

EPA CWPPRA NEPA Inclusion Analysis

I. IDENTIFYING PROJECT INFORMATION

Project Name

Project State

Project Federal Contact

II. OTHER FEDERAL PARTNERS AND LEVEL OF NEPA ANALYSIS

Has another Federal agency completed NEPA?

Yes
No

Is EPA the lead federal agency for this NEPA analysis?

Yes
No

III. PROJECT DESCRIPTION / SCOPE OF ACTIVITIES FOR ANALYSIS

I have all information needed to complete the final analysis of impacts for the entire project

Summarize the proposed action, including historic/ geographic/ ecological context, the type of restoration, and how it will be conducted.

Check the types of activities being conducted in this project: Technical Assistance

Implementation and Effectiveness Monitoring	Environmental Education Classes, Programs, Centers, Partnerships and Materials; Training Programs	Fish and Wildlife Monitoring
Planning, Feasibility Studies, Design Engineering, and Permitting --->	Check the specific project planning activities being analyzed in this checklist	Feasibility Studies Permitting and Consultations Engineering and Design

Riverine and Coastal Habitat Restoration

Beach and Dune Restoration	Bank Restoration and Erosion Reduction	Water Conservation and Stream Diversion
Debris Removal	Coral Reef Restoration	Levee & Culvert Removal, Modification, Set-back
Dam and Culvert Removal & Replacement	Shellfish Reef Restoration	Fringing Marsh and Shoreline Stabilization
Technical and Nature-like Fishways	Artificial Reef Restoration	Sediment Removal
Invasive Species Control	Road Upgrading/Decommissioning; Trail Restoration	Sediment/Materials Placement
Prescribed Burns/Forest Management	Signage and Access Management	Wetland Planting
Species Enhancement	SAV Restoration	
Channel Restoration	Marine Algae Restoration	

Conservation Transactions

Land Acquisition	Water Transactions	Restoration/Conservation Banking
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IV. PROJECT IMPACT ANALYSIS

1. Are the activities to be carried out under this project fully described in Section 2.2 of the NOAA RC PEIS?	Yes	No
2. Are the specific impacts that are likely to result from this project fully described in Section 4.5.2 of the NOAA RC PEIS?	Yes	No
3. Does the level of adverse impact for the project exceed that described in Table 11 of the NOAA RC PEIS for any resource, including significant adverse impact?	Yes	No

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Describe the public comment process, including opportunities for the public to comment.

Describe comments received (including scientific, environmental, and public).

Summarize the project impacts to resources (including beneficial and cumulative impacts) and any mitigating measures being implemented.

Resource	Type of Impact	Duration	Extent	Intensity	Quality	Attachment
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Law and Regulation Compliance Status	Status	Attachment
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V. NEPA DETERMINATION

The action is completely covered by the impact analysis within the NOAA RC Programmatic EIS (PEIS). The project and its potential impacts may be limited through terms or conditions placed on the recipient of EPA CWPPRA funds. It requires no further environmental review.

The action or its impacts are not covered by the analysis within the PEIS. It will require preparation of an individual EA, a supplemental EIS, adoption of another agency's EA or EIS, or will be covered by a Categorical Exclusion.

Approver Signature	_____	Date Signed	_____
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TE-0171 NEPA Documentation: Project Impact Analysis
November 2024

Project Information Summary

The TE-0171 Port Fourchon Marsh Creation project area (Figure 1) is in the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Region Three of the Terrebonne Basin within Lafourche Parish, Louisiana. From 1932 to 2016, Terrebonne Basin had the greatest decrease in wetland area of any of Louisiana's coastal basins and had the greatest land loss rate in the state from 1985 to 2004 (Couvillon et al., 2011; 2017). According to the CWPPRA PPL31 wetland value assessment (WVA), the USGS estimated land loss rate per year was one of the highest in the State at -1.56%/year (USACE, 2021). For interior marsh loss, USGS evaluated land/water data within an extended boundary and surrounding the project area. Using a hyper-temporal analysis (1984-2024) for the extended boundary, USGS estimated the land loss rate to be -0.97% per year. In this area, coastal wetland loss can be attributed to both anthropogenic and natural factors, such as drilling and dredging for oil and gas, flooding marshes from sea-level rise, storm-driven erosion from Hurricanes Katrina (2005), Rita (2005), Gustav (2008), Isaac (2012), Zeta (2020), Ida (2021), and Francine (2024); Tropical Storm Barry (2019); and subsidence. The subsidence rate in this area is 10.21 millimeters/year which is equivalent to 0.67 ft over the 20-year project life of TE-0171.

The primary goals of this project are to restore degraded intertidal wetland habitat and provide increased protection from storm surge and flooding. The TE-0171 project marsh creation area is a 543-acre cell to the west of Belle Pass with 24,596 linear feet of earthen containment dikes. Specific goals of the project are to create approximately 445 acres and nourish approximately 98 acres of marsh with dredged material hydraulically dredged from Belle Pass. The project would also evaluate the use of Belle Pass sediment for coastal restoration and demonstrate cost sharing opportunities with local stakeholders. The borrow area begins in Belle Pass at Station 140+00 and extends to the south beyond the Belle Pass jetties into the Gulf of Mexico to Sta. 360+00, for a total length of approximately 4.17 miles (Figure 1). The TE-0171 project is north of TE-0052, directly east of TE-0023, and northeast of TE-0143/TE-0176 and provides additional support by increasing the longevity and sustainability to the investments in these constructed restoration projects.



Figure 1. TE-0171 Project Area

Reference: 95% Design Report, Section 1 (Appendix G of this document; GISE 2024). EPA Wetlands Value Assessment (Appendix H of this document; EPA 2024). State CWPPRA website: <https://www.lacoast.gov/new/Default.aspx>

The EPA implements wetland restoration such as fringing marsh, sediment removal, and sediment/materials placements through the CWPPRA program. These restoration activities create the desired elevation and hydrology for wetland vegetation and habitat. Potential impacts from these restoration activities range from short-term adverse (e.g., use of heavy equipment on project sites) to long-term beneficial (e.g., creation of wetlands; NOAA Programmatic Environmental Impact Statement (PEIS) Sections 4.5.2.11.2 and 4.5.2.11.3).

The natural processes of subsidence, habitat change, and erosion of wetlands have been exacerbated by widespread human alterations of sediment delivery and other processes, resulting in marked degradation of the Louisiana coastal area. Without intervention to slow or reverse the loss of marshes, Louisiana's healthy and highly productive coastal ecosystem would not be maintained. This NEPA Inclusion Analysis provides information on the expected impacts from the implementation of the TE-0171 project and the avoidance, minimization, and mitigation measures to be taken. As proposed, the project will create and nourish approximately 543 acres of marsh. The EPA concludes that the impacts from this project are within the range and scope of the environmental consequences analyzed in the NOAA PEIS and do not have significant adverse impacts on the environment. No action will be taken for implementation prior to conclusion of all environmental compliance responsibilities.

Potential Impacts and Potential Avoidance, Minimization, and Mitigation Measures

Potential impacts and potential mitigation measures are described for each resource. In addition, coordination and compliance with applicable laws, regulations, and executive orders are summarized. This analysis complies with the National Environmental Policy Act of 1969 through the formal adoption of the NOAA PEIS on June 13, 2023. As described in Section 2.2.2.11 of the NOAA PEIS, wetland restoration projects through sediment removal and placement included in this analysis are designed to restore and maintain ecological function and are planned and designed with those principles in mind (Barry et al., 2015). Potential avoidance, minimization, and mitigating measures are described.

Reference: Final NOAA Restoration Center's Programmatic Environmental Impact Statement for Coastal Habitat Restoration.

<https://repository.library.noaa.gov/view/noaa/12463>

Geology and Soils

Potential Impacts Dredging of sediment in the borrow area and access route and placement in the marsh creation area would cause direct, minor, localized and short-term adverse impacts to geology and soils. Temporary increase in the suspension of sediments may result from dredging and sediment placement, which may impact living resources in the localized area. Behavior of species that use wetlands and shallow water habitat impacted by this restoration activity may be temporarily modified. Sediment dredging and placement activities would result in direct and

moderate, long-term beneficial impacts by restoring and creating wetland and shallow-water habitats, as well as increasing nutrient cycling, carbon sequestration and carbon storage.

Potential Mitigation Equipment will be restricted to specified routes. Earthen containment dikes around the marsh creation area would retain and stabilize recently deposited sediment as it consolidates, and vegetative recruitment will further stabilize the soil. The sediment borrow area is located within a navigation channel and no impacts to Gulf shorelines are anticipated.

Reference: 95% Design Report Sections 6.0, 7.0, and 9.0 (Appendix G of this document; GISE 2024).

Air Quality

Potential Impacts Construction and dredging would result in direct and minor, localized short-term adverse impacts from exhaust diesel fumes and fugitive dust generated by dredging and earthmoving equipment.

Potential Mitigation Best management practices would minimize exhaust fumes and fugitive dust. Primary production through increased marsh productivity would benefit air quality in the long-term.

Clean Air Act of 1970 No permanent sources of air emissions are a part of the project. No air quality permits would be required for this project.

Reference: See Appendices A and B of this report.

Water Quality

Potential Impacts Dredging of sediment in the borrow area and placement in the marsh creation area would cause direct, minor, localized, and short-term adverse impacts to surface water quality associated with: (1) increased turbidity and decreased dissolved oxygen associated with dredging (dredge plume) in the borrow area, at the construction location, and at access dredging locations, (2) exhumation of buried debris, (3) discharges from the dredge vessel, and (4) displacement of resources through increased activity in the area. Long-term beneficial impacts would result from increasing wetland habitats that provide increased filtering function, fish feeding and shelter areas, nutrient cycling and carbon sequestration.

Potential Mitigation Best management practices and containment dikes would prevent or minimize turbidity. Best management practices could include staked hay bales, turbidity curtains, and silt fencing if deemed necessary by the Louisiana Department of Environmental Quality (LDEQ) permit. Compliance with the Clean Water Act and other regulations would protect water resources. Gapping of containment dikes would allow natural surface water flow when regulation of flows is no longer needed for soil retention.

Clean Water Act of 1972 An application to USACE for Section 404 permit is pending and will be initiated after a pre-application meeting if a decision to fund the construction of the project is made. Section 404 of the Clean Water Act (33 USC 1344) requires a permit for the discharge of dredged or fill material into waters of the U.S. A Water Quality Certificate (WQC) from LDEQ, is triggered through USACE. This is covered with blanket WQC with Programmatic General Permit (PGP) from USACE. A PGP authorizes activities that result in minimal adverse impacts within the boundaries of the Louisiana Coastal Zone in the New Orleans District under the specific conditions of the issued PGP. See Appendix B.

Rivers and Harbors Act: An application for a Section 10 permit is pending. Section 10 of the Rivers and Harbors Act of 1899 (33 USC 403) prohibits the obstruction or alteration of navigable waters of the United States without a permit from the Corps of Engineers. An application for a Section 408 permit is pending. Section 408 of the Rivers and Harbors Act of 1899 (33 USC 408) prohibits permanent or temporary actions that build upon, alter, improve, move, occupy, or otherwise could affect an authorized US Army Corps of Engineers (USACE) Civil Works projects without a permit. See Appendix B.

Coastal Zone Management Act of Louisiana Order 11998, Floodplain Management An application for a Coastal Use Permit from Louisiana Department of Energy and Natural Resources Office of Coastal Management is pending, which also fulfills Consistency requirements. See Appendix B.

Reference: See Appendices A and B of this report.

Living Coastal and Marine Resources and Essential Fish Habitat (EFH)

Potential Impacts Construction impacts from materials/sediment removal and placement activities would cause direct and indirect, short-term, localized, minor and moderate, adverse impacts to living coastal and marine resources and EFH during the implementation phase of the project. Heavy construction and access machinery has potential to compact soils, leak petroleum products, and increase turbidity at the restoration site. Short-term increases in turbidity may temporarily reduce habitat quality in the borrow and placement areas. Slow-moving organisms in the borrow areas may be killed during hydraulic dredging activities. Project specifications require the contractor to prevent and minimize potential project impacts and address situations immediately should they occur. Sessile organisms in the placement areas may be buried or injured. These species are anticipated to recolonize once dredging and material placement ceases. Material placement may initially decrease bottom habitat through burial, but marsh and mudflat habitat would be available during and after construction. The establishment of intertidal marsh habitat would be expected to increase available habitat and improve existing habitat quality over time, which would provide increased access and long-term benefits to fish and wildlife resources.

Potential Mitigation Project specific evaluations and coordination initiated with appropriate federal, state, and local agencies prior to construction activities included an evaluation of

project construction upon affected sensitive species and associated habitat. Dredging work plan practices based upon contractor means and methods are available to reduce scour, erosion, turbidity, and sedimentation in the borrow areas. Best management practices could include staked hay bales, turbidity curtains, and silt fencing if deemed necessary by the DEQ permit to satisfy NPDES requirements. Compliance with the Clean Water Act, Section 404 and Section 301, would protect wetlands from unnecessary disturbance. Non-dredged areas adjacent to the borrow areas would provide source organisms for recolonization. ECDs will be gapped/degraded to constructed marsh elevation post-dredging. Funding is budgeted for an operations and maintenance event three-years after construction. An adaptive management approach will be used to determine the best placement for gapping and tidal creek enhancement.

Magnuson-Stevens Fishery Conservation and Management Act Appendix A of this PEIS Inclusion requests initiation of EFH consultation with the National Marine Fisheries Service (NMFS) Habitat Conservation Division (HCD). However, the document was provided to HCD in advance of its release to the CWPPRA agencies. EFH consultation for estuarine and marine water bottoms, three species of shrimp, five species of shark, yellowfin tuna, coastal migratory pelagics, reef fish, and red drum was initiated on October 31, 2024, requesting concurrence with the EPA determination that implementation of the project would result in minimal temporary EFH impacts to estuarine emergent marsh, nearshore waters, water bottoms, and water column; however, these impacts will not be substantial and any situations encountered will be reported and impacts will be minimized.

Fish and Wildlife Coordination Act In compliance, assessed with this document and NEPA Inclusion Form.

Executive Order 11990, Protection of Wetlands In compliance, assessed with this document and NEPA Inclusion Form.

Reference: See Appendix C for EFH Consultation documents. See Appendix H for the Wetland Value Assessment (WVA; EPA 2024).

Threatened and Endangered Species & Wildlife Resources Potential Impacts

Construction and dredging would result in direct and indirect, short-term, localized, minor and moderate, adverse impacts by construction disturbance that could cause listed species to avoid the site during construction. Species in the project area that may be affected are West Indian manatee, Eastern black rail, piping plover, rufa red knot, and four species of sea turtle. These species may avoid the construction site but should return once conditions stabilize. Minor adverse impact to shorebird critical habitat resulting from the use of the beach west of Belle Pass jetty for the sediment pipeline and equipment access corridor may occur. Dredging would occur using hydraulically powered equipment that is not known to harm sea turtles. There may be benefits to the three shorebird species as suitable habitat may be created. Creation of wetlands would result in direct, long-term, minor and moderate, beneficial impacts to any

threatened and endangered species which utilize estuarine, intertidal wetland habitat by increasing the available area and longevity of coastal wetland resources.

Potential Mitigation Consultation with USFWS has been initiated for all potentially affected species (Appendix D). Project-specific evaluations and coordination with USFWS would focus on protecting wildlife and sensitive resources and include bird abatement activities. Impacts to manatees would be avoided by following the USFWS and USACE guidelines. Endangered Species Act (ESA) section 7 consultation for manatee has been completed with USFWS concurring with our determination that the project may affect, but would not likely to adversely affect (NLAA) listed species in the project area. Standard Manatee Conditions for In-Water Activities and measures for Reducing Entrapment Risk to Protected Species would be implemented.

Endangered Species Act of 1973 Initiated consultation with USFWS on August 19, 2024, for West Indian manatee and Eastern black rail, piping plover, rufa red knot, and hawksbill, Kemp's Ridley, leatherback, and loggerhead sea turtles.

Migratory Bird Treaty Act of 1918 (MBTA) Coordination under MBTA is generally incorporated into Section 404 of the CWA, NEPA, or other federal permit, license or review requirements.

Marine Mammal Protection Act of 1972 Project is being coordinated with USFWS and NMFS and will implement measures to minimize impacts on marine mammals.

Reference: See Appendix D for ESA consultation documents, which includes a species list of ESA species as well as species listed under MBTA. See Appendix H for the WVA (EPA 2024).

Cultural and Historic Resources

Potential Impacts Construction, dredging and access activities would result in indirect, short-term, localized, minor adverse impacts and disturbance to cultural and historic resources during the implementation phase of the project. Short-term, minor adverse impacts to cultural and historic resources may occur during wetland restoration if historic structures are present within a project site. Reduction of marsh loss could delay erosion that could uncover cultural resources. Dredging would not occur around cultural resources and sediment placement would not require accessing cultural resource sites.

Potential Mitigation Appropriate Section 106 consultation with the Louisiana State Historic Preservation Office (SHPO) has been completed for the borrow area (BA) where dredging would occur. Phase I cultural resource investigation found no culturally significant locations within the BA. If artifacts of potential cultural or historical significance are unearthed, construction or excavation activities would be immediately halted, and the Louisiana SHPO consulted.

Archaeological and Historic Preservation Act of 1974 Cultural resources assessments were conducted for the BA. The SHPO provided concurrence letter on September 3, 2024, stating no

properties listed in or eligible for the National Register of Historic Places will be affected by the project.

National Historic Preservation Act of 1966 The SHPO provided concurrence letter on September 3, 2024, stating no properties listed in or eligible for the National Register of Historic Places will be affected by the project.

Reference: See Appendix E for cultural resources correspondence.

Land Use and Recreation

Potential Impacts Construction, dredging and access activities would result in direct, short-term, localized, minor adverse impacts on land use and recreation, including minor, localized disruption of fishing during construction due to the unavoidable increased activity. Areas of potential hazard would be avoided. Long-term, direct and indirect, beneficial impacts to recreation, beyond the project site, would result in improved nursery habitat of fisheries.

Potential Mitigation 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 following completion. Construction would avoid oil and gas pipelines and other equipment, which have already been identified by magnetometer surveys and ongoing coordination with the pipeline owners.

Reference: See Appendix B for permit application documents.

Socioeconomic Resources

Potential Impacts No adverse impacts to socioeconomics are expected. Construction activities would have an indirect, short-term, minor beneficial impact on commercial sales of food and petroleum, and would provide a small increase in employment. Long-term benefits of maintaining the area habitat would benefit eco-tourism and recreational opportunities, as new coastal marsh would provide forage and nursery for important fisheries species, and may enhance recreational bird watching opportunities. It is not expected that the social and economic welfare of any minority, low-income, or disadvantaged populations will be disproportionately impacted by the project.

Potential Mitigation Coordination with appropriate federal, state, and local agencies would ensure that public concerns are addressed.

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations In compliance, assessed with this Project Impact Analysis. See Appendix A for EJSscreen results in the vicinity of the proposed project area.

Reference: See Appendix A for EJSscreen documents.

Cumulative Impacts

The cumulative impact of EPA's participation in CWPPRA and in restoration activities has enabled estuarine habitat creation and protection. Potential negative impacts are minimized as a result of the planning activities, data collection, and analysis. Minor local adverse impacts from construction activities are not expected to pose any cumulatively adverse significant impact. Cumulative beneficial impacts of any eventual construction activities would include moderate increases in biological diversity of local coastal ecosystems and living resource communities and improved ecological functions in restored areas. Additional restoration activities in the immediate vicinity may result in synergistic enhancement of the beneficial impacts of TE-0171 and the other projects. Coastal restoration projects recently constructed or in the engineering and design phase which are directly connected to TE-0171 include West Belle Pass Headland Restoration (TE-0023), West Belle Pass Barrier Headland Restoration (TE-0052), Terrebonne Basin Barrier Island and Beach Nourishment/West Belle Pass Headland Restoration (TE-0143/TE-0118), and West Belle Pass Headland Repair (TE-0176; reconstruction of TE-0143 hurricane damage). As TE-0052 and TE-0176 are located directly south and southwest respectively of the proposed TE-0171 marsh creation area (MCA), constructing TE-0171 would potentially allow for any northward movement of sediment to be captured and renourish the proposed MCA rather than being lost to open water. Other proximal projects which may add cumulative beneficial impacts include Caminada Headland Beach and Dune Restoration projects (BA-0045, BA-0143), Caminada Headlands Back Barrier Marsh Creation (BA-0171) and West Fourchon Marsh Creation and Nourishment (TE-0134). Synergistic beneficial impacts would include decreased land loss rates, decreased habitat loss, and increased storm protection.

Coordination

Coordination on the proposed project was conducted by emailing letters of Solicitation of Views. Comments received are summarized in Appendix F and considered in analysis and project design.

Appendix A:

NEPAssist and EJScreen results

The marsh creation and borrow areas were assessed in NEPAssist and EJSCREEN combined with a 0.50 mi buffer.

Appendix B: Draft Permit Application

Appendix C:
Essential Fish Habitat (EFH) Consultation

Appendix D:
Endangered Species Act Section 7 Consultation
Marine Mammal Act Coordination
Migratory Bird Treaty Act Coordination

Appendix E:
Cultural and Historical Resources Coordination

Appendix F:
Solicitation of Views Coordination and Correspondence

Appendix G:
TE-0171 95% Design Report

Appendix H:
Wetlands Value Assessment (WVA)