

**Appendix C:
Essential Fish Habitat (EFH) Consultation**



REGION 6

DALLAS, TX 75270

October 31, 2024

Mr. Brandon Howard
Fisheries Biologist
National Oceanic and Atmospheric Administration
National Marine Fisheries Service
5757 Corporate Boulevard, #375
Baton Rouge, Louisiana 70808

Dear Mr. Howard:

The Environmental Protection Agency Region 6 requests the U.S. National Marine Fisheries Service concurrence on our determination that the Port Fourchon Marsh Creation CWPPRA project (TE-0171) will not have a substantial adverse effect on essential fish habitat or federally managed fishery species and requests concurrence on this determination from the NOAA National Marine Fisheries Service, Southeast Regional Office, Habitat Conservation Division.

A description of the project, as well as information related to potential impacts to essential fish habitat is enclosed. If you require further assistance or have questions regarding our determination, please contact Shalyn Bauschlicher (214-665-7592; Bauschlicher.Shalyn@epa.gov) of my staff.

Sincerely,

Karen McCormick, Supervisor
Marine, Coastal, and Non-Point Source Section

Attachments

1. Draft 95% Design Report
2. NOAA EFH Consultation

Ecc: Dustin White, CPRA

TE-0171 Essential Fish Habitat (EFH) Consultation

Project Information

The TE-0171 Port Fourchon Marsh Creation project area (Figure 1) is in the Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA) Region Three (3) of the of the Terrebonne Basin within Lafourche Parish, Louisiana. Between 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 $-1.56\%/year$ (USACE, 2021). The updated 2024 WVA indicates the USGS estimated land loss rate per year is $-0.97\%/year$ (EPA, 2024). The subsidence rate in this area is 10.21 millimeters/year (Fitzpatrick et al., 2021). This is equivalent to 0.67 ft over the 20-year project life of TE-0171.



Figure 1. Project Area (TE-0171 95% Design Report, GIS 2024)

A main goal of TE-0171 is to create and nourish a 543-acre marsh creation area (MCA). Of the 543 acres, approximately 445 acres of open water will be turned into marsh and 98 acres of existing marsh will be nourished with hydraulically dredged sediment from the Belle Pass borrow area (BA). The BA begins in Belle Pass at station (Sta.) 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 2). USACE maintains the federal navigation channel (Bayou Lafourche/Belle Pass) in which the BA is located to an elevation of -24 ft Mean Low Gulf (MLG) (-25.87 ft NAVD 88) with three (3) ft of advance maintenance from Sta. 60+00 to Sta. 240+00. The channel then deepens to -26 ft MLG (-27.87 ft NAVD 88), with four (4) ft of advance maintenance from Sta. 240+00 to Sta.

310+00. The USACE performs maintenance dredging as needed to keep Belle Pass and Bayou Lafourche at the authorized navigable depth. Maintenance dredging occurs approximately every other year. TE-0171 proposes to beneficially utilize for marsh creation the dredged sediment that would otherwise be discharged at shoreline disposal sites.

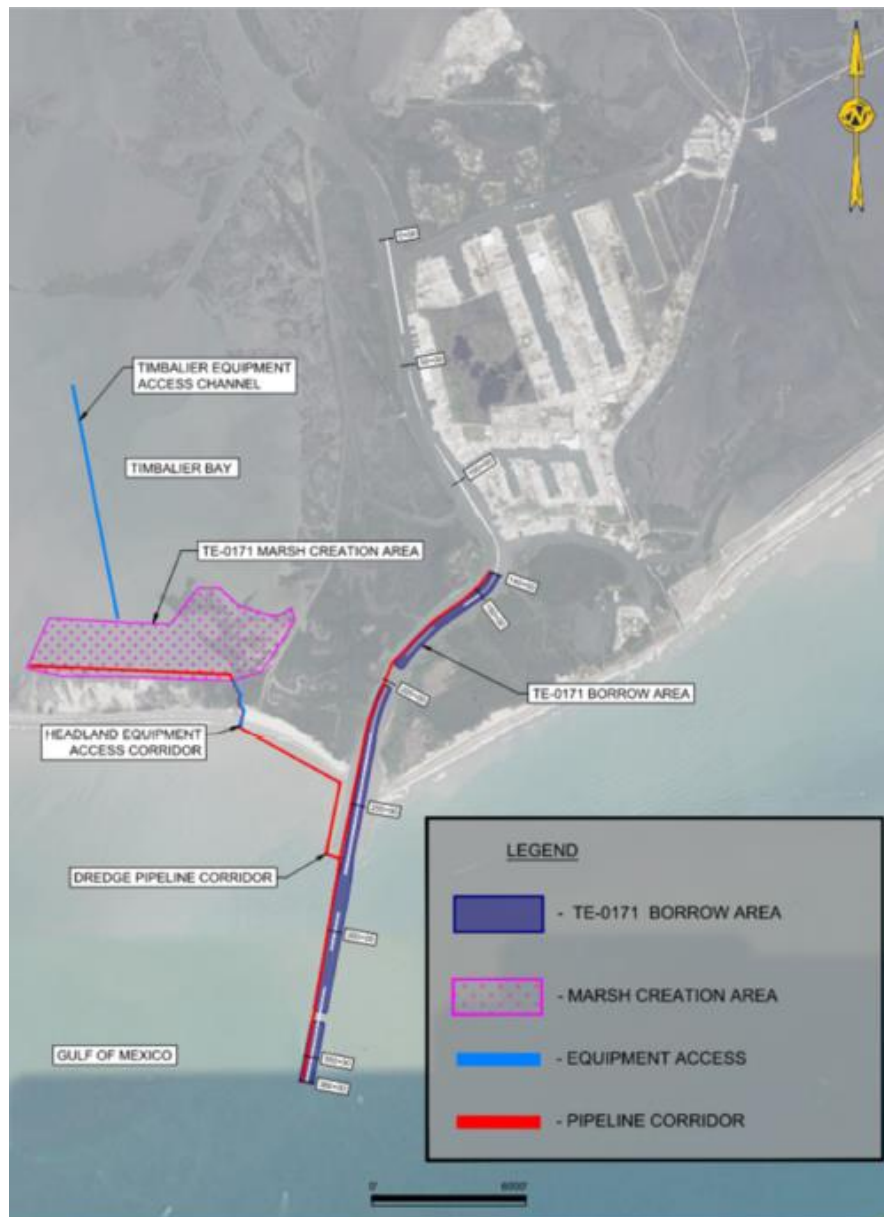


Figure 2. TE-0171 Marsh Creation Area and Borrow Area (GIS, 2024)

The proposed dredge pipeline corridor is located adjacent to Belle Pass to the west of the existing jetties and crosses the beach just south of the MCA (Figure 3). The temporary dredge pipeline will be floating except for where the dredge pipeline will cross over the beach into the MCA. Two equipment access channels/corridors (EACs) have been proposed for this project. The first is the Timbalier EAC which will run through Timbalier Bay and allow for dredging of an access channel to a maximum depth that corresponds to an elevation of -6 NAVD88. The second EAC, referred to as the Headland EAC, will run over the southern West Belle Headland beach and is best suited for marsh buggy equipment. This EAC will run parallel to the dredge pipeline corridor and use the

earthen containment dike (ECD) footprint from the previous CWPPRA project (TE-0052) directly south of the TE-0171 MCA.

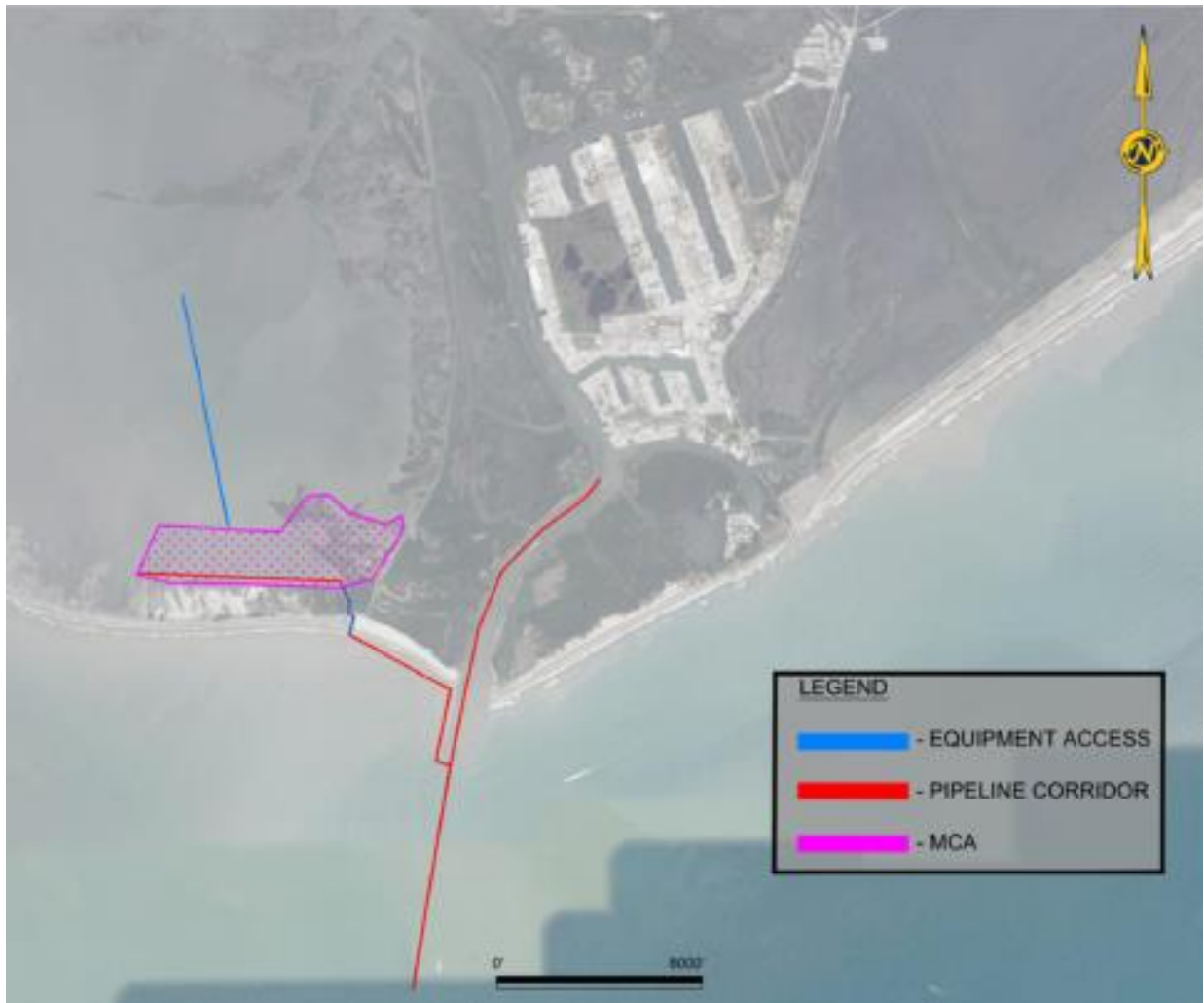


Figure 3. Pipeline Corridor and EACs from Belle Pass Borrow Area to Marsh Creation Area (GIS 2024)

Essential Fish Habitat (EFH) Species Information

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 marsh, estuarine water bottoms, and estuarine water column, and the borrow area contains marine water column, marine water bottoms (soft bottom), and nearshore waters. Table 1 below lists the species and groups with EFH by life stage in the project area, borrow area, and along the equipment access route. The 95% project design has surveyed an equipment access route from the edge of Havoline Canal to the end of the MCA. The need for dredging of the surveyed equipment access route depends on the contractor's means and methods and is up to the discretion of the contractor. Fish groups and species in Table 1 are managed by National Marine Fisheries Service (NMFS) and GMFMC.

Table 1. Essential Fish Habitat in the TE-0171 project review area (NMFS, GMFMC).

Species	Life Stage	Habitat
Atlantic Sharpnose Shark (Gulf of Mexico Stock)	Juvenile/Adult, Neonate	Soft bottoms, sandy bottoms, coastal waters, bays, estuaries, offshore
Blacktip Shark (Gulf of Mexico Stock)	Juvenile/Adult, Neonate	Soft bottoms, sandy bottoms, coastal waters, offshore shelf surface waters
Bull Shark	Neonate	Soft bottoms, shell bottoms, estuaries, shallow waters, inland bays and bayous
Coastal Migratory Pelagics	All	Reefs, water column associated (WCA), middle/outer shelf, nearshore/offshore/surface waters, estuarine waters, banks/shoals, hard bottoms
Finetooth Shark	All	Shallow coastal waters, bays, soft bottoms
Red Drum	All	Soft bottom, hard bottom, emergent marsh, sand/shell bottoms, WCA
Reef Fish (43 species within Balistidae, Carangidae, Labridae, Lutjanidae, Malacathidae, and Serranidae)	All	Reef, banks/shoals, hard bottoms, soft bottoms, sand/shell, drifting algae, shelf edge/slope, emergent marsh, mangrove, estuary, lagoon, bay, WCA, offshore
Shrimp – Brown, White, Pink (<i>Penaeus spp.</i>) & Royal red (<i>Pleoticus robustus</i>)	All	Emergent marsh, sand/shell, soft bottoms, oyster reef, mangrove, shelf edge/slope, reef
Spinner Shark	Neonate	Sandy bottoms, coastal waters
Yellowfin Tuna	Juvenile	WCA (upper), offshore pelagic

In Timbalier Bay, juvenile and adult blacktip sharks are frequent in June and July and the species has been associated with nearshore oil rigs in warm months. Female blacktip sharks are indicated to exhibit site-fidelity for coastal Gulf natal nurseries out to the 30 m depth contour (NOAA 2017). The Bay's coastal and estuarine waters are also one of six important estuarine nurseries to bull

sharks, and though it supports all life stages of finetooth sharks, the Terrebonne and Timbalier Bays system is recorded to be a pupping ground for this species as well (NOAA 2017). The Gulf of Mexico stock of Atlantic sharpnose shark utilize a variety of coastal and bottom habitats, and habitat suitability models found that temperature and depth were the most determinant factors of occurrence in juveniles. However, this species exhibits a sex-specific distribution, with females generally only occurring in deeper offshore waters which is also where pupping occurs (NOAA 2017). Spinner shark neonates rely on warm-temperature, sandy bottom coastal areas of the Gulf of Mexico. The species is only found in shallow inshore waters at this life stage, with juveniles generally not occurring beyond depths of 20 m (NOAA 2017).

Coastal migratory pelagic (CMP) stocks in the Gulf of Mexico include king mackerel, Spanish mackerel and cobia. Though juvenile cobia may be found in estuarine waters, CMP fishes are generally uncommon in estuaries and are found both nearshore and offshore throughout the Gulf in a variety of habitats. From egg to adult, all life stages of CMPs are water column associated (WCA; GMFMC 2016). The Gulf is also a spawning location of Atlantic yellowfin tuna, which generally occur beyond the 500-fathom isobath and the upper 100 m of the water column, though juveniles are found nearer to the shore. The species has a wide variety of prey that often include *Sargassum* associated fauna and an association with floating objects has been observed (GMFMC 2016). Reef fish EFH includes *Sargassum* mats for some species in earlier life stages before shifting to demersal habitats with high relief (e.g., reefs, ledges, caves, sloping soft-bottom areas). Reefs, seagrass beds, mangrove estuaries, both soft- and hard-bottom substrates, emergent marsh and larger bay systems are important to this WCA group, and congregations may also occur around wrecks and rocky outcrops (GMFMC 2016). Red drum occur in a variety of habitat types within the estuarine, nearshore, and offshore zones, with larvae and juveniles depending on estuaries for maturation, and adults occurring in open waters out to 70 m and nearshore waters for spawning (GMFMC 2016).

Penaeus spp. shrimp in the Gulf of Mexico are found within estuaries and spawn at depths greater than 9-18 m up to depths of 40-110 m (depending on the species), with postlarvae migrations to estuaries occurring through passes on upper and middle depths of the water column and flood plains. Early life stages are found in highest abundance in marsh edge habitat and areas of decaying submerged organic matter, except for pink shrimp (*P. duorarum*) which are in highest abundance in seagrasses and nearly absent in marshes. *Pleoticus robustus*, royal red shrimp, is found entirely in the Gulf's open waters in depths between 140 and 730 m and in highest abundance in the northeastern Gulf in depths between 250 and 475 m. All shrimp species are an important prey animal to other federally managed fish species (GMFMC 2016).

Impacts of No Action

Estuarine emergent marsh, soft bottom, and estuarine water column of the project MCA and the soft bottom and marine water column of the Belle Pass borrow area are described in detail in the 95% design report. The marshes in this area are expected to continue converting from marsh to open water at a land subsidence rate of 10.21 millimeters/year, leading to decrease in marsh habitat and increase in already plentiful open water habitat. The Belle Pass borrow area is a federal navigation channel which is already dredged regularly by the U.S. Army Corps of Engineers, and the EFH in that area would continue to be affected by regular maintenance. There are no oyster leases directly within the project area, nor within a 1500-foot buffer of the project area.

Two oyster leases are just past the 1,500 ft buffer zone of the MCA but there is currently no need to evaluate, acquire, or extinguish these oyster leases due to their distance from the project footprint.

A 2024 Wetland Value Assessment of the proposed 543-acre project area estimated that 17 acres of marsh will be converted to water within 20 years:

Target Year 0:	Marsh 98 acres = 18%	Water = 445 acres
Target Year 1:	Marsh 97 acres = 18%	Water = 446 acres
Target Year 20:	Marsh 81 acres = 15%	Water = 462 acres

Impacts of Preferred Action (Marsh Creation)

The goal of TE-0171 is to create and nourish 543 acres of marsh using sediment hydraulically dredged from Belle Pass. This sediment which is routinely disposed of during maintenance dredging of the federal navigation channel would instead be transported through a temporary floating pipeline (crossing the beach in one area) to connect to the MCA for beneficial use. There is a strong synergy component between the MCA and several previous coastal habitat restoration projects adjacent to or near the project site – for example, the MCA is expected to capture sediment currently moving into Timbalier Bay due to wind and wave energy northward out of the previously restored TE-0052 CWPPRA dune and marsh. The TE-0052 sediment that would otherwise be lost to open water will instead renourish the MCAs.

Construction impacts from buried trash/debris exhumation, sediment removal and materials 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. Project specifications require the contractor to prevent and minimize potential project impacts and address situations immediately should they occur.

Slow-moving or sessile organisms in the borrow areas may be killed during hydraulic dredging activities. Sessile organisms in the placement areas may be buried or injured. These species are anticipated to recolonize once dredging and material placement ceases. The establishment of intertidal marsh habitat would be expected to increase available habitat and improve existing habitat quality over time.

From the 2024 Wetland Value Assessment of the 543-acre project area that considered projected relative sea level rise, projected marsh acres would increase within three years of the proposed action and have a net increase of acres of marsh within 20 years:

Target Year 1:	Marsh 93 acres = 17%	Water = 3 acres
Target Year 3:	Marsh 228 acres = 42%	Water = 8 acres
Target Year 5:	Marsh 530 acres = 98%	Water = 13 acres
Target Year 20:	Marsh 493 acres = 91%	Water = 50 acres
Net acres (FWOP-FWP) at Target Year 20 = 412 acres		

Determination

The EPA has determined the project will not have a substantial adverse effect on EFH or federally managed fishery species and requests concurrence on this determination from the NOAA NMFS, Southeast Regional Office, Habitat Conservation Division.

References

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