

## **Supplemental EFH Assessment**

### **Pass-a-Loutre WMA Campground Project**

#### **A. Introduction**

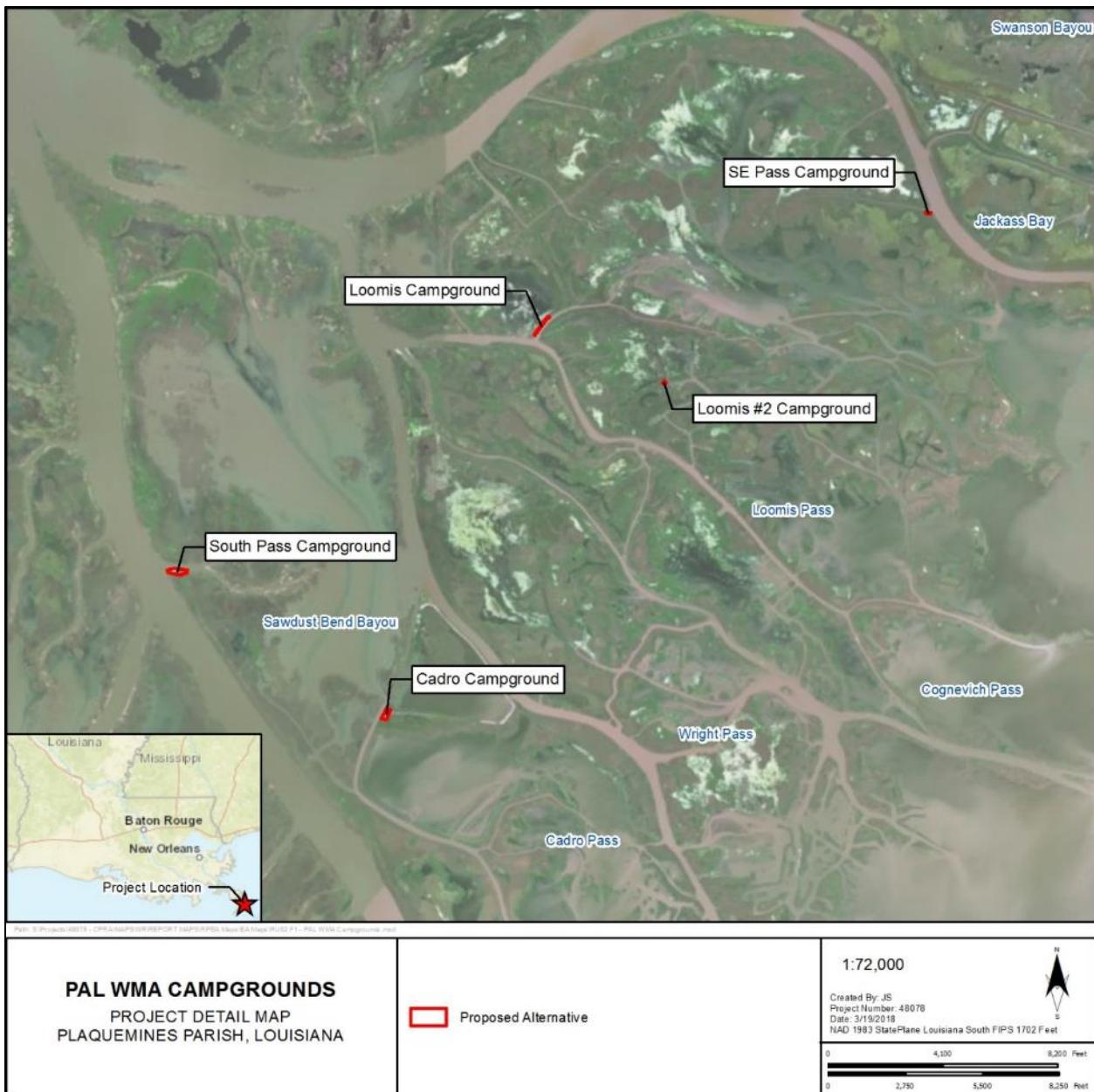
The Proposed Project is located in the Pass-a-Loutre Wildlife Management Area (WMA), Plaquemines Parish, Louisiana. The Proposed Project is located in the Mississippi Alluvial Plain (73) Level III ecoregion and the Deltaic Coastal Marshes and Barrier Islands (73o) Level IV ecoregion (Daigle et al. 2006). The following information was obtained from Daigle et al. (2006) unless otherwise indicated. The Mississippi Alluvial Plain is mostly a broad, flat alluvial plain with river terraces, swales, and levees providing the main elements of relief. Elevation ranges from 0 to 15 feet above mean sea level (amsl) and local relief ranges from 0 to 10 feet amsl. Winters are mild and summers are hot with minimum/maximum temperatures of 44°F/64 °F and 72°F/92°F respectively. Mean annual precipitation ranges from 64 to 66 inches. The ecoregion was historically composed of bottomland deciduous forest with extensive wetlands but much of it was cleared for cultivation. The Deltaic Coastal Marshes and Barrier Islands are dominated by brackish and saline marshes with vegetation such as saltmarsh cordgrass, marshhay cordgrass, black needlerush, and coastal saltgrass. Black mangrove occurs in a few areas, and some live oak is found on Grand Isle and along old natural levees. Soils are fine textured and poorly drained although there are some areas of coarser, better-drained soils. Extensive organic deposits lie mainly below sea level in permanently flooded settings resulting in the development of mucky surfaced Histosols. Entisols may also be present. Soil series include Allemands, Kenner, Larose, Clovelly, Lafitte, Bancker, Scatlake, Timbalier, and Bellpass. Sediments of silts, clays, and peats contain large amounts of methane, oil, and hydrogen sulfide gas. Inorganic sediments found within the ecoregion are soft and have high water contents (Daigle et al. 2006).

The WMA and adjacent area is primarily used for recreation such as hunting and fishing. This WMA is widely regarded as a world-class public waterfowl destination, and hosts approximately 20,000 visitors annually. Pass-a-Loutre WMA was the first WMA in the state and was established by an act of the state legislature on November 1, 1921, on the opening day of waterfowl season (LDWF 2014). Public access to this WMA is strictly by boat from one of the public boat launches throughout the parish; the nearest boat launch is located 10 miles north of the WMA in Venice. There are no roads onto or through this WMA. Hunters currently access the Pass-a-Loutre Limited Access Area (LAA) by way of unimproved passes, which are difficult for them to navigate. Accessibility challenges have influenced this Proposed Project.

#### **B. Project Description**

##### **1. Project Location**

See BE Form p.1, Section B; Figure 1.



**Figure 1. Location of the PAL WMA Campgrounds Project**

This project would enhance recreational use at the five campgrounds by providing new picnic tables, barbecue pits, and boat docks at all five campgrounds. The alternative would also install bulkheads at two campgrounds to reduce ongoing erosion, and dredge shallow areas at three campgrounds to improve boater access. Campgrounds where improvements are planned are shown in Figure 1 and are South Pass, Cadro, Loomis #1, Loomis #2, and Southeast Pass. Alternative elements by campground include the following:

- South Pass Campground
  - Install 266 linear feet of bulkhead and associated backfill. Backfill material would come from the adjacent waterway.
  - Install 100 linear feet of boat dock. Dock dimensions and construction type would be determined during design.
  - Install five mobile picnic tables made of steel dipped in a rubber coating.
  - Install five fire pit/barbeques.
  - Dredge approximately 6,500 cubic yards of sediment to enhance access to the campground.
- Cadro Campground
  - Install 100 linear feet of boat dock. Dock dimensions and construction type would be determined during design.
  - Install eight mobile picnic tables made of steel dipped in a rubber coating.
  - Install eight fire pit/barbeques.
- Loomis #1 Campground
  - Install 210 linear feet of boat dock. Dock dimensions and construction type would be determined during design.
  - Install eight mobile picnic tables made of steel dipped in a rubber coating.
  - Install eight fire pit/barbeques.
- Loomis #2 Campground
  - Install 65 linear feet of boat dock. Dock dimensions and construction type would be determined by during design.
  - Install three mobile picnic tables made of steel dipped in a rubber coating.
  - Install three fire pit/barbeques.
  - Dredge approximately 400 cubic yards of sediment to be placed on the campground.
- Southeast Pass Campground
  - Install 150 linear feet of bulkhead and associated backfill. Backfill material would come from the adjacent waterway.
  - Install 105 linear feet of boat dock. Dock dimensions and construction type would be determined during design.
  - Install five mobile picnic tables made of steel dipped in a rubber coating.
  - Install five fire pit/barbeques.
  - Dredge approximately 750 cubic yards of sediment to improve boater access near the campground and new boat dock.

## **2. Construction and Installation**

See BE Form pp. 5-7

### **3. Project Monitoring and Project Maintenance Activities**

As identified in the MAM Manual, the DWH Trustees identified two types of monitoring parameters under the “Enhance Public Access to Natural Resources for Recreational Use Restoration Approach” (DWH Trustees 2017):

1. Core performance monitoring parameters applicable to recreational use projects. Core performance monitoring parameters are those used consistently across projects in order to facilitate the aggregation of project monitoring results and the evaluation of restoration progress for each restoration type (DWH Trustees 2016:Appendix 5.E.4).
2. Objective-specific performance monitoring parameters that are only applicable to a project based on a particular restoration objective.

The restoration goal and project-specific objective for this project are related to creating additional access to and enhancing recreational use of the campgrounds and of the Pass-a-Loutre WMA. The project will collect the core performance monitoring parameter of visitor use and access. Visitor use and access is defined as the “public access to the natural resources or project area and/or the number of visitors using the recreational area” (DWH Trustees 2017:Section E.9.34.1). A second monitoring parameter for the project is specific to the project objective of enhancing recreational access through infrastructure. This second parameter—infrastructure completed as designed—relies on project-specific information, such as engineering drawings, permit requirements, and project schedule to determine if the project is achieving its objectives.

The first parameter fits within the “core performance” monitoring type because it can be used consistently across projects for the Provide and Enhance Recreational Opportunities restoration type; establishing increased recreational opportunities at any restoration project site can help determine if the project is successful at meeting the restoration type objectives as outlined in the Final PDARP/PEIS (DWH Trustees 2016:Section 5.5.14.1). Likewise, because the proposed project objectives include building infrastructure in order to increase access to recreation use of the Pass-a-Loutre WMA, monitoring for visitor use would help determine if the project meets the objectives.

#### Parameter 1: Visitor Use and Access

The recommended methodology for monitoring this parameter is direct observation. Direct observation includes staging monitoring on-site to count and record the recreational users at the proposed project site. Hand counters and data recording forms should be used to note the number of vessels, boats, and/or other recreational vehicles, and users at the project site. Because the project site is located in a remote area, collection of information on visitor use may need to occur at the public boat launch in Venice, Louisiana. Establishing cameras at the campgrounds to record access information may also be used to determine if visitor use and access have occurred at the project sites. The information generated from remote sensing would not be as accurate as an on-site monitor because the total users and recreational activities being undertaken may need to be estimated. However, due to the remote location of the project site, camera counts are recommended.

Visitor use patterns may vary depending on the activity, the number of individuals engaged, and the areas these activities take place, therefore, the counting locations should be identified at strategic locations that are representative of the whole recreational use area. For the proposed project, the priority areas for counts may be cameras stationed at the campgrounds to determine user numbers. The

cameras can count the number of vehicles, boats, or other recreational vessels (e.g. kayaks) and recreational users that access the project site.

Data collection should be conducted post-implementation of the facilities and throughout various times of the year; the data collected should be representative of as full a range of site conditions as possible, taking into account varying times of the day, week, or year; seasonal variations; weather variation; and special use occasions such as holidays or community events (DWH Trustees 2017:Section E.9). To accurately determine the number of recreational users at the project site accessing the new facilities, data should be collected during different seasons and on weekdays, weekends, and holidays. If this methodology is not used, skewed results may occur (i.e., more people recreating on holidays versus a normal weekday). Data should be collected on-site whenever possible, for at least 1 year after project implementation.

Data collection would be conducted in a manner that offers six monitoring camera sessions per month (two weekend sessions and four weekday sessions). These monthly monitoring sessions would capture recreational usage at varying times of day (morning, mid-day, afternoon/evening) to quantify varying usage rates. The total number of 72 camera sessions would be conducted during the 1-year monitoring period. If after 1 year of monitoring, visitor usage and access to the new facilities does not occur, then corrective actions may be taken. Potential corrective actions could include improving the project infrastructure and/or routine maintenance activities. Table 1 outlines the preferred monitoring location, duration, frequency, and sample size for the proposed project.

**Table 1. Monitoring Parameter 1 Methodology**

Monitoring Parameter	Location	Frequency	Monitoring Session Length	Sample Size	Duration
Visitor use and access	Campground	72 camera monitoring sessions: 6 sessions per month, 4 weekday sessions (at least 1 in the morning, 1 in the afternoon, and 1 in the evening), 2 weekend sessions (1 in the morning and 1 in the afternoon)	4 hours	Vehicles, vessels, and user counts within 4-hour periods	1 year

#### Parameter 2: Infrastructure Completed as Designed

The recommended methodology for this monitoring parameter is direct review of project documents and on-site comparison. Reviewing design plans, contractor reports, and permitting and planning documents (such as the RP/EA) would equip the project monitor with all of the relevant information needed to make a decision on whether the project has been implemented properly. On-site inspections during and after project implementation would need to be conducted to accurately compare the as-built project to the specifications outlined in the engineering drawings, project planning documents, and permits. Monitoring would occur during all design stages and construction activities from start to completion. The construction schedule for this project has not yet been determined because design and planning for the campgrounds is still underway. Once the implementation schedule of the project has been finalized, this MAM plan should be updated to include accurate information regarding monitoring this parameter during construction. If the project is not being constructed as designed, planned, and permitted, then the

on-site monitor would work with the construction contractor to ensure that all contract terms and permit requirements are met.

Monitoring would occur throughout construction to verify that the alternative is constructed as designed and would enhance recreational use. Post-construction performance monitoring would not be included in this cost estimate for the alternative, and would be the responsibility of LDWF up to 1 year. Monitoring schedules are anticipated to be adaptive based on long-term alternative performance, e.g., seasonal monitoring may be needed if use is low and repairs are rare, or more frequent monitoring may be needed if use is high and repair needs are common.

The schedule for the project monitoring is shown in Table 2, separated by monitoring activity. The duration of monitoring will be determined prior to implementation of this project. This information will be added and revised as needed whenever monitoring methods are refined or revised.

**Table 2. Project Monitoring Schedule**

Monitoring Parameter	Monitoring Timeframe		
	Pre-construction	Construction	Post-construction
Visitor use and access			X
Infrastructure completed as designed	X	X	X

The project proponent, LDWF, is responsible for all maintenance activities and costs related to the improved campgrounds, including any repairs needed to the new facilities over their lifetime. Short-term maintenance would include routine items, such as mowing grass, cleaning picnic tables and collecting trash at the campgrounds. Long-term maintenance items would include replacing or repairing broken boards on docks, replacing tables and BBQ pits as necessary. LDWF will also maintain dredge boat access to the campgrounds.

- C. Essential Fish Habitat – Present the EFH within the action area, a table format if helpful, broken out by management unit (C and D combined into one section)
- D. List the managed fish species in the action area, organized by Fishery Management Plans (FMPs) that apply to this project location. Provide a table of the species and their life stage broken out by habitat, as appropriate

NMFS has delineated EFH for federally managed species in coastal Louisiana. At Pass-a-Loutre WMA, EFH has been designated in the estuarine open water and wetland habitats for the following resources:

- Coastal Migratory Pelagic Resources (see Table 3 for species)
- Red Drum
- Reef Fish (see Table 3 for species)

- Shrimp (see 2 for species)

The [2005 Generic EFH Fishery Management Plan Amendment](#) should be consulted for additional detailed information on habitats identified as EFH and HAPC. The seasonal and year-round locations of designated EFH for the managed fisheries are available on the NMFS website ([http://sero.nmfs.noaa.gov/habitat\\_conservation/index.html](http://sero.nmfs.noaa.gov/habitat_conservation/index.html)), and both inshore and offshore species abundance maps are available on the NMFS EFH website ([www.habitat.noaa.gov/protection/efh/efhmapper/](http://www.habitat.noaa.gov/protection/efh/efhmapper/)).

**Table 3. Designated EFH within the Project Area**

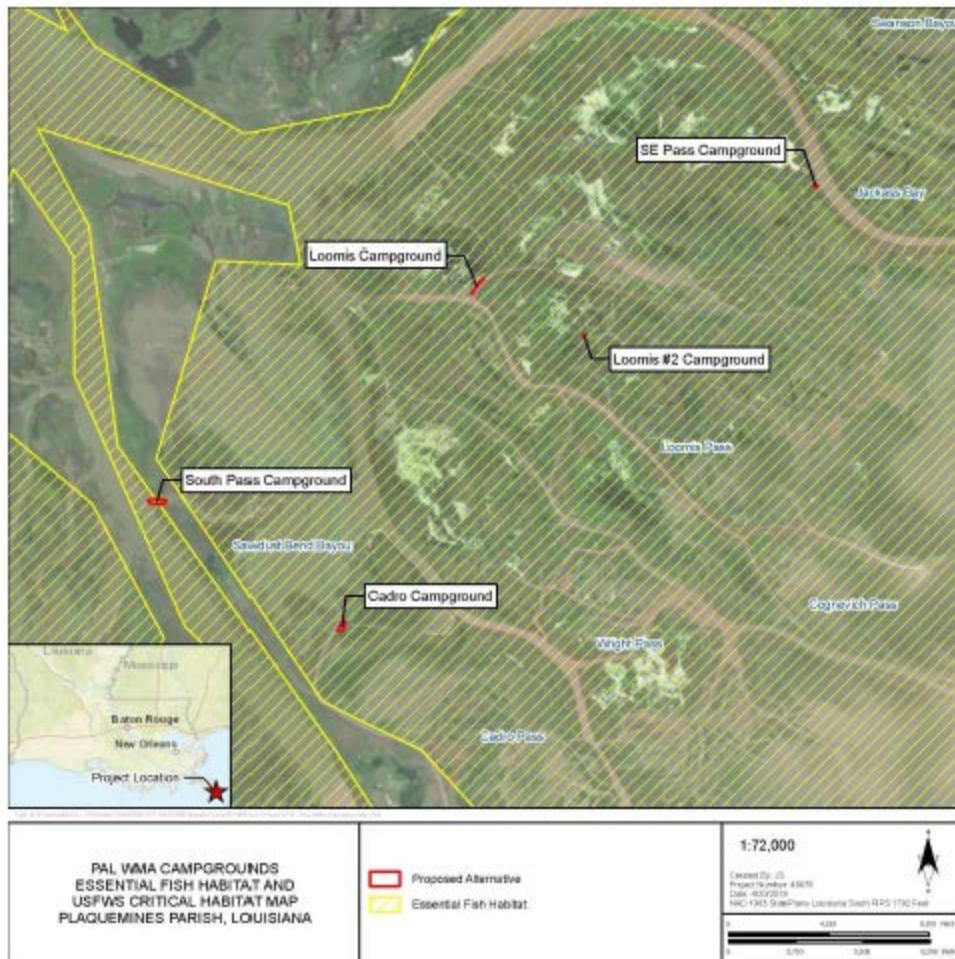
<b>GULF COUNCIL</b>	
<b>COASTAL MIGRATORY PELAGICS</b>	
king mackerel	<i>Scomberomorus cavalla</i>
Spanish mackerel	<i>Scomberomorus maculatus</i>
Cobia	<i>Rachycentron canadum</i>
<b>RED DRUM</b>	
red drum	<i>Sciaenops ocellatus</i>
<b>REEF FISH</b>	
queen snapper	<i>Etelis oculatus</i>
mutton snapper	<i>Lutjanus analis</i>
blackfin snapper	<i>Lutjanus buccanellus</i>
red snapper	<i>Lutjanus campechanus</i>
cubera snapper	<i>Lutjanus cyanopterus</i>
gray (mangrove) snapper	<i>Lutjanus griseus</i>
lane snapper	<i>Lutjanus synagris</i>
silk snapper	<i>Lutjanus vivanus</i>
yellowtail snapper	<i>Ocyurus chrysurus</i>
Winchman	<i>Pristipomoides aquilonaris</i>
vermillion snapper	<i>Rhomboplites aurorubens</i>
speckled hind	<i>Epinephelus drummondhayi</i>
yellowedge grouper	<i>Epinephelus flavolimbatus</i>
goliath grouper	<i>Epinephelus itajara</i>
red grouper	<i>Epinephelus morio</i>
warsaw grouper	<i>Epinephelus nigritus</i>
snowy grouper	<i>Epinephelus niveatus</i>
Nassau grouper	<i>Epinephelus striatus</i>
black grouper	<i>Mycteroperca bonaci</i>
yellowmouth grouper	<i>Mycteroperca interstitialis</i>
Gag	<i>Mycteroperca microlepis</i>
yellowfin grouper	<i>Mycteroperca venenosa</i>
Scamp	<i>Mycteroperca phenax</i>
goldface tilefish	<i>Caulolatilus crysops</i>
blueline tilefish	<i>Caulolatilus microps</i>
Tilefish	<i>Lopholatilus chamaeleonticeps</i>
greater amberjack	<i>Seriola dumerili</i>
lesser amberjack	<i>Seriola fasciata</i>
almaco jack	<i>Seriola rivoliana</i>
banded rudderfish	<i>Seriola zonata</i>
gray triggerfish	<i>Balistes capriscus</i>
Hogfish	<i>Lachnolaimus maximus</i>
<b>SHRIMP</b>	

brown shrimp	<i>Farfantepenaeus aztecus</i>
white shrimp	<i>Litopenaeus setiferus</i>
pink shrimp	<i>Farfantepenaeus duorarum</i>
royal red shrimp	<i>Hymenopenaeus robustus</i>

**Red drum fishery management plan (FMP)** – EFH for red drum consists of all estuaries, including those extending from Vermilion Bay, Louisiana, to the eastern edge of Mobile Bay, Alabama, out to depths of 25 fathoms; Crystal River, Florida, to Naples, Florida, between depths of 5 and 10 fathoms; and Cape Sable, Florida, to the boundary between the areas covered by the Gulf of Mexico Fishery Management Council (GMFMC) and the South Atlantic Fishery Management Council (SAFMC) between depths of 5 and 10 fathoms.

**Reef fish and coastal migratory pelagics FMPs** – EFH for reef fish and coastal migratory pelagic species includes all Gulf of Mexico estuaries from the U.S./Mexico border to the boundary between the areas covered by the Gulf of Mexico Fishery Management Council (GMFMC) and the South Atlantic Fishery Management Council (SAFMC) from estuarine waters out to depths of 100 fathoms.

**Shrimp FMP** – EFH for shrimp includes all Gulf of Mexico estuaries from the U.S./Mexico border to Fort Walton Beach, Florida, from estuarine waters out to depths of 100 fathoms; Grand Isle, Louisiana, to Pensacola Bay, Florida, between depths of 100 and 325 fathoms; and Pensacola Bay, Florida, to the boundary between the areas covered by GMFMC and SAFMC out to depths of 35 fathoms, with the exception of waters extending from Crystal River, Florida, to Naples, Florida, between depths of 10 and 25 fathoms and in Florida Bay between depths of 5 and 10 fathoms.



**Figure 2. EFH near the Project Area**

#### **E. Describe the Ecology and Potential Impact of this project to EFH Fisheries and Species**

Pass-a-Loutre WMA, is located in the Mississippi River Delta Basin, Plaquemines Parish. The entire basin is approximately 521,000 acres (Coastal Wetlands Planning, Protection and Restoration Act [CWPPRA] 2017). Most of the basin (420,000 acres) is open water. The remaining area is composed of land characterized by low relief, natural channel banks, dredged spoils and freshwater, intermediate, and brackish coastal marshes.

The Mississippi River discharges the headwater flows from about 41% of the contiguous 48 states. On a long-term daily basis, discharges in the Mississippi River average 470,000 cubic feet per second (cfs). A peak discharge of approximately 1,250,000 cfs occurs on the average of once every 16 years downstream of New Orleans. The Louisiana Department of Environmental Quality (LDEQ) FINAL 2016 Louisiana Water Quality Inventory: Integrated Report (305(b)/303(d)) (LDEQ 2016) lists the waters (Subsegments LA070401\_00 and LA070601\_00) of this area as fully supporting the designated use for fish and wildlife propagation, indicating few water quality problems.

Pass-a-Loutre WMA is composed of a multitude of passes, canals, cuts, and crevasses that bisect coastal marsh area, and is located on an 115,000-acre area of lands owned and managed by LDWF. The WMA and adjacent lands are mostly undeveloped. Developments consists of a few scattered residences and mooring areas. The WMA is primarily made up of estuarine emergent and scrub-shrub wetland. Some of the scrub-shrub wetlands may be composed of black mangroves (LDWF 2015; Love et al. 2013). Most of the minor development occurs upstream along the bank of the Mississippi River.

#### **F. Describe the Environmental Consequences of the Proposed Action (direct and indirect)**

Dredging, pile driving, and bulkhead installation may affect water quality during construction by introducing sediment into the water column, which would increase turbidity. The alternative would implement hydrology and water quality BMPs described in Section 4.3.1 for the RP/EA #4 to avoid and minimize potential effects to the adjoining water bodies. Impacts to water quality would be minor, short term, and localized. Evaluation of potential impacts to stormwater and pollutant loads would be further evaluated during final design. Dredging for boat dock accesses could alter localized hydrology slightly over the long term, but dredging activities are common throughout the Pass-a-Loutre WMA.

Prior to construction, federal and state permits for in-water work and construction would be obtained as necessary, including Section 404 CWA, Section 401 Water Quality Certification, and Section 402 NPDES permits. SWPPPs would be prepared, as necessary, in conjunction with the NPDES permitting process prior to construction. These plans would include any specifications and BMPs necessary for control of erosion and sedimentation from construction-related activities.

In-water work proposed for construction of campground improvements would include dredging, pile driving, and installation of bulkheads. In-water work would occur in relatively shallow, open water and wetland, freshwater habitats, used by nearshore aquatic species. Designated EFH is present within the alternative. Although these impacts may affect aquatic fauna, fisheries, and EFH in localized areas, the impacted areas are relatively small when compared to aquatic habitats available throughout the rest of the WMA, and temporary disturbances are expected to be limited in scope and duration. Temporarily disturbed aquatic fauna would likely find refuge in plentiful suitable habitats nearby. Disturbed aquatic habitats are expected to revegetate naturally and disturbed aquatic species would likely move back into disturbed areas. Therefore, effects resulting from the alternative on aquatic fauna, local fisheries, and designated EFH would be short term and localized.

#### **G. Describe the Proposed Mitigation Measures and Guidelines for EFH Protection**

See BE form, p.26 “A.1.8.6 Wetland and Aquatic Resource Protection” and p.28 “A.2.2 Best Practices for EFH under MSFCMA”

The timing of in-water, noise-producing activities would be planned to minimize disturbances to marine life. Potential short-term, minor impacts to aquatic fauna, managed fisheries, and EFH would be considered and avoided or minimized to the extent practicable during design and construction.

When impacts cannot be avoided, BMPs and conservation measures would minimize the magnitude and duration of impacts to aquatic fauna, EFH, and managed species, as determined necessary by the Implementing Trustee. Unavoidable impacts to jurisdictional wetlands and waters are believed to be self-mitigating, consistent with any such requirements contained in the Section 404 CWA permit.

EFH consultation guidance documents on the NMFS webpage may provide additional best practices to avoid or limit Proposed Alternative impacts to EFH:

[www.habitat.noaa.gov/protection/efh/consultations.html](http://www.habitat.noaa.gov/protection/efh/consultations.html)

#### **H. Provide a Cumulative EFH Impacts Synopsis and Conclusion**

Although minor, adverse, temporary impacts are associated with the implementation of this project, only a small amount of EFH habitat will be permanently impacted through the construction of new parking and fishing structures, compared to thousand acres of EFH directly adjacent to the Project Site. Most of these impacts would occur during construction, and be temporary in nature.

#### **I. References**

Coastal Wetlands Planning, Protection and Restoration Act (CWPPRA). 2017. The Mississippi River Delta Basin. Available at: [https://lacoast.gov/new/About/Basin\\_data/ba/Default.aspx](https://lacoast.gov/new/About/Basin_data/ba/Default.aspx). Accessed January 12, 2018.

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