouraged, if feasible. SAV beds located in open water are currently considered a Category 2, and lost functions and values should be replaced. However, because of the relatively low success rate of SAV replanting, mitigating in-kind may not be practicable. Potential impacts to any SAVs should first go through the mitigation sequencing of avoidance, minimization, and rectification, prior to compensation of impacts.

Figure 2. NOV-09 is the northern section of levee; NOV-05A is the southern section of levee. Red lines depict original ROW and blue lines new ROW.





Figure 3. NOV-NF-W-05a.1in the NFL Section 2, redlines depict the original levee alignment, blue lines depict new ROW for levee and floodwall alignment.

Table 1. Total Impacts for NFL NOV Projects Currently Moving to Construction Including New Proposed ROW (in red and underline)

Table 1. To	ai iiii	Jacis I	OI INI	LINO	v Froj	ccis C	unten	ily ivio	ving i	o Cons				-		_	II Iea	and ui	ideriii	ie)		
NOV	BLH	Wet	BLI	I Dry	Wet P	asture	Swa	amp	Scrub	Shrub	Intermediate Marsh		Freshwater Marsh		Brackish Marsh		Open Water		Saline Marsh		Total	
Levee Reach	Acres	AAHUs	Acres	AAHUs	Acres	AAHUs	Acres	AAHUs	Acres	AAHUs	Acres	AAHUs	Acres	AAHUs		AAHUs	-	AAHUs	_	AAHUs		AAHU
NOV 05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.6	2.5	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	46.3	30.6	51.9	33.2
NOV 07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	22.1	14.7	22.1	14.7
NOV 09	23.5	14.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	23.5	14.3
NOV 10	30.1	18.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.1	18.4
NOV 11	9.8	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.4	5.2	0.0	0.0	0.0	0.0	0.0	0.0	30.2	11.2
NOV 02, NOV 06b, NOV 08b, NOV 13, NOV 14, P14A, P17A	12.8	7.8	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.4	0.0	0.0	0.0	0.0	0.0	0.0	64.0	48.5	77.6	56.7
Total NOV	76.2	46.6	0.0	0.0	0.0	0.0	0.0	0.0	5.6	2.5	0.8	0.4	20,4	5.2	0.0	0.0	0.0	0.0	132.4	93.8	235.4	148.5
											Intern	nediate	Fresl	nwater	Brac	kish						
NFL	BLH	Wet	BLI	I Dry	Wet P	asture	Sw	amp	Scrub	Shrub	Ma	rsh	Ma	arsh	Ma	rsh	Open	Water	Saline	Marsh	To	tal
Levee Reach	Acres	AAHUs	Acres	AAHUs	Acres	AAHUs	Acres	AAHUs	Acres	AAHUs	Acres	AAHUs	Acres	AAHUs	Acres	AAHUs	Acres	AAHUs	Acres	AAHUs	Acres	AAHU
NFL Section 1	19.3	13.8	12.0	7.7	0.0	0.0	39.1	33.5	0.0	0.0	0.0	0.0	18.7	12.4	0.0	0.0	0.2	0.0	0.0	0.0	89.2	67.4
NFL Section 2	0.0	0.0	0.0	0.0	34.9	11.4	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	35.2	11.6
NFL Section 3	5.7	4.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.6	3.2	0.4	0.0	0.0	0.0	13.7	7.3
NFL Section 4	9.4	6.7	20.0	13.0	70.0	22.8	0.0	0.0	1.5	0.0	0.6	0.0	0.0	0.0	5.1	4.6	10.4	0.0	0.0	0.0	117.0	48.1
Section 2+ 4 Canals Section 2+ 4	2.5	1.8	0.0	0.0	55.7*	18.2*	0.0	0.0	9.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	11.5	7.6
Canal Access Road	0.3	0.2	0.0	0.0	3.5	1.1	0.0	0.0	0.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	4.1	1.6
NFL Section 5	66.0	47.1	11.3	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	3.4	4.3	0.0	0.0	0.0	87.5	57.7
Total	103.1	73.6	43,3	35,0	108.4	35.3	39.4	33.8	10.8	***	0,6	**	18.7	12,4	18.7	11.4	15,3	金岩市	0.0	0.0	358.2	201.2
Total NOV +	1792	120.2	43.3	35.0	1084	35.3	39.4	33.8	16.5	25	1.4	0.4	39.1	176	18.7	11.4	15.3		132.4	93.8	593.7	350.0

^{*}Note: Wet pasture impacts for Section 2 and 4 Canals are considered temporal only (1 year) and no mitigation was determined. As such, these acres and aahus are not included in the total.

^{**}Note: Intermediate Marsh impacts are combined with Brackish Marsh impacts for total AAHUs.

^{***}Note: Open Water habitat impacts are captured within all the Marsh Model AAHUs.

^{****}Note: BLH Dry impacts are combined with Scrub Shrub impacts for total AAHUs.

October 3, 2017 Plaquemines NFL

Table 2. Summary for the Mitigation Project Alternatives and Components: Habitat and Type of Mitigation, Acres Required + 10% Buffer, Mitigation potential,
and Total Net AAHUs Generated.

Mitigation Alternative	Habitat & Type of Mitigation	Acres Required / +10% buffer	Mitigation Potential (AAHUs/ac.)	Total Net AAHUs Generated		
	BLH-Dry (incl (NFL NOV mitigation	udes Scrub/Shrun required: BLH-D				
Plaquemines Parish Gov't	BLH-Dry (restore protected side)	93.75/105	0.4	37.5		
Bayou Segnette	BLH-Dry (restore protected side)	178.57/200	0.21	37.5		
Mitigation Bank (TSA)	BLH Credit Purchase	59.5	0.63	37.5		
		LH-Wet Impacts				
1 3.5		required: 120.2 A	VAHUS)	Y		
Jesuit Bend BLH-Wet	BLH-Wet (restore flood side)	203.7/225	0.59	120.2		
The Tank BLH-Wet	BLH-Wet (restore flood side)	279.47/310	0.43	120.2		
Mitigation Bank (TSA)	BLH Credit Purchase	190.8	0.63	120.2		
		Swamp Impacts n required: 33.8 A	AHUs)			
Jesuit Bend Swamp	Swamp (restore flood side)	85.47/95	0.40	33.8		
Lake Salvador Swamp	Swamp (restore flood side)	85.25/95	0.40	33.8		
Mitigation Bank (TSA)	Swamp Credit Purchase	78.5	0.43	33.8		
		cludes Wet Past		-		
		on required: 53 AA	AHUs)	T		
Cataouatche Ponds Fresh Marsh	Fresh Marsh (restore flood side)	98.07/110	0.54	53		
GIWW/Salvador Fresh Marsh	Fresh Marsh (restore flood side)	143.12/160	0.37	53		
ILF + Mitigation Bank (TSA)	Fresh Marsh Credit Purchase	54.4 + 80.6	0.45 / 0.56	53		
		ermediate Marsh required: 105.6 A	and Saline Marsh) In AAHUs)	npacts		
		o be determine.				

Because open water bottoms without SAVs are considered a Category 4 Resource for our trust resources the Service does not recommend mitigation. However, some tidally-influenced un-vegetated water bottoms are designated as EFH, and the loss of that habitat would result in a loss of EFH. Should EFH be impacted, coordination with the NMFS is recommended as mitigation for impacts to these areas is necessary.

SERVICE POSITION AND RECOMMENDATIONS

Construction of the NFL hurricane protection system would result in direct impacts to non-wet and wet bottomland hardwood habitat (-37.5, and 120.2 AAHUs, respectively), swamp habitat (-33.8 AAHUs), fresh marsh and wet pasture (-53 AAHUs), and brackish, saline and intermediate marsh (-105.6 AAHUs).

The Service does not object to providing improved hurricane protection to Plaquemines Parish, provided the following fish and wildlife conservation recommendations are incorporated into future project planning and implementation.

- The CEMVN shall fully compensate for any unavoidable losses to non-wet and wet bottomland hardwood habitat (-37.5, and 120.2 AAHUs, respectively), swamp habitat (-33.8 AAHUs), fresh marsh and wet pasture (-53 AAHUs), and brackish, saline and intermediate marsh (-105.6 AAHUs) caused by project features. All aspects of mitigation planning should be coordinated with the Service, NMFS, the Environmental Protection Agency (EPA), the Louisiana Department of Natural Resources (LDNR), Coastal Protection and Restoration Authority (CPRA) and LDWF.
- 2. The Service recommends that mitigation alternatives include locating the mitigation within the basin where impacts occurred.
- 3. If a proposed project feature is changed significantly or is not implemented within one year of our latest, Endangered Species Act consultation letter, we recommend that the CEMVN reinitiate coordination with the Service to ensure that the proposed project would not adversely affect any federally listed threatened or endangered species or their critical habitat.
- 4. Avoid adverse impacts to wading bird nesting colonies and bald eagle nesting locations through careful design of project features and timing of construction. A qualified biologist should inspect the proposed work site for the presence of undocumented wading bird nesting colonies and bald eagle nests within 1,000 feet of the work during the nesting seasons (i.e., February 16 through October 31 for wading bird colonies, and October through mid-May for bald eagles). In addition, we recommend that on-site contract personnel be informed of the need to identify

- colonial nesting birds and their nests, and should avoid affecting them during the breeding season.
- 5. For colonies containing nesting gulls, terns, and/or black skimmers (which may nest on newly deposited marsh creation material or retaining dikes), all activity occurring within 650 feet of a nesting site should be restricted to the non-nesting period (i.e., September 16 through April 1, exact dates may vary within this window depending on species present).
- 6. If a bald eagle nest is discovered within or adjacent to the proposed project area, then an evaluation must be performed to determine whether the project is likely to disturb nesting bald eagles. That evaluation may be conducted on-line at:

 http://www.fws.gov/southeast/es/baldeagle. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary and those results should be forwarded to this office.
- Forest clearing associated with project features should be conducted during the fall or winter to minimize impacts to nesting migratory birds to the maximum extent practicable
- Impacts to EFH should be avoided and minimized to the greatest extent possible. For proposed project areas that impact designated EFH habitat, coordination with the NMFS should be conducted.
- Construction of mitigation or purchasing credit from an approved mitigation bank for all compensatory mitigation should be conducted concurrent with construction of the NOV - NFL projects, to ensure that mitigation obligations are met on behalf of the public interest.
- 10. We recommend that the CEMVN consider the availability of credits at a bank and within a hydrologic unit when evaluating the mitigation bank alternative to avoid exhausting credits available for individual landowners/permittee within a particular hydrologic unit.
- 11. Further detailed planning of mitigation features (e.g., Design Documentation Report, Engineering Documentation Report, Plans and Specifications, or other similar documents) should be coordinated with the Service, NMFS, EPA, LDNR, and LDWF, and the CEMVN shall provide them with an opportunity to review and submit recommendations on all work addressed in those reports.
- 12. Refinement of the mitigation potential as determined by the Wetland Value Assessment (WVA) for CEMVN constructed projects should be undertaken at the 30, 60 and 90 percent design stages. These refinements should be an interagency task and should utilize the most recent detailed design, geotechnical information, and relative sea level rise rates (RSLR).

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

- 14. If applicable, a General Plan should be developed by the CEMVN, the Service, and the managing natural resource agency in accordance with Section 3(b) of the FWCA for mitigation lands.
- 15. Mitigation success criteria, monitoring and reporting requirements, and adaptive management should adhere to those developed for the Hurricane Storm Damage and Risk Reduction Study (HSDRRS).
- 16. The Service encourages the CEMVN to finalize mitigation plans and proceed to mitigation construction so that it will be concurrent with project construction. If construction is not concurrent with mitigation implementation then revising the impact and mitigation period-of-analysis to reflect additional temporal losses will be required.
- 17. The CEMVN should implement prior to initiation of construction and maintain during construction non-point source erosion control measures to protect wetlands and water bodies.
- 18. The CEMVN should ensure that clearing of forested vegetation does not result in impacts outside of the construction rights-of-way.

LITERATURE CITED

Bahr, L.M., Jr., R. Costanza, J.W. Day, S.E. Bayley, C. Neill, S.G. Leibowitz, and J. Fruci. 1983. Ecological characterization of the Mississippi Deltaic Plain Region: a narrative with management recommendations. U.S. Fish and Wildlife Service, Division of Biological Services, Washington, D.C. FWS/OBS-82/69. 189 pp.

Louisiana Coastal Wetlands Conservation and Restoration Task Force and the Wetlands Conservation and Restoration Authority. 1998. Coast 2050: Towards a Sustainable Coastal Louisiana. Louisianan Department of Natural Resources. Baton Rouge, LA. 161 pp.

Rudis, V. A., and R. A. Birdsey. 1986. Forest resource trends and current conditions in the Lower Mississippi Valley. Resource Bulletin SO-116. New Orleans, LA: U.S. Department of Agriculture, Forest Service, Southern Forest Experiment Station. 7 pp.



State of Louisiana

DEPARTMENT OF NATURAL RESOURCES OFFICE OF COASTAL MANAGEMENT

August 22, 2017

Laura Lee Wilkinson
U. S. Army Corps of Engineers - New Orleans District
7400 Leake Avenue
New Orleans, Louisiana 70118
Via email: laura.l.wilkinson@usace.army.mil

RE: C20100384 mod 11, Coastal Zone Consistency

New Orleans District, Corps of Engineers

Direct Federal Action

Additional right-of-way at three locations, geotechnical borings for development of Coleman marsh creation site, and mitigation plans, associated with New Orleans to Venice nonfederal and federal levee upgrade

Plaquemines Parish, Louisiana

Dear Ms. Wilkinson:

The above referenced project has been reviewed for consistency with the approved Louisiana Coastal Resource Program (LCRP) as required by Section 307 of the Coastal Zone Management Act of 1972, as amended. The project, as proposed in the application, is consistent with the LCRP.

If you have any questions concerning this determination please contact Carol Crapanzano of the Consistency Section at carol.crapanzano@la.gov.

Sincerely yours,

/S/ Don Haydel

Acting Administrator Interagency Affairs/Field Services Division

DH/SK

cc: Daniel Meden, COE-NOD
Dave Butler, LDWF
Krista Clark, Plaquemines Parish
Frank Cole, OCM

20170526_EA_543_NOV



DEPARTMENT OF THE ARMY NEW ORLEANS DISTRICT, CORPS OF ENGINEERS P. O. BOX 60267

NEW ORLEANS, LOUISIANA 70160-0267

May 26, 2017

Regional Planning and Environment Division, South Environmental Planning Branch

Mr. Joseph Ranson U.S. Fish and Wildlife Service (USFWS) 646 Cajundome Blvd - Suite 400 Lafayette, LA 70506

Dear Mr. Ranson:

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 likeling fulfills the requirements under Section 7(a)(2) of the Act.

09 July 17 (ps, WIM)

Acting Supervisor Louisiana Field Office

U.S. Fish and Wildlife Service

The US Army Corps of Engineers, New Orleans District (CEMVN), is preparing an Environmental Assessment (EA) #543, entitled "New Right of Way and Mitigation for the New Orleans to Venice (NOV) Hurricane Risk Reduction Project: Incorporation of Non-Federal Levees (NFL) from Oakville to St. Jude and the NOV Federal Hurricane Protection Levee, Plaquemines Parish, Louisiana". CEMVN is initiating coordination under Section 7 of the Endangered Species Act of 1973 as amended (16 USC 1531). A Biological Assessment (BA) to address the potential impacts to T&E species and their critical habitat, as well as other protected species, is attached for your review.

Based on our assessment, and with the employment of avoidance measures recommended through guidelines set up during coordination with United States Fish and Wildlife Service (USFWS), the CEMVN requests concurrence with a "no effect" determination on the piping plover and the red knot and a "not likely to adversely affect" determination on the West Indian Manatee or the pallid sturgeon. CEMVN has also made the determination that the proposed action would not adversely impact other protected species that could potentially be found in the project area.

Please review the enclosed information and provide your opinion on the determination. Any questions or concerns should be directed to the attention of Ms. Tammy Gilmore; U.S. Army Corps of Engineers; Planning Division; Environmental Studies Branch; Coastal Section: CEMVN-PDN-CEP; P.O. Box 60267; New Orleans, Louisiana 70160-0267. Ms. Gilmore may be contacted at (504) 862-1002, by E-mail tammy.h.gilmore@usace.army.mil, or by fax to (504) 862-1892.

Sincerely,

Marshall K. Harper

Chief, Environmental Studies Branch

Enclosures



DEPARTMENT OF THE ARMY

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

May 15, 2017

Regional Planning and Environmental Division, South New Orleans Environmental Branch

Elizabeth Hill Louisiana Department of Environmental Quality Water Quality Certifications Section P.O. Box 4313 Baton Rouge, LA 70821-4313

Dear Ms. Hill:

Pursuant to Section 401 of the Clean Water Act, the U.S. Army Corps of Engineers, New Orleans District, requests water quality certification modification for Environmental Assessment (EA) #543 entitled "Mitigation for the New Orleans to Venice Hurricane Risk Reduction Project: Incorporation of Non-Federal Levees from Oakville to St. Jude and New Orleans to Venice Federal Hurricane Protection Levee, Plaquemines Parish, Louisiana. The anticipated public release of EA #543 is July 2017. The purpose of this project is to evaluate the proposed new right of way (ROW) impacts for construction of the Non-Federal Levees (NFL) and the New Orleans to Venice (NOV) levee projects and impacts associated with mitigation for wetlands and bottomland hardwoods as result of the construction of the NFL NOV project.

The NFL project was originally documented and assessed in the Final Environmental Impact Statement titled "Final Environmental Impact Statement New Orleans to Venice, Louisiana Hurricane Risk Reduction Project: Incorporation of Non-Federal Levees from Oakville to St. Jude, Plaquemines Parish, Louisiana" with a Record of Decision signed October 31, 2011. The NOV project was documented and assessed in the Final Supplemental Environmental Impact (SEIS) titled "Final Supplemental Environmental Impact Statement New Orleans to Venice Federal Hurricane Protection Levee Plaquemines Parish, Louisiana" with a ROD signed October 31, 2011. The Supplemental Environmental Assessment (SEA) #537 titled "Supplemental Environmental Assessment #537 New Orleans to Venice Hurricane Risk Reduction Project: Changes to the Non-Federal Levees Project, Oakville to St. Jude, Plaquemines Parish, Louisiana." A Finding of No Significant Impact (FONSI) for SEA #537 was signed March 25, 2016. This SEA #537 described impacts for changes to the NFL including the Lower Level of Risk Reduction (LORR) to the 25-year/4 percent in levee Sections 2-5 of the NFL.

Three water certificates were issued previously for this NFL NOV project: 1) NOV SEIS WQC 110718-04/AI 101235/CER 20110006, approved August 18, 2011; 2) NFL EIS WQC 110520-01/AI 101235/CER 20110002, approved July 6, 2011; and 3) SEA #537 WQC 110520-01/AI 101235/CER20160001, approved January 7, 2016.

Please send all inquiries or comments to Mr. Daniel Meden either by mail or email. Mr. Meden's address is U.S. Army Corps of Engineers (PDN), 7400 Leake Ave, New Orleans, LA 70118. Mr. Meden's phone number is (504) 862-1014 and his email address is daniel.c.meden@usace.army.mil.

Sincerely,

Marshall K. Harper

Chief, New Orleans District

Maroball K. Hayren

Environmental Branch

BOBBY JINDAL GOVERNOR



State of Louisiana

PEGGY M. HATCH CER 2017 0002

WQC 1/0520-01 VALID / MODIFICE

DEPARTMENT OF ENVIRONMENTAL QUALITY **ENVIRONMENTAL SERVICES**

JUL 0 6 2011

INCLUDES MITIGATION FOR:

U.S. Army Corps of Engineers- Vicksburg District 4155 Clay Street Vicksburg, MS 39180

NOV HRRP NFL from OPEDALE TO ST. JUDE NOV FOD HPL

Attention: Christopher Koeppel

ADDITION OF: COLEMAN MITTER THON Ron -NOV 09

RE: Water Quality Certification (WQC 110520-01/AI 101235/CER 20110002) Nor-NE_W.052 /

New Orleans to Venice Hurricane Risk Reduction Project Incorporation of Non-Federal Levees from Oakville to St. Jude

Plaquemines Parish

Dear Mr. Koeppel:

The Louisiana Department of Environmental Quality (the Department) has reviewed your application to excavate land and place spoil material for the improvement of hurricane protection levees, in the vicinity between Oakville & St. Jude, Louisiana.

Based on the information provided in the application, the Department made a determination that the requirements for a Water Quality Certification have been met and concludes that the placement of the fill material will not violate water quality standards of Louisiana as provided for in LAC 33:IX.Chapter 11. Therefore, the Department hereby issues a Water Quality Certification to U.S. Army Corps of Engineers- Vicksburg District.

If you have any questions, please call Jamie Phillippe at 225-219-3225.

Sincerely,

Melvin C. Mitchell, Sr.

Administrator

Water Permits Division