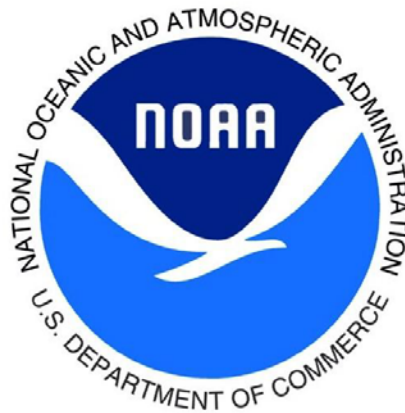


West Fourchon Marsh Creation & Nourishment Project

ENVIRONMENTAL ASSESSMENT

Fed No. TE-0134

Lafourche Parish, Louisiana



June 2020



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

MEMORANDUM FOR:

Carrie Selberg Robinson
Director, Office of Habitat Restoration

FROM:

Christopher D. Doley *Christopher Doley*
Division Chief, NOAA Restoration Center

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Date: 2020.06.29 09:02:24 -04'00'

SUBJECT:

Release of Coastal Wetlands Planning, Protection, and
Restoration Act West Fourchon Marsh Creation and Nourishment
Project Environmental Assessment and Finding of No Significant
Impact – ACTION MEMORANDUM

This action memo requests your approval to release the Coastal Wetlands Planning, Protection, and Restoration Act West Fourchon Marsh Creation and Nourishment Project Environmental Assessment (West Fourchon EA). It also seeks to proceed with the associated Finding of No Significant Impact (FONSI). Your approval for this action is acknowledged by signature on the FONSI.

BACKGROUND

This proposed project is authorized under the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) of 1990 (16 United States Code [U.S.C.] §777c, 3951-3956). As a CWPPRA trustee, National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS), Department of Commerce is the federal project sponsor responsible for project oversight, including National Environmental Policy Act (NEPA) compliance. NMFS is the federal lead agency. The Louisiana Coastal Protection and Restoration Authority is the non-federal local project sponsor and is performing the engineering and design of the project.

As evaluated in the West Fourchon EA, this project supports the objectives of the Coastal Wetlands Planning, Protection, and Restoration Act through the implementation of the West Fourchon Marsh Creation and Nourishment Project in Lafourche Parish, Louisiana. The project will raise the elevation of 537 acres of saline tidal wetlands and black mangrove habitat by dredging offshore sediments in order to meet the project purpose of re-establishing and preventing loss of marsh in the project area. The project is needed to preserve a functional elevation during anticipated sea level rise. Altered hydrology, subsidence, and hurricanes have contributed to land loss at the location, which is at sea level and frequently inundated with several feet of gulf water during tropical storms. All methods have shown to improve fisheries habitat by recreating marsh habitat, and are similar to and synergistic with other actions in the area.

The Final West Fourchon EA evaluates two design alternatives which vary primarily in terms of number of marsh creation polygons utilized in construction. The Split Polygon alternative is selected as the preferred design for construction.

Completion of this Final West Fourchon EA and reaching a FONSI satisfies the NMFS NEPA evaluation responsibilities. No further NEPA will be required to seek funding or construct the preferred alternative.

RECOMMENDATION

I recommend you approve the Final West Fourchon EA as recorded by your signature on the FONSI.

Attachments: West Fourchon Marsh Creation and Nourishment Project Environmental Assessment and associated Finding of No Significant Impact

FINDING OF NO SIGNIFICANT IMPACT for the West Fourchon Marsh Creation and Nourishment Project (TE-134) in Lafourche Parish, Louisiana

National Oceanic and Atmospheric Administration's (NOAA) Administrative Order 216-6A contains criteria for determining the significance of the impacts of a proposed action. In addition, the Council on Environmental Quality (CEQ) regulations at Title 40 Code of Federal Regulations (CFR) Section 1508.27 state that the significance of an action should be analyzed both in terms of "context" and "intensity." Each criterion is listed below, and the responses provided are relevant to making a finding of no significant impact (FONSI), and have been considered individually as well as in combination with the others:

(1) Can the proposed action reasonably be expected to cause both beneficial and adverse impacts that overall may result in a significant effect, even if the effect will be beneficial?

Response: The beneficial impacts of the proposed creation of 537 acres of saline tidal wetlands and black mangrove habitat by dredging offshore sediments are expected to outweigh the minimal adverse impacts associated with this action. The long-term moderate benefit to birds, wildlife, and threatened and endangered species due to the increasing longevity of the marsh and mangrove habitat will outweigh minor temporary adverse impacts to vegetation resources, aquatic, and benthic habitat and short-term minor impacts to birds, wildlife, and threatened and endangered species in the borrow area and marsh creation areas.

(2) Can the proposed action reasonably be expected to significantly affect public health or safety?

Response: No significantly negative impacts to public health or safety are associated with the proposed action. Safety to public was considered in design of the proposed action. The pipeline conveyance route was modified due to concerns of navigation and safety. Navigation dangers will be marked with appropriate signage as notice to boaters.

(3) Can the proposed action reasonably be expected to result in significant impacts to unique characteristics of the geographic area, such as proximity to historic or cultural resources, park lands, prime farmlands, wetlands, wild and scenic rivers, or ecologically critical areas?

Response: Impacts to wetlands are described in the attached EA, which are not significantly adverse impacts. Placement of sediment slurry would result in adverse, direct short-term, minor impacts to wetlands. Succession to mangroves will likely be set back to smooth cordgrass for a few years until mangroves replace the cordgrass. Material placement would increase wetland acreage and provide long-term benefits to vegetation resources. No other unique characteristics of the geographic area exist, as this action will not take place within a historic or cultural area, park land, farmland, wild and scenic river, or ecologically critical area.

4. Are the proposed action's effects on the quality of the human environment likely to be highly controversial?

Response: None of the proposed action's effects are likely to be highly controversial. Over the last several years, the proposed action has been presented at public meetings frequented

by environmental groups and general public. The action includes common coastal restoration techniques that are not controversial. No comments were received during the public review period. None of the impacts are environmentally controversial and efforts will be implemented to minimize impacts.

5. Are the proposed action's effects on the human environment likely to be highly uncertain or involve unique or unknown risks?

Response: The effects are not likely to involve unique or unknown risks. The proposed action involves construction actions that have been proven methodology along coastal Louisiana. The risks are known and minimal and planned for by conducting surveys of pipelines, and other common safety practices.

(6) Can the proposed action reasonably be expected to establish a precedent for future actions with significant effects or represent a decision in principle about a future consideration?

Response: The proposed action will not establish a precedent for future actions with significant effects. As shown in the EA analysis, no significant impacts would occur under the proposed action or represent a decision in principle about a future consideration. While the action is routine practice along coastal Louisiana and many similar actions have been completed, future CWPPRA actions will be determined through separate, independent planning processes.

(7) Is the proposed action related to other actions that when considered together will have individually insignificant but cumulatively significant impacts?

Response: The proposed action will not have any significant adverse impacts, nor will it cause cumulatively significant adverse impacts together with other related projects. The action is similar to other restoration actions across coastal Louisiana which cumulatively have a significant beneficial impact in lessening the amount of wetlands lost each year. The state and federal agencies associated with the coastal habitat work cooperatively in these attempts to create cumulatively beneficial impacts to the coast.

(8) Can the proposed action reasonably be expected to adversely affect districts, sites, highways, structures, or objects listed in or eligible for listing in the National Register of Historic Places or may cause loss or destruction of significant scientific, cultural, or historical resources?

Response: The proposed action will not be expected to adversely affect any of the aforementioned areas. State agencies were consulted on such resources and no such resources are known within the action area. The project was sited in order to have no effect on any known historic, prehistoric or native American resources, and it is unlikely any resources would be recovered or disrupted.

(9) Can the proposed action reasonably be expected to have a significant impact on endangered or threatened species, or their critical habitat as defined under the Endangered Species Act of 1973?

Response: The proposed action is not likely to adversely affect endangered or threatened species in the project area. The U.S. Fish and Wildlife Service and NOAA Protected

Resources Division were consulted as stated in the attached EA and the project will be implemented to minimize or eliminate impacts on endangered or threatened species.

(10) Can the proposed action reasonably be expected to threaten a violation of Federal, state, or local law or requirements imposed for environmental protection?

Response: The proposed action is expected to comply with all applicable federal laws and regulations. Table 1 below provides a summary of the federal regulatory compliance review and approvals as of June 2020. Environmental reviews and consultations not yet completed will be finalized prior to the initiation of the relevant project activities.

(11). Can the proposed action reasonably be expected to adversely affect stocks of marine mammals as defined in the Marine Mammal Protection Act?

Response: No. The Proposed Action is expected to comply with all applicable federal laws and regulations related to marine mammals.

(12) Can the proposed action reasonably be expected to adversely affect managed fish species?

Response: There is no reason at this time to expect a cumulative adverse effect to managed fish species. The project will restore and protect habitats that are beneficial to managed fish species and their prey. Any suspected environmental adverse impacts from the program are studied and changes implemented to avoid or minimize such impacts.

(13) Can the proposed action reasonably be expected to adversely affect essential fish habitat as defined under the Magnuson-Stevens Fishery Conservation and Management Act?

Response: The proposed action is not reasonably expected to significantly adversely affect essential fish habitat. The conversion of shallow vegetated habitat to open-water EFH would be postponed due to the marsh creation.

(14) Can the proposed action reasonably be expected to adversely affect vulnerable marine or coastal ecosystems, including but not limited to, deep coral ecosystems?

Response: The proposed action will not adversely affect vulnerable marine or coastal ecosystems.

(15) Can the proposed action reasonably be expected to adversely affect biodiversity or ecosystem functioning (e.g., benthic productivity, predator-prey relationships, etc.)?

Response: The proposed action would create or preserve biodiversity and ecosystem functioning of 537 acres of saline marsh and mangrove habitats that would otherwise be shallow open water. As a result of sea level rise, open water is prevalent and increasing in the area.

(16) Can the proposed action reasonably be expected to result in the introduction or spread of a nonindigenous species?

Response: The proposed action is not expected to result in the introduction of any nonindigenous species. Any invasive species present could spread on the newly created mudflat. Contracts for plantings would use only plantings authorized for release in the state of Louisiana.

Table 1. Current statue of compliance with Federal laws.

Endangered Species Act - Marine Species (NMFS)*	Endangered Species Act - Terrestrial Species (USFWS)*	Magnuson-Stevens Fishery Conservation and Management Act (NMFS)	Coastal Zone Management Act (LA DNR)	Marine Mammal Protection Act (NMFS)	Marine Mammal Protection Act (USFWS)	Bald and Golden Eagle Protection Act (USFWS)	National Historic Preservation Act (AHC)
[Complete – Not Likely to Adversely Affect]	[Complete – Not Likely to Adversely Affect]	[Complete]	[In Progress]	[Complete]	[Complete]	[Complete]	[Complete]

DETERMINATION

In view of the information presented in this document and the analysis contained in the supporting EA prepared for the West Fourchon Marsh Creation and Nourishment Project (TE-134) in Lafourche Parish, Louisiana, it is hereby determined that implementation of this project would not result in direct, indirect, or cumulative significant impacts on the quality of the human environment as described above and in the EA. In addition, all beneficial and adverse impacts of the proposed action have been fully considered and evaluated to reach the Finding of No Significant Impacts (FONSI). Accordingly, preparation of an Environmental Impact Statement for this action is not necessary.

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Carrie Selberg Robinson
 Director, Office of Habitat Conservation, NOAA

 Date

TABLE OF CONTENTS

1	INTRODUCTION	6
1.1	CWPPRA PROJECT SELECTION PROCESS	6
1.2	PROJECT LOCATION.....	8
1.3	ENVIRONMENTAL SETTING.....	8
1.4	PURPOSE	10
1.5	NEED	10
2	PROPOSED ACTION AND ALTERNATIVES	11
2.1	ALTERNATIVES CONSIDERED BUT ELIMINATED.....	11
2.2	ALTERNATIVES CONSIDERED IN DETAIL.....	11
3	AFFECTED ENVIRONMENT	19
3.1	PHYSICAL ENVIRONMENT	19
3.2	BIOLOGICAL ENVIRONMENT	21
3.3	CULTURAL RESOURCES	32
4	ENVIRONMENTAL CONSEQUENCES	36
4.1	PHYSICAL ENVIRONMENT	39
4.2	BIOLOGICAL ENVIRONMENT	43
4.3	CULTURAL RESOURCES	49
4.4	CUMULATIVE IMPACTS	51
5	SELECTION OF PREFERRED (SPLIT POLYGON) ALTERNATIVE.....	52
6	COORDINATION.....	53
7	COMPLIANCE WITH LAWS AND REGULATIONS	53
8	CONCLUSIONS.....	57
9	PREPARERS	58
10	DISTRIBUTION AND CONTRIBUTION LIST	59
11	LITERATURE CITED	60
	Appendix A.....	64

ABBREVIATIONS

cm	Centimeter
cy	Cubic yard
ft	Feet
hr	Hour
mm	Millimeter

UNIT CONVERSIONS

1 acre	43,560 square feet
1 ft	1.609 kilometers
1 cm	0.003 feet

LIST OF FIGURES

Figure 1. Setting of the Proposed West Fourchon Project.....	9
Figure 2. Proposed Project Relative to Other Restoration Efforts in the Area.....	10
Figure 3. Proposed Preferred (Split Polygon) Alternative Marsh Creation Areas	13
Figure 4. Additional Marsh Creation Area (MCA) North of Proposed MCAs	14
Figure 5. Proposed Preferred (Split Polygon) Alternative Marsh Creation Areas, Sediment Pipeline Corridor, and Borrow Area.....	16
Figure 6. Sediment Pipeline Corridor Options to the Marsh Creation Area (MCA) Around Proposed Fourchon Liquefied Natural Gas (LNG) Project	17
Figure 7. Single Polygon Alternative Marsh Creation Area (MCA).....	18
Figure 8. Oyster Leases in the Immediate Project Area	23
Figure 9. Piping Plover Critical Habitat Located on West Belle Barrier Headland	30
Figure 10. Pipelines in the Marsh Creation Area by Pipe Diameter and Company. P&A Denotes Plugged and Abandoned.	34
Figure 11. Tentatively Selected Plan for Proposed Port Fourchon Deepening Project.....	35
Figure 12. Oyster Leases in and Around the Marsh Creation Areas	46

LIST OF TABLES

Table 1. Summary of design alternatives.....	12
Table 2. Essential Fish Habitat in the project area (including the borrow area) for fishery species managed by the Gulf of Mexico Fishery Management Council and Highly Migratory Species managed by the National Marine Fisheries Service.	24
Table 3. Avian and other population functional groups' historical status and trends.....	27
Table 4. Other population functional groups' historical status and trends	27
Table 5. Threatened and endangered species considered	28
Table 6. Population and income information for Louisiana, Lafourche Parish, and Galliano	33
Table 7. Environmental Consequences of alternatives	37
Table 8. Status of law and regulation compliance	56
Table 9. Avoidance and minimization measures of the Preferred (Split Polygon) Alternative ...	57

ACRONYMS

BTNEP	Barataria Terrebonne National Ecosystem Program
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
CPRA	Louisiana Coastal Protection and Restoration Authority
CRMS	Coastwide Reference Monitoring System
CWA	Clean Water Act
CWPPRA	Coastal Wetlands Planning, Protection, and Restoration Act
CZMA	Coastal Zone Management Act
EA	Environmental Assessment
EFH	Essential Fish Habitat
EIS	Environmental Impact Statement
EPA	U.S. Environmental Protection Agency
ESA	Endangered Species Act
GMFMC	Gulf of Mexico Fisheries Management Council
GLPC	Greater Lafourche Port Commission

HTRW	Hazardous, Toxic, and Radioactive Waste
LCWCRTF	Louisiana Coastal Wetlands Conservation and Restoration Task Force
LDEQ	Louisiana Department of Environmental Quality
LDWF	Louisiana Department of Wildlife and Fisheries
LOOP	Louisiana Offshore Oil Port
LNG	Liquefied Natural Gas
MBTA	Migratory Bird Treaty Act
MCA	Marsh Creation Area
NAAQS	National Ambient Air Quality Standards
NAVD 88	North American Vertical Datum 1988
NEPA	National Environmental Policy Act
NFWF	National Fish and Wildlife Foundation
NMFS	National Marine Fisheries Service
NRHP	National Register of Historic Places
PEIS	Programmatic EIS
PPL	Priority Project List
PRD	NMFS Protected Resources Division
SHPO	State Historic Preservation Office
USACE	U.S. Army Corps of Engineers
USDA	United States Department of Agriculture
USFWS	United States Fish and Wildlife Service
U.S.C.	United States Code
WCRA	Wetlands Conservation and Restoration Authority
WVA	Wetland Value Assessment

EXECUTIVE SUMMARY

- Project:** West Fourchon Marsh Creation & Nourishment (TE-0134)
- Sponsor:** National Marine Fisheries Service and Louisiana Coastal Protection and Restoration Authority
- Contact:** Cecelia Linder; 1315 East-West Hwy, Silver Spring MD 20910; ph 301-427-8675
- Project Size:** 537 acres of shallow open water and marsh
- Location:** West of Port Fourchon, between Bayou Lafourche and Timbalier Bay, Louisiana
- Need:** Significant marsh loss in the project area has resulted from subsidence, an adjacent navigation channel, and three pipeline canals that have increased water exchange.
- Purpose:** Support the objectives of the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) by creating marsh and black mangrove habitat and nourishing existing marsh.
- Proposal:** Fund the restoration of coastal marsh and black mangrove habitat by hydraulically dredging sediments from the Gulf of Mexico to create and nourish approximately 537 acres.
- Public Participation:** State resource agencies, federal resource agencies, local government, tribes, and non-government organizations were coordinated with throughout project development as described in Section 1.1. The draft Environmental Assessment (EA) was available for public review online at http://www.habitat.noaa.gov/pdf/westfosurchon_te_134_draft_ea.pdf for 30 days. In the spring of 2020, we published a notice of the draft EA in The Advocate (state newspaper) and the local news outlets, including the Lafourche Gazette. The notice and any comments received on the draft will be included in the final EA.
- Summary of statement and conclusions:** Long-term benefit to birds, wildlife, and threatened and endangered species due to the increasing longevity of the marsh and mangrove habitat.
- Potential adverse impacts:** Dredging in the borrow area and marsh creation areas and placement of sediment in the marsh creation area will cause minor temporary adverse impacts to vegetation resources, aquatic, and benthic habitat in the borrow area and marsh creation areas, adverse direct, short-term minor impacts to birds, wildlife, and threatened and endangered species are expected with the proposed action. Provisions to avoid impacts to nesting birds and threatened and endangered species will be implemented.
- Issues to be resolved:** Options for routing a segment of the sediment pipeline to be selected based on proposed Fourchon Liquefied Natural Gas (LNG) plant construction schedule.

1 INTRODUCTION

This Environmental Assessment (EA) evaluates the environmental impacts of the proposed action and informs the decision maker(s) of the consequences of the West Fourchon Marsh Creation & Nourishment Project (West Fourchon Project [TE-0134]) in Lafourche Parish, Louisiana. This proposed project is authorized under the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA) of 1990 (16 United States Code [U.S.C.] §777c, 3951-3956). CWPPRA stipulates that five federal agencies and the State of Louisiana jointly develop and implement a plan to reduce the loss of coastal wetlands in Louisiana (16 U.S.C. §3952 (b) (2)). The National Oceanic and Atmospheric Administration (NOAA), National Marine Fisheries Service (NMFS), Department of Commerce is the federal project sponsor responsible for project oversight, including National Environmental Policy Act (NEPA) compliance. NMFS is the federal lead agency and Louisiana Coastal Protection and Restoration Authority (CPRA) is the non-federal local project sponsor and is performing the engineering and design of the project.

The West Fourchon Project is located in the Belle Pass-Golden Meadow Marsh Creation area within the 2017 State of Louisiana Coastal Master Plan (CPRA 2017a). Projects nominated in the CWPPRA program have to be consistent with the current Master Plan, which is updated every six years. The 2017 Coastal Master Plan includes 79 restoration, 13 structural protection, and 32 nonstructural risk reduction projects that will be implemented throughout coastal Louisiana (CPRA 2017a). Restoration projects build or maintain land and support productive habitat for commercially and recreationally important activities coastwide. Structural protection projects act as physical barriers against storm surge to reduce flood risk. Nonstructural risk reduction projects elevate and floodproof buildings and help property owners prepare for flooding or move out of high flood risk areas. Marsh creation uses sediment dredging and placement to establish new wetlands in open water areas such as bays, ponds, and canals. Predictive models were used to analyze the effects of individual projects over the next 50 years for multiple future scenarios (CPRA 2017a).

1.1 CWPPRA PROJECT SELECTION PROCESS

The CWPPRA Task Force approved the West Fourchon Project for engineering and design in 2015 on Priority Project List (PPL) 24 through a publicly vetted process (Louisiana Coastal Wetlands Conservation and Restoration Task Force [LCWCRTF] 2014). The CWPPRA project selection process begins when a series of Regional Planning Teams convene across the coast to solicit project nominees from the public, state, and federal agencies, as well as members of industry and academia. The meetings are publicized via public notices, and members of the public are invited to attend. Each nominee project contains conceptual project features, approximate construction costs, and anticipated benefits to wetland resources. Nominees are screened and pared down to 20 nominee projects at a public meeting. Each federal agency represented in the CWPPRA program, the state, and each coastal parish can cast one vote for the projects that, in their opinion, best meet the goals of the program.

Nominee projects are then evaluated by interagency and academic working groups to assess whether the conceptual project features, costs, and associated wetland benefits are feasible and appropriate to addressing land loss in that area. The 20 nominee projects are then voted on by the program's federal and state agencies to obtain a list of the 10 top-ranking (candidate) projects to continue through the process.

Candidate projects undergo further design and interagency evaluation to determine whether the proposed project features are feasible, the proposed benefits are likely, and the project costs fall within the funding constraints of the program. Some project features may be dropped during this preliminary design phase due to concerns about inferior performance or unreasonable costs. In addition, some features may be added or modified to improve the project or address potential impacts. In January of each year, the candidate projects are publicly presented and voted on by the program agencies to be funded for engineering and design, which includes permitting, land rights, and environmental compliance. Approximately four projects a year are approved for engineering and design funding. The process is described in detail online (www.lacoast.gov).

As a result of this process, the field of available alternatives considered for a project is narrowed to alternatives that would meet the project purpose and need, as well as project goals developed during the engineering and design process, and are consistent with the State Master Plan within the general proposed project area. During the engineering and design process, a CWPPRA project is subjected to layers of public, academic, and interagency review to ensure that effective projects move forward for design and construction. The CWPPRA program requires engineering and design reports at 30% and 95% completion. These reports are circulated, and meetings are held, at which the CWPPRA participating agencies, landowners, and other interested parties are presented with the design process to date, and provided opportunity to comment. The 30% design meeting for the West Fourchon Project was held on July 10, 2018 and a 95% design meeting was held on October 24, 2018.

NMFS and CPRA wished to proceed to the construction phase of this proposed project in 2019 and the CWPPRA standard operating procedures require that NMFS prepare an EA prior to the joint NMFS and CPRA request for funds and authorization to construct this project. The analysis of the proposed action and alternatives provided evidence that supported a level of significance determination for impacts to the human environment. Funding priorities in 2019 however did not provide for funding of this action at that time. The project was again proposed for construction funding and was approved in January 2020.

This EA discloses information on and analyzes the direct, indirect, and cumulative impacts on the human environment likely to result from funding and authorizing the construction of the West Fourchon Project. The EA also determines if the federal action requires the development of an Environmental Impact Statement. This EA complies with the NEPA of 1969 and Council on Environmental Quality (CEQ) regulations for implementing NEPA (Title 40 Code of Federal Regulations [CFR] Parts 1500 through 1508 [CEQ 1992]).

The proposed action evaluated in this EA is sediment placement. This action falls within the programmatic evaluation of Wetland Restoration Alternative (Section 2.2.2.11) Sediment/ Materials Placement (Section 2.2.2.11.4) completed in the 2015 NOAA Restoration Center Programmatic Environmental Impact Statement (PEIS). This EA incorporates by reference that programmatic information. Further, this EA tiers project-specific analysis for the proposed action as presented in this document from the Louisiana Coastal Area Ecosystem Restoration Study EIS (U.S. Army Corps of Engineers (USACE) 2004); Coast 2050 Plan (LCWCRTF and Wetlands Conservation and Restoration Authority [WCRA] 1998); CWPPRA program EIS (LCWCRTF

1993); Louisiana State Coastal Master Plan (CPRA 2017a); and the Barataria-Terrebonne National Ecosystem Program Comprehensive Conservation and Management Plan 2018 draft (BTNEP 2018).

The CWPPRA Wetland Value Assessment (WVA), a habitat-based assessment model, was used to estimate anticipated environmental benefits. The WVA (NMFS 2014, 2018a) compares conditions over a 20-year period to determine the net difference in future without project and future with project scenarios. Relevant descriptions and analysis from these documents are incorporated by reference to further inform this EA.

1.2 PROJECT LOCATION

The proposed West Fourchon Project is located approximately 1.7 miles north of the Gulf of Mexico and is central to a nationally significant estuary, the Barataria-Terrebonne National Estuary. The project area is privately owned and is located west of Port Fourchon, Louisiana between Timbalier Bay and Bayou Lafourche at the southeastern end of the Terrebonne Basin (Figure 1). Evans Canal is located south of the project area, Havoline Canal is located north of the project area, and the West Belle Barrier Headland is located southwest of the proposed project. The project is located within the South Bully Camp Marsh Mapping Unit of Region 3 of the Louisiana Coast 2050 Restoration Plan (LCWCRTF and WCRA 1998, 1999). The proposed borrow area is located in the Gulf of Mexico approximately 5.3 miles southeast of Port Fourchon.

1.3 ENVIRONMENTAL SETTING

The West Fourchon Project Area is part of the Deltaic Plain of the eastern Louisiana coast in the coastal Terrebonne Basin of Lafourche Parish. By the early 1900s, Bayou Lafourche was long abandoned by the Mississippi River and was leveed from the Mississippi River to prevent overbank flooding of agriculture and community settlements. Projects are currently underway to increase freshwater input from the Mississippi River into Bayou Lafourche. Saline marshes in the area are naturally subsiding with barrier beaches receding northward as sediments are reworked by Gulf of Mexico processes.

Hydrology in the project area has been affected by manmade impacts. In the early 1900s, natural flow from the Mississippi River into Bayou Lafourche was reduced to almost zero and salinities of the project area marshes now frequently approach full seawater (CEI 2008). Since the 1950s, the hydrology of the area's marshes has been impacted by pipeline and access canals dredged by the oil and gas industry. Global sea-level rise is apparent in the low-lying lands of the project area.

Port Fourchon (Figure 1) is 0.2 miles east of the proposed action. Operated by the Greater Lafourche Port Commission (GLPC), this busy port is located across Bayou Lafourche from the project area. Bayou Lafourche is an active navigation channel and the lower 3.4 miles of Bayou Lafourche are dredged approximately every two years by the USACE to maintain navigation.

The West Fourchon Project will be synergistic with other restoration efforts constructed in the project area (Figure 2) towards reducing land loss. The West Belle Pass Headland Restoration (TE-0023) was designed to combat shoreline erosion and restore hydrology. The West Belle Pass

Barrier Headland Restoration (TE-0052), and Caminada Headland Beach and Dune Restoration (BA-0045) and Caminada Headland Beach and Dune Restoration Increment II (BA-0143) were designed to restore barrier headland habitat.

Figure 1. Setting of the Proposed West Fourchon Project

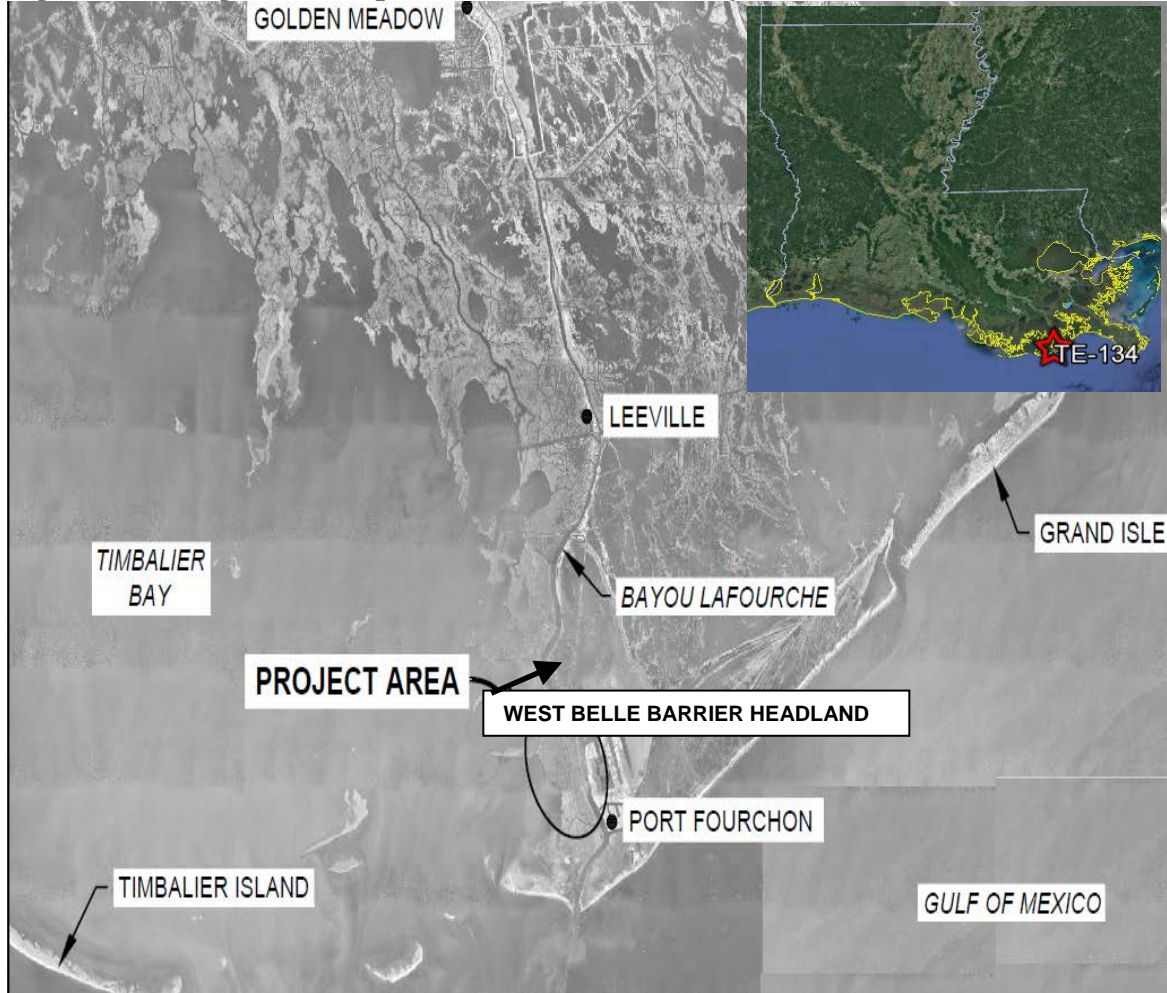
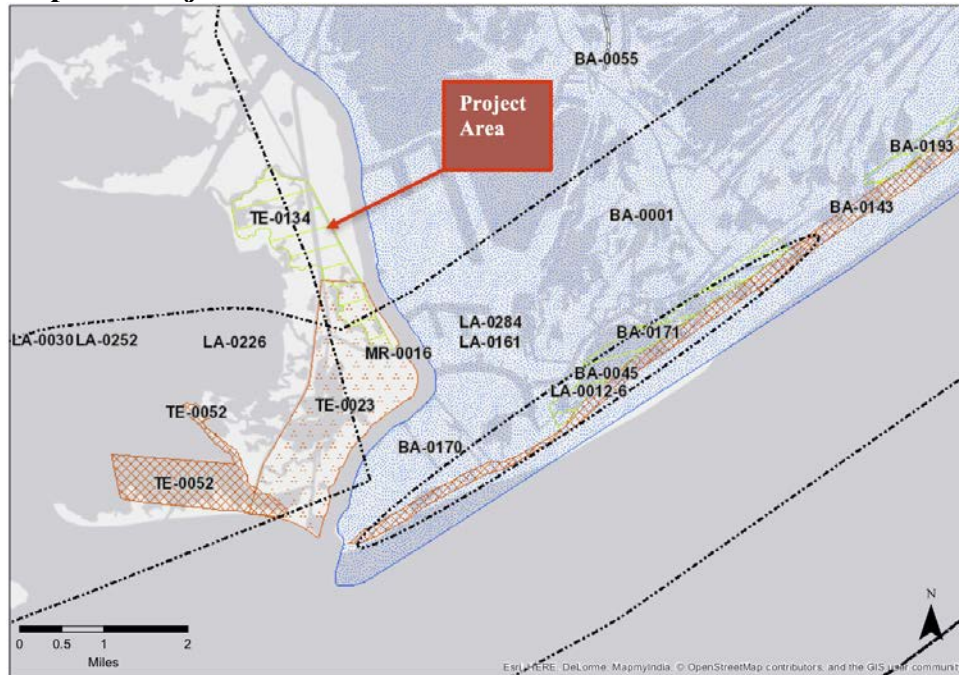


Figure 2. Proposed Project Relative to Other Restoration Efforts in the Area

Maps for figures provided courtesy of the Coastal Protection and Restoration Authority of Louisiana's Coastal Information Management System (CIMS) Map Viewer interface (<http://cims.coastal.la.gov/MapHome.aspx>).

Source: Louisiana's Coastal Information Management System at <http://cims.coastal.ca.gov>

1.4 PURPOSE

The purpose of the proposed project is to support the coastal restoration objectives of CWPPRA by re-establishing and preventing loss of marsh in the project area using offshore sediment. Approximately 537 acres of saline marsh and mangrove habitat will be created and nourished.

1.5 NEED

Wetlands in the area are essential to sustain renewable fishery resources integral to the local, state, and national economy. A healthy coastal marsh provides nursery habitat for shellfish and finfish; provides habitat for waterfowl, wading birds, small mammals, and numerous amphibians and reptiles; reduces storm surge to interior land; and helps maintain water quality.

The West Fourchon project area has been losing marsh and these losses are projected to continue. The USGS estimated land loss from 1984 to 2018 in the area in and around the proposed marsh creation areas was -0.69 percent, or a loss of 9.6 acres per year. These losses reduce the ability of the area to provide services such as renewable fishery resources. Natural subsidence, levees, hurricanes, and oil and gas activity have impacted the project area. Marshes and mangrove habitat provide nursery, foraging, and spawning habitat for numerous marine and estuarine species of commercial and recreational importance. Of the 1.7 billion pounds of fisheries landings reported for the U.S. Gulf Coast in 2016, more than 72 percent were caught in Louisiana (NMFS 2018b). Sea level rise is projected to impact these coastal areas and exacerbate these problems. Accretion is also occurring in the project area but is not sufficient to maintain the marsh elevation. Recent events, such as hurricanes or oil spills, contribute to the loss of habitat and have been considered in the impact analysis.

This project, along with two other CWPPRA projects, West Belle Pass Headland Restoration (TE-0023) and West Belle Pass Barrier Headland Restoration (TE-0052), and the East Timbalier Island Restoration (TE-0118) funded through the National Fish and Wildlife Foundation (NFWF) Gulf Environment Benefit Fund would contribute to the coastal resiliency of Port Fourchon. Stabilization of the marsh shoreline would help to protect Port Fourchon and the associated infrastructure, from coastal storm wind-generated wave erosion, slowing some the flooding impacts and providing a natural wave break.

2 PROPOSED ACTION AND ALTERNATIVES

2.1 ALTERNATIVES CONSIDERED BUT ELIMINATED

Through the CWPPRA process and to be consistent with the 2017 State Coastal Master Plan, marsh creation using dredged material was determined to be the appropriate approach to restoration at this location. The Master Plan polygon in the project area is 03a.MC.07 Belle Pass-Golden Meadow Marsh Creation (CPRA 2017).

Field investigations were performed to refine project features during engineering and design. Comprehensive engineering, design efforts, and alternative analysis were conducted only on project features and alternatives considered technically feasible and cost effective while still meeting the project's purpose and need. Project features determined to be untenable were eliminated from the evaluation process prior to investment of significant resources in data collection and detailed design. A detailed description of the design alternatives is in the Final (95%) Design Report (McClain et al. 2019), which provides information on the alternatives discussed in this EA.

The final design report (McClain et al. 2019) documents the development of the proposed action including additional detail on alternatives and why project features were eliminated. In summary, the project was originally envisioned to use a nearshore gulf borrow area located within a mile of the West Belle Barrier Headland. However, this borrow area was determined to be located too close to the headland, and was dropped due to concerns about increasing shoreline erosion. A previously dredged offshore borrow area for the West Belle Barrier Headland Project (TE-0052) marsh was then considered, but was scheduled for use by the Terrebonne Basin Barrier Island and Beach Nourishment (TE-0143) National Fish and Wildlife Foundation (NFWF) Project. An inland borrow area west of the marsh creation, approximately 3-4 feet deep, would require access dredging that would increase costs, potentially impact oyster leases and have potential to increase wave action. Bayou Lafourche was also considered, but was eliminated because there was insufficient material. The pipeline conveyance route was modified due to concern for navigation, impacts to the barrier headland habitat, and equipment access safety. For these reasons these borrow areas were not evaluated further.

2.2 ALTERNATIVES CONSIDERED IN DETAIL

Marsh creation in this location was determined to meet the immediate coastal needs in the project area. The no-action and two design alternatives were considered in detail in this EA. Design alternatives were based on results of topographic, bathymetric, geophysical, and magnetometer surveys. These alternatives vary primarily in terms of the number of marsh creation polygons utilized in construction. The marsh creation area was separated to avoid deep

water and excavation restrictions around existing pipeline canals. A summary of the design alternatives considered is presented in Table 1.

Table 1. Summary of design alternatives

Features	Preferred (Split Polygon) Alternative	Single Polygon Alternative
Created and Nourished acres	537 acres (North MCA 331; South MCA 206)	614 acres
Borrow area dredged material required	1.66 million cubic yards	1.56 million cubic yards
Containment dikes	32,572 linear feet	32,670 linear feet, plus sand core closure of pipeline canals
Containment dike dredging	103,821 cubic yards	110,000 cubic yards
Access dredging required	None	Yes, for sand barges for pipeline closure
Sediment Pipeline Length	6 miles	6 miles

Source: NMFS 2018 and McClain et al. 2018, 2019

2.2.1 No-Action Alternative

CEQ guidance on NEPA refers to the No-Action Alternative as the continuation of baseline conditions without implementation of the proposed action. Evaluation of the No-Action Alternative is required by CEQ regulations. Under the No-Action Alternative, NMFS will not implement restoration activities at the West Fourchon Project area. The No-Action Alternative does not meet the project goals, and the marsh losses in the area will continue. The existing conditions describe this alternative.

2.2.2. Preferred (Split Polygon) Alternative

Marsh Creation

The Preferred (Split Polygon) Alternative would create and nourish two areas of saline intertidal marsh (Figure 3) totaling 537 acres using material dredged from the Gulf of Mexico. Marsh would be constructed at an elevation of +2.0 feet North American Vertical Datum 1988 (NAVD88). After settlement, even with subsidence and sea level rise, the created marsh is expected to remain in the optimal inundation range over the 20-year project site.

Figure 3. Proposed Preferred (Split Polygon) Alternative Marsh Creation Areas

Additional Marsh Creation Area

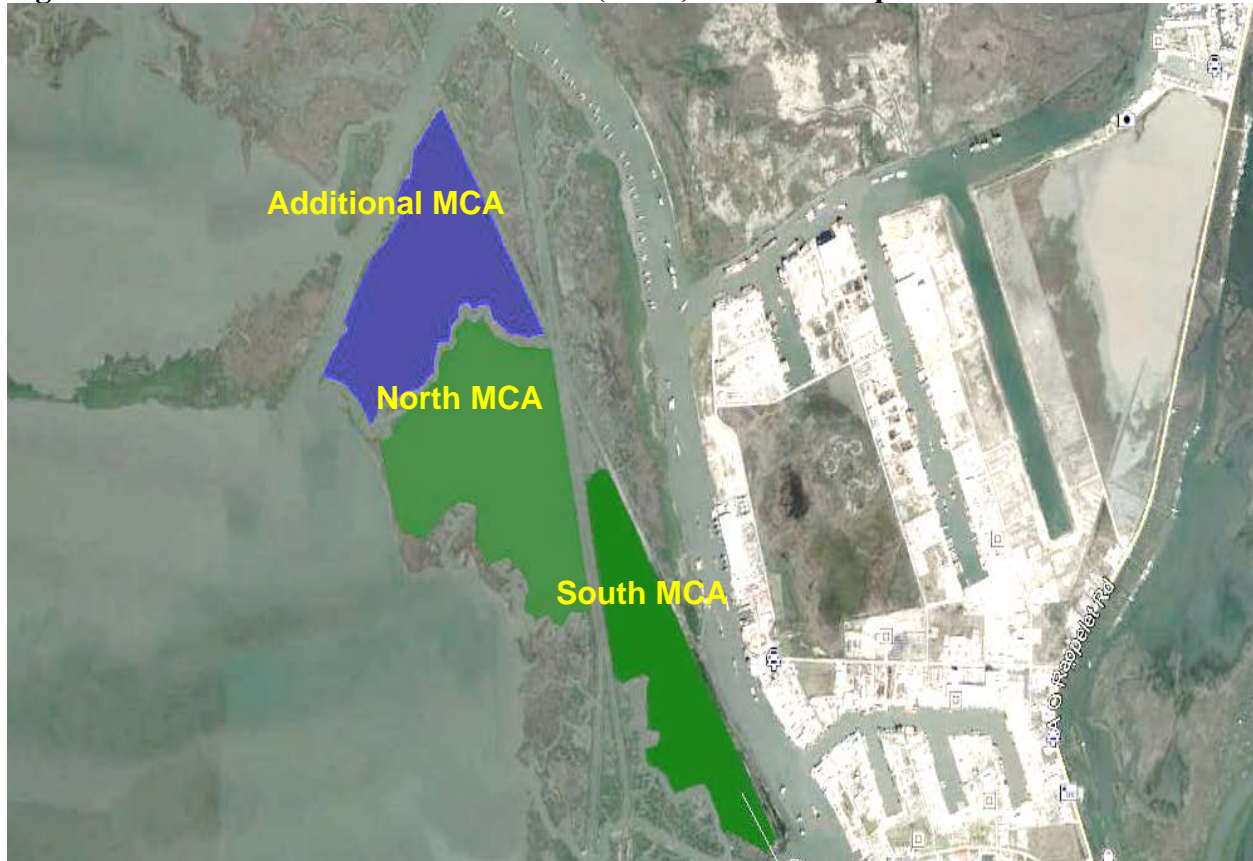
An additional 283-acre Marsh Creation Area (MCA) north of the Preferred (Split Polygon) Alternative MCAs (Figure 4) was also included in the surveying and geotechnical evaluations. Although this additional area was not included in the 95% design and construction-funding request, it will be permitted. If additional funding becomes available, the additional 283 acres could be filled and nourished as part of the proposed action.

Containment

Containment dikes would be constructed from material within the marsh creation areas to retain the sediment slurry until the material dewater and consolidates. After the sediment consolidates, breaches would be placed in strategic places along the dike to return tidal influence to the marsh and allow movement of water and aquatic organisms. Approximately 32,572 linear feet of containment dikes would be constructed of earth to an elevation of +3.0 feet NAVD88 with a 5-foot crown width. An estimated 103,821 cubic yards of material for these dikes would be excavated from inside the marsh creation areas and would take advantage of existing canal spoil banks as existing containment features. Materials within 25 feet of the containment dike would not be excavated in order to maintain the stability of the dikes. The containment dike borrow pits

would have a maximum bottom elevation of -10 feet NAVD88. The dikes would be degraded or gapped to allow access for water and estuarine organisms. Once gapped, the natural uneven settling of the soils should provide enough of an elevation gradient for tidal scouring to create tidal creeks.

Figure 4. Additional Marsh Creation Area (MCA) North of Proposed MCAs



Source: Google Earth

Containment of Additional Marsh Creation Area

For the 283-acre additional Marsh Creation Area north of the Split Polygon Alternative marsh creation areas, an additional 17,545 linear feet of containment dikes would be constructed to the same height and width as the containment dikes for the other Split Polygon Alternative marsh creation areas, if full containment is used. However, depending on the material properties, the bayous and canals could be plugged and the additional area semi-confined instead of using full containment.

Vegetative Plantings

Native vegetation would be planted along the containment dike perimeter after construction to help stabilize the containment dike and protect the newly created marsh habitat. Vegetative plantings would stabilize soil, reduce resuspension of recently deposited sediment, and encourage sedimentation. Sufficient plant stock are present in the surrounding area to provide seed stock for revegetation.

Vegetative Plantings of Additional Marsh Creation Area

For the additional 283-acre Marsh Creation Area north of the Split Polygon Alternative marsh creation areas, native vegetation would be planted along the containment dike perimeter after construction to help stabilize the containment dike and protect the newly created marsh habitat as for the other Split Polygon Alternative marsh creation areas.

Borrow Area and Sediment Pipeline Conveyance Route

The 282-acre proposed borrow area (Figure 5) is located in the Gulf of Mexico approximately 3.5 miles southwest of the entrance to Belle Pass and 6 miles from the proposed marsh creation areas. Water depths in the proposed borrow area are 28 to 36 feet below NAVD88. The borrow area contains ample sediment and only 40 percent of the identified sediments in the borrow area would be used for the proposed project. The maximum borrow area cut depth will be -20 feet NAVD88, with an additional 5-foot disturbance area. An estimated 1,659,052 cubic yards of sediment would be dredged from the borrow area to fill both marsh creation areas (McClain et al. 2018, 2019).

Sediment would be hydraulically dredged from the offshore borrow area to create marsh habitat. Sediment dredged from the borrow area would be mixed with water to create a slurry and pumped through a sediment pipeline (Figure 5) from the borrow area to the marsh creation areas. A booster pump also would be installed along the pipeline route. There are two options (Figure 6) to route the sediment pipeline conveyance around the Fourchon Liquefied Natural Gas (LNG) facility that is currently in design and permitting (McClain et al. 2018, 2019). The selected routes are not alternatives, but will depend solely on the timing of construction of the Fourchon LNG facility to coordinate with their construction. Option 1 would be approximately six miles long. Option 2 would minimize impacts to wetlands outside of the project area while reducing the pumping distance by approximately 3,000 feet.

Additional Marsh Creation Area's Borrow Area and Sediment Pipeline Conveyance Route

For the Additional 283-acre Marsh Creation Area north of the Split Polygon Alternative marsh creation areas (Figure 4), the same borrow area and sediment pipeline corridor would be used, except the pipeline would be extended an additional 1.5 miles of pipeline if it is extended from the north marsh creation area into the additional marsh creation area, or 3.5 miles worst case scenario of routing the pipeline around the north marsh creation area. For the Additional Marsh Creation Area, an additional 612,376 cy (if semi-containment is used) or 875,000 cy (if full containment is used) of material would be dredged from the borrow area.

Construction Duration

The total construction duration for the Split Polygon Alternative is expected to last about 14 months, including approximately 2 months of hydraulic dredging.

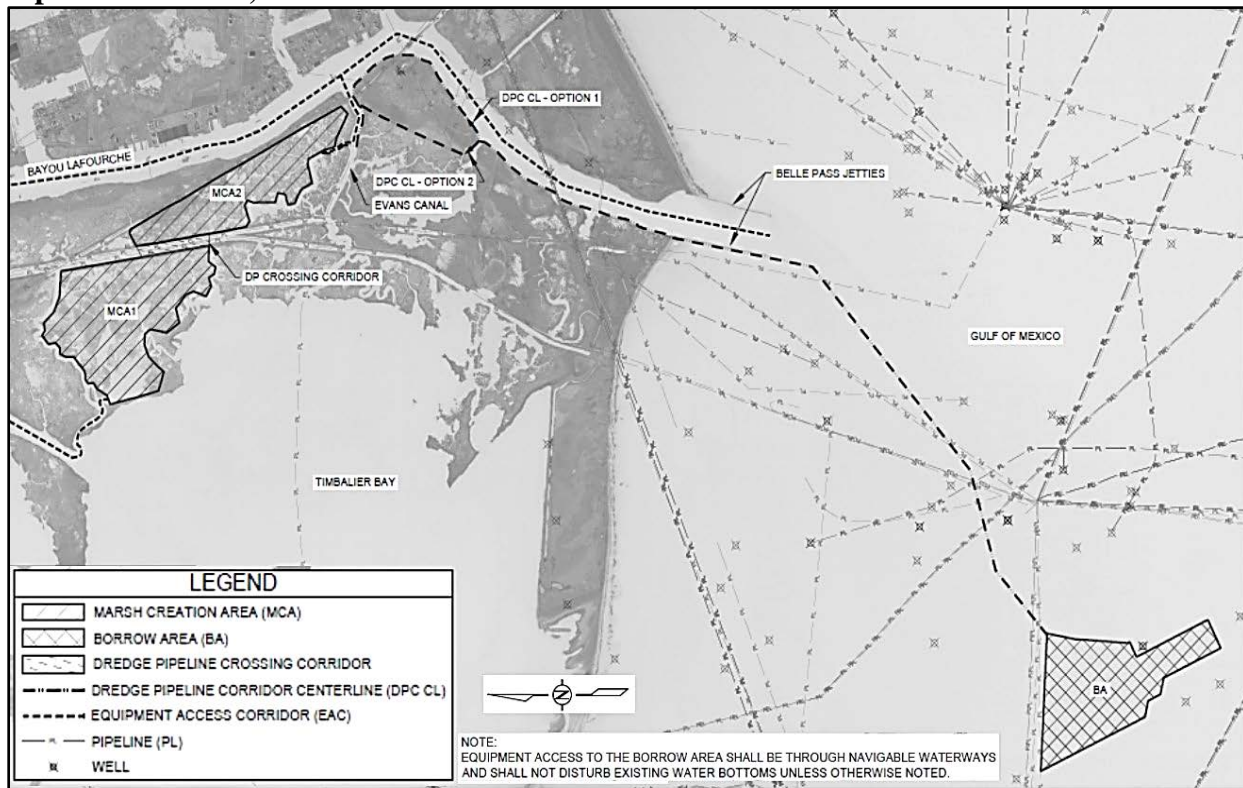
Construction Duration of the Additional Marsh Creation Area

If the Additional 283-acre Marsh Creation Area is filled, an extra 29 days of filling operation and 47 days of containment dike construction would be required. This would extend the project life to 16.5 to 17 months. However, this assumes that the dike construction and hydraulic dredging for some of the marsh creation cells does not occur concurrently.

2.2.3 Single Polygon Alternative

The Single Polygon Alternative would create one 614-acre marsh creation area (Figure 7). The Single Polygon Alternative is similar to the Preferred (Split Polygon) Alternative in terms of the marsh creation area design, containment dike design, and borrow area and conveyance route. The construction duration is expected to be similar to that of Preferred (Split Polygon) Alternative. The main difference is the use of a single marsh creation polygon as opposed to the two marsh creation polygons of the Preferred (Split Polygon) Alternative. Containment dike construction and use of the sediment pipeline corridor and borrow area would be the same for either alternative. However, 32,570 linear feet of containment would be constructed and a sand core closure would be required to close the pipeline canals. Access dredging would be required to haul in the sand barges for the sand core closures. The borrow area requirement would be approximately 1.56 mcy of material.

Figure 5. Proposed Preferred (Split Polygon) Alternative Marsh Creation Areas, Sediment Pipeline Corridor, and Borrow Area



Source: McClain et al. 2018

Figure 6. Sediment Pipeline Corridor Options to the Marsh Creation Area (MCA) Around Proposed Fourchon Liquefied Natural Gas (LNG) Project

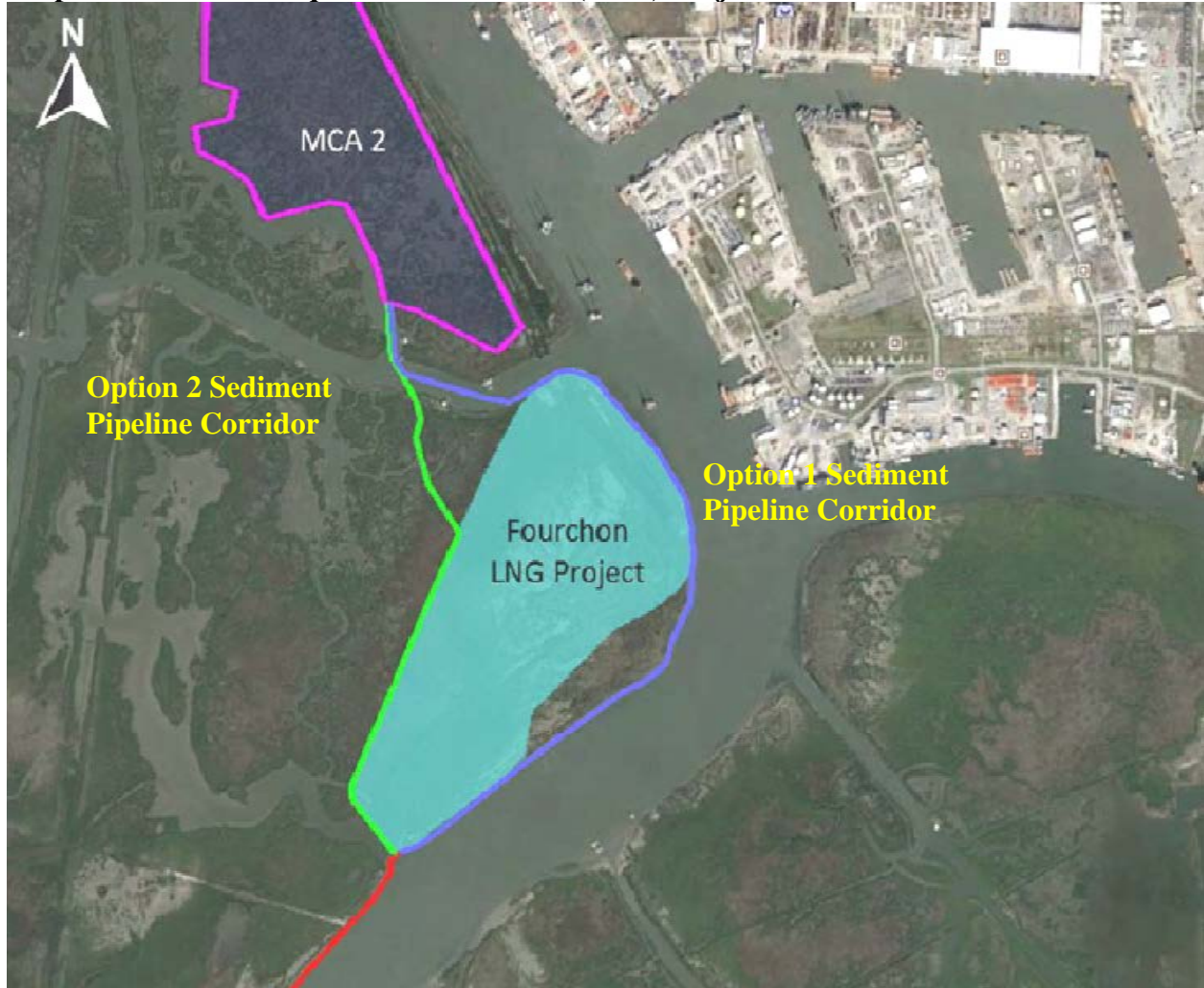


Figure 7. Single Polygon Alternative Marsh Creation Area (MCA)



3 AFFECTED ENVIRONMENT

The Affected Environment section describes the existing environmental resources of the project area that would be affected if any of the alternatives were implemented. This section describes only those environmental resources that are relevant to the decision making process. This section, in conjunction with the description of the No-Action Alternative, forms the baseline conditions for determining the environmental impacts of the reasonable alternatives.

A resource is considered important if it is recognized by statutory authorities including laws, regulations, Executive Orders (EO), policies, rules, or guidance; if it is recognized as important by some segment of the public; or if it is determined to be important based on technical or scientific criteria.

3.1 PHYSICAL ENVIRONMENT

3.1.1 Geology, Soils, Topography, and Water Quality

Marsh Creation Areas

The marsh creation areas are located at the western edge of the Terrebonne Basin. The topography of the basin is lowland, and the land is subject to flooding except the natural levees along major waterways. The coastal portion of the basin consists of marshes and is prone to tidal flooding (LDEQ 2016).

Subsurface conditions vary slightly across the marsh creation areas. Generally, the soil profile consists of 2 to 4 feet of very soft to soft clay with organic clay or peat, underlain by layers of sand, silty sand, clayey sand, or shell to depths of about 15 feet below the mudline. These soft surficial soils are underlain by alternating layers of medium to stiff clay, sandy clay, sand, and silt layers (Ardaman & Associates 2017). Bulk densities are 0.401 g cm^{-3} , with about 20 percent organic matter to 24 cm (Coast Wide Monitoring Station (CRMS) 2017). Soils in the marsh creation area are primarily Bellpass-Scatlake association with Scatlake Muck in the southeast portion (USDA 2018).

Topographic surveys of the proposed marsh creation areas were conducted in 2016 (T. Baker Smith 2017). The average elevation of the proposed northern marsh creation area was approximately -0.63 feet NAVD88 with most survey points within a -2.0 and +1.0 foot range. The average elevation of the proposed southern marsh creation area was approximately -0.21 feet NAVD88 with most survey points within a -2.0 and +1.0 foot range (T. Baker Smith 2017).

Water depths in the project area are affected by tides, winds, and precipitation. Approximately 55 percent of the proposed marsh creation area is covered by open water. Water depths in the marsh creation areas are about one foot deep (mean high water is +0.86 feet, mean low water is -0.46 feet (McClain et al. 2018, 2019). Evans and Havoline Canals and Bayou Lafourche adjacent to the marsh creation areas contain deeper water (McClain et al. 2018).

The project area has little freshwater influence and is primarily affected by water and wave conditions in Timbalier Bay and the Gulf of Mexico. Salinity varies seasonally and decreases landward from the coast. Salinity in coastal areas is highest from October through November and lowest in February and March. The average salinity at an adjacent (CRMS) station (CRMS0292)

between 2006 and 2014 was 25.1 ppt; salinities ranged from about 17 to 32 ppt. The primary source of freshwater to the marsh restoration area is via Bayou Lafourche. The nearest tide gauge (NOAA Tide Gauge 8761724) is located at Grand Isle, Louisiana located 18.1 miles northeast of the project area (CPE 2009). Tides at Grand Isle are diurnal, with a relatively small mean tide range of approximately 1.1 feet.

A fetch limited wave analysis was used to estimate wave activity along the West Belle Barrier Headland back-bay shoreline approximately 2 miles southwest of the southern edge of the project area during average conditions and frequent storms. An average depth of -6 feet NAVD88 was used for Timbalier Bay based on data collected in August 2008. Under average conditions, back-bay wave heights ranged from 0.3 to 1.0 feet with corresponding periods ranging from 1.0 to 2.3 seconds. The average back-bay wave height was approximately 0.6 feet with a corresponding period of 1.5 seconds. Because the average wave energy in the back-bay area is small, wave-induced erosion in the back-bay marshes was attributed to storm events. Under the annual to 5-year storm conditions, wave heights range from 3.5 to 4.7 feet with corresponding periods of 3.4 to 3.7 seconds (CPE 2009).

The Belle Pass jetties (Figure 5) have adversely affected the longshore transport along the Caminada Headland to the west, trapping sand, and disrupting the downdrift sediment transport towards the Timbalier Islands (Penland and Suter 1988; Moss et al. 1985). The West Belle Barrier Headland southwest of the marsh creation area suffers some of the highest shoreline retreat rates in the nation. Much of the erosion and transport of material occurs during storms (frontal passages and tropical storms/hurricanes). Shoreline change measurements suggested a shoreline retreat rate of approximately 50 feet/year at West Belle Barrier Headland, although retreat rates of 133 feet/year have been measured during earlier time periods (NOAA 2010). Byrnes et al. (2017) reported that shoreline erosion averaged -16.2 feet/year based on measurements from 2004 to 2012. Following restoration of the West Belle Barrier Headland, a spit has formed at the western end of the headland (CPRA 2017b).

Water quality in the project area is generally good. According to LDEQ (2016), Timbalier Bay (Subsegment LA120803_00) fully supported all designated uses, including primary contact recreation (swimming), secondary contact recreation (boating), and fish and wildlife propagation (fishing).

The U.S. Environmental Protection Agency (EPA) has authority through Section 1424(e) of the Safe Drinking Water Act of 1974 to review federally financed projects to determine their potential for contaminating sole source aquifers. According to the EPA, the proposed project is not located over a sole source of drinking water.

Borrow Area

Water depths in the proposed borrow area are 28 to 36 feet below NAVD88 (OSI 2017) with a gentle slope of 1 foot vertical in 900 feet horizontal in a southward direction (McClain et al. 2018).

Offshore water quality is generally good, although low dissolved oxygen waters can occur in summer months due to periodic Mississippi River discharge. The condition of water in an

oxygen poor state (less than or equal to 2 milligrams per liter) is called hypoxia. In the northern Gulf, this hypoxic zone can be deadly to organisms incapable of escaping, such as small fish and invertebrates. The location and extent of the hypoxic zone vary each year (Turner and Rabalais 2017).

A borrow area search and subsequent geotechnical investigations determined that the entire depth of the 282-acre borrow area contained fairly uniform suitable mixed sediment for marsh creation such that the entire depth (maximum cut of -20 ft NAVD88 with a 5-foot disturbance layer) and width of the borrow area could be dredged for use. However, the borrow area contains 7.5 million cubic yards of material and only 40 percent of the available sediment would be used for the Split Polygon Alternative. An additional Silt and sands in the proposed borrow area extend to a depth of 15 feet below the seafloor. The borrow area seabed is relatively uniform and primarily composed of clays of high plasticity interspersed with silt or silty sand seams, lenses and pockets (GeoEngineers 2017; OSI 2017).

3.1.2 Climate, Weather, and Air Quality

Coastal Louisiana is subtropical. Long, hot summers and, mild winters with high humidity all year are normal. Air temperatures range from 14 to 102 °F and average winter and summer temperatures are 55.3 and 82.4 °F, respectively. Over 60 inches of rain falls yearly, primarily in spring and summer, although climate is erratic with drought and heavy rainfall years setting records in recent decades. In the fall and winter, winds tend to be from the north-northeast; in spring and summer, winds are generally from the south-southeast. Hurricane and tropical storm season is June to November. On average, one hurricane and two tropical storms make landfall in Louisiana every three years (Roth 2010). In the past 170 years, 10 tropical systems have made landfall within a 15-mile radius of the project area (NOAA 2018a).

Lafourche Parish is in attainment with National Ambient Air Quality Standards. Air quality monitoring throughout the state exceeds the monitoring required, however, the Louisiana Department of Environmental Quality (LDEQ) does not monitor air quality along the coastline where offshore breezes mix and freshen the air.

3.1.3 Noise

The marsh creation and borrow area is adjacent to a busy navigation channel and port. Conditions are generally quiet outside the main navigation areas, except for occasional boat traffic.

3.2 BIOLOGICAL ENVIRONMENT

The biodiversity of coastal Louisiana is nationally significant. Coastal Louisiana contains an estimated 40 percent of the vegetated estuarine wetlands in the contiguous United States (USACE 2004). The combined Barataria-Terrebonne estuaries support more than 350 species of birds, of which 185 species are annual returning migrants. In total, approximately 735 species of birds, finfish, shellfish, reptiles, amphibians, and mammals spend all or part of their life cycle in the estuaries (USACE 2004).

3.2.1 Vegetation Resources

Marsh Creation Areas

Vegetation at the project site is a mixture of smooth cordgrass and black mangrove. Most of the project area is open water and vegetated by smooth cordgrass, interspersed with black mangroves. Approximately 165 acres of the proposed marsh creation areas contain a mixture of black mangroves, smooth cordgrass, and open water. The proposed marsh creation area is approximately 45 percent vegetated. Black mangroves at the project area are at the northern extent of their range and are periodically damaged or killed by hard freezes. Mangroves have proliferated since the last hard freeze in 1990 and are now common in the project area, although the mangroves in the area were damaged by the freezes during the winter of 2017-2018. No seagrass or other submerged aquatic vegetation has been observed during site visits to the project area or at the nearby CRMS station.

Borrow Area and Sediment Pipeline Corridor

The borrow area and sediment pipeline corridor are unvegetated.

3.2.2 Aquatic and Benthic Habitats

Marsh Creation Areas

The proposed marsh creation area contains approximately 293 acres of shallow (0.5 to 2 feet deep) open-water and soft mud benthic habitat. Recent research in nearby Barataria Bay, Louisiana indicates these shallow non-vegetated bottom areas are more important for fishery species than previously assumed (Rozas and Minello 2015). Bacteria, fungi, microalgae, meiofauna, and microfauna of the benthos support higher levels of the food chain, such as shrimp and demersal fish. Variables affecting the distribution of benthic organisms include substrate quality, water depth, salinity, illumination, food availability, currents, and tides. Oysters are present in Timbalier Bay and surrounding areas (Figure 8), and two oyster leases (4.2 and 8.2 acres in size each) adjacent to the project area allow private harvest of oysters.

Borrow Area

The borrow area benthic habitat is primarily clay sands and silt under the open marine water column of the Gulf of Mexico. The most typical bottom substrate in the Central Gulf of Mexico is soft muddy bottom where polychaetes are the dominant benthic organism (DOI MMS 2002). Benthic habitats near the borrow area sites support bacteria, algae, and seagrasses; abundances are controlled by scarcity of suitable substrates and limited light penetration. Dominant groups of benthic fauna are: (1) infauna (animals that live in the substrate, such as burrowing worms, crustaceans, and mollusks); and (2) epifauna (animals closely associated with the substrate, such as crustaceans, echinoderms, mollusks, hydroids, sponges, and soft and hard corals). The benthic community supports higher levels of the food chain, such as shrimp and demersal fish. Substrate quality strongly influences the distribution of benthic fauna. For example, infaunal organisms increase in number as sediment particle size increases (DOI MMS 2002). Other variables affecting the distribution of benthic organisms include water depth, distance from shore, illumination, food availability, currents, tides, and wave shock.

Figure 8. Oyster Leases in the Immediate Project Area

Source: CRPA

3.2.3 Marine Fishery Resources and Essential Fish Habitat (EFH)

Marsh Creation Areas

Many estuarine-dependent fishery species occur in the project area. These species spawn offshore in the open Gulf of Mexico, enter area wetlands as young, and return to the open gulf as adults. Red drum, black drum, spotted seatrout, Gulf menhaden, southern flounder, white shrimp, brown shrimp, blue crab are abundant. The coastal natural habitats support a thriving fishery that is threatened by manmade and naturally occurring habitat changes, such as industrial growth and sea level rise.

A wide variety of estuarine-dependent fishery species found in the Terrebonne Basin (LCWCRTF and WCRA 1999) are of national economic importance. Most species vary in abundance from season to season due to their migratory life cycle, habitat preferences according to life stage, and the variation in salinity (Herke 1978, Rogers and others 1993, LCWCRTF and

WCRA 1999). Most spawn offshore in the open Gulf of Mexico and enter the marsh area as postlarvae or young juveniles to use the marshes as a nursery, and return to the open gulf as subadults or adults. Population trends and projections for the estuarine-dependent species: red drum, black drum, spotted seatrout, Gulf menhaden, southern flounder, white shrimp, brown shrimp, blue crab are listed as having a decreasing trend, and projected to continue to decline toward the year 2050 (LCWCRTF and WCRA 1998).

There are no oyster leases directly within the project area. Existing 4.2- and 8.2-acre oyster leases are located southwest of the marsh creation area. Based on its proximity to the project area, a 4.5-acre portion of one oyster lease will be acquired; however, due to the shallow water and high salinities in the area, few oysters are expected to be present on this lease.

The proposed project area contains EFH as designated by the Gulf of Mexico Fishery Management Council (GMFMC) for species that are federally managed under the Magnuson-Stevens Fishery Conservation and Management Act, P.L. 104-297; 16 U.S.C. 1801 et seq. (Magnuson-Stevens Act). Categories of EFH in the project area include estuarine emergent wetlands (e.g., marsh and mangrove), estuarine water bottoms and estuarine water column, marine water column, marine water bottoms (e.g., soft bottom), and nearshore waters (GMFMC 2005).

The EFH by life stage for federally managed and highly migratory species at the proposed marsh creation and borrow area are presented in Table 2. Habitats include smooth cordgrass emergent marsh, black mangrove habitat, and shallow waterbottom with either silty and clay soft bottom sediment.

Borrow Area

The borrow area is featureless nearshore bottom area 28 to 36 feet below NAVD88 with either silty and clay soft bottom sediment.

3.2.4 Marine Mammal Resources

Marine mammals (also federally protected under the Marine Mammals Protection Act) that occur in Louisiana waters include whales, plus several species of dolphin, and the endangered West Indian manatee. See Section 3.2.7 for additional discussion on the threatened and endangered marine mammals.

Bottlenose dolphins live in coastal waters throughout the Southeast U.S., including bays, sounds, and estuaries. Bottlenose dolphins have been observed in Bayou Lafourche, Evans Canal, and the Gulf of Mexico near the borrow area. Dolphin follow schooling fishes that are prey, and seek food and refuge in interior bay waters.

Table 2. Essential Fish Habitat in the project area (including the borrow area) for fishery species managed by the Gulf of Mexico Fishery Management

Council and Highly Migratory Species managed by the National Marine Fisheries Service.

Species	Life Stage	Habitat
White shrimp	Postlarvae and juvenile	Emergent marsh and soft bottom
Brown shrimp	Larvae, postlarvae, and juvenile	Emergent marsh, estuarine and nearshore softbottom, and borrow area water column
Red drum	Eggs, larvae, postlarvae, juvenile, and adult	Emergent marsh, marine and estuarine water column, and soft bottom
Gray snapper	Adult	Emergent marsh and estuarine softbottom waters
Lane snapper	Eggs, larvae, juvenile, and adult	Nearshore and estuarine softbottom, estuarine and marine water column, emergent marsh, and mangrove
Gray triggerfish	Juvenile and adult	Possibly nearshore, mangrove
Greater amberjack	Juvenile and adult	Borrow area water column
Cobia	Larvae, post-larvae, juvenile, and adult	Borrow area water column 11+meters deep
Scalloped hammerhead	Neonate	Nearshore waters to 180 feet
Blacktip shark	Neonate, juvenile, and adult	Nearshore waters and estuarine waters of Timbalier Bay
Bull shark	Neonate	Estuaries and nearshore waters
Atlantic sharpnose shark	Neonate, juvenile, and adult	Nearshore waters, lower, and Timbalier Bay
Finetooth shark	Neonate, juvenile, and adult	Estuarine waters, nearshore waters, and Timbalier Bay

3.2.5 Migratory Bird Resources

Marsh Creation Areas

Birds are the most common vertebrates in the salt marsh. Only a few species of birds live exclusively in the salt marsh, such as the clapper rail, the seaside sparrow, and the long-billed marsh wren. However, many other birds feed in the marsh, including herons, egrets, wood storks, spoonbills, and ducks (Fleury 2000).

Louisiana's coastal zone supports 19 percent of the United States winter population for 14 species of ducks and geese. The North American Waterfowl Management Plan identified coastal Louisiana as one of the most important regions for the maintenance of continental waterfowl populations in North America (USACE 2004).

Colonial-nesting waterbirds have been observed in the proposed marsh creation areas. Heron, egret, night heron, ibis, roseate spoonbill, anhinga, and/or cormorant could occur in the project area. Shallow water areas are used as forage habitat. In addition, the beach at West Belle Barrier Headland along the sediment pipeline corridor has nesting and foraging habitat for many species of seabirds and shorebirds.

3.2.6 Wildlife Resources

Marsh Creation Areas

There are relatively few vertebrate animals in the salt marsh. A few mammals, like muskrat and nutria, can survive in the salt marsh, as can about nine species of reptiles and amphibians (Fleury 2000). However, due to the lack of freshwater input to the project area, there are likely fewer species. Diamondback terrapins can be found in Louisiana salt marshes (LNHP 1986-2004).

Approximately 735 species of birds, finfish, shellfish, reptiles, amphibians, and mammals spend all or part of their life cycle in the estuaries of coastal Louisiana (USACE 2004). Wildlife species populations surrounding the project area have been stable. Prominent Louisiana wildlife groups or species and their habitat function, status, trend, and projected status are provided in Tables 3 and 4 (LCWCRTF and WCRA 1998). The tables consist of selected prominent functional groups that represent other species or functional groups and are not meant to be all-encompassing for any animal or avian group. Although species that frequent woody or freshwater habitats may be listed as occurring in the surrounding geographic area, the proposed project area does not contain habitat supportive of such species. The area is within the Mississippi Flyway, and birds from central and northern North America start to converge in the area in the fall.

Table 3. Avian and other population functional groups' historical status and trends

1988 Habitat		Open Water	Saline Marsh
percent of area		25	75
Brown Pelican	Function	Wintering	Nesting
	Status	Moderate	Moderate
	Trend/Proj.	Increasing/Increasing	Increasing/Increasing
Bald Eagle	Status	Not historically present (NH)	Not historically present (NH)
Wading Birds & Shorebirds	Function	.	Multiple functions
	Status	NH	High numbers
	Trend/Proj.	.	Decreasing/Decreasing
Dabbling Ducks & Diving Ducks	Function	Wintering area	Wintering area
	Status	Low numbers	Low numbers
	Trend/Proj.	Decreasing/Decreasing	Decreasing/Decreasing
Geese & Raptors	Status	NH	NH
Rails, Coots, & Gallinules	Function	Wintering area	Wintering area
	Status	Low numbers	Low numbers
	Trend/Proj.	Steady/Decreasing	Steady/Decreasing
Other Marsh/OW Residents	Function	Multiple functions	Multiple functions
	Status	Moderate numbers	High numbers
	Trend/Proj.	Steady/Steady	Steady/Decreasing
Other Marsh/OW Migrants	Function	Multiple functions	Multiple functions
	Status	Moderate numbers	High numbers
	Trend/Proj.	Steady/Decreasing	Steady/Decreasing

*Projection (Proj.), Function, Status, and Trends for South Bully Camp unit (LCWCRTF and WCRA 1998). NH indicates groups not historically present.

Table 4. Other population functional groups' historical status and trends

1988 Habitat		Open Water	Saline Marsh
Furbearers	Nutria and Muskrat	Function	Multiple functions
		Status	Low numbers
		Trend/Proj.	Decreasing/Decreasing
	Mink, Otter, Raccoon	Function	Multiple functions
		Status	Low numbers
		Trend/Proj.	Steady/Decreasing
Game	Squirrel, Deer	Function	.
		Status	NH
		Trend/Proj.	.
Reptiles	American Alligator	Function	Multiple functions
		Status	Low numbers
		Trend/Proj.	Decreasing/Decreasing

*Projection (Proj.), Function, Status, and Trends South Bully Camp mapping unit (LCWCRTF and WCRA 1998) NH indicates groups not historically present.

3.2.7 Threatened and Endangered Species

Threatened and Endangered species or critical habitats that could be present in the proposed project area are listed in Table 5 and described below.

Table 5. Threatened and endangered species considered

Common name by group		Species	ESA Status	Critical Habitat
Fish	Atlantic (Gulf subspecies) sturgeon	<i>Acipenser oxyrinchus desotoi</i>	Threatened	Designated
	Oceanic whitetip shark	<i>Carcharhinus longimanus</i>	Threatened	None designated
	Giant manta ray	<i>Manta birostris</i>	Threatened	None designated
Birds	Piping plover	<i>Charadrius melodus</i>	Threatened	Designated
	Red knot	<i>Calidris canutus</i>	Threatened	None designated
Mammals	West Indian manatee	<i>Trichechus manatus</i>	Endangered	Designated
	Sei whale	<i>Balaenoptera borealis</i>	Endangered	None designated
	Fin whale	<i>Balaenoptera physalus</i>	Endangered	None designated
	Sperm whale	<i>Physeter macrocephalus</i>	Endangered	None designated
	Gulf of Mexico Bryde's whale	<i>Balaenoptera edeni (GoM subspecies)</i>	Endangered	None designated
Reptiles	Kemp's ridley turtle	<i>Lepidochelys kempii</i>	Endangered	None designated
	Hawksbill turtle	<i>Eretmochelys imbricata</i>	Endangered	Designated
	Leatherback turtle	<i>Dermochelys coriacea</i>	Endangered	None designated
	Green turtle	<i>Chelonia mydas</i>	Threatened	Designated
	Loggerhead turtle	<i>Caretta caretta</i>	Threatened	Designated

Threatened Fish Species

No gulf sturgeon critical habitat for the species is designated in the project area. Gulf sturgeon migrate into brackish and salt water during the fall and feed there throughout the winter months. The current range of Gulf sturgeon in Louisiana is believed to be east of the mouth of the Mississippi River (68 FR 13370), so gulf sturgeon are not expected in the project area.

The oceanic whitetip shark is a pelagic species that generally remains offshore in the open ocean, on the outer continental shelf, or around oceanic islands in water depths greater than 600 feet. Borrow area depths are between 28 to 36 feet and the NMFS believes oceanic whitetip sharks will not occur in the project area.

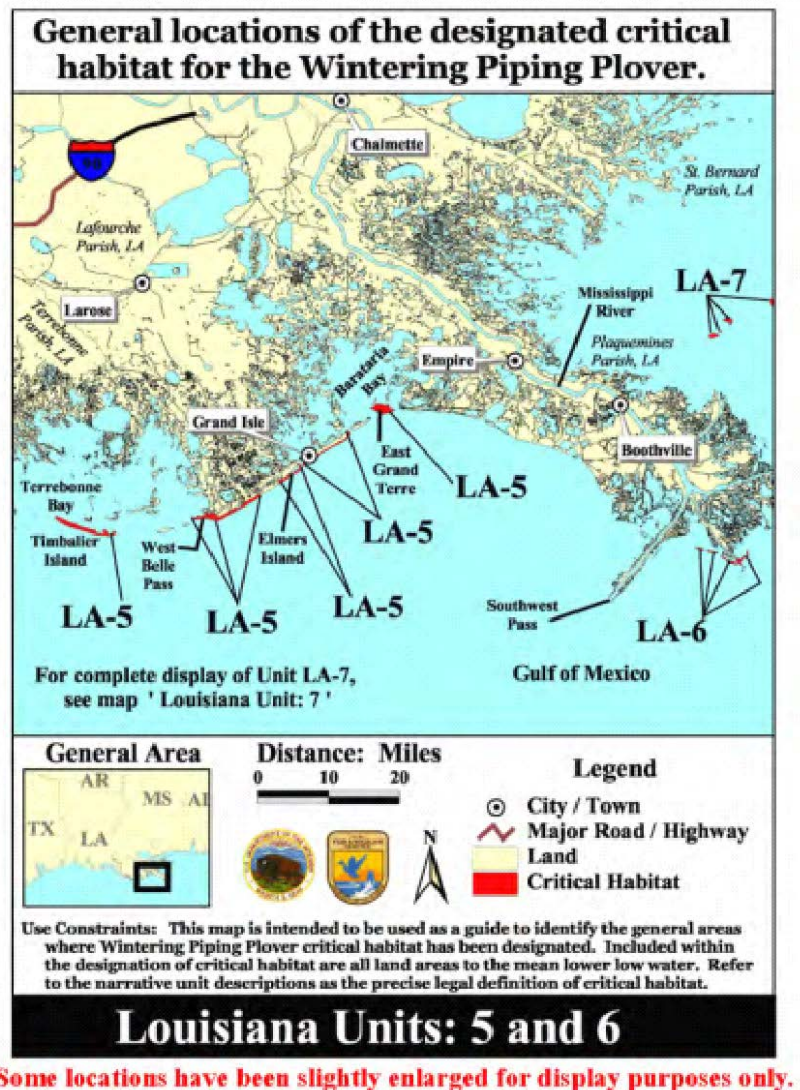
Giant manta rays are commonly found offshore, in oceanic waters, and near productive coastlines (NOAA 2018b). This species has also been observed in estuarine waters near oceanic inlets, with use of these waters as potential nursery grounds. Although the giant manta ray tends to be solitary, they aggregate at cleaning sites and to feed and mate. Manta rays primarily feed on planktonic organisms such as euphausiids, copepods, mysids, decapod larvae and shrimp, but some studies have noted their consumption of small and moderately sized fishes as well. During feeding, giant manta rays aggregate in shallow waters at depths less than 10 meters. However, this species is capable of diving to depths exceeding 1,000 meters (NOAA 2018b).

Threatened Bird Species

The West Belle Barrier Headland located approximately 2 miles southwest of the southern end of the marsh creation areas (Figure 9) along a portion of the sediment pipeline corridor and the beach provides piping plover and red knot wintering habitat. The sediment pipeline corridor beach segment would be located within Unit LA-5 of designated critical habitat for the threatened piping plover. Designated critical habitat for that area is specifically defined as “. . . all of Belle Pass West [the “peninsula” extending west/northwest approximately 4.8 km (3.0 mi) from the west side of Belle Pass] where primary constituent elements occur to mean low low water. . .” (Federal Register Vol. 66, No. 132, P 36127). The designated critical habitat identifies specific areas that are essential to the conservation of the piping plover. The primary constituent elements for piping plover wintering habitat are those components of the habitat that support foraging, roosting, and sheltering and the physical features necessary for maintaining the natural processes that support those habitat components. Constituent elements are found in geologically dynamic coastal areas that contain intertidal beaches and flats (between annual low tide and annual high tide) and associated dune systems and flats above annual high tide. Important components (or primary constituent elements) of intertidal flats include sand or mud flats (or both) with no or very sparse emergent vegetation. Adjacent unvegetated or sparsely vegetated sand, mud, or algal flats above high tide are also important, especially for roosting plovers.

Piping plover and red knot winter in Louisiana and may be present for 8 to 10 months annually. Piping plover and red knot feed extensively on intertidal beaches, mudflats, sand flats, algal flats, and wash-over passes with no or very sparse emergent vegetation; they also use these habitats for roosting. Piping plover and red knot arrive from the breeding grounds as early as late July and remain until late March or April. In most areas, wintering piping plover and red knot depend on a mosaic of sites distributed throughout the landscape because the suitability of a particular site for foraging or roosting depends on local weather and tidal conditions. Plover and red knot move among sites as environmental conditions change, and studies have indicated that they generally remain within a 2-mile area. Although the exact locations of use shift annually and seasonally as environmental conditions change, the piping plover and red knot are expected to occur at or near the proposed beach segment of the sediment pipeline corridor.

Figure 9. Piping Plover Critical Habitat Located on West Belle Barrier Headland



3.2.8 Threatened and Endangered Sea Turtles

Five species of sea turtles are found in Louisiana; no designated critical habitat occurs in the project area. No sea turtle nesting is known to occur in the vicinity of the project. Of the five sea turtle species, only the Kemp’s ridley, loggerhead, and green sea turtles are likely to occur in the project area. Kemp’s ridley sea turtles nest in Mexico; immature individuals are mostly bottom feeders and are believed to stay in shallow, warm, nearshore waters in the northern Gulf of Mexico (LDWF 2014). Loggerhead sea turtles regularly enter marshes, estuaries, and coastal rivers (LDWF 2004) and their range in Louisiana is in eastern parishes (NMFS 2014). Green sea turtles are relatively rare in Louisiana, with most sightings from the eastern coast (LDWF 2004). Green sea turtles are often found on seagrass beds and may occur in Louisiana bays while migrating between nesting and foraging sites in Florida and Texas.

Hawksbill and leatherback sea turtles are unlikely to occur in the project area due to their habitat preferences. Hawksbill sea turtles are generally associated with coral reefs and seagrass beds and

are one of the most infrequently encountered sea turtles in Louisiana (Louisiana Department of Wildlife and Fisheries [LDWF] 2004a). Leatherback sea turtles are primarily an open ocean, deepwater, pelagic species (LDWF 2004), that are known or believed to occur in Louisiana but are uncommon (NMFS 2014).

Marine mammals (also federally protected under the MMPA) that occur in Louisiana waters include the fin, sei, sperm, and the Gulf of Mexico Bryde's whales (Figure 3), plus several species of dolphin, and the endangered West Indian manatee (under USFWS jurisdiction). According to NMFS Protected Resources Division (PRD 2012), of the six ESA-listed whales, only sperm whales are considered to commonly occur. There is a resident population of female sperm whales in the Gulf of Mexico, and whales with calves are sighted frequently. According to NMFS (2003), sperm whales occur in the Gulf of Mexico but are rare in inshore waters. Other endangered whales, including North Atlantic right whales and humpback whales, have been observed occasionally in the Gulf of Mexico. The individuals observed have likely been inexperienced juveniles straying from the normal range of these stocks. Typically, no threatened or endangered species of whales occur in the nearshore waters over the continental shelf of the Gulf of Mexico. Occasionally, North Atlantic right whales and humpback whales may be found in nearshore waters of the Gulf of Mexico, usually during the winter season. However, sightings of these species are relatively uncommon.

According to NMFS PRD, the Gulf of Mexico Bryde's whale has been consistently located in the northeastern Gulf of Mexico in the De Soto canyon area, along the continental shelf break between 100 m and 300 m depth. Its current population size is estimated to be less than 100 individuals. The Gulf of Mexico Bryde's whale is not expected in the project area.

Manatees are occasional visitors to Louisiana waters and are unlikely to occur in the project area. Manatees are a sub-tropical species and are cold intolerant, preferring warm water areas in Florida during the winter, leaving only to feed during warming trends. When temperatures drop, manatees congregate near warm water sites, such as natural springs, power plants, and deep canals. Manatees inhabit freshwater, brackish, and marine environments, including tidal rivers and streams, mangrove swamps, salt marshes, freshwater springs, and vegetated bottoms. Manatees are herbivores, feeding on aquatic vegetation. Shallow grass beds near deep channels appear to be preferred feeding areas in coastal and riverine habitats (USFWS 2007).

3.2.9 Invasive Species

Although many invasive species are found in the Barataria-Terrebonne National Estuary (BTNEP), most are not found in saline marshes. The recent invasion of an exotic scale insect (*Nipponaclerda biwakoensis*) that attacks roseau cane (*Phragmites australis*) began in the lower Mississippi River delta, but is expanding and is in Lafourche Parish. It has now been found on stands of roseau cane in 12 parishes. The Australian spotted jellyfish (*Phyllorhiza punctata*), indigenous to the tropical western Pacific Ocean, is the most likely invasive species to be found in Gulf waters near the borrow area. Populations of this jellyfish are established in the area and have been collected near the project area in Terrebonne Bay, Lake Pelto, Isles Dernieres, and Grand Isle near Barataria Pass from 1998 through 2005 (USGS 2011). Small numbers of several other invasive species were collected near the borrow area. The Asian tiger shrimp (*Penaeus monodon*) was collected in Bayou Terrebonne near Seabreeze Pass and off Grand Isle (USGS

2011). The titan acorn barnacle (*Megabalanus coccopoma*) was found at the eastern tip of Grand Isle (USGS 2011).

3.3 CULTURAL RESOURCES

3.3.1 Historic, Prehistoric and Native American

Marsh Creation Areas

There are no known terrestrial or submerged cultural resources within the marsh creation areas. Previous surveys along the banks of Bayou Lafourche east and south of the project area found Native American ceramics, shell, and unmodified bone. A determination of “No historic properties affected” (36 CFR 800.4) was obtained from the Louisiana Division of Archaeology for the Phase 0 marsh creation area and borrow area on December 20, 2015, February 15, 2016, and May 31, 2018. A determination of “No historic properties affected” (36 CFR 800.4) was obtained from the Louisiana Division of Archaeology for the entire final project footprint, including the additional marsh creation area on April 3, 2019.

Borrow Area

R. Christopher Goodwin & Associates, Inc. performed a detailed cultural resource survey of the borrow area and gulf sediment pipeline corridor (R. Christopher Goodwin & Associates 2018). Approximately 821 acres were surveyed. No wrecks or obstructions were recorded within or immediately adjacent to the borrow area. Review of remote sensing data identified 454 magnetic anomalies and 16 side scan sonar contacts. Bathymetric and sub-bottom profiler data also were incorporated into the analyses (OSI 2017). As a result of these investigations, no targets indicative of submerged cultural resource resources were noted within the borrow area or gulf sediment pipeline corridor. No relict geomorphic features deemed potentially archaeologically significant were identified within the project's area of potential effects. A determination of “No historic properties affected” (36 CFR 800.4) was obtained from the Louisiana Division of Archaeology for the borrow area and gulf sediment pipeline corridor.

3.3.2 Socioeconomics (Income and Environmental Justice)

Louisiana is home to the busiest port system in the nation as measured by tonnage. In 2000, over a half-billion cargo tons (about one-fifth the national total) were imported or exported through Louisiana, where one in every eight jobs are traced to port activity. The marsh creation areas are across Bayou Lafourche from Port Fourchon, which is the base of operations for 250 companies. Industry activity at the port is measured by over 400 large supply vessels per day, 1,200 trucks per day, and 15,000 offshore workmen per month, and expanding (GLPC 2018).

In 2016, Louisiana had the second highest amount by metric ton and had 13 percent of the total commercial fishery landings in the U.S. (NMFS 2018b). Over 72 percent of the Gulf of Mexico commercial fishery landings were in Louisiana. Landings at the ports of Dulac-Chauvin and Golden-Meadow, the closest ports to the project site, were 49 million pounds in 2016. Louisiana also has the highest commercial oyster landings (nearly 74 percent) of all oysters landed in the Gulf of Mexico. In addition, Louisiana supports a strong recreational fishery, although recreational catches are more difficult to assess. In 2016, over 8 million fish of all species were reported to have been caught recreationally in Louisiana, and it ranked fourth in recreational catches reported among the five Gulf states (NMFS 2018c).

Census data of notable difference or socio-economic value are provided for Louisiana, Lafourche Parish, and Galliano Census-Designated Place, the closest designated census group in Table 6. Population is one standard for the number of humans impacted by vicinity, and differences in census data are considered relative to environmental justice. Lafourche Parish has a higher median household income and a slightly lower poverty rate than the state average (Table 6).

Table 6. Population and income information for Louisiana, Lafourche Parish, and Galliano

	Louisiana, 2017	Lafourche Parish, 2017	Galliano, 2010 (2017 estimates not available)
Total Population	4,684,333	98,426	7,676
Land Area; square miles in 2010	43,203.90	1,068.21	11.1
Population change estimate 2010 to 2016	3.3%	1.9%	X
White	63.0%	80.4%	81.1%
Black or African American	32.6%	13.6%	2.5%
American Indian and Alaska Native	0.8%	3%	7.9%
Asian	1.9%	1%	0.4%
Native Hawaiian and Other Pacific Islander	0.1%	0.1%	0%
Hispanic or Latino Origin	5.2%	4.5%	11.2%
Foreign born persons	4.0%	3.2%	5.6%
Persons in poverty	19.7%	17.1%	14.2%
Median household income (in 2016 dollars) 2012-2016	\$45,652	\$52,071	\$52,484
Per capita income past 12 months (in 2016 dollars) 2012-2016	\$25,515	\$25,299	\$24,399
Language other than English spoken at home	8.3%	14.5%	32.8%
High School or higher graduate (age 25+)	83.8%	75.3%	66.0%
Employment change 2015-2016	-0.9%	-6.3%	X
Population per square mile, 2010	104.9	90.2	688.7

Source: U.S. Census 2017 (X Not applicable)

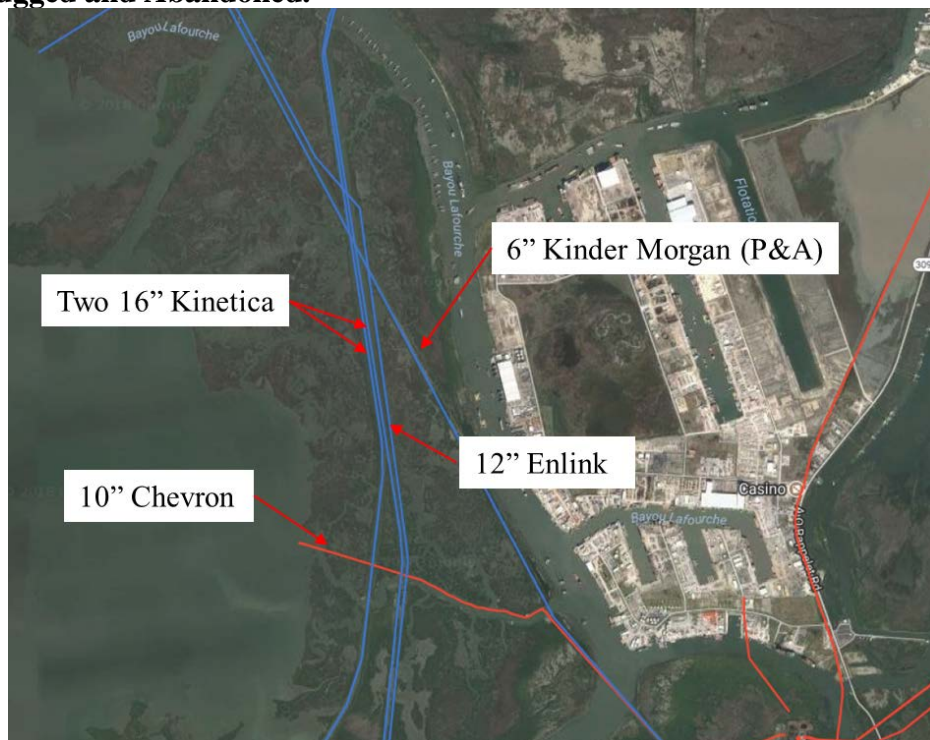
3.3.3 Land Use and Infrastructure

The pipeline conveyance route to the borrow area crosses numerous oil and gas pipelines (Figure 10), and is heavily used by shipping and offshore service industries. Twin Kinetica gas pipelines cross the center of the marsh creation area; water control structures (rock weirs) were added to reduce tidal flow through the pipeline canals. Other pipelines are north and south of the marsh creation areas. The borrow area was sited to avoid impacts to pipelines.

The proposed marsh creation area is privately owned by Louisiana Land & Exploration (LL&E) and will not be acquired for the project. The marshes and bayous of the area are used for hunting, fishing, and birding. A few camps are located along Evans Canal south of the proposed marsh creation areas.

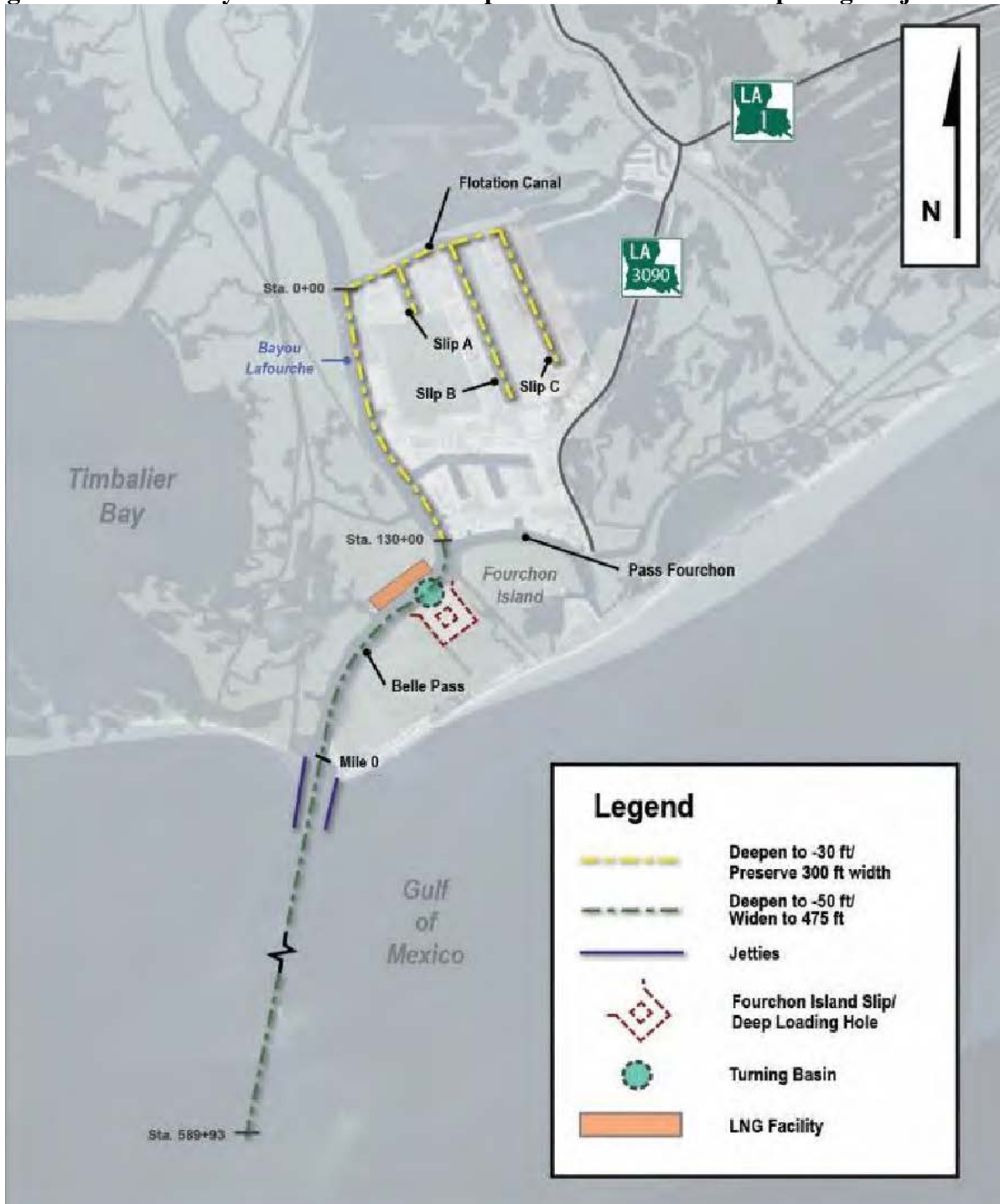
Port Fourchon (Figure 11), operated by the Greater Lafourche Port Commission (GLPC), is the land base for the LOOP (Louisiana Offshore Oil Port), which handles 10 to 15 percent of the nation's domestic oil, 10 to 15 percent of the nation's foreign oil, and is connected to 50 percent of the U.S. refining capacity (GLPC 2018). LOOP is the only U.S. deepwater port capable of offloading Very Large and Ultra Large Crude Carriers. Port Fourchon currently services over 90 percent of the Gulf of Mexico deepwater (over 1,000 feet) oil production, where over 1.5 million barrels of crude oil per day are transported via pipelines through the port. Over 50 percent of Gulf of Mexico natural gas and over 80 percent of crude oil comes from deep water. The port is expanding to increase service to deep draft vessels and the proposed Fourchon LNG facility. In preparation for this 900-acre expansion, the port is proposing to deepen six miles of the navigation channel from 35 to 50 feet (Figure 11; GLPC 2018).

Figure 10. Pipelines in the Marsh Creation Area by Pipe Diameter and Company. P&A Denotes Plugged and Abandoned.



Source: McClain et al. 2018

Figure 11. Tentatively Selected Plan for Proposed Port Fourchon Deepening Project



Source: GIS Engineering, LLC

3.3.4 Non-resource considerations

Hazardous, Toxic, and Radioactive Waste - No evidence of any hazardous, toxic, and radioactive waste (HTRW) was found at the proposed marsh creation location (Tetra Tech 2016). Borrow area material at the adjacent TE-0052 marsh borrow area was tested and concentrations for nickel and vanadium were found to be below the established “sediment [acute and chronic]

benchmarks for aquatic life” established on the EPA website. In addition, low concentrations of poly aromatic hydrocarbons were reported above the method detection and practical quantitation limits (BEM Systems, Inc. 2011).

4 ENVIRONMENTAL CONSEQUENCES

This section of the EA evaluates the anticipated environmental impacts to the human environment that would result from implementation of the proposed project. It includes an analysis of the direct, indirect, and cumulative impacts of project alternatives, including the Preferred (Split Polygon) Alternative and the No-Action Alternative. The two design alternatives evaluated in this EA differ primarily in the areas proposed for marsh creation. The design alternatives are planned to meet the purpose and need for action. The design alternatives have been guided by regionally accepted criteria because the CWPPRA process screens out extreme designs early in the process. Environmental consequences of alternatives are summarized in Table 7.

Table 7. Environmental Consequences of alternatives

Resource	No Action	Split Polygon Alternative (Preferred (Split Polygon) Alternative)	Single Polygon Alternative
PHYSICAL ENVIRONMENT			
Geology, Soils, Topography and Water Quality	Without action, the remaining marsh would continue to erode over the long-term. Material from the borrow area may be used for other restoration projects in the area.	Long-term, direct, beneficial impacts in the proposed marsh creation area due to placement of material. Short-term adverse impacts due to coverage of shallow water habitat and existing marsh and mangrove habitat. Short-term, direct, moderate, adverse effects would occur in the proposed borrow areas associated with suspension of sediments. No impact is expected to the Gulf shoreline from borrow area dredging.	Similar to effects of the Preferred (Split Polygon) Alternative, although closure of the pipeline canals will be more difficult and would require more containment and more dredged material would be required.
Oceanographic Processes, Coastal Processes, and Water Resources	No direct impact. The long-term continuing loss of the marsh would allow increased exchange of saline waters, leading to loss of marsh vegetation, and increased vulnerability to storm surge.	Dredging and material placement would result in adverse, direct, short-term, minor impacts to surface water quality associated with: increased turbidity and decreased dissolved oxygen in the water column at the borrow area (dredge plume) and at the construction location; exhumation of buried trash and debris; and discharges from the dredge vessel. Long-term beneficial impact to surface water quality would result from increased wetland acreage.	Adverse impacts would be generally the same as for the Preferred (Split Polygon) Alternative. Beneficial impacts would be similar to Preferred (Split Polygon) Alternative although hydrology of pipeline canals would be affected by closures.
Climate, Weather, Air Quality, and Noise	No impacts.	Construction and dredging would result in adverse, direct, short-term, minor impacts from exhaust diesel fumes, fugitive dust, and noise generated by dredging equipment, vessels, and earthmoving equipment.	Same as Preferred (Split Polygon) Alternative.
BIOLOGICAL RESOURCES			
Vegetation Resources	Continued erosion is expected to occur, resulting in long-term losses to vegetation resources.	Placement of sediment slurry would result in adverse, direct short-term, minor impacts to wetlands. Likely that succession to mangroves will be set back to smooth cordgrass for a few years until mangroves replace the cordgrass. Material placement would increase wetland acreage and provide long-term benefits to vegetation resources.	Adverse and beneficial impacts would be generally the same as for the Preferred (Split Polygon) Alternative. Marsh creation acreage would be slightly larger than the Split Polygon Alternative marsh creation area
Aquatic and Benthic Habitats	Continued erosion will result in long-term marsh and mangrove benthic	Short-term, local, adverse impacts to aquatic and benthic resources would occur during the construction phase of	Adverse and beneficial impacts would be generally the same as for the Preferred (Split

	<p>habitat loss and conversion to bay benthic habitat.</p> <p>Material from the borrow area may be used for other restoration projects in the area.</p>	<p>the proposed project in the marsh creation and borrow area.</p>	<p>Polygon) Alternative, but slightly more material would be dredged and placed.</p>
<p>Marine Fishery Resources, and Essential Fish Habitat</p>	<p>Open-water EFH that is already plentiful in the area would likely increase with area subsidence and sea level rise.</p>	<p>The conversion of shallow vegetated habitat to open-water EFH would be postponed due to the marsh creation.</p>	<p>Adverse and beneficial impacts would be generally the same as for the Preferred (Split Polygon) Alternative.</p>
<p>Marine Mammal Resources</p>	<p>No direct impacts, long-term indirect impacts to marine mammal prey species due to marsh erosion and conversion of marsh habitat to open water habitat.</p>	<p>No direct impacts to marine mammal resources are expected. Indirect benefits by improving habitat for marine mammal prey species. Provisions to avoid impacts to marine mammals would be implemented.</p>	<p>Same as Preferred (Split Polygon) Alternative.</p>
<p>Migratory Bird, Wildlife, Threatened and Endangered Species Resources, and Invasive Species</p>	<p>Continued erosion will result in long-term marsh and mangrove habitat loss and conversion to bay habitat.</p>	<p>Material placement would result in adverse, direct, short-term minor impacts to birds, wildlife, and threatened and endangered species. Long-term benefit to birds, wildlife, and threatened and endangered species due to increasing longevity of marsh habitat. Provisions to avoid impacts to nesting birds and threatened and endangered species would be implemented. Project would not increase invasive species.</p>	<p>Same as Preferred (Split Polygon) Alternative. However, project would have less hydrologic flow and ingress and egress of aquatic organisms around the marsh creation areas.</p>
<p>CULTURAL RESOURCES</p>			
<p>Historic, Prehistoric, and Native American</p>	<p>No direct impact. Marsh loss would continue and erosion along the bayou banks could uncover cultural resources.</p>	<p>No adverse impacts on cultural resources would result from implementation of the Preferred (Split Polygon) Alternative. Preferred (Split Polygon) Alternative would postpone marsh loss and could delay erosion along the bayou banks that could uncover cultural resources.</p>	<p>Same as Preferred (Split Polygon) Alternative.</p>
<p>Socioeconomic Resources</p>	<p>No direct impact. Marsh loss would continue and could indirectly adversely impact infrastructure and commercial and recreational fisheries species, and environmental justice.</p>	<p>No adverse impacts on socioeconomic resources would result from implementation of the Preferred (Split Polygon) Alternative. Preferred (Split Polygon) Alternative would postpone marsh loss and could indirectly protect infrastructure, commercial and recreational fisheries species, and environmental justice.</p>	<p>Same as Preferred (Split Polygon) Alternative. However, potential impacts to infrastructure due to project construction.</p>

4.1 PHYSICAL ENVIRONMENT

4.1.1 Geology, Soils, Topography, and Water Quality

Impacts of No Action Long-term, direct and indirect, minor adverse impacts in the project area are expected under no action as shoreline erosion and subsidence threaten the vegetation that retains area soils. The increase of black mangroves in the area may slow the erosion, as the woody vegetation may be better able to tolerate area energy, but winter freezes and sea level rise will cumulatively adversely affect area soils. Both land subsidence and black mangrove expansion will continue to maintain existing soil conditions. Minor increases in elevation are possible if mangroves can stay established long enough to capture sediments, but it is uncertain if biomass and sediments can be retained.

With no action, material from the borrow area is likely to be used for other restoration projects in the area.

Impacts of Preferred (Split Polygon) Alternative Under the Preferred (Split Polygon) Alternative, the surface elevation of the proposed marsh creation areas would be increased with offshore sediments, therefore changing the composition of soils in the marsh creation area. The marsh platform elevation would be constructed at an elevation of +2.0 feet NAVD88. After settlement, even with subsidence and sea level rise, the created marsh is expected to remain in the optimal inundation range over the 20-year project site. Sand and silty clay would be deposited in shallow open water, saline marsh and mangrove habitat. Short-term, direct, moderate adverse impacts to area soils would result from mechanically dredging to construct containment dikes necessary to contain the sediment slurry. Containment dikes would be degraded and gapped to allow water and aquatic organism access to the marsh creation areas.

Under the Preferred (Split Polygon) Alternative, in the short term, dredging of the proposed borrow area would result in minor adverse impacts from suspension of sediments and disturbance to natural sediment sorting and layering within the borrow area. Water depths would increase in the area as sediments were removed. Over the long term, sediment will infill the borrow areas by natural processes. The adjacent West Belle Pass Marsh borrow area was surveyed a half year after dredging and found to have partially filled in with high-organic mud/clay with some areas indicating organic rich sediment (BAMM 2015). The same is expected as particulates settle from the water column in the turbid coastal waters of this river system. The infilling rate at the West Belle Pass Marsh borrow area was estimated to be 208,600 cy/yr (BAMM 2015).

Impacts of the Single Polygon Alternative Impacts and benefits for the Single Polygon Alternative are the same as for the Split Polygon Alternative; however, construction would be more difficult due to the deeper pipeline canals and more dredged material would be required from the borrow area to fill in the deeper water of the canals and the marsh creation areas to construct containment dikes. Impacts of placing dredged materials onto existing marsh and mangrove habitat would be similar to the Preferred (Split Polygon) Alternative, but closure of the pipeline canals will be more difficult and would require more containment than the Preferred (Split Polygon) Alternative. Borrow area impacts for the Single Polygon Alternative would be the same as for the Preferred (Split Polygon) Alternative; a similar amount of material would be

required. In addition, sand will need to be hauled into the project area for pipeline closures and access dredging will be required to bring the sand into the project area.

4.1.2 Oceanographic Processes, Coastal Processes, and Water Resources

Impacts of No Action Under no action, marsh loss and conversion of vegetated marsh and mangrove habitat to open water will continue.

The No-Action Alternative would not directly affect local water quality to any great extent. However, the cumulative impact of loss of the saline marsh habitat would be to allow increased exchange of Timbalier Bay waters with the marsh creeks, rendering the Bayou Lafourche spoil banks east of the project area more vulnerable to storm surge. With no action, the borrow area location would continue to be exposed to seasonal recurrent hypoxic conditions.

Impacts of Preferred (Split Polygon) Alternative

Dredging the borrow area for the Preferred (Split Polygon) Alternative is not expected to affect adjacent shorelines. The proposed borrow area is adjacent to the West Belle Pass Barrier Headland (TE-0052) marsh borrow area and has a similar cut depth and distance from shore. A wave impact analysis using the Delft3D numerical model was conducted on the West Belle Pass marsh borrow area to evaluate potential modification of the wave climate caused by the borrow area excavation. No significant impact to the nearshore wave climate or sediment transport patterns was observed. Dredging the West Belle marsh borrow area was not expected to change the beach erosion patterns near the West Belle Barrier Headland or anywhere along the Timbalier Barrier Island shoreline (CPE 2010). Noticeable changes to the wave patterns near the borrow areas during storms may occur after excavation. However, based on the large distances between the borrow areas and the shoreline, changes to the nearshore waves and sediment transport patterns would be negligible during storms and average conditions. Accordingly, sediment mining in the borrow area would not result in any noticeable changes to the long-term storm erosion patterns along the nearby shorelines. The model results for the 20-year storm event for the West Belle Barrier Headland marsh borrow area showed infilling of the borrow area from the immediate surroundings but no bathymetric changes that would extend to the shoreline (CPE 2009 and 2010).

The Preferred (Split Polygon) Alternative would cause minor adverse, short-term impacts with increased turbidity around the marsh creation area and borrow site during construction. Over the long-term, the habitat created would provide more water filtering function, which would be available for a longer period at the marsh creation site than the No-action Alternative.

Impacts associated with the offshore dredging required for implementation of the preferred alternative would include: (1) increased turbidity in the water column at the borrow area (dredge plume) and at the construction location; (2) exhumation of buried trash and debris; and (3) discharges from the dredge vessel. Two phases of operation would affect water quality: the dredging phase, and the emplacement phase. For this reason, the project will require a Section 404 permit under the Clean Water Act from the U.S. Army Corps of Engineers. No special permit conditions are anticipated.

During dredging, sediment is expected to be collected from the borrow area with a cutterhead dredge. Silt or clay may become suspended in the water column near the borrow area. The suspended sediment would settle in a matter of hours to days (depending on currents). If the disturbed sediments were anoxic, the biological oxygen demand in the water column would increase. Turbidity and suspended particulate levels in the water column above the borrow area normally fluctuate as a result of seasonal riverine inputs and discharge rate. The increased turbidity is expected to affect water quality only in the immediate area of dredging.

The Preferred (Split Polygon) Alternative could increase hypoxia in the proposed borrow area. Impacts to dissolved oxygen were studied at the adjacent West Belle Barrier Headland (TE-0052) marsh borrow site adjacent to the currently proposed borrow area (BAMM 2015). Hypoxic conditions were found in the year following excavation, but were not attributed to the dredging. The change in bathymetry at the West Belle Pass marsh borrow area following dredging (-20.9 feet NAVD88 maximum post-construction depth) did not appear to influence the existence, persistence, or degree of hypoxia. Anoxic conditions due to borrow area dredging at offshore sites close to the Gulf hypoxic zone on previous projects were short in duration and recovered to the level of oxygen levels at control sites relatively quickly (BAMM 2015). No long-term impact to dissolved oxygen is expected beyond the period of construction due to the sediment containment dikes.

During sediment placement, sediment slurry would be pumped into the open water and marsh within the containment dikes through a temporary pipeline. Coarse and fine-grained sand in the slurry would settle out rapidly; water would separate from the slurry and drain out of the area through weir boxes. The settling velocity of suspended silt- or clay-sized sediments in the slurry would control the amount of silt and clay that is placed or that remains in suspension to drain through the weir boxes. Drilling mud discharged from offshore operations, exhumed contaminants, or trash and debris present in the dredged sediment also could be deposited into the marsh creation area, although this is unlikely given the location and lack of production facilities within the borrow area. Though suspended particulate matter levels in the receiving water could increase temporarily, this increase would occur in a limited emplacement area and would minimally affect water quality.

Impacts of the Single Polygon Alternative The impacts of the Single Polygon Alternative on oceanographic processes, coastal processes, and water resources in the marsh creation area and borrow area would be similar as for the Preferred (Split Polygon) Alternative. The amount of material required to be dredged from the borrow area would be similar under both alternatives. However, the Single Polygon Alternative would require access dredging to bring sand barges into the marsh creation areas to construct the pipeline canal closures in addition to placing the sand and double and triple handling of in situ material to cap the sand closures. In addition, the existing spoil banks along the canal would need to be degraded to allow for better material flow across the pipeline canals. Closure of the pipeline canals in the marsh creation area would reduce hydrology within and around the marsh creation area.

4.1.3 Climate, Weather, and Air Quality

Impacts of No Action The No-Action Alternative would not substantially affect the climate or weather.

With no action, sea level rise resulting from climate changes would continue to occur; this, coupled with subsidence in the existing marsh areas would increase marsh loss.

The No-Action Alternative would not result in any changes to existing air quality in the area. Emissions due to the busy navigation channel and port would continue to have minimal localized effects on air quality and would dissipate with offshore breezes.

Impacts of Preferred (Split Polygon) Alternative The preferred alternative would not substantially affect the climate or weather. However, there is some suggestion that increases in marsh acreage can contribute to the overall carbon sink and mitigate the effects of atmospheric carbon on global warming. Given the scale of this project, however, beneficial impacts to climate and weather are negligible.

The Preferred (Split Polygon) Alternative would raise the elevation of existing marsh, counteracting the effects of marsh loss from sea level rise resulting from climatic changes for the 20-year life of the project and beyond.

The Preferred (Split Polygon) Alternative would have no substantial effect on existing air quality in the area. Emissions from construction equipment would dissipate with offshore breezes along this industrial area, and follow best management practices, so impacts to air quality would be insignificant. Moderate, non-significant localized impacts to air quality from the Preferred (Split Polygon) Alternative would be associated with emissions from diesel engines that would power the dredging machinery and propulsion between the borrow area and pump-out operations. Additional emissions would result from tugs and barges used to place and relocate the dredge anchors, mooring buoys, and sediment pipelines. In the marsh, impacts from diesel emissions would result primarily from marsh buggies. Emissions would occur over a period of about 12 months; most emissions would occur at the borrow area and in the marsh creation areas. Emissions would consist predominantly of nitrogen oxides, with smaller amounts of carbon monoxide, sulfur dioxide, particulate matter, and volatile organic compounds. Prevailing winds would dissipate airborne pollutants and limit them to the construction phase. The impact to human health would be negligible because the proposed project area is removed from any residential area.

Other sources of air emissions in the proposed project area are primarily associated with the oil and gas industry, commercial vessel traffic, and recreational fishing vessels. Emission amounts would vary depending on the amount of activity in these sectors. Overall, it is expected that emissions would decrease in the future as a result of more stringent control technologies applied to marine vessels, on-road vehicles, and off-road vehicles. Air quality in the area, therefore, is expected to be unchanged or improved.

If the additional marsh creation area is used, emissions in the project area would occur over a slightly longer time period.

Impacts of the Single Polygon Alternative The impacts on air quality of Single Polygon Alternative in the marsh creation area and borrow area would be the same as for the Preferred (Split Polygon) Alternative.

4.1.4 Noise

Impacts of No Action The project area is adjacent to a busy navigation channel and port and the ambient noise levels near the area can be high at times. Outside of the navigation areas, the area is generally quiet, except for occasional boat sounds.

Impacts of Preferred (Split Polygon) Alternative Under the Preferred (Split Polygon) Alternative, noise of construction equipment in the marsh creation areas, borrow area, and along the sediment pipeline corridor would occur over a large area during construction. However, ambient noise levels adjacent to the project area are already higher from the adjacent navigation channel and port.

If the Additional Marsh Creation Area is used, noise in the project area would occur over a slightly longer time period.

Impacts of Single Polygon Alternative Impacts and benefits of the Single Polygon Alternative on noise would be similar as for the Preferred (Split Polygon) Alternative.

4.2 BIOLOGICAL ENVIRONMENT

4.2.1 Vegetation Resources

Impacts of No Action With no action, continued marsh loss is expected to occur, resulting in losses to vegetative resources. With no action, land loss is expected to continue, losing approximately 9.6 acres per year in the project vicinity (NMFS 2018).

Impacts of Preferred (Split Polygon) Alternative The Split Polygon Alternative would exert positive, moderate long-term impacts on marsh vegetative communities in the project area. The accumulation of organic material is a primary factor influencing the vertical accretion of marshes. Implementing the Preferred (Split Polygon) Alternative would unavoidably affect marsh and mangrove habitat and shallow open water areas and their associated vegetative communities by burial and excavation for containment dike construction. Access and construction areas would be impaired until the marsh platform settles and dewatered and containment dikes are gapped. Differential settlement is expected to result in the creation of water features where interior borrow is used to create containment dikes. It is anticipated that the created marsh platform would initially be vegetated by smooth cordgrass, then black mangrove populations would increase, similar to the revegetation of the West Belle Pass Barrier Headland back-barrier marsh (CPRA 2017b). Sufficient seed stock is available adjacent to the proposed marsh creation areas. The Preferred (Split Polygon) Alternative is expected to create and nourish 537 acres of saline marsh and mangrove habitat.

Impacts of Single Polygon Alternative The impacts of the Single Polygon Alternative on vegetation resources in the marsh creation area would be similar as for the Preferred (Split Polygon) Alternative. Additional marsh platform would be created; however, the single polygon would require more in situ containment dike material to construct. The Single Polygon Alternative is expected to create and nourish 614 acres of saline marsh and mangrove habitat

4.2.2 Aquatic and Benthic Habitats

Impacts of No Action Without action the project area has been converting from saline marsh to mangrove habitat. Mangrove benthic and aquatic area is productive, as it provides wind and

wave protected waters, while mangrove prop roots allow fish access to forage and prey. Soil chemistry is changed and the benthic ecosystem is likely changing in response. With continued coastal erosion and subsidence; however, the area is in threat of conversion to bay open water. In addition, as previously discussed, mangrove habitats in Louisiana are susceptible to winter weather die offs and growth stunt. Winter low temperatures are likely that could eliminate mangroves from the area, resulting in storm-exposed bay sediments. Erosion of the productive benthic area would be likely. The function of the marsh and mangrove habitat as nursery habitat for estuarine-dependent species would be further degraded.

With no action, material from the borrow area is likely to be used for other restoration projects in the area.

Impacts of Preferred (Split Polygon) Alternative Under the Preferred (Split Polygon) Alternative, short-term, local, adverse impacts to aquatic and benthic resources would occur during the construction phase of the proposed project in the marsh creation and borrow area. The immediate effect of dredging is the removal of sediment along with the organisms living in the sediment. In addition to direct removal of organisms, impacts could include entrapment and death of slow-moving organisms such as crabs and benthic organisms such as polychaetes, during dredging in the borrow areas and open water; and smothering of benthic organisms and more sessile fish species in the deposition sites. Mobile aquatic animals would be expected to move away from the project area during construction and return after construction is complete. Invertebrates and fish that do not move out of the area could be injured as suspended particulates clog gills. Short-term severe effects on pelagic fish eggs and larvae in the immediate area may occur. Dredging would change substrate topography, causing a temporary redistribution of organisms in the immediate vicinity. Expected sea level rise that threatens existing shallow benthic organisms would eventually result in the area becoming shallow water habitat again. Shrimp and demersal fish that are supported from the shallow water habitats would benefit from the proposed project. Due to its proximity to the project area, one existing oyster lease would need to be acquired and extinguished following a third-party assessment. The assessment and acquisition processes would be performed upon approval of construction funding.

Neither the total volume of sediment to be dredged in the proposed borrow area, nor the estimated area of sea bottom disturbed is significant. Nearshore benthic communities in the borrow area already inhabit a dynamic environment subject to perturbations and disturbances, such as high turbidity from river discharge, tropical storms, and hypoxia, which have the potential to degrade benthic community structure to an equivalent and greater degree. Natural recurrent disturbances result in a benthic community characterized by early successional stages; a return to the typical community structure is expected to occur rapidly.

Impacts of Single Polygon Alternative Under the Single Polygon Alternative, impacts on aquatic and benthic habitat in the marsh creation area and borrow area would be similar as for the Preferred (Split Polygon) Alternative, but affecting a larger area. In addition, access dredging would be required to bring sand barges in to close the pipeline canal.

4.2.3 Marine Fishery Resources and Essential Fish Habitat (EFH)

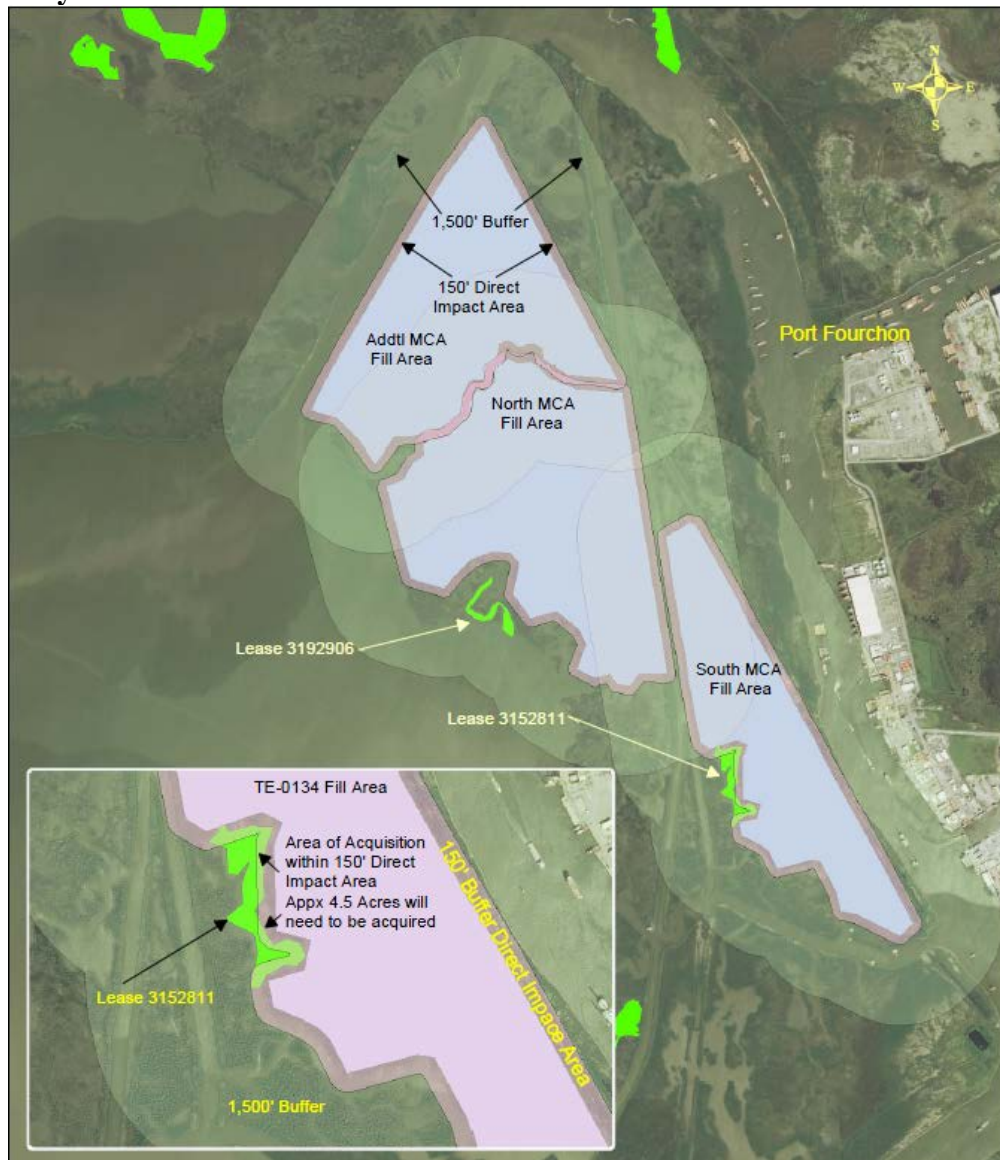
Impacts of No Action Under no action, threats by manmade and naturally occurring habitat changes, such as industrial growth and sea level rise would remain. The function of the marsh and mangrove habitat as nursery habitat and EFH for estuarine-dependent species would be further degraded. Open-water EFH that is already plentiful in the area would likely increase with area subsidence and sea level rise. The No-Action Alternative would not have an adverse effect on EFH or federally managed fishery species in the proposed project area.

Impacts of Preferred (Split Polygon) Alternative Under the Split Polygon Alternative, threats by manmade and naturally occurring habitat changes, such as industrial growth and sea level rise, would remain. The conversion of shallow vegetated habitat to open-water EFH would be postponed due to the marsh creation by the Preferred (Split Polygon) Alternative. More years of quality EFH would result in the long-term, after short-term, unavoidable, local, adverse impacts from dredging containment dike and borrow areas, and sediment placement. The Preferred (Split Polygon) Alternative would not have an adverse effect on EFH. This conclusion is based on the fact that 537 acres of saline marsh and mangrove habitat would be created and enhanced (NMFS 2018). Open water EFH that is already plentiful in the area would be replaced with marsh EFH at the marsh creation area. Open water EFH at the borrow area would be converted to deeper open water EFH. Federally managed species such as brown shrimp, white shrimp and red drum have higher standing crops in marsh as compared to unvegetated open water, as marsh habitats support nursery and foraging functions. The restoration of more productive categories of EFH at the expense of less productive categories is expected to benefit those federally managed fishery species. NMFS requests initiation of EFH consultation and concurrence with this determination.

Under the Preferred (Split Polygon) Alternative, approximately 4.5-acres of an oyster lease adjacent to the marsh creation areas would be acquired (Figure 12). However, due to the high salinities in the project area and shallow water, this oyster lease is not expected to contain many oysters.

Impacts of the Single Polygon Alternative Impacts of the Single Polygon Alternative on marine fishery resources and EFH in the marsh creation area and borrow area would be similar as for the Split Polygon Alternative. However, closure of the pipeline canals would reduce hydrology and organism ingress and egress to and from the marsh creation area once the containment dikes are degraded and gapped.

Under the Single Polygon Alternative, the same 4.5-acres of an oyster lease adjacent to the marsh creation area would be acquired (Figure 12). However, due to the high salinities in the project area and shallow water, this oyster lease is not expected to contain many oysters

Figure 12. Oyster Leases in and Around the Marsh Creation Areas

4.2.4 Marine Mammal Resources

Impacts of No Action Under no action, with coastal threats of sea level rise and high industrial use unchanging, the borrow area is likely to be sought out for dredging for similar actions in the foreseeable future. Under no action, there will be indirect impact to marine mammal prey species due to marsh erosion.

Impacts of Preferred (Split Polygon) Alternative Dolphins occur in the borrow area and canals and bayou adjacent to the marsh creation area, as well as Timbalier Bay. Dolphins would not be affected by borrow area construction and sediment pipelines, as they could easily avoid vessels and other equipment being used. In the marsh creation areas, they are likely to avoid the area during construction, and are not likely to be impounded during containment dike construction. Measures for reducing entrapment risk to protected species will be implemented

during construction. Dolphins feed on fish and crustaceans and the benefits of the project to the marsh is expected to benefit species dolphins may prey on.

Impacts of the Single Polygon Alternative The impacts of the Single Polygon Alternative on marine mammal resources in the marsh creation area and borrow area would be the same as for the Split Polygon Alternative.

4.2.5 Migratory Bird, Wildlife, and Threatened and Endangered Species Resources

Impacts of No Action Under no action, the project area would continue to be used by colonies of waterbirds for nesting and foraging habitat. Continuing marsh and mangrove habitat loss in the area would result in a reduction in bird and wildlife habitat.

Impacts of Preferred (Split Polygon) Alternative During construction of the Split Polygon Alternative, waterbirds and other birds could be displaced from nesting and foraging habitat that would be altered by marsh fill materials. Adjacent marsh and mangrove habitat would provide suitable habitat during construction and before the marsh creation area becomes fully functional. Material placement would result in adverse, direct, short-term, minor impacts to wildlife. The Preferred (Split Polygon) Alternative would increase the longevity of the marsh, resulting in a net benefit to wildlife. The Preferred (Split Polygon) Alternative may have minor adverse impacts to piping plover and red knot and piping plover critical habitat for winter foraging when the submerged pipeline is pulled onto the beach adjacent to the West Belle Pass Jetty. However, the construction is not likely to adversely affect the red knot and piping plover. Avoidance and minimization measures for red knot and piping plover will be implemented in conjunction with provisions to avoid impacts to nesting species.

Effects to giant manta rays include the risk of direct physical impact from dredging and other in-water construction activities. We believe the risk of physical injury is discountable due to the species' ability to move away from the project site and into adjacent suitable habitat, if disturbed. Giant manta rays may be affected by being temporarily unable to use the site forage or refuge habitat due to avoidance of construction activities and related noise. We believe the temporary exclusion from the project area will have an insignificant effect on sea turtles and giant manta rays, given the project's limited footprint, the availability of similar habitat nearby, and the project will be temporary and intermittent. NMFS PRD believed the project would may affect, but would not adversely affect giant manta rays (Appendix A).

Whales could occur in the nearshore waters of the borrow area, but are not common. The equipment that will be used, a hydraulic dredge, small watercraft, and barges are not known to have any direct adverse impact to whales. There has never been a report of a whale taken by a dredge. Based on the unlikelihood of their presence, depth of the project area, and very low likelihood of dredge interaction, NMFS PRD believed the proposed action will have no effect on whales (Appendix A).

Dolphins are marine mammals likely to occur in the project area. They would not be affected by borrow area construction and sediment pipelines, as they could easily avoid vessels and other equipment being used. In the marsh creation areas, they are likely to avoid the area during

construction, and are not likely to be impounded during containment dike construction. Measures for reducing entrapment risk to protected species will be implemented during construction.

Sea turtles are not likely to be adversely affected by the project because non-hopper type dredges would be used. Pipeline dredges are relatively stationary, and therefore act on only small areas at any given time and are unlikely to overtake or adversely affect sea turtles. Pipeline or hydraulic dredges are not known to take turtles (NMFS GRBO 2003). Hydraulic dredging is only expected to occur over two months. Adherence to the NMFS Sea Turtle and Smalltooth Sawfish Construction Conditions will further help workers spot any sea turtles near the project areas and avoid interactions with these species. As noted by NMFS (2010), sea turtles may be affected by project activities if the cutterhead dredge struck them; however, the likelihood of this occurring is discountable. Cutterhead dredges move slowly and sea turtles are highly mobile and able to avoid an approaching dredge.

Sea turtles could also be affected when the pipeline is submerged, but such an event is so unlikely that any adverse effects are discountable. Effects to sea turtles include the risk of injury from other construction equipment, including vessels, which will be discountable due to because sea turtles are able to move away from the project area if disturbed.

Sea turtles may be affected by being temporarily unable to access the project area for foraging or refuge, due to their avoidance of dredging activities. Although sea turtles may be temporarily unable to use the construction area, we believe these effects will be insignificant as there is with similar surrounding habitat. NMFS PRD does not believe hawksbill or leatherback sea turtles will be present at the project site or affected due to their very specific life history strategies, sheltering, and foraging requirements, which are not supported at the project site (Appendix A). Hawksbills are associated with coral reefs while leatherbacks are a deepwater, pelagic species. Effects to sea turtles include the risk of injury from contact with mechanical or hydraulic dredging equipment, which will be discountable. NMFS PRD believes the project may affect, but would not adversely affect green, Kemp's ridley, or loggerhead turtles (Appendix A).

During construction, contract personnel associated with the proposed project would be informed of the potential presence of sea turtles or manatees and the need to avoid contact. All construction personnel would be responsible for observing water-related activities for the presence of sea turtles and manatees. Manatees are not expected to occur in the work area; however, in the event that a manatee were sighted within 100 yards of the active work zone, special operating conditions would be implemented, including no operation of moving equipment within 50 feet of a manatee; all vessels would operate at no wake/idle speeds within 100 yards of the work zone; and siltation barriers, if used, would be re-secured and monitored. Special operating conditions would no longer be necessary once the manatee left the 100-yard buffer around the work zone on its own accord. In addition, manatee sightings would be reported to appropriate federal and state agencies.

Impacts of the Single Polygon Alternative Impacts and benefits of the Single Polygon Alternative on migratory bird, wildlife, and threatened and endangered species resources in the marsh creation area and borrow area would be similar as for the Preferred (Split Polygon) Alternative.

4.2.6 Invasive Species

Impacts of No Action Invasive species may be found in the area, but the spread of invasive species is not expected under no action.

Impacts of Preferred (Split Polygon) Alternative Executive Order 13112 requires federal agencies to use authorities to prevent introduction and control (in cost-effective and environmentally sound manners) invasive species, and to provide for restoration of native species and habitats in ecosystems that have been invaded. The purpose of the Preferred (Split Polygon) Alternative is to restore the native habitat. The project would not introduce invasive species, although any invasive species present could spread on the newly created mudflat. CPRA administers contracts for plantings and uses only plantings authorized for release. This ensures appropriate (noninvasive) species and cultivars are provided.

Impacts of the Single Polygon Alternative Impacts and benefits of the Single Polygon Alternative on invasive species would be similar as for the Preferred (Split Polygon) Alternative.

4.3 CULTURAL RESOURCES

4.3.1 Historic, Prehistoric, and Native American

Impacts of No Action Under no action, marsh loss would continue and erosion along the bayou banks could uncover cultural resources.

Impacts of Preferred (Split Polygon) Alternative The Split Polygon Alternative was sited to have no effect on any known historic, prehistoric or native American resources, and it is unlikely any resources would be recovered or disrupted. Establishment of buffers around identified targets is considered the best management practice for protecting submerged cultural resources during dredging operations. No adverse impacts on cultural resources would result from implementation of the Preferred (Split Polygon) Alternative. The Preferred (Split Polygon) Alternative would slow down and reduce marsh loss and could delay erosion along the bayou banks that could uncover cultural resources.

Impacts of the Single Polygon Alternative Impacts and benefits of the Single Polygon Alternative on cultural resources in the marsh creation area and borrow area would be similar as for the Preferred (Split Polygon) Alternative.

4.3.2 Socioeconomic

Impacts of No Action Under the No-Action Alternative, the saline marsh and mangrove habitat would continue to fragment and ultimately would be lost to open water. Loss of shrimp habitat leads to loss of income in the region because marsh habitats provide essential nursery function to shrimp. Shrimp is the most valuable fishery in Lafourche Parish, producing half the poundage of marine fisheries landings and nearly 50 percent of the value as well, for a total of nearly \$12 million annually (Hemmerling and Colten 2003).

Impacts to the shrimp industry would directly affect the Houma people, the largest Native American tribe in Louisiana. Note that they are not a federally recognized tribe. Current tribal

rolls set the population at about 17,000 members, most of whom live along Highway 1 in south Lafourche and in the area around Houma, on the western boundary of Lafourche Parish. The Houma have retained traditional language, attitudes, and practices at a time when many of their neighbors left fishing and trapping to work in the oilfields. Many of the Houma people who live along Bayou Lafourche continue to make a living from shrimping and to supplement their subsistence by hunting, fishing, and gathering wild resources. Recent encroachment of salt water and loss of coastal marsh currently threaten to displace many Houma communities (Hemmerling and Colten 2003).

In addition to the native Houma people, people of Southeast Asian descent are disproportionately affected by declines in shrimping and fishing. By 1990, more than 1 in every 20 Louisiana fishers and shrimpers had roots in Southeast Asia, even though this group made up less than half a percent of the state's workforce. Southeast Asians have progressively dominated the shrimping industry, running large, modern steelhulled shrimp boats along the Gulf Coast (Hemmerling and Colten 2003).

Impacts of Preferred (Split Polygon) Alternative The Preferred (Split Polygon) Alternative would not be expected to adversely affect socioeconomic resources. A 4.2-acre portion of one oyster lease would be impacted by the project; however, the oyster lease is located in shallow high salinity water and is not expected to have many oysters. The oyster lease owner will be compensated for the fair market value of the oysters on the lease. Other oyster leases are present in Timbalier Bay. Under this preferred alternative, marshes and black mangrove habitat created in the proposed project area would provide forage, nursery, and grow-out sites for a variety of commercially and recreationally important fisheries species. Improvements to marsh habitats are expected to enhance fisheries resources in the immediate area. Increased recreational and commercial fishing would, in turn, positively and indirectly support nearby businesses. Pipelines would be better protected, and economic activity in the area would continue at present levels or would increase. During construction, a small increase in employment of dredge operators, crew members, and other construction-related technicians would occur.

Impacts of the Single Polygon Alternative Impacts and benefits of the Single Polygon Alternative on socioeconomic resources would be similar as for the Preferred (Split Polygon) Alternative.

4.3.3 Land Use and Infrastructure

Impacts of No Action There would be no changes to land use with no action. Continued marsh losses could uncover pipelines in the area and increase susceptibility to damage.

Impacts of Preferred (Split Polygon) Alternative The Split Polygon Alternative will restore the native marsh habitat. The project would create marsh adjacent to pipelines and thus provide additional protection to infrastructure, the port, and the navigation channel during storms. An incidental benefit of the proposed action would be reduction of storm surges that would result from restored shoreline integrity and protected wetlands. Coastal landforms and wetlands are one of the first lines of defense for storm surges and reduce the impact of flooding and storm surges on infrastructure in the coastal region. The project will contribute to coastal resilience and will protect Port Fourchon and associated infrastructure and the only hurricane evacuation route

(A.O. Rappelet Road) for Port Fourchon and related petroleum storage and transport facilities. Port Fourchon supports 75 percent of the deepwater oil and gas production in the Gulf of Mexico and serves as the point of departure for crew boats, equipment and supplies, rig components, and oilfield services.

Impacts of Single Polygon Alternative Impacts and benefits of Single Polygon Alternative on land use would be similar as for the Split Polygon Alternative. However, due to the pipeline infrastructure in the project area, the pipeline canal crossings would require a sand core closure which would be difficult to construct especially in the northeast corner where three pipelines intersect.

4.3.4 Non-resource considerations

Impacts of No Action No evidence was found of HTRW on record or observed in the marsh creation area or the TE-0052 borrow area which is adjacent to the proposed borrow area for this project and there would be no impact under no action.

Impacts of Preferred (Split Polygon) Alternative No evidence was found of HTRW on record or observed in the marsh creation area or the TE-0052 borrow area which is adjacent to the borrow area for this project and there would be no impact under the Preferred (Split Polygon) Alternative.

Impacts of the Single Polygon Alternative No evidence was found of HTRW on record or observed in the marsh creation area or the TE-0052 borrow area which is adjacent to the borrow area for this project and there would be no impact under the Single Polygon Alternative.

4.4 CUMULATIVE IMPACTS

Direct and indirect impacts of past, present, and reasonably foreseeable future events were considered in the analysis of the proposed project consequences. These impacts include historical and predicted future land loss rates for the area and other restoration projects in the vicinity. The Preferred (Split Polygon) Alternative would have temporary adverse impacts to some environmental resources but cumulative benefits to the environmental resources.

Although CWPPRA projects are nominated and implemented one at a time and must have individual merit, the cumulative value of all wetland restoration and protection projects in an area can far exceed the summed values of the individual projects. Cumulative effects of multiple restoration projects were mentioned in the PEIS for the CWPPRA program (LCWCRTF 1993) that is incorporated by reference. However, the analysis of the projects were not developed in enough detail to provide an adequate assessment for the purposes of this EA. The overall conclusion was that multiple restoration projects in the area would have cumulative beneficial effects with other efforts, but these effects were not classified as significant. As discussed in Section 2.1, The West Belle Pass Headland Restoration (TE-0023) was constructed to combat shoreline erosion and restore hydrology. The West Belle Pass Barrier Headland Restoration (TE-0052), Caminada Headland Beach and Dune Restoration (BA-0045), and Caminada Headland Beach and Dune Restoration Increment II (BA-0143) were constructed to restore barrier headland habitat.

Future and potential future restoration projects in the project area include Caminada Headlands Back Barrier Marsh Creation (BA-0171) and Caminada Headlands Back Barrier Marsh Creation Increment 2 (BA-0193), Terrebonne Basin Barrier Island and Beach Nourishment NFWF restoration project (TE-0143), and beneficial use from the proposed Bayou Lafourche deepening project. Cumulatively, these projects would operate synergistically with the Preferred (Split Polygon) Alternative to provide moderate beneficial effects by increasing marsh and mangrove habitat and reducing regional erosion rates, thereby improving overall environmental resources in the vicinity. The cumulative impacts of other restoration projects in the area and beneficial use of dredge materials from port and channel dredging would have similar cumulative impacts.

Cumulative impacts associated with the dredging operation are expected to be minimal. Except for the Terrebonne Basin Barrier Island and Beach Nourishment NFWF project (TE-0143) use of the adjacent TE-0052 borrow area, no other projects currently being funded in this area are likely to use the borrow areas identified for this project. Borrow areas are not expected to have any interacting cumulative effects on shoreline wave conditions because the borrow areas are some distance from the shore.

The cumulative impact of the projects on air quality and water quality would not differ substantially from the effects of the preferred alternative alone. Air quality would be temporarily and locally affected during construction of each of the projects. Short-term, localized increases in turbidity would result from all of the projects, but these impacts are considered transient because projects would not likely co-occur in space or time. The cumulative beneficial impact to water quality would be a long-term reduction in saltwater intrusion in the saline marshes behind the barrier islands and headlands.

Biological cumulative impacts of the CWPPRA and other restoration projects would be similar to the direct and indirect impacts of the preferred alternative. The proposed alternative would work with existing projects to enhance habitat for fish, wildlife, vegetation, and EFH.

Cumulatively, the preferred alternative would increase benefits to the area by decreasing land loss rates. No cumulative adverse impacts are anticipated. Cultural cumulative impacts would result from synergy of the preferred action with nearby restoration projects on the West Belle Barrier Headland and Caminada Barrier Headland. These projects would cumulatively decrease losses of habitat, thereby maintaining more of the economy and storm protection than with no action. The preferred alternative is similar to previous actions in the area that have had no adverse cultural impacts. No adverse cumulative impacts would be expected.

Minor additional adverse cumulative impacts to critical piping plover habitat may result from the use of the beach west of the West Belle Pass Jetty for the sediment pipeline, when combined with the Terrebonne Basin Barrier Island and Beach Nourishment National Fish and Wildlife Foundation (NFWF) Restoration Project (TE-0143).

5 SELECTION OF PREFERRED (SPLIT POLYGON) ALTERNATIVE

The Preferred (Split Polygon) Alternative has been identified with the strong support of the landowner, the state, and the port. The project may have minor adverse impacts to shallow open water, existing marsh, and mangrove habitat; however, the project is not expected to have a net

significant adverse impact. Beneficial effects are expected to extend for the 20-year project life. Projects in the CWPPRA program are monitored and have an operations and maintenance program which includes limited adaptive management for 20 years.

If the Task Force approves construction funds, it can be assumed they find it would significantly contribute to wetland restoration and therefore be consistent with the CWPPRA 16 U.S.C. §3952 (b) (2) which states in section 303 (b) (c) COASTAL WETLANDS RESTORATION PROJECT BENEFITS “Where such a determination is required under applicable law, the net ecological, aesthetic, and cultural benefits, together with the economic benefits, shall be deemed to exceed the costs of any coastal wetlands restoration project within the State which the Task Force finds to contribute significantly to wetlands restoration.”

6 COORDINATION

Coordination in development of the proposed action and its alternatives and the selection of the preferred alternative has been maintained with each CWPPRA Task Force agency. The project was vetted publicly through the CWPPRA process, which includes opportunities for the public and CWPPRA agencies to comment on the proposed project. The project was discussed in public meetings for CWPPRA where project details were made available on several occasions between 2010 and 2020. A draft EA was provided to those listed in Section 10, as well as available for public comment via announcement in the Times Picayune in November 2019. Comments received from both of these processes are provided in Appendix A. The preferred alternative is not expected to cause adverse environmental impacts that would require compensatory mitigation.

7 COMPLIANCE WITH LAWS AND REGULATIONS

This section presents a review of the potentially applicable laws and regulations that govern this proposed restoration project. Many federal, state, and local laws and regulations are considered during development of the proposed restoration project, as well as several regulatory requirements that are typically evaluated during the permitting process. A brief review of potentially applicable laws and regulations that may pertain to this proposed project is presented below and compliance is summarized in Table 8. The project manager will ensure that there is coordination among these programs where possible and that project implementation and monitoring are in compliance with all applicable laws and regulations.

Archeological and Historic Preservation Act of 1974: This act states that, if an activity may cause irreparable loss or destruction of significant scientific, prehistoric, historic, or archeological data, the responsible agency is authorized to undertake data recovery and preservation activities, in accordance with implementing procedures promulgated by the Secretary of the Interior.

Clean Air Act of 1970: Under this act, Congress established procedures for developing National Ambient Air Quality Standards (NAAQS) for the protection of human health and public welfare. EPA published the NAAQS in 1971, and they became effective at that time. Standards are provided for the following criteria pollutants: carbon monoxide, sulfur dioxide, nitric oxide, ozone, lead, and fine particulate matter.

Clean Water Act (CWA): The CWA is the principal law governing pollution control and water quality of the nation's waterways. It requires the establishment of guidelines and standards to control the direct or indirect discharge of pollutants to waters of the United States. Discharges of material into navigable waters are regulated under Sections 401 and 404 of the CWA. The USACE has the primary responsibility for administering the Section 404 permit program. Under Section 401 of the CWA, projects that involve discharge or fill to wetlands or navigable waters must obtain certification of compliance with state water quality standards. A Department of the Army permit application will be submitted to the Louisiana Department of Natural Resources and the U.S. Army Corps of Engineers (USACE) for consideration.

Coastal Zone Management Act (CZMA): This act provides for protection of resources found in the coastal zone, proactive land management practices, and preservation of unique coastal resources. Included in the CZMA is the requirement that all federal actions within the coastal zone of Louisiana must be consistent with the federally approved State of Louisiana Coastal Resource Management Plan.

Endangered Species Act of 1973 (ESA): This act directs all federal agencies to conserve endangered and threatened species and their habitats and encourages such agencies to utilize their authorities to further these purposes. Under the act, NMFS and USFWS publish lists of endangered and threatened species. Section 7 of the act requires that federal agencies consult with these agencies to minimize the effects of federal actions on endangered and threatened species.

Executive Order 11990, Protection of Wetlands: The intent of this EO is to avoid, to the extent possible, the long- and short-term adverse impacts associated with the destruction or modification of wetlands and to avoid direct or indirect support for new construction in wetlands whenever there is a practicable alternative.

Executive Order 11988, Floodplain Management, as amended by Executive Order 13690, Establishing a Federal Flood Risk Management Standard and a Process for Further Soliciting and Considering Stakeholder Input: EO 11988 requires federal agencies to avoid to the extent possible the long and short-term adverse impacts associated with the occupancy and modification of flood plains and to avoid direct and indirect support of floodplain development wherever there is a practicable alternative. EO 13690 to include that the agency regulations and procedures must also be consistent with the Federal Flood Risk Management Standard (FFRMS). The project will not construct structures and will not increase flooding of nearby inhabited areas. The project will provide a buffer to storm surges.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Population: This EO directs that the programs of federal agencies identify and address disproportionately high and adverse effects on human health and the environment of minority or low-income populations.

Executive Order 13112, Invasive Species: This EO requires agencies to use authorities to prevent introduction of invasive species, respond to and control invasions in a cost effective and

environmentally sound manner, and to provide for restoration of native species and habitat conditions in ecosystems that have been invaded.

Fish and Wildlife Coordination Act: The Fish and Wildlife Coordination Act requires agencies to consult with the USFWS, NMFS, and appropriate state agencies, prior to modification of any stream or other body of water, to ensure conservation of wildlife resources. Compliance with the FWCA is integrated into the USACE interagency review process under Section 404 of the CWA as well as through the NEPA review process.

Magnuson-Stevens Fishery Conservation and Management Act (Magnuson-Stevens Act): In 1996, the act was reauthorized and changed by amendments to require that fisheries be managed at maximum sustainable levels and that new approaches be taken in habitat conservation. EFH is defined broadly to include those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity (62 Fed. Reg. 66551, § 600.10 Definitions). The act requires consultation for all federal agency actions that may adversely affect EFH. Under Section 305(b)(4) of the act, NMFS is required to provide advisory EFH conservation and enhancement recommendations to federal and state agencies for actions that adversely affect EFH.

Marine Mammal Protection Act of 1972 (MMPA): All marine mammals are protected under the MMPA. With its amendments, it prohibits, with certain exceptions, the take of marine mammals in U.S. waters.

Migratory Bird Treaty Act of 1918 (MBTA): This act requires the protection of all migratory bird species and protection of ecosystems of special importance to migratory birds against detrimental alteration, pollution, and other environmental degradation.

National Environmental Policy Act of 1969 (NEPA): This act was enacted in 1969 to establish a national policy for the protection of the environment. The CEQ was established to advise the President and to carry out certain other responsibilities relating to implementation of NEPA by federal agencies. Pursuant to Presidential Executive Order, federal agencies are obligated to comply with NEPA regulations adopted by the CEQ (40 CFR Parts 1500-1508). These regulations outline the responsibilities of federal agencies under NEPA and provide specific procedures for preparing environmental documentation to comply with NEPA.

National Historic Preservation Act of 1966: The National Historic Preservation Act of 1966, as amended in 1992, requires that responsible agencies taking action that affects any property with historic, architectural, archeological, or cultural value that is listed on or eligible for listing on the NRHP comply with the procedures for consultation and comment issued by the Advisory Council on Historic Preservation. The responsible agency also must identify properties affected by the action that are potentially eligible for listing on the NRHP, usually through consultation with the state historic preservation officer.

Rivers and Harbors Act of 1899: This act regulates development and use of the nation's navigable waterways. Section 10 of the act prohibits unauthorized obstruction or alteration of navigable waters and vests USACE with authority to regulate discharges of fill and other materials into such waters. Actions that require Section 404 CWA permits also likely require

permits under Section 10 of this act. A single permit usually serves for both purposes so this proposed project can potentially ensure compliance through this mechanism.

Table 8. Status of law and regulation compliance

Law or Regulation	Status
Archeological & Historic Preservation Act of 1974	In compliance, no known historic properties will be affected, SHPO stamped letters dated 5-3-19, 2-15-16, and 12-10-15, cultural report no. 22-5937 and SHPO letter dated 5-31-18.
Clean Air Act of 1970	In compliance, LDEQ letter dated 12-15-15
Clean Water Act	Pending, permit application to USACE for Section 404 is being prepared concurrent with the completion of this EA
Coastal Zone Management Act of Louisiana, Executive Order 11998 and 13690, Floodplain Management	Pending, being prepared concurrent with the permit application for Section 404
Endangered Species Act of 1973	In compliance, coordination with USFWS for ESA signed 05-06-19, NMFS for ESA signed 5-28-19.
Executive Order 11990, Protection of Wetlands	In compliance, assessed with this EA
Executive Order 12114, Environmental Effects Abroad of Major Federal Actions	In compliance
Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations & Low-Income Populations	In compliance, assessed with this EA
Fish & Wildlife Coordination Act	Coordination with USFWS for ESA stamped 05-06-19, NMFS for EFH signed 4-27-20 and ESA signed 5-28-19, and as a CWPPRA participating agencies.
Magnuson-Stevens Fishery Conservation & Management Act	Coordination with NMFS Habitat Conservation Division for EFH complete on 4-27-20.
Marine Mammal Protection Act of 1972 (MMPA)	Project is being coordinated with USFWS and NMFS and will implement measures to minimize impacts on marine mammals.
Migratory Bird Treaty Act of 1918	Coordination under MBTA is generally incorporated into Section 404 of the CWA, NEPA, or other federal permit, license or review requirements.
National Environmental Policy Act of 1969	In Process with this EA draft
National Historic Preservation Act of 1966	In compliance, no known historic properties will be affected SHPO stamped letters dated 5-3-19, 2-15-16, and 12-10-15, cultural report no. 22-5937 and SHPO letter dated 5-31-18.

8 CONCLUSIONS

The natural processes of subsidence and erosion of wetlands have been exacerbated by human alterations of the Louisiana coastal area. Without intervention, subsidence of area soils would continue and sea level rise would overcome the productive habitat. Avoidance and minimization measures of the Preferred (Split Polygon) Alternative are presented in Table 9.

Table 9. Avoidance and minimization measures of the Preferred (Split Polygon) Alternative

Resource	Potential Avoidance and Minimization Measures
Geology, Soil, Topography, and Physical	<ul style="list-style-type: none"> • Vegetative plantings and containment dikes around disturbed areas would stabilize soil and reduce resuspension of recently deposited sediment. • Borrow area is located far enough offshore that no impacts to shorelines are anticipated.
Climate, Oceanic Processes & Air Quality	<ul style="list-style-type: none"> • Best management practices would minimize exhaust fumes and fugitive dust. • Primary production through increased marsh productivity would benefit air quality in long-term.
Oceanographic Processes, Water Resources	<ul style="list-style-type: none"> • Best management practices and containment dikes would prevent or minimize turbidity. • Compliance with the Clean Water Act and other regulations would protect water resources.
Vegetation Resources	<ul style="list-style-type: none"> • Project-specific evaluations and coordination with appropriate federal, state, and local agencies would focus on effective vegetation management. • Best management practices would reduce scour, erosion, and sedimentation • Native species would be used for vegetative plantings.
Aquatic & Benthic Habitats, and Essential Fish Habitat & Fisheries	<ul style="list-style-type: none"> • Undredged areas adjacent to the borrow area would provide source organisms for recolonization. • Best management practices would reduce turbidity in the borrow area • Project-specific evaluations and coordination with appropriate federal, state, and local agencies would focus on protecting sensitive species. • Containment dikes would be gapped after construction to provide tidal connection.
Marine Mammals	<ul style="list-style-type: none"> • Project-specific evaluations and coordination with USFWS and NMFS would focus on protecting this resource. • Standard Manatee Conditions for In-Water Activities and measures for Reducing Entrapment Risk to Protected Species would be implemented.

Migratory Birds, Wildlife, and Threatened & Endangered Species	<ul style="list-style-type: none"> • Project-specific evaluations and coordination with USFWS and NMFS would focus on protecting wildlife and sensitive resources. • Nesting colonial waterbirds and manatees would be avoided by following USFWS, LDWF, and NMFS Protected Resources provisions. • Bird abatement would be implemented, if necessary. • Use of a cutterhead dredge would likely not impact sea turtles. • Sea Turtle and Smalltooth Sawfish Construction Conditions would be implemented. • Implementation of minimization measures, i.e., slow vessel speeds, use of observers on vessels, and cessation of work if protected species are observed.
Historic, Prehistoric & Native American	<ul style="list-style-type: none"> • Magnetic and acoustic anomalies identified during the offshore cultural resource survey would be protected by buffers. • If artifacts of potential cultural or historical significance are unearthed, construction or excavation activities would be immediately halted and the Louisiana State Historic Preservation Office (SHPO) consulted. • Appropriate section 106 Consultation with the Louisiana State Historic Preservation Office is in progress.
Socioeconomics	<ul style="list-style-type: none"> • Coordination with appropriate federal, state, and local agencies would ensure that public concerns are addressed. • Compensation of oyster leases at current market value.
Land Use & Infrastructure, Hazardous, Toxic & Radioactive Waste, and Noise	<ul style="list-style-type: none"> • Coordination with appropriate federal, state, and local agencies would focus on maintaining the quality of public recreation in the area. • Staging areas used for construction materials or debris would be returned to pre-construction, or better, conditions. • Construction would avoid pipelines and other oil and gas equipment, which have already been identified by magnetometer surveys and ongoing coordination with the pipeline owners.

This EA provides information on the direct, indirect, and cumulative impacts on the human environment likely to result from funding the West Fourchon project. The analysis in this EA provides evidence that the long-term beneficial impacts on the coastal resources of south Louisiana would not result in any substantial long-term adverse environmental impacts. Construction-related adverse impacts would be temporary or reversible, and therefore qualified as minor in the EA. The analysis of this EA further provides evidence that beneficial impacts would be minor to moderate. This effects analysis is based on a review of relevant literature, site-specific data, and project-specific engineering reports related to biological, physical, and cultural resources, as well as on the cumulative experience gained through many similar coastal restoration projects in other areas of south Louisiana in past decades. The action is anticipated to have long-term beneficial impacts on the local economy and culture as it relates to recreational and commercial fishing. NMFS will review, evaluate, and consider the evidence in this EA to determine whether it supports a finding that the proposed action would have no significant impact on the quality of the human environment.

9 PREPARERS

This EA was prepared by biologists Joy Merino and Donna Rogers of NMFS.

10 DISTRIBUTION AND CONTRIBUTION LIST

This draft EA has been distributed for comment to agencies of the CWPPRA Task Force and resource agencies as listed below. The draft is available for public review and the final EA will be made available to the public at <http://www.lacoast.gov> along with other public records for the project. A minimum 30-day comment period was provided for drafts. This EA was distributed to:

- Mark Wingate Chairman, Deputy District Engineer, U.S. Army Engineer District, New Orleans Office of the Chief.
- Darryl Clark, Senior Field Biologist, U.S. Fish and Wildlife Service.
- Bren Haase, Deputy Chief, Studies & Environmental Branch, Coastal Protection and Restoration Authority.
- Patrick Williams, Fishery Biologist, National Marine Fisheries Service.
- Karen McCormick, Section Chief, Environmental Protection Agency, Region 6 Marine and Coastal Protection Division (6WQ-EC), 1445 Ross Avenue Dallas, Texas 75202-2733
- Britt Paul, Assistant State Conservationist, Water Resources, Natural Resources Conservation Service.

References in the literature cited and the following persons / agencies were consulted in the preparation of this EA.

- Linda Hardy, Louisiana Department of Environmental Quality
- Pam Breaux, Louisiana State Historic Preservation Officer

A solicitation of comments on the proposed project was conducted by mailing letters to the following listed entities prior to this analysis in 2015. Comments received were considered in analysis and project design. Full letters of reply are available in the project files maintained by the NMFS.

- Coalition to Restore Coastal Louisiana
- Barataria-Terrebonne National Estuary Program
- Department of Public Safety Highway Safety Commission
- Department of the Army Technical Support
- Department of Wildlife & Fisheries Louisiana Natural Heritage Program
- Department of Agriculture and Forestry - Office of Soil & Water Conservation and Office of Forestry
- Department of Culture Recreation & Tourism/Division of Archaeology and Office of State Parks
- Department of Economic Development Office of Business Development
- Division of Administration State Land Office and State Planning Office
- Ducks Unlimited Restoration Coordinator
- Environmental Protection Agency Source Water Protection and Federal Activities
- Federal Transit Administration Region 6
- Floodplain Management Program District 64
- Floodplain administrator Terrebonne parish police
- Houma-Terrebonne Planning and Zoning Commission
- Isle de Jean Charles Band
- Inter-Tribal Council of Louisiana, Inc.

- Lafourche-Terrebonne Soil and Water Conservation District
- Louisiana Department of Environmental Quality Linda Hardy, Office of the Secretary
- Louisiana House of Representatives District 53, 52, and 51
- Louisiana Senate District 20 and 21
- Louisiana Department of Natural Resources Office of Conservation, Office of Mineral Resources
- Louisiana Good Roads Association
- Louisiana Intertribal Council
- Louisiana State University Sea Grant Legal Advisory Service
- Louisiana Choctaw Tribe
- Natural Resources Conservation Service
- Nichols State University SLEC
- Office of Indian Affairs
- Pointe-au-Chien Tribe
- South Central Planning and Development Commission
- South Louisiana Economic Council
- Seminole Nation of Oklahoma
- Terrebonne Parish Consolidated Government
- Terrebonne Parish School Board
- Terrebonne Port Director
- Terrebonne Parish Civil Defense
- United Houma Nation
- U.S. Geological Survey
- U.S. House of Representatives; 1st district Steve Scalise
- U.S. National Park Service
- U.S. Senate - David Vitter and Bill Cassidy

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APPENDIX A

**UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Restoration Center
5304 Flanders Drive, Suite B
Baton Rouge, LA 70808**

October 25, 2018

Attention: Biological Science Technician

Re: *West Fourchon Marsh Creation and Nourishment Project (TE-134) ESA, Lafourche Parish, LA*

The NOAA National Marine Fisheries Service is the federal sponsor of the West Fourchon Marsh Creation and Nourishment Project (TE-134) west of Port Fourchon in Lafourche Parish, Louisiana. Engineering and design of the project is funded by the Coastal Wetlands Planning, Protection, and Restoration Act (CWPPRA). The project has undergone the 30% and 95% design reviews and is preparing to request construction funding in December 2018. The construction schedule is dependent on funding and is currently unknown. The total construction duration is expected to last about 14 months, with approximately 2 months of hydraulic dredging. We used the ESA guidance on the USFWS website to create the attached report. A brief project description and project map follow to assist in your assessment.

The project is located across Bayou Lafourche west of Port Fourchon and will create and nourish as much as 820 acres of saline marsh and mangrove habitat using offshore sediments. A temporary sediment pipeline will be laid from the Gulf of Mexico borrow area to the marsh creation areas located approximately six miles north of the borrow area. To avoid potential impacts to navigation and cultural sites, the current plan is to bring the submerged sediment pipeline onshore just west of the west Belle Pass jetty, cross over into Bayou Lafourche north of the jetty, and float the pipeline along the western bank of Bayou Lafourche. The sediment pipeline will be submerged in a few locations to allow navigation to a well slip west of Bayou Lafourche and Evans Canal and will either pass in front of or behind the proposed Fourchon LNG plant, depending on the LNG construction schedule. A cutterhead suction dredge is expected to be used in the offshore borrow area and marsh buggy excavators are expected to be used to construct the containment dikes.

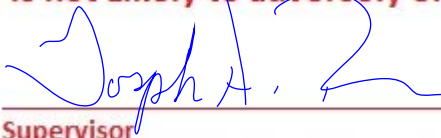
Please let me know if you have any questions or need additional information (225-636-2095, donna.rogers@noaa.gov).

Sincerely,

Donna Rogers, Ph.D.
Project Manager

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,

Is not Likely to adversely effect those resources

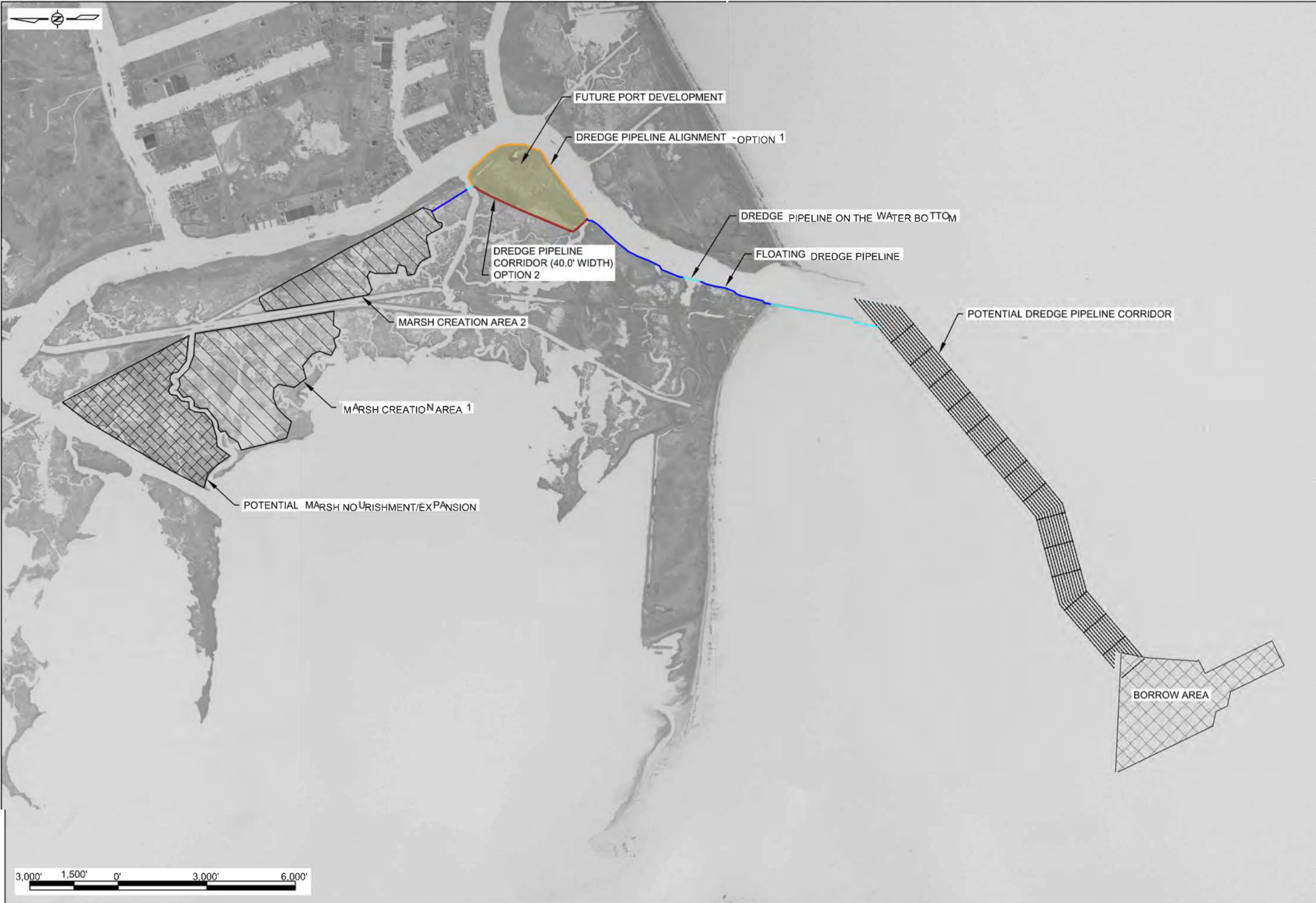


06 May 19

Supervisor

Date

Louisiana Ecological Services Office
U.S. Fish and Wildlife Service



WEST FOURCHON MARSH CREATION AND NOURISHMENT		PROPOSED PRELIMINARY BAYOU LAFOURCHE PIPELINE ROUTE		COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVE BATON ROUGE, LOUISIANA 70802	
STATE PROJECT NUMBER: TE-0134	DESIGNED BY: T. MCCLAIN, E.I.	DATE: AUG 2016	APPROVED BY:	REV.	DATE
DRAWN BY: K. CAJOU	APPROVED BY:	DATE:	DESCRIPTION:	BY:	DATE:
SHEET 1 OF 1					



Endangered Species Act (ESA) Project Review and Guidance for Other Federal Trust Resources Report

Instructions

Based on the information provided, this project requires further review. You may submit your project information to lafayette@fws.gov.

Please include the following information with your submission:

- a copy of this report
- project contact name and number
- project location in latitude and longitude, including staging areas if appropriate
- approximate date for project to begin and end
- full project description of work to be completed
- any other information that may be helpful for our review process

Contact the Louisiana Ecological Services Office at (337) 291-3100 for further assistance.

Project Description: West Fourchon (TE-134) CWPPRA project would dredge sediment from offshore borrow area to create and nourish saline marsh between Bayou Lafourche and Timbalier Bay.

Requesting Agency: NOAA - Fisheries

Project Coordinates: Latitude: 29° 8' 14.36" N Longitude: 90° 14' 2.04" W

Point of Contact: Donna Rogers

Address: 5304 Flanders Dr. Suite B

City: Baton Rouge

State: Louisiana

Zip Code: 70808

Phone Number 1: 225-636-2095 **Phone Number 2:** _____

Email Address: donna.rogers@noaa.gov

Does the proposed action only involve telecommunication structure(s)?

No

Would the proposed action occur entirely within an existing footprint or rights-of-way (ROW)?

No

Would any portion of the proposed action occur within one of these areas of interest?

Red Knot

Would the proposed action involve human disturbance or ground disturbance (such as foot traffic, vehicles, tracked equipment, excavating, grading, placing fill material, etc.)?

Yes

Would the proposed action result in impacts to foraging habitat (sandy beaches, tidal mudflats, salt marshes, and peat banks) or roosting habitat (for example reefs, high sand flats, or sites protected from high tides)?

Yes

Would the proposed action result in long-term impacts (effects lasting up to 6 months or more) to foraging or roosting habitat?

No

Would the proposed action be conducted during the migration or wintering season (August – May)?

Yes

Would the following applicable avoidance and minimization features be included within the project design?

Yes

Avoidance and Minimization Measures for Red Knot for Shoreline Activities in Louisiana

- Do not disturb foraging or roosting red knot to the maximum extent practicable. The project area (i.e., operational site, access points, travel corridors, staging areas, etc.) should be surveyed by a qualified biologist for the presence of red knots or optimal habitat features (e.g., inlets, bayside sand and mud flats, tidal pools, peat banks, and wrack lines). Educate personnel on avoiding those areas being utilized by the birds.
- When red knots are identified, vehicle and foot traffic should not occur within 150 feet from the birds or within 10 feet of optimal habitat features (even when birds are not present). The recommended buffers should be maintained for the duration of the work activities even if the birds depart or relocate. Personnel and vehicles should follow existing/established travel and access corridors and maintain slow speeds to avoid disturbing birds.
- Stay 500 feet or more away from high tide roosting areas, including large flocks of shorebirds when possible, as red knots may occur in mixed flocks. If birds in the area are repeatedly being flushed (i.e., flying away), then you are too close and need to back away.
- Designate access points and travel corridors away from known foraging and roosting

- areas and keep all personnel, vehicles, and equipment within those designated corridors to minimize disturbance to birds and beach topographic alterations.
- Avoid driving up and down the shoreline to the maximum extent practicable to minimize disturbance to birds and beach topographic alterations. Keep all personnel, vehicles, and equipment within the designated work area/project footprint and access corridors.
 - Use low-pressure tire (10 psi) or tracked vehicles (e.g., ATVs, dozers, etc.) or consult with a qualified biologist to avoid and minimize beach topographic alterations.
 - Do not block major egress points in channels, rivers, passes, and bays to avoid disturbance to natural coastal processes.
 - Staging areas and waste collection areas should be located to avoid beaches, dunes, inlets, and ephemeral tidal pools.
 - Maintain a clean worksite and remove all trash and work-related debris on a daily basis.
 - Avoid disturbing the wrack line during project work or while traveling to and from the project site. If the wrack line must be crossed by equipment or vehicles, gently rake the wrack out of the way to establish a designated travel corridor for crossing the wrack line. Restore the wrack to its original configuration once access across it is no longer needed.
 - Avoid disturbing bay side sand and mud flats to the maximum extent practicable.
 - Avoid impacts to dune systems, both vegetated and non-vegetated, including trampling any dune vegetation. Use existing designated travel and access corridors at all times. If necessary, establish a buffer with flagging from the toe of the slope of the dune to a distance of 10 feet. Where vegetation extends off the dune onto the beach, the buffer should extend 10 from the vegetation.
 - Do not fly aircraft below 500 feet near bird concentration areas (i.e., foraging and roosting areas).
 - Avoid hovering or landing aircraft near dunes and bird concentration areas (i.e., foraging and roosting areas).
 - Restore beach topography and the wrack line to their natural pre-project conditions to the maximum extent practicable.

Conclusion:

We have determined that the proposed action is not likely to adversely affect the Red Knot.

Project Representative

10/25/18
Date

West Indian Manatee

Does the proposed action fall within the manatee consultation zone, excluding the Mississippi River (see map), and involve in-water activities, with depths of at least 2 feet, during the months of June through November?

Yes

Is the proposed action's footprint entirely on land?

No

Would the proposed action involve in-water activities, with depths of at least 2 feet, during the months of June through November?

Yes

Would the following Standard Manatee Conditions for in-Water Activities be included within the project design?

Yes

Standard Manatee Conditions for In-water Activities

During in-water work in areas that potentially support manatees all personnel associated with the project should be instructed about the potential presence of manatees, manatee speed zones, and the need to avoid collisions with and injury to manatees. All personnel should be advised that there are civil and criminal penalties for harming, harassing, or killing manatees which are protected under the Marine Mammal Protection Act of 1972 and the Endangered Species Act of 1973. Additionally, personnel should be instructed not to attempt to feed or otherwise interact with the animal, although passively taking pictures or video would be acceptable.

All on-site personnel are responsible for observing water-related activities for the presence of manatee(s). We recommend the following to minimize potential impacts to manatees in areas of their potential presence:

- All work, equipment, and vessel operation should cease if a manatee is spotted within a 50-foot radius (buffer zone) of the active work area. Once the manatee has left the buffer zone on its own accord (manatees must not be herded or harassed into leaving), or after 30 minutes have passed without additional sightings of a manatee(s) in the buffer zone, in-water work can resume under careful observation for manatee(s).
- If a manatee(s) is sighted in or near the project area, all vessels associated with the project should operate at "no wake/idle" speeds within the construction area and at all times while in waters where the draft of the vessel provides less than a four-foot clearance from the bottom. Vessels should follow routes of deep water whenever possible.
- If used, siltation or turbidity barriers should be properly secured, made of material in which manatees cannot become entangled, and be monitored to avoid manatee entrapment or impeding their movement.

- Temporary signs concerning manatees should be posted prior to and during all in-water project activities and removed upon completion. Each vessel involved in construction activities should display at the vessel control station or in a prominent location, visible to all employees operating the vessel, a temporary sign at least 8½ " X 11" reading language similar to the following: "CAUTION BOATERS: MANATEE AREA/ IDLE SPEED IS REQUIRED IN CONSTRUCTION AREA AND WHERE THERE IS LESS THAN FOUR FOOT BOTTOM CLEARANCE WHEN MANATEE IS PRESENT". A second temporary sign measuring 8½ " X 11" should be posted at a location prominently visible to all personnel engaged in water-related activities and should read language similar to the following: "CAUTION: MANATEE AREA/ EQUIPMENT MUST BE SHUTDOWN IMMEDIATELY IF A MANATEE COMES WITHIN 50 FEET OF OPERATION".
- Collisions with, injury to, or sightings of manatees should be immediately reported to the Service's Louisiana Ecological Services Office (337/291-3100) and the Louisiana Department of Wildlife and Fisheries, Natural Heritage Program (225/765-2821). Please provide the nature of the call (i.e., report of an incident, manatee sighting, etc.); time of incident/sighting; and the approximate location, including the latitude and longitude coordinates, if possible.

Conclusion:

~~We have~~ determined that the proposed action is not likely to adversely affect the West Indian Manatee.


Project Representative

10/25/18
Date

Piping Plover

Would the proposed action involve human disturbance or ground disturbance (such as foot traffic, vehicles, tracked equipment, excavating, grading, placing fill material, etc.)?

Yes

Would the proposed action result in impacts to foraging habitat (intertidal beaches, sand, mud, or algal flats, between annual low tide and annual high tide) or roosting habitat (unvegetated or sparsely vegetated dune systems, sand, mud, or algal flats above high tide)?

Yes

Would all, or portions of, the proposed action be located in piping plover critical habitat (see map)?

Yes

Would the proposed action result in long-term impacts (effects lasting up to 6 months or more) to piping plover critical habitat?

No

Would the proposed action be conducted during the wintering season (July – April)?

Yes

Would the attached applicable avoidance and minimization features be included within the project design?

Yes

Avoidance and Minimization Measures for Piping Plovers for Shoreline Activities in Louisiana

- Do not disturb foraging or roosting piping plovers to the maximum extent practicable. The project area (i.e., operational site, access points, travel corridors, staging areas, etc.) should be surveyed by a qualified biologist for the presence of piping plovers or optimal habitat features (i.e., inlets, bayside sand and mud flats, tidal pools, and wrack lines). Educate personnel on avoiding those areas being utilized by the birds.
- When piping plovers are identified, vehicle and foot traffic should not occur within 150 feet from the birds or within 10 feet optimal habitat features (even when birds are not present). The recommended buffers should be maintained for the duration of the work activities even if the birds depart or relocate. Personnel and vehicles should

- follow existing/established travel and access corridors and maintain slow speeds to avoid disturbing birds.
- Stay 500 feet or more away from high tide roosting areas, including large flocks of shorebirds when possible, as piping plovers may occur in mixed flocks. If birds in the area are repeatedly being flushed (i.e., flying away), then you are too close and need to back away.
 - Designate access points and travel corridors away from known foraging and roosting areas and keep all personnel, vehicles, and equipment within those designated corridors to minimize disturbance to birds and beach topographic alterations.
 - Avoid driving up and down the shoreline to the maximum extent practicable to minimize disturbance to birds and beach topographic alterations. Keep all personnel, vehicles, and equipment within the designated work area/project footprint and access corridors.
 - Use low-pressure tire (10 psi) or tracked vehicles (e.g., ATVs, dozers, etc.) or consult with a qualified biologist to avoid and minimize beach topographic alterations.
 - Do not block major egress points in channels, rivers, passes, and bays to avoid disturbance to natural coastal processes.
 - Staging areas and waste collection areas should be located to avoid beaches, dunes, inlets, and ephemeral tidal pools.
 - Maintain a clean worksite and remove all trash and work-related debris on a daily basis.
 - Avoid disturbing the wrack line during project work or while traveling to and from the project site. If the wrack line must be crossed by equipment or vehicles, gently rake the wrack out of the way to establish a designated travel corridor for crossing the wrack line. Restore the wrack to its original configuration once access across it is no longer needed.
 - Avoid disturbing bay side sand and mud flats to the maximum extent practicable.
 - Avoid impacts to dune systems, both vegetated and non-vegetated, including trampling any dune vegetation. Use existing designated travel and access corridors at all times. If necessary, establish a buffer with flagging from the toe of the slope of the dune to a distance of 10 feet. Where vegetation extends off the dune onto the beach, the buffer should extend 10 from the vegetation.
 - Do not fly aircraft below 500 feet near bird concentration areas (i.e., foraging and roosting areas).
 - Avoid hovering or landing aircraft near dunes and bird concentration areas (i.e., foraging and roosting areas).
 - Restore beach topography and the wrack line to their natural pre-project conditions to the maximum extent practicable.

Conclusion:

We have determined that the proposed action is not likely to adversely affect the Piping Plover.

Donna Rogers
Project Representative

10/25/18
Date

Sea Turtles

Would the proposed action result in long-term impacts (effects lasting up to 6 months or more) to nesting habitat (sandy beaches)?

No

Would the proposed action be conducted during the sea turtle nesting season (April 15 - October 31)?

Yes

Conclusion:

May affect, send project in for further review

NOAA is consulting with NMFS for seaturtles.

Donna Regua

10/25/18

Migratory Bird Conservation Recommendations

Bald Eagle

The proposed project area may provide nesting habitat for the bald eagle (*Haliaeetus leucocephalus*), which was officially removed from the List of Endangered and Threatened Species as of August 8, 2007. However, the bald eagle remains protected under the Bald and Golden Eagle Protection Act (BGEPA) (54 Stat. 250, as amended, 16 U.S.C. 668a-d) and the Migratory Bird Treaty Act (MBTA) (40 Stat. 755, as amended; 16 U.S.C. 703 et seq.) The Louisiana Department of Wildlife and Fisheries (LDWF) has not collected comprehensive bald eagle survey data since 2008, and new active, inactive, or alternate nests may have been constructed within the proposed project area since that time.

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/migratorybirds/pdf/management/nationalbald eaglenagementguidelines.pdf>

In southern Louisiana parishes, eagles typically nest in mature trees (e.g., baldcypress, sycamore, willow, etc.) near fresh to intermediate marshes or open water. Bald eagles may also nest in mature pine trees near large lakes in central and northern Louisiana. If a bald eagle nest occurs or is discovered within 660 feet of 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: <https://www.fws.gov/southeast/our-services/eagle-technical-assistance>. Following completion of the evaluation, that website will provide a determination of whether additional consultation is necessary.

Colonial Waterbirds

In accordance with the Migratory Bird Treaty Act of 1918 (as amended), please be advised should the project area be located in or near wetland habitats which may be inhabited by colonial nesting waterbirds and/or seabirds, additional restrictions may be necessary.

Colonies may be present that are not currently listed in the database maintained by the Louisiana Department of Wildlife and Fisheries. That database is updated primarily by (1) monitoring previously known colony sites and (2) augmenting point-to-point surveys with flyovers of adjacent suitable habitat. Although several comprehensive coast-wide surveys have been recently conducted to determine the location of newly-established nesting colonies, we recommend that a qualified biologist inspect the proposed work site for the presence of undocumented nesting colonies during the nesting season because some waterbird colonies may change locations year-to-year. To minimize disturbance to colonial nesting birds please refer to our colonial nesting waterbird guidance on the LESO Webpage https://www.fws.gov/lafayette/Migratory_Birds/MigBird.html.

Additional Migratory Bird Conservation Recommendations

During the project impact analysis process developers should identify project-related impacts to migratory birds and the conservation measures that will be used to mitigate them. For additional Migratory Bird Conservation recommendations, guidance and tools to help reduce impacts to birds and their habitats please visit the LESO webpage https://www.fws.gov/lafayette/Migratory_Birds/MigBird.html and the Service's Migratory Bird Program Webpage (<https://www.fws.gov/birds/bird-enthusiasts/threats-to-birds/collisions/communication-towers.php>).

BOBBY JINDAL
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE AND FISHERIES
OFFICE OF WILDLIFE

ROBERT J. BARHAM
SECRETARY
JIMMY L. ANTHONY
ASSISTANT SECRETARY

Date December 18, 2015

Name John Foret

Company NOAA Fisheries Service

Street Address 646 Cajundome Blvd Rm 175

City, State, Zip Lafayette, LA 70507

Project West Fourchon Marsh Creation & Nourishment(TE-134)
Terrebonne Basin

Project ID 2672015

Invoice Number 15121807

Personnel of the Coastal & Nongame Resources Division have reviewed the preliminary data for the captioned project. After careful review of our database, no impacts to rare, threatened, or endangered species or critical habitats within Louisiana's boundary are anticipated for the proposed project. No state or federal parks, wildlife refuges, scenic streams, or wildlife management areas are known at the specified site within Louisiana's boundaries.

The Louisiana Natural Heritage Program (LNHP) has compiled data on rare, endangered, or otherwise significant plant and animal species, plant communities, and other natural features throughout the state of Louisiana. Heritage reports summarize the existing information known at the time of the request regarding the location in question. The quantity and quality of data collected by the LNHP are dependent on the research and observations of many individuals. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Louisiana have not been surveyed. This report does not address the occurrence of wetlands at the site in question. Heritage reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. LNHP requires that this office be acknowledged in all reports as the source of all data provided here. If at any time Heritage tracked species are encountered within the project area, please contact the LNHP Data Manager at 225-765-2643. If you have any questions, or need additional information, please call 225-765-2357.

Sincerely,



Amity Bass, Coordinator
Natural Heritage Program


UNITED STATES DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE

Southeast Regional Office

263 13th Avenue South

St. Petersburg, Florida 33701-5505

<http://sero.nmfs.noaa.gov>

05/28/2019

F/SER31:FI

SERO-2018-00365, SER-2018-19669

Donna Rogers
 National Oceanic and Atmospheric Administration's Restoration Center
 5304 Flanders Drive, Suite B
 Baton Rouge, Louisiana 70808

Dear Ms. Rogers:

This letter responds to your request for consultation with us, the National Marine Fisheries Service (NMFS), pursuant to Section 7 of the Endangered Species Act (ESA) for the following action.

Applicant	SERO Tracking Number	Project Name
NMFS Restoration Center (RC)	SERO-2018-00365 SER-2018-19669	West Fourchon Marsh Creation and Nourishment Project (TE-134)

Consultation History

This is in response to NMFS RC's letter, dated November 2, 2018, requesting consultation on the marsh restoration project in Louisiana coastal waters in the Gulf of Mexico. We initiated consultation on December 4, 2018. Consultation was held in abeyance for 38 days due to a lapse in appropriations and resulting partial government shutdown. Consultation resumed on January 28, 2019. This project was originally assigned a tracking number (SER-2018-19669) in our now obsolete tracking system. The project has been assigned a tracking number in our new NMFS Environmental Consultation Organizer (ECO), SERO-2018-00365. Please refer to this number in any future inquiries regarding this project.

Project Location

Address	Latitudes/Longitudes	Water bodies
Lafourche Parish and Port Fourchon, Louisiana	Lafourche (marsh creation site): 29.137322°N, 90.233999°W Port Fourchon (borrow site): 29.051719°N, 90.270561°W (North American Datum 1983)	Open waters of Timbalier Bay, Bayou Lafourche, and Gulf of Mexico





Image of the project location and surrounding area (©2018 Google)

Existing Site Conditions

The project area includes existing marsh habitat located approximately 2.8 nautical miles from the Gulf of Mexico between Timbalier Bay and Bayou Lafourche. The marsh habitat is a privately owned property with some recreational fishing use. It consists of saline smooth cordgrass marsh, black mangrove habitat using offshore sediments, and open water. Additionally, the project area includes an offshore sediment borrow site located approximately 5.24 miles (mi) southwest of Port Fourchon, Louisiana, in the Gulf of Mexico. Water depths in the borrow area are 28 to 36 feet (ft) below NAVD88. The seabed in the borrow area is relatively uniform and benthic habitat is primarily clay interspersed with silt or silty sand lenses. No seagrass or submerged aquatic vegetation has been observed in the project area.

Project Description

The proposed action seeks to restore and nourish approximately 820 acres (ac) of saline marsh and black mangrove habitat by utilizing mechanically dredged material from shallow open water and vegetated habitat and hydraulically dredged material from an offshore 282-ac Gulf of Mexico borrow area. Work will occur in marsh creation areas, canals and bayou, and nearshore Gulf of Mexico waters. The project is necessary due to the current loss each year of an estimated 9.6 ac of land in and around the marsh creation areas from subsidence, sea level rise, and shoreline erosion. Marsh creation areas will be surrounded by approximately 37,124 linear feet of earthen containment dikes created from in-situ material mechanically dredged within the marsh creation areas. Containment dikes will be degraded and gapped 3 years after construction to allow aquatic organism and hydrologic access.

A cutterhead suction dredge is expected to be used to dredge sediment in the borrow area. Marsh buggy excavators are expected to be used to construct the containment dikes. Weir boxes will be installed in the containment dikes to allow the marsh creation areas to dewater. A temporary 6-

mi-long sediment pipeline will be installed from the borrow area to the marsh creation areas and a booster pump will be installed at an appropriate distance. Borrow area sediment will be mixed with water and pumped to the marsh creation areas via the sediment pipeline. The maximum cut depth of the borrow area will be -20 ft with a 5-ft disturbance zone. However, there is ample material in the borrow area and only 40% of the identified sediments are expected to be dredged. All equipment will be floating (pipeline along the western bank of Bayou Lafourche) and on barges, and no access dredging will be required. The total construction duration is expected to last about 14 months, including approximately 2 months of hydraulic dredging. Specifically, the installation of the dredge pipeline is expected to take 48 days. Containment dike construction will occur during daylight hours for 104 days; hydraulic dredging is expected to occur continuously for 56 days.

Construction Conditions

The applicant has also agreed to adhere to NMFS's *Sea Turtle and Smalltooth Sawfish Construction Conditions*.¹ Additionally, the applicant agrees to the implementation of minimization measures, i.e., slow vessel speeds, use of observers on vessels, and cessation of work if protected species are observed.

When dredging the offshore borrow area, no negative impact to the wave environment or sediment transport is expected. However, as a provision in the contract for action if the turbidity exceeds Louisiana Department of Environmental Quality requirements, the contractor will be required to dewater the marsh creation areas to minimize the amount of material allowed to escape the system and flow into Bayou Lafourche or Timbalier Bay. The contract does not require turbidity curtains in the fill area.

¹ NMFS. 2006. *Sea Turtle and Smalltooth Sawfish Construction Conditions* revised March 23, 2006. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Regional Office, Protected Resources Division, Saint Petersburg, Florida.
http://sero.nmfs.noaa.gov/protected_resources/section_7/guidance_docs/documents/sea_turtle_and_smalltooth_sawfish_construction_conditions_3-23-06.pdf.

Effects Determination for Species the Action Agency or NMFS Believes May Be Affected by the Proposed Action

Species	ESA Listing Status	Action Agency Effect Determination	NMFS Effect Determination
Sea Turtles			
Green (North Atlantic distinct population segment [DPS])	T	NLAA	NLAA
Green (South Atlantic DPS)	T	NLAA	NLAA
Kemp's ridley	E	NLAA	NLAA
Leatherback	E	NLAA	NE
Loggerhead (Northwest Atlantic DPS)	T	NLAA	NLAA
Hawksbill	E	NLAA	NE
Fish			
Giant manta ray	T	NLAA	NLAA
Marine Mammals			
Fin whale	E	NLAA	NE
Sei whale	E	NLAA	NE
Sperm whale	E	NLAA	NE
Gulf of Mexico Bryde's whale	E	NLAA	NE
E=endangered; T=threatened; NLAA = may affect, not likely to adversely affect; NE = no effect			

We believe the project will have no effect on hawksbill and leatherback sea turtles, due to the species' very specific life history strategies, which are not supported at the project site. Leatherback sea turtles have pelagic, deepwater life history, where they forage primarily on jellyfish. Hawksbill sea turtles typically inhabit inshore reef and hard bottom areas where they forage primarily on encrusting sponges.

Additionally, we believe the proposed action will have no effect on large whales based on their unlikelihood of presence at the project site. Fin whales and sei whales are rare in the Gulf of Mexico, and we believe these species will not be affected by the proposed project due to their stock distributions. The only large whales stocks that occur regularly in the Gulf of Mexico are Gulf of Mexico Bryde's whale and sperm whales. We believe these species will not be affected by the proposed project due to the depth of the project area, which is a maximum of 36 ft and occurs shoreward of the continental shelf.

Critical Habitat

The project is not located in designated critical habitat, and there are no potential routes of effect to any designated critical habitat.

Analysis of Potential Routes of Effects to Species

Effects to sea turtles and giant manta rays include the risk of direct physical impact from dredging and other in-water construction activities. We believe the risk of physical injury is discountable due to the species' ability to move away from the project site and into adjacent suitable habitat, if disturbed. NMFS has previously determined in dredging Biological Opinions that, while oceangoing hopper-type dredges may lethally entrain protected species, including sea turtles, non-hopper-type dredging methods, such as the cutterhead hydraulic dredge proposed in this project, are slower and extremely unlikely to overtake or adversely affect them.²

Additionally, the applicant's implementation of NMFS's *Sea Turtle and Smalltooth Sawfish Construction Conditions* will require all construction workers to observe in-water related activities for the presence of these species. If a sea turtle or giant manta ray is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or giant manta ray is seen within a 50-foot radius of the equipment. Activities may not resume until the species has departed the project area of its own volition. Further, more than 85% of the construction activities will be limited to daylight hours, which will assist construction workers in seeing listed species and, if present, avoiding interactions with them.

Sea turtles and giant manta rays may be affected by being temporarily unable to use the site forage or refuge habitat due to avoidance of construction activities and related noise. We believe the temporary exclusion from the project area will have an insignificant effect on sea turtles and giant manta rays, given the project's limited footprint, the availability of similar habitat nearby, and the project will be temporary and intermittent. Because these species are mobile, we expect that they will move away from construction activities and use adjacent areas with similar habitat in Timbalier Bay, Bayou Lafourche, and Gulf of Mexico.

Conclusion

Because all potential project effects to listed species were found to be discountable, insignificant, or beneficial, we conclude that the proposed action is not likely to adversely affect listed species under NMFS's purview. This concludes your consultation responsibilities under the ESA for species under NMFS's purview. Consultation must be reinitiated if a take occurs or new information reveals effects of the action not previously considered, or if the identified action is subsequently modified in a manner that causes an effect to the listed species or critical habitat in a manner or to an extent not previously considered, or if a new species is listed or critical habitat designated that may be affected by the identified action. NMFS's findings on the project's potential effects are based on the project description in this response. Any changes to the proposed action may negate the findings of this consultation and may require reinitiation of consultation with NMFS.

² NMFS. 2007. Revision 2 to the National Marine Fisheries Service (NMFS) November 19, 2003, Gulf of Mexico regional biological opinion (GRBO) to the U.S. Army Corps of Engineers (COE) on hopper dredging of navigation channels and borrow areas in the U.S. Gulf of Mexico. National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Southeast Regional Office, Protected Resources Division, St. Petersburg, Florida.

We look forward to further cooperation with you on other projects to ensure the conservation of our threatened and endangered marine species and designated critical habitat. If you have any questions on this consultation, please contact Francesca Innocenti, Consultation Biologist, at (727) 209-5995, or by email at Francesca.Innocenti@noaa.gov.

Sincerely,

WUNDERLICH.MA Digitally signed by
RY.JANE.140034548 WUNDERLICH.MARY.JANE.1
8 400345488
Date: 2019.05.28 17:42:25 -04'00'

for David Bernhart
Assistant Regional Administrator
for Protected Resources

File: 1514-22.e



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

SEA TURTLE AND SMALLTOOTH SAWFISH CONSTRUCTION CONDITIONS

The permittee shall comply with the following protected species construction conditions:

- a. The permittee shall instruct all personnel associated with the project of the potential presence of these species and the need to avoid collisions with sea turtles and smalltooth sawfish. All construction personnel are responsible for observing water-related activities for the presence of these species.
- b. The permittee shall advise all construction personnel that there are civil and criminal penalties for harming, harassing, or killing sea turtles or smalltooth sawfish, which are protected under the Endangered Species Act of 1973.
- c. Siltation barriers shall be made of material in which a sea turtle or smalltooth sawfish cannot become entangled, be properly secured, and be regularly monitored to avoid protected species entrapment. Barriers may not block sea turtle or smalltooth sawfish entry to or exit from designated critical habitat without prior agreement from the National Marine Fisheries Service's Protected Resources Division, St. Petersburg, Florida.
- d. All vessels associated with the construction project shall operate at "no wake/idle" speeds at all times while in the construction area and while in water depths where the draft of the vessel provides less than a four-foot clearance from the bottom. All vessels will preferentially follow deep-water routes (e.g., marked channels) whenever possible.
- e. If a sea turtle or smalltooth sawfish is seen within 100 yards of the active daily construction/dredging operation or vessel movement, all appropriate precautions shall be implemented to ensure its protection. These precautions shall include cessation of operation of any moving equipment closer than 50 feet of a sea turtle or smalltooth sawfish. Operation of any mechanical construction equipment shall cease immediately if a sea turtle or smalltooth sawfish is seen within a 50-ft radius of the equipment. Activities may not resume until the protected species has departed the project area of its own volition.
- f. Any collision with and/or injury to a sea turtle or smalltooth sawfish shall be reported immediately to the National Marine Fisheries Service's Protected Resources Division (727-824-5312) and the local authorized sea turtle stranding/rescue organization.
- g. Any special construction conditions, required of your specific project, outside these general conditions, if applicable, will be addressed in the primary consultation.

Revised: March 23, 2006

O:\forms\Sea Turtle and Smalltooth Sawfish Construction Conditions.doc





UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
Restoration Center
5304 Flanders Drive, Suite B
Baton Rouge, LA 70808

October 23, 2018

Kristin Sanders, State Historic Preservation Officer
Louisiana Office of Cultural Development
P.O. Box 44247
Baton Rouge, LA 70804-4241

Dear Ms. Sanders:

The National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) is the federal sponsor of the West Fourchon Marsh Creation and Nourishment Project (TE-134). In accordance with the National Environmental Protection Act review of cultural and historical resources, and Section 106 of the National Historic Preservation Act of 1966, we request consultation with your office for cultural resources and concurrence with our determination of effect on the TE-134 Final Design.

The proposed TE-134 marsh creation area, located west of Port Fourchon, in Lafourche Parish is being funded under the Coastal Wetland Planning, Protection, and Restoration Act (CWPPRA). The proposed project would use material dredged from the Gulf of Mexico to create and/or nourish as much as 820 acres of saline marsh between Bayou Lafourche and Timbalier Bay.

CWPPRA is a process; project designs and thus Areas of Potential Effects (APEs) often change between Initial Planning Efforts (Phase 0) and Engineering and Design (Phase 1). On December 10, 2015, your office concurred that no historic properties would be affected by the TE-134 Phase 0 Marsh Creation Area APE. On February 15, 2016 your office concurred that no historic properties would be affected by the TE-134 Phase 0 marsh creation and borrow area APEs (see attached stamped letters).

Because the original Phase 0 borrow area was proposed to be used for another project, the project team developed another borrow area under Phase 1. On May 17, 2018, NOAA sent a draft geophysical/cultural resources survey of the Phase 1 borrow area APE (Report No. 22-5937). On May 31, 2018, your office concurred that no properties listed in or eligible for listing in the National Register of Historic Places would be affected by the use of the Phase 1 borrow area and temporary gulf sediment pipeline conveyance corridor APE.

Under Phase 1 (Engineering and Design), the proposed marsh creation area was divided into two separate marsh creation areas in addition to a potential marsh nourishment area (see attached figure). The redesigned marsh creation area APE (see attached figure) is located away from the western bank of Bayou Lafourche and is not expected to affect any of the previously recorded archaeological sites on the Lafourche ridge (16LF250, 16LF249, and 16LF83).

In addition to the redesigned marsh creation APE and newly developed borrow APE, NOAA has identified a temporary bayou sediment pipeline corridor APE between the marsh creation and the



Ms. Kristin Sanders
October 23, 2018
Page 2

gulf pipeline conveyance corridor identified in Report No. 22-5937. We propose to lay the temporary sediment pipeline on the bottom of the Gulf of Mexico from the borrow area to the beach just west of the Belle Pass jetties, cross into Bayou Lafourche north of the west jetty, and then float the pipeline to the marsh creation areas approximately 120 feet from the western bank of Bayou Lafourche. The pipeline will be laid on the bottom across a well access canal on the west bank of Bayou Lafourche and across Evans Canal (see attached figure). We currently have two temporary sediment pipeline options we plan to permit around a future LNG plant, depending on the LNG plant construction schedule. Option 1 would float the along Bayou Lafourche, or Option 2 would lay the pipeline over land behind the LNG plant. The floating sediment pipeline would not affect previously recorded archaeological sites 16LF82, 16LF84, and 16LF7 in and along Bayou Lafourche and no known sites would be affected by the Option 2 overland route. We do not anticipate that the final TE-134 design would affect any known historic properties.

If you have any questions or need additional information, please contact me at 225-636-2095 or donna.rogers@noaa.gov.

Sincerely,

ROGERS.DONNA.R
EEVE.1503206125

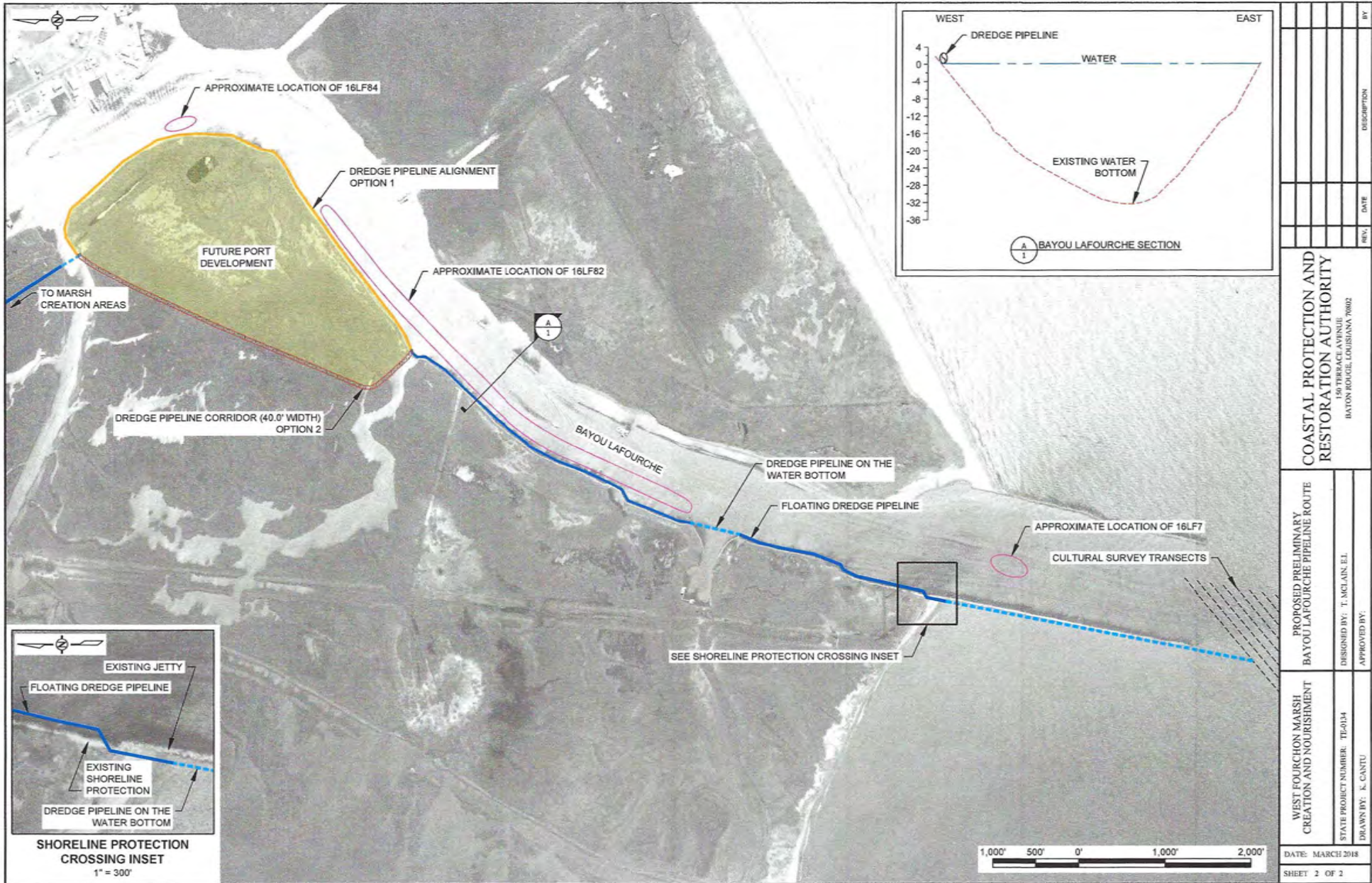
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ROGERS.DONNA.REEVE.15032061
25
Date: 2018.10.23 09:49:54 -05'00'

Donna Rogers
Federal Project Manager

No known historic properties will be affected by this undertaking.
Therefore, our office has no objection to the implementation of this project. This effect determination could change should new information come to our attention.



Kristin P. Sanders
State Historic Preservation Officer
Date



REV.	DATE	DESCRIPTION	BY

COASTAL PROTECTION AND RESTORATION AUTHORITY 150 TERRACE AVENUE BATON ROUGE, LOUISIANA 70802	
PROPOSED PRELIMINARY BAYOU LAFOURCHE PIPELINE ROUTE	DESIGNED BY: T. MCCLAIN, E.L. APPROVED BY:
WEST FOURCHON MARSH CREATION AND NOURISHMENT	STATE PROJECT NUMBER: TP-014 DRAWN BY: K. CANTU
DATE: MARCH 2018	
SHEET 2 OF 2	



UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration
NATIONAL MARINE FISHERIES SERVICE
SEFC/Estuarine Habitats & Coastal Fisheries Center
646 Cajundome Boulevard
Lafayette, Louisiana 70506

January 20, 2016

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

State Historic Preservation Officer
Louisiana Office of Cultural Development
P.O. Box 44247
Baton Rouge LA 70804-44247

Phil Boggan
Deputy State Historic Preservation Officer

Dear Ms. Breaux,

Date

02/15/2016

The NOAA, National Marine Fisheries Service is reviewing a marsh creation project in Terrebonne Basin, Lafourche Parish. Our proposed action includes creating and nourishing marsh from offshore sediments. You previously confirmed that no known cultural resources would be affected (attached letter stamped December 10, 2015). We have reviewed cultural resources assessment for this activity, as required under Section 106 of the National Historic Preservation Act of 1966, as amended. By transmittal of this letter and the attached cultural resource assessment, we request consultation with your office for cultural resources, and request a concurrence with our determination of effect. Your response would be appreciated, and may be addressed to me.

The West Fourchon Marsh Creation and Nourishment Project (TE-134) is funded under the Coastal Wetlands Planning, Protection and Restoration Act. The Area of Potential Effects (APE) is located at the borrow and marsh creation areas noted on the attached figures. We found no records of identified sites in the APE of marsh on the cultural resources database as of December 22, 2015. However, the submerged offshore borrow area identified locations to be avoided. As stated in the Phase I report of 2009, the area "contains 30 magnetic and 3 acoustic targets. Four clusters of magnetic anomalies appear to be associated with well heads and another five individual magnetic targets lie within the buffer; the signature characteristics of these targets are suggestive of modern debris. Of the five anomalies that lie within [the area], all appear to be associated with modern debris and/or a pipeline that runs across the northern part of this area. No additional investigation of these targets is recommended. However, two magnetic targets and one associated acoustic target are located near a shipwreck symbol on NOAA Chart No. 11346. As these could be associated with that wreck, avoidance of those targets by the placement of a 300-foot radius conforming buffer zone that provides adequate protection for all material generating the magnetic signature is recommended."

Previous surveys have not been completed of this marsh creation area. All of the known cultural locations are along Bayou Lafourche, on the bank where Native American ceramics, shell, and unmodified bone were found. Most were identified in a 1976 pipeline survey.

Sincerely,

Dr. John Foret
NOAA Fisheries Service
646 Cajundome Blvd
Lafayette, LA 70506
John.foret@noaa.gov



Excerpt from the draft EA currently being prepared and not authorized for public review

1.1 Cultural Resources

1.1.1 Historic, Prehistoric and Native American

This section considers both terrestrial and submerged cultural resources. There are no known terrestrial resources. The submerged area is offshore and has a 2009 Phase I remote-sensing survey associated with a previous restoration project (SHPO # 22-3276). Archeological surveys near the project (State Historic Preservation Office (SHPO #22-0065, #22-0002) and known sites (16LF82, 16LF84, 16LF249, 16LF83) on the Lafourche ridge were considered in this analysis. No new surveys were conducted with this analysis as the areas of affect are in areas of marsh, mangrove, or shallow open waters unlikely to contain submerged or terrestrial cultural resources. The known sites south and east of the proposed project area were noted as heavily wave washed in 1976 which are confirmed (#22-0645) or presumed destroyed.

Figure of proposed marsh (green) and borrow (blue) polygons near Port Fourchon.

#22-0065 is a 1976 Negative findings field survey note of area nearest proposed marsh creation area entitled "An archaeological survey of the proposed pipeline route from Bay Marchand northward along Bayou Lafource, Louisiana.

#22-0002 Gagliano, SM, RA Weinstein and EK Burden. 1976. Archeological Survey of the Port Fourchon Area Lafource parish, Louisiana.

#22-3276 Watts, G, J Daniel, and R Arnold. 2009. Phase I Remote-Sensing Submerged Cultural Resources Survey of Offshore Borrow Sites Located in LaFouche and Terrebonne Parish, Louisiana in Association with the West Belle Pass Barrier Headland Restoration Project.

#22-0645 RC Beavers and TR Lamb. 1980. A Level I cultural resources survey and assessment of Fourchon Island, Lafourche Parish, Louisiana.






UNITED STATES DEPARTMENT OF COMMERCE
National Oceanic and Atmospheric Administration

NATIONAL MARINE FISHERIES SERVICE
SEFC/Estuarine Habitats & Coastal Fisheries Center
646 Cajundome Boulevard
Lafayette, Louisiana 70506

November 25, 2015

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

To: Department of Culture Recreation & Tourism/Division of Archaeology
P.O. Box 44247
Capitol Annex 3rd
Baton Rouge, LA 70804


Phil Boggan
Deputy State Historic Preservation Officer
Date
12/10/2015

Re: West Fourchon Marsh Creation and Nourishment (TE-134); Terrebonne Basin

Subject: Solicitation of Views

The NOAA National Marine Fisheries Service is the federal sponsor of the *West Fourchon Marsh Creation and Nourishment* (TE-134) project in the Terrebonne Basin, LaFourche Parish. Early in the planning and design stages, views from federal, state, and local agencies and organizations are solicited to aid in the process. The special knowledge and expertise of these groups can assist NOAA with the identification of possible adverse economic, social, and environmental effects or concerns. This information will be included as part of the preparation of the Environmental Assessment, in compliance with the National Environmental Policy Act.

Project Description – The TE-134 project is being funded under the Coastal Wetland Planning, Protection, and Restoration Act (CWPPRA) and is located west of Port Fourchon. The project location is in shallow open water and saline marsh. Our proposed action includes creating and nourishing marsh utilizing dredged materials from the Gulf of Mexico.

To assist in your early review and comment, a fact sheet with a map showing the project area is attached.

It is requested that you assess the provided information and furnish your view and comments by December 30, 2015. Please reference the subject project in your responses.

Please respond to:

John Foret, PhD
NOAA Fisheries Service, 646 Cajundome Blvd Rm 175, Lafayette, LA 70506
john.foret@noaa.gov

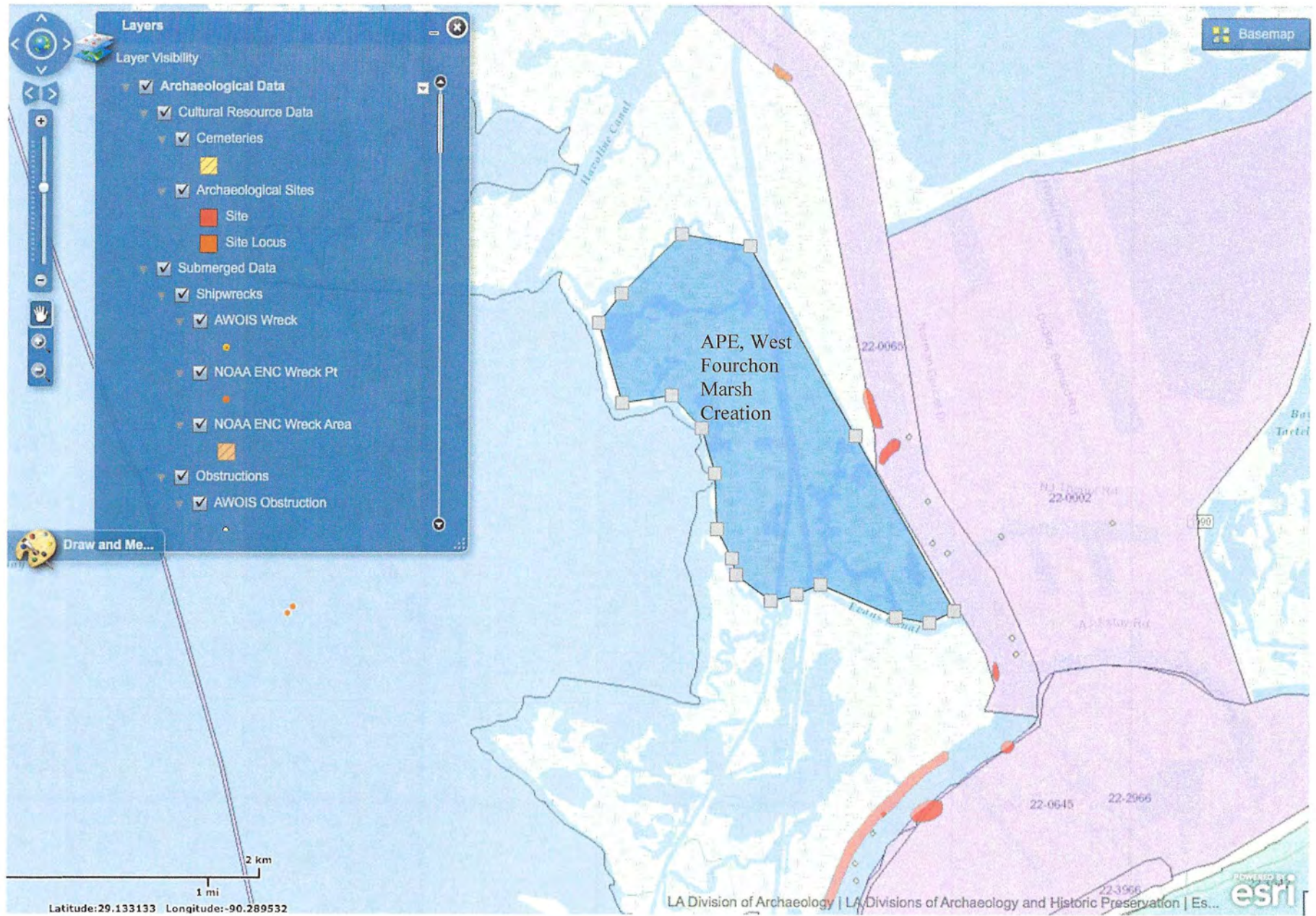
Thank you in advance for your time and assistance.

Sincerely,



Kimberly Clements
Federal Project Manager
NOAA Fisheries Service









BOBBY JINDAL
GOVERNOR

State of Louisiana
DEPARTMENT OF WILDLIFE AND FISHERIES
OFFICE OF WILDLIFE

ROBERT J. BARHAM
SECRETARY
JIMMY L. ANTHONY
ASSISTANT SECRETARY

Date December 18, 2015

Name John Foret

Company NOAA Fisheries Service

Street Address 646 Cajundome Blvd Rm 175

City, State, Zip Lafayette, LA 70507

Project West Fourchon Marsh Creation & Nourishment(TE-134)
Terrebonne Basin

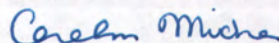
Project ID 2672015

Invoice Number 15121807

Personnel of the Coastal & Nongame Resources Division have reviewed the preliminary data for the captioned project. After careful review of our database, no impacts to rare, threatened, or endangered species or critical habitats within Louisiana's boundary are anticipated for the proposed project. No state or federal parks, wildlife refuges, scenic streams, or wildlife management areas are known at the specified site within Louisiana's boundaries.

The Louisiana Natural Heritage Program (LNHP) has compiled data on rare, endangered, or otherwise significant plant and animal species, plant communities, and other natural features throughout the state of Louisiana. Heritage reports summarize the existing information known at the time of the request regarding the location in question. The quantity and quality of data collected by the LNHP are dependent on the research and observations of many individuals. In most cases, this information is not the result of comprehensive or site-specific field surveys; many natural areas in Louisiana have not been surveyed. This report does not address the occurrence of wetlands at the site in question. Heritage reports should not be considered final statements on the biological elements or areas being considered, nor should they be substituted for on-site surveys required for environmental assessments. LNHP requires that this office be acknowledged in all reports as the source of all data provided here. If at any time Heritage tracked species are encountered within the project area, please contact the LNHP Data Manager at 225-765-2643. If you have any questions, or need additional information, please call 225-765-2357.

Sincerely,

for 
Amity Bass, Coordinator
Natural Heritage Program



Donna Rogers - NOAA Federal <donna.rogers@noaa.gov>

Re: Draft Environmental Assessment for West Fourchon Marsh Creation and Nourishment Project (TE-134)

1 message

Brandon Howard - NOAA Federal <brandon.howard@noaa.gov>
To: Donna Rogers - NOAA Federal <donna.rogers@noaa.gov>

Mon, Apr 27, 2020 at 7:35 AM

Hi Donna.

The Habitat Conservation Division (HCD) has reviewed the Public Draft Environmental Assessment (EA) for the West Fourchon Marsh Creation Project (TE-0134). The project is located just west of Port Fourchon and would result in the creation of 537 acres of marsh and black mangrove habitat. The Preferred Alternative listed in Section 4.2.3 concludes the project would not have an adverse effect on essential fish habitat (EFH). The HCD agrees with this conclusion and does not object to the project as proposed. Should future modification of the project result in greater impacts to EFH, the Restoration Center should reinstate EFH consultation. This concludes EFH consultation.

Brandon

On Thu, Apr 23, 2020 at 9:28 AM Donna Rogers - NOAA Federal <donna.rogers@noaa.gov> wrote:
FYI. This was the email we didn't receive any responses to.

----- Forwarded message -----

From: **Cecelia Linder - NOAA Federal** <cecelia.linder@noaa.gov>
Date: Tue, Nov 20, 2018 at 6:34 PM

Subject: Draft Environmental Assessment for West Fourchon Marsh Creation and Nourishment Project (TE-134)

To: Mark R MVN <Mark.R.Wingate@usace.army.mil>, Patrick Williams <Patrick.Williams@noaa.gov>, Britt - Alexandria LA Paul <britt.paul@la.usda.gov>, Bren Haase <Bren.Haase@la.gov>, Brian Lezina <Brian.Lezina@la.gov>, Karen McCormick <McCormick.Karen@epamail.epa.gov>, Darryl Clark <Darryl_Clark@fws.gov>

Cc: Inman, Brad L MVN <Brad.L.Inman@usace.army.mil>, Kevin Roy <kevin_roy@fws.gov>, Adrian Chavarria <chavarria.adrian@epa.gov>, Kinler, Quin - NRCS, Baton Rouge, LA <quin.kinler@la.usda.gov>, Kent Bollfrass <kent.bollfrass@la.gov>, Brandon Howard - NOAA Federal <brandon.howard@noaa.gov>, Donna Rogers - NOAA Federal <donna.rogers@noaa.gov>, Carriere, Kaitlyn M MVN <Kaitlyn.M.Carriere@usace.army.mil>

Please see the attached draft environmental assessment for the West Fourchon Marsh Creation & Nourishment Project (TE-134).

Approved as part of the 24th Priority Project List, the West Fourchon Marsh Creation & Nourishment Project will be up for construction approval at the December 6, 2018 CWPPRA Technical Committee meeting. With CPRA's support and engagement, NMFS submitted the phase 2 request materials earlier today.

Please provide any comments on the draft environmental assessment no later than **January 10, 2019** to: Donna.Rogers@noaa.gov. If you have any questions regarding this project, please contact Donna at (225)-636-2095 or me at (301) 427-8675.

My thanks-

Cece

--

Cecelia Linder
NOAA CWPPRA Program Manager
(301) 427-8675
(240) 535-2334 - cell

--

Donna Rogers, Ph.D.
NOAA Restoration Center

5304 Flanders Dr. Suite B
Baton Rouge, LA 70808-7206
225.636.2095 (o)
225.316-8958 (c)
225.778.7367 (f)



--
Brandon Howard
Fishery Biologist

Publisher of
THE ADVOCATE

PROOF OF PUBLICATION

The hereto attached notice was published in
THE ADVOCATE, a daily newspaper of
general circulation published in Baton Rouge,
Louisiana, and the Official Journal of the
State of Louisiana, City of Baton Rouge, and
Parish of East Baton Rouge or published daily in
THE TIMES-PICAYUNE/
THE NEW ORLEANS ADVOCATE, in
New Orleans Louisiana, or published daily in
THE ACADIANA ADVOCATE in

04/21/2020



Brittany Oconner, Public Notices Representative

Sworn and subscribed before me by the person
whose signature appears above

4/21/2020



M. Monic McChristian,
Notary Public ID# 88293
State of Louisiana
My Commission Expires: Indefinite



NATIONAL MARINE FISHERIES SERVICE	431305-01
JOY MERINO 646 CAJUNDOME BLVD. LAFAYETTE, LA 70506	

PUBLIC NOTICE
---**West Fourchon
Marsh Creation and
Marsh Nourishment**

Notice is hereby given of the availability of a draft Environmental Assessment (EA) for the proposed West Fourchon Marsh Creation and Marsh Nourishment (TE-134) project. The National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) has prepared a draft EA in accordance with the National Environmental Policy Act (NEPA) of 1969, as implemented by the Council on Environmental Quality (CEQ) (Title 40 Code of Federal Regulations [CFR] Parts 1500 through 1508 [CEQ 1992]) and NOAA Administrative Order (NAO) 216-6. The purpose of the proposed action is to support the coastal restoration objectives of the Coastal Wetlands Planning, Protection and Restoration Act by creating and nourishing wetlands near Port Fourchon, Louisiana.

As the federal sponsor, NMFS is responsible for the oversight of the project in partnership with the State of Louisiana Coastal Protection and Restoration Authority. The draft EA analyzes the impacts of the no action alternative and design alternatives. The preferred alternative would nourish and preserve approximately 537 acres of marsh using Gulf of Mexico sediments.

All comments received will be considered by NMFS and will become part of the public record. If no significant issue is identified during the comment period, NMFS will finalize the draft EA and issue a Finding of No Significant Impact. NMFS will proceed to construction without another notice, unless substantive comments are received.

The draft EA is available for review on-line at

http://www.habitat.noaa.gov/pdf/westfourchon_te_134_draft_ea.pdf

or upon request. Questions or comments on the draft EA must be received no later than 5 p.m. CST on May 17, 2020. Comments on the draft EA, or requests for it in hard copy or CD, may be sent by e-mail or phone to the Restoration Center with the subject line "CWP-PRA West Fourchon Draft EA." E-mail:

donna.rogers@noaa.gov v

, Phone: 225-636-2095.

431305-apr 21-1t

10-A Wednesday, April 29, 2020 THE LAFOURCHE GAZETTE

Public notice

Tillman Infrastructure, LLC is proposing to build a 260-foot self support tower (275-ft w/appurtenances) located at 2262 Hwy 1 Raceland, LA 70394. Structure coordinates are: (N29-44-26.85/W90-42-26.78). The tower is anticipated to have FAA Style E (dual medium intensity) lighting.

The Federal Communications Commission (FCC) Antenna Structure Registration (ASR Form 854) file number is **A1164287**. Interested persons may review the application at www.fcc.gov/asr/applications by entering the file number.

Environmental concerns may be raised by filing a Request for Environmental Review at www.fcc.gov/asr/environmentalrequest within 30 days of the date that notice of the project is published on the FCC's website. FCC strongly encourages online filing.

A mailing address for a paper filing is: FCC Requests for Environmental Review, ATTN: Ramon Williams, 445 12th Street SW, Washington, DC 20554.

4/29/20

Public notice

Request for Statement of Qualifications (SOQ) To perform brokerage services for Casualty and Marine Insurance Program

The Greater Lafourche Port Commission (GLPC) is seeking Statements of Qualifications (SOQ) and competitive proposals from bona fide qualified Brokers who are interested in representing GLPC as its Insurance Broker for its Casualty and Marine Insurance Program. The policies involved have a September 25, 2020 renewal date. Property coverages are NOT included in this engagement.

Interested proposers may obtain copies of the SOQ online at <https://centralauctionhouse.com/rfp.php?cid=68> or obtain from the Greater Lafourche Port Commission by calling 985-632-6701 ext. 104, emailing glpc@portfourchon.com ATTN: Miranda Parker, or from our website at <https://portfourchon.com/news-events/public-notices>.

Deadline for submission is May 26, 2020 at 10:30 AM.

Submittals can be hand delivered or mailed to GLPC, 16829 East Main Street Cut Off, LA 70345, or submitted online through www.centralauctionhouse.com.

GLPC reserves the right to reject any and all proposals and/or waive any informalities in any proposal. GLPC reserves the right to accept, reject or negotiate modifications to any proposal as it shall, in its sole discretion, deem to be in its best interest. The determination of adequacy of qualifications shall be at the sole discretion of GLPC.

Miranda Parker
Director of Finance
4/22/2020
4/29/2020
5/6/2020

Bid notice

ADVERTISEMENT FOR BIDS

Sealed Bids for the purchase of an Aircraft Tug will be received by the Greater Lafourche Port Commission located at 16829 East Main Street, Cut Off, LA 70345 until 2:00PM on May 20, 2020, at which

time bids will be opened and read aloud.

Bids submitted for the Aircraft Tug must be in compliance with the Specifications and submitted on the Bid Form obtained from the Greater Lafourche Port Commission. Sealed bids must be in sealed envelopes marked "BID - Aircraft Tug" with name and address of bidder. Bids can be hand delivered, mailed to 16829 East Main Street Cut Off, LA 70345, or submitted online through www.centralauctionhouse.com. If forwarded by express mail (UPS/FedEx), the sealed envelope containing the Bid must be enclosed in another envelope addressed to the Greater Lafourche Port Commission, 16829 East Main, Cut Off, LA 70345.

The bid documents can be found online at <https://www.centralauctionhouse.com/rfp.php?cid=68> or obtained from the Greater Lafourche Port Commission by calling 985-632-6701, emailing glpc@portfourchon.com, or from our website at <https://portfourchon.com/news-events/public-notices>.

Wherever in the specifications the name of a certain brand, make, manufacturer, or definite specification is utilized, such is used only to denote the quality standard of product desired and does not restrict bidders to the specific brand, make, manufacturer, or specification named. Such brand, make, manufacturer, or specification is used only to set forth and convey the general style, type, character, and quality of product desired. Equivalent products, as determined by the Greater Lafourche Port Commission, will be acceptable.

All bids shall be accompanied by an acceptable bid bond or certified check for an amount not less than 5% of the amount of the bid, made payable to the Greater Lafourche Port Commission.

The Commission reserves the right to reject any or all proposals, in whole or in part, and to waive informalities.

Chett Chiasson
Executive Director,
Greater Lafourche
Port Commission
4/15/2020
4/22/2020
4/29/2020

Public notice

West Fourchon Marsh Creation and Marsh Nourishment

Notice is hereby given of the availability of a draft Environmental Assessment (EA) for the proposed West Fourchon Marsh Creation and Marsh Nourishment (TE-134) project. The National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) has prepared a draft EA in accordance with the National Environmental Policy Act (NEPA) of 1969, as implemented by the Council on Environmental Quality (CEQ) (Title 40 Code of Federal Regulations [CFR] Parts 1500 through 1508 [CEQ 1992]) and NOAA Administrative Order (NAO) 216-6. The purpose of the proposed action is to support the coastal restoration objectives of the Coastal Wetlands Planning, Protection and Restoration Act by creating and nourishing wetlands near Port Fourchon, Louisiana.

As the federal sponsor, NMFS is responsible for the oversight of the project in partnership with the State of Louisiana Coastal Protection and Restoration Authority. The draft EA analyzes the impacts of the no action alternative and design alternatives.

The preferred alternative would nourish and preserve approximately 537 acres of marsh using Gulf of Mexico sediments.

All comments received will be considered by NMFS and will become part of the public record. If no significant issue is identified during the comment period, NMFS will finalize the draft EA and issue a Finding of No Significant Impact. NMFS will proceed to construction without another notice, unless substantive comments are received.

The draft EA is available for review on-line at http://www.habitat.noaa.gov/pdf/westfourchon_te_134_draft_ea.pdf or upon request. Questions or comments on the draft EA must be received no later than 5 p.m. CST on May 22, 2020. Comments on the draft EA, or requests for it in hard copy or CD, may be sent by e-mail or phone to the Restoration Center with the subject line "CWPPRA West Fourchon Draft EA." E-mail: donna.rogers@noaa.gov, Phone: 225-636-2095.

4/22/20

4/29/20

Legal advertisement

**TOWN OF GRAND ISLE
REGULARLY SCHEDULED
TOWN MEETING
TUESDAY, APRIL 14, 2020
12:00 P.M.**

The meeting was called to order by Mayor David Camardelle who led the Pledge of Allegiance to the American Flag. Council Member Bladsacker followed with a prayer. Roll call was as follows:

PRESENT: Council Members - Ray Santiny, Kelly Besson, Jr., Mona LaBaue, Brian Barthelemy, Leoda Bladsacker
ABSENT: 0

Motion by Council Member Leoda Bladsacker seconded by Council Member Mona LaBaue and unanimously agreed to accept the minutes of the March 10, 2020 regular town meeting as written.

Motion by Council Member Brian Barthelemy seconded by Council Member Kelly Besson, Jr. and unanimously agreed to accept the minutes of the March 13, 2020 Emergency Called town meeting as written.

Motion by Council Member Brian Barthelemy seconded by Council Member Kelly Besson, Jr. and unanimously agreed to accept the minutes of the March 22, 2020 Emergency Called Town Meeting as written.

Motion by Council Member Kelly Besson, Jr., seconded by Council Member Brian Barthelemy and unanimously agreed to accept the minutes of the March 23, 2020 Emergency Called town meeting as written.

The first hearings were held on the following proposed ordinances which will again be heard at the next regular town meeting of April 28, 2020 at which time they will be eligible for adoption:

ORDINANCE NO. ____
An ordinance amending the Town of Grand Isle Operating Budget for FY beginning July 1, 2019 and ending June 30, 2020.

NOW, THEREFORE, BE IT ORDAINED BY THE Town Council of the Town of Grand Isle, Jefferson Parish, Louisiana that:

The following line item totals and fund balances are hereby adopted

For the fiscal year beginning July 1, 2019 and ending June 30, 2020

FUND

REVENUES	EXPEN-
DITUES	DITUES
GENERAL	FUND
\$3,420,600	\$3,529,458
SPECIAL REVENUE	FUNDS
1,029,400	1,101,970
UTILITY	FUND
1,314,729	1,339,150

ORDINANCE NO. ____

An ordinance requested by C'est La Vie Investments, L.L.C. (Rickey Collins and Deborah Collins) for approval to re-zone Lot 10-1A which contains 62,156.62 square feet, and is further described as a certain tract of land designated as Lot 10-1A and lying within points "A, B, H, I and A'" on the survey plat entitled "Re-subdivision of Lot "P" of Old Home Estate of Alcide Landry and Lots 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10, Block "A" of the Subdivision of Property of Gibson J. Autin, Sr. into Lots P-1 and 10-1A, Sections 25 and 29, T22S-R24E, Grand Isle, Jefferson Parish, LA", as shown on a map prepared by BFM Corporation, a Professional Land Surveying Company, dated September 26, 1994, revised November 4, 1994, recorded in the records of Jefferson Parish on February 3, 1995, COB 2911, Page 225, Instrument No. 9505064.

ORDINANCE NO. ____

An ordinance approving the Division of the property of Triple Son Properties, LLC, into Lots 1-A and 3-A which comprises the previously divided Lots 1, 2, and 3 of Triple Son Properties, LLC, all being part of certain lot of land all in accordance with a plan of Picciola & Associates, Inc., Joseph C. Picciola, II, Surveyor, dated February 12, 2020.

The following proposed ordinance was introduced with hearings scheduled for the regular town meeting for April 28, and May 12, 2020 at which time it will be eligible for adoption:

Police Chief Laine Landry was recognized and gave the following police report: for the period March 10, 2020 thru April 14, 2020 there were 5 arrest, 17 traffic stops, and 10 traffic citations issued; total calls were 113. June Court was suspended due to the Corona Virus precautions. He thanked everyone for sending drinks and snacks to his officers at the check point and everyone for understanding having to take the precautions to help stop the spread of the virus.

Council Member Ray Santiny added that the Town Hall Staff is to be commended for the way in which they professionally and courteously handled phone calls concerning the closures due to the threat of the virus.

GIS Engineer Joseph Chauvin was recognized and reported on the following projects: 1. Drainage pumps will be constructed on Orange Lane and Chighizola which will be paid for by Jefferson Parish through the efforts of Councilman Rickey Templet. 2. The Town and the Levee Board will finance pumps for Orange Lane and Chighizola Lane. 3. The Bayside Rock Breakwater job is complete. 3. FEMA Town Hall - inspection complete and final payment is recommended (\$14,884.00), approved on a joint motion. 4. Presented the proposal for the construction of the new golf cart lanes. 5. West End Levee Repairs - large rocks expected in May. 6. Recommends payment of \$30,070. For an abstract of the Gulf side property, which was approved on a joint motion by the Council. 5. Recommends the following resolution:

RESOLUTION NO. 2777
A resolution declaring FEMA Town Hall Rehabilitation Project as being Substantially complete.

WHEREAS, town Engineering have declared the Town Hall Reha-

bilitation as substantially completer NOW, THEREFORE, BE IT RESOLVED by the Town Council of the Town of Grand Isle, Jefferson Parish that:

The FEMA Town Hall Rehabilitation Project PW 1746v2 is declared as Substantially complete.

VOTE THEREON AS FOL-

LOWS:

YEAS: Ray Santiny, Kelly Besson, Jr., Mona Santiny, Brian Barthelemy, Leoda Bladsacker

NAYS: 0

ABSENT:0

This Resolution was declared adopted this 14, day of April, 2014.

Town Attorney Chip Cahill was recognized and recommend that the Town adopt the following policy: Previous emergency ordinance and declaration is hereby amended to allow camp owners and their immediate families access to and limited use of their property beginning Monday, April 20, 2020 and non-residents camp owners shall provide the police department with contact information until these restrictions are lifted and that limited beach access shall be allowed and people will have access to the beach beginning April 20, 2020, noting that all access be limited to the social distancing policies currently in place by local, parish, state and federal authority. NO GOLFCARTS - WALKING ACCESS ONLY.

This policy will continue as the Chief of Police and Town Attorney will be authorized and empowered to make any necessary exceptions as they have throughout this crisis for essential workers, family separations and doctor visits. Violation of these policies could result in arrest. The policy was accepted by the Council with Council Members Kelly Besson, Jr. and Mona LaBaue apposing.

A joint motion was unanimously agreed upon to appropriate \$5,000 for a new air conditioner at the Town Hall.

Council Member Mona LaBaue requests/reports: 1. Gave thanks to the Mayor and Council for representing her people who support her job and asserting that these people need to come to the Island to spend money. Asked if we see a fu-

Arrest reports

The following information is based on reports from the Lafourche Parish Sheriff's Office. Those individuals have been booked with, not convicted of the offenses shown. All accused should be presumed innocent until proven guilty.

**APRIL 21, 2020
Lafourche Parish
Sheriff's Office**

Olen Alewine, 54, Raceland. Computer aided solicitation for sexual purposes (Felony) (Sex offense-Registration required). Pornography involving juveniles (Felony) (Sex offense-Registration required). Indecent behavior with juveniles (Felony) (Sex offense-Registration required).

**APRIL 23, 2020
Lafourche Parish
Sheriff's Office**

Charles Gale, 37, Raceland. Resisting an officer (Misd). Possession of firearm/carry concealed

weapon by convicted camp owners. She said they needed a voice.

Mayor's report: 1. Thanked the Chief and his staff for doing a good job to prevent loosing lives. He mention that gradually restrictions will be lifted to allow people back into the island as the business is needed for the business owners and asked that they bare with him.

Council Member Brian Barthelemy requests/reports: 1. Commended the outside crew for repairing the check at the foot of the bridge. 2. Asked if the valve at the Oak Street was repaired. It was reported that it was not and a quote was needed for Joe. Lan Tivet reported that social distance was still in place. She asked that signs on LA. 1. One near the curve be removed. Festival Music will take cost for sign placement that Golden Motors will donate. Asked to get with DOTD to remove signs at the LA 1 Curve off the Bridge. Asked that people abide by the rules for everyone's safety. The Attorney mentioned that no more than 10 people were could congregate anywhere.

Mayor's Report: 1. Thanked the town employees, police department and ems employees for all of their good work. 2. Councilman Rickey Templet has acquired financing for construction of pump station for Orange Lane and Chighizola Lane. 3. Reported that banks are being questioned about helping SBA Loans. 4. Extended condolences for the family or Reggie Bagals who recently passed. 5. Thanked the business owners for all the assistance they have been giving. 6. Special tanks to Josh Legg for bringing the town meeting to Facebook.

Motion by Council Member Mona LaBaue second by Council Member Leoda Bladsacker and unanimously agreed to adjourn the meeting at 1:23 P.M.

David J. Camardelle, Mayor
Town of Grand Isle
ATTESTED:
Ray A. Santiny, Town Clerk
Town of Grand Isle
MINUTES: 04/14/20

4/29/2020

weapon by convicted felon (Felony).

Torry Hunter, 31, Raceland. Possession of firearm/carry concealed weapon by convicted felon (Felony). Resisting an officer (Misd).

**APRIL 25, 2020
Lafourche Parish
Sheriff's Office**

Benjamin Gisclair, 29, Galliano. Domestic abuse aggravated assault (Felony). Possession of a firearm or carrying of a concealed weapon by a person convicted of domestic abuse battery (Felony). Domestic abuse battery (Felony). Simple criminal damage to property (Misd). Resisting an officer (Misd). Possession or distribution of drug paraphernalia (Misd).

**APRIL 26, 2020
Lafourche Parish
Sheriff's Office**

Vernon Aych Jr., 29, Raceland. Violation of protective orders (Misd).

Legal advertisement

**TOWN OF GRAND ISLE
EMERGENCY MEETING
WEDNESDAY, APRIL 1, 2020
1:15 P.M.**

An emergency meeting called by the council was called to order by Mayor David Camardelle who led the Pledge of Allegiance to the American Flag. Roll call was as follows:

PRESENT: Council Members-Ray Santiny (phone call in), Kelly Besson Jr., Brian Barthelemy, Leoda Bladsacker, Police Chief Laine Landry

ABSENT: Council Members-Mona LaBaue

Discussion about camp owners entering onto island. Must show proof of ownership of property/camp. Curfew is being enforced (9:00 p.m. - 6:00 a.m.) for all.

Motion by Council Member Brian Barthelemy and seconded by Council Member Leoda Bladsacker and unanimously agreed to enforce curfew and show proper ID at check point for residents and camp owners. Camp owners are allowed with proper ownership of property, but like the residents they need to quarantine.

Motion by Council Member Kelly Besson Jr., and seconded by Council Member Leoda Bladsacker and unanimously agreed to adjourn the meeting at 2:00 P.M.

David J. Camardelle, Mayor
Town of Grand Isle

ATTESTED:

Janet T. Scardino, Secretary
Town of Grand Isle

MINUTES: 4/1/2020
4/22/2020

**TOWN OF GRAND ISLE
EMERGENCY MEETING
WEDNESDAY, APRIL 3, 2020
12:00 P.M.**

An emergency meeting called by the council was called to order by Mayor David Camardelle who led the Pledge of Allegiance to the American Flag. Roll call was as follows:

PRESENT: Council Members-Ray Santiny (Phone call in), Kelly Besson Jr., Brian Barthelemy, Leoda Bladsacker, Police Chief Laine Landry

ABSENT: Council Members-Mona S. LaBaue

Motion by Council Member Kelly Besson Jr., and seconded by Council Member Leoda Bladsacker to close Grand Isle with the exception of Grand Isle residents (must have valid Grand Isle driver's license), food and essential personnel according to the Governor of Louisiana's declaration. Emergency and medical exceptions will go through our Chief of Police Laine Landry and our town attorney. Effective immediately.

Motion by Council Member Brian Barthelemy and seconded by Council Member Leoda Bladsacker and unanimously agreed to adjourn the meeting at 12:45 P.M.

David J. Camardelle, Mayor
Town of Grand Isle

ATTESTED:

Janet T. Scardino, Secretary
Town of Grand Isle

MINUTES: 4/3/2020
4/22/2020

**SOCIAL DISTANCING
STOP THE SPREAD**



Bid notice

ADVERTISEMENT FOR BIDS

Sealed Bids for the purchase of an Aircraft Tug will be received by the Greater Lafourche Port Commission located at 16829 East Main Street, Cut Off, LA 70345 until 2:00PM on May 20, 2020, at which time bids will be opened and read aloud.

Bids submitted for the Aircraft Tug must be in compliance with the Specifications and submitted on the Bid Form obtained from the Greater Lafourche Port Commission. Sealed bids must be in sealed envelopes marked "BID - Aircraft Tug" with name and address of bidder. Bids can be hand delivered, mailed to 16829 East Main Street Cut Off, LA 70345, or submitted online through www.centralauctionhouse.com. If forwarded by express mail (UPS/FedEx), the sealed envelope containing the Bid must be enclosed in another envelope addressed to the Greater Lafourche Port Commission, 16829 East Main, Cut Off, LA 70345.

The bid documents can be found online at <https://www.centralauctionhouse.com/rfp.php?cid=68> or obtained from the Greater Lafourche Port Commission by calling 985-632-6701, emailing glpc@portfourchon.com, or from our website at <https://portfourchon.com/news-events/public-notices>

Wherever in the specifications the name of a certain brand, make, manufacturer, or definite specification is utilized, such is used only to denote the quality standard of product desired and does not restrict bidders to the specific brand, make, manufacturer, or specification named. Such brand, make, manufacturer, or specification is used only to set forth and convey the general style, type, character, and quality of product desired. Equivalent products, as determined by the Greater Lafourche Port Commission, will be acceptable.

All bids shall be accompanied by an acceptable bid bond or certified check for an amount not less than 5% of the amount of the bid, made payable to the Greater Lafourche Port Commission.

The Commission reserves the right to reject any or all proposals, in whole or in part, and to waive informalities.

Chett Chiasson
Executive Director,
Greater Lafourche
Port Commission
4/15/2020
4/22/2020
4/29/2020

Public notice

Request for Statement of Qualifications (SOQ) To perform brokerage services for Casualty and Marine Insurance Program

The Greater Lafourche Port Commission (GLPC) is seeking Statements of Qualifications (SOQ) and competitive proposals from bona fide qualified Brokers who are interested in representing GLPC as its Insurance Broker for its Casualty and Marine Insurance Program. The policies involved have a September 25, 2020 renewal date. Property coverages are NOT included in this engagement.

Interested proposers may obtain copies of the SOQ online at <https://centralauctionhouse.com/rfp>.

phj?cid=68 or obtain from the Greater Lafourche Port Commission by calling 985-632-6701 ext. 104, emailing glpc@portfourchon.com ATTN: Miranda Parker, or from our website at <https://portfourchon.com/news-events/public-notices>.

Deadline for submission is May 26, 2020 at 10:30 AM.

Submittals can be hand delivered or mailed to GLPC, 16829 East Main Street Cut Off, LA 70345, or submitted online through www.centralauctionhouse.com.

GLPC reserves the right to reject any and all proposals and/or waive any informalities in any proposal. GLPC reserves the right to accept, reject or negotiate modifications to any proposal as it shall, in its sole discretion, deem to be in its best interest. The determination of adequacy of qualifications shall be at the sole discretion of GLPC.

Miranda Parker
Director of Finance
4/22/2020
4/29/2020
5/6/2020

Public notice

Tillman Infrastructure, LLC is proposing to build a 280-foot Self Support Tower (295-ft w/appurtenances) located at 135 ABC Lane, Cut Off, LA 70345. Structure coordinates are:

(N29-32-13.11/ W90-19-44.96).The tower is anticipated to have FAA Style E (dual medium intensity) lighting. The Federal Communications Commission (FCC) Antenna Structure Registration (ASR Form 854) file number is **A1162968**. Interested persons may review the application at www.fcc.gov/asr/applications by entering the file number.

Environmental concerns may be raised by filing a Request for Environmental Review at www.fcc.gov/asr/environmentalrequest within 30 days of the date that notice of the project is published on the FCC's website. FCC strongly encourages online filing. A mailing address for a paper filing is: FCC Requests for Environmental Review, ATTN: Ramon Williams, 445 12th Street SW, Washington, DC 20554. 04/22/20

Public notice

West Fourchon Marsh Creation and Marsh Nourishment

Notice is hereby given of the availability of a draft Environmental Assessment (EA) for the proposed West Fourchon Marsh Creation and Marsh Nourishment (TE-134) project. The National Oceanic and Atmospheric Administration (NOAA) National Marine Fisheries Service (NMFS) has prepared a draft EA in accordance with the National Environmental Policy Act (NEPA) of 1969, as implemented by the Council on Environmental Quality (CEQ) (Title 40 Code of Federal Regulations [CFR] Parts 1500 through 1508 [CEQ 1992]) and NOAA Administrative Order (NAO) 216-6. The purpose of the proposed action is to support the coastal restoration objectives of the Coastal Wetlands Planning, Protection and Restoration Act by creating and nourishing wetlands near Port Fourchon, Louisiana.

As the federal sponsor, NMFS is responsible for the oversight of the project in partnership with the State of Louisiana Coastal Protection and Restoration Authority. The draft EA analyzes the impacts of the no action alternative and design alternatives. The preferred alternative would nourish and preserve approximately 537 acres of marsh using Gulf of Mexico sediments.

All comments received will be considered by NMFS and will become part of the public record. If no significant issue is identified during the comment period, NMFS will finalize the draft EA and issue a Finding of No Significant Impact. NMFS will proceed to construction without another notice, unless substantive comments are received.

The draft EA is available for review on-line at http://www.habitat.noaa.gov/pdf/westfourchon_te_134_draft_ea.pdf or upon request. Questions or comments on the draft EA must be received no later than 5 p.m. CST on May 22, 2020. Comments on the draft EA, or requests for it in hard copy or CD, may be sent by e-mail or phone to the Restoration Center with the subject line "CWPPRA West Fourchon Draft EA." E-mail: donna.rogers@noaa.gov, Phone: 225-636-2095.

4/22/20
4/29/20

Gazette App

From 1-A

To date, since our mid-February launch, we have generated well over 2 million total page views and our March and April numbers during the COVID-19 pandemic are exceeding our internal expectations by in some areas as much as 400-500 percent!

"We're seeing more and more that you are interested in the work that we're doing, so we want to make it as easy as possible for our readers to be able to get our content," said Addy Melancon, the Owner/Publisher of The Lafourche Gazette. "The work we do is for our community, so any way that we can make it easier for people in the community to have access to us is an avenue we will explore and this app gives us a new tool to reach our public."

Readers will be able to have full control over how much or little information they receive when they download the app to their phone. Users can receive push notifications when stories are published in certain topic areas.

If someone doesn't want notifications sent to their phone, they can download the app and simply use it as a way to see a live look at our website, Lafourche Gazette.com.

We launched our new, interactive website on Feb. 19 and have quickly become a local media leader in the parish for our expansive

COVID-19 coverage, as well as our multimedia features, which include numerous photo galleries and features, including "Back in the Day."

In recent days, we have also added audio to our online offerings with an "Audio Vault" feature, which interviews prominent people in the community.

We also recently launched our Lafourche Strong page, which spotlights the positive things happening in our community.

The app is 100 percent free and will remain 100 percent free - just like our content.

"We promised when we launched our website in February that there would be phases of continual growth and expansion and this is just another way we're achieving that," Online Editor Casey Gisclair said. "We're excited for our app, because it better connects us to our amazing readers who are a huge part of our team. Without you guys consuming our content, this wouldn't be happening."

Arrest reports

The following informant is based on reports from the Lafourche Parish Sheriff's Office. Those individuals have been booked with, not convicted of the offenses shown. All accused should be presumed innocent until proven guilty.

APRIL 17, 2020
Lafourche Sheriff's Office
Eddie Caldwell, 57, Raceland. Revocation of parole for violation of condition.

the Lafourche Gazette

NOTICE TO OUR CUSTOMERS:

Although the Lafourche Gazette is open for business, our lobby will be closed due to the coronavirus and social distancing issues. If you need assistance or need to place an ad, send us an email at news@tgnewspaper.com or ads@tgnewspaper.com, or visit our website at www.lafouchegazette.com or call the office at 985-693-7229. Thank you for your understanding and patience during these times! Copies of our most recent edition will be available for pickup in a news stand placed outside the front door of our location at 12958 East Main in Larose.

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