



United States Department of the Interior



FISH AND WILDLIFE SERVICE
Deepwater Horizon Gulf Restoration Office
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In Reply Refer To:
FWS/R4/DH NRDAR

Memorandum

May 23, 2022

To: Patricia Kelly, Panama City Ecological Services Field Office, Panama City, FL

From: Assistant Restoration Manager, Deepwater Horizon Gulf Restoration Office

Subject: Coastal Barrier Resources Act Consistency Determination Request for Implementation of the Project: Nekton References and Targets: Assessing the Abundance and Density of Fish and Invertebrates Associated with Louisiana's Marsh Habitat

The Department of the Interior Deepwater Horizon Gulf Restoration Office is working through various environmental compliance consultations on post-settlement proposed restoration projects. We are currently working on the Coastal Barrier Resources Act (CBRA) consistency determination for the project: Nekton References and Targets: Assessing the Abundance and Density of Fish and Invertebrates Associated with Louisiana's Marsh Habitat. The Louisiana Trustee Implementation Group (LA TIG) has evaluated and intends to implement the project.

We used the Coastal Barrier Resources System (CBRS) mapper (<https://www.fws.gov/cbra/maps-and-data> [accessed May 10, 2022]) to determine if the proposed project is located within a CBRS Unit or within an Otherwise Protected Area (OPA). The proposed project does occur within CBRS Units and OPAs. Please refer to Table 1 below for the CBRS Units involved and the consistency determination for the project.

Project Location

The proposed project is located in coastal Louisiana. Please see project map below (Figure 1).

Description of the Proposed Action or Project

The proposed project is designed to restore natural resources injured by the Deepwater Horizon oil spill. Please see below for project description and consistency analysis.

Justification for Exception

Please see below for Justification for Exception.

Contact Information

Please provide response via email to the following:

Michael Barron
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Deepwater Horizon Gulf Restoration Office
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Nekton References and Targets: Assessing the Abundance and Density of Fish and Invertebrates Associated with Louisiana's Marsh Habitat

This project consists of 3 primary tasks: 1) Desktop exercises that analyze existing nekton abundance data from Louisiana Department of Wildlife and Fisheries (LDWF) to select and identify a) reference sites and b) previously restored marshes locations where ongoing LDWF sampling sites align with existing hydrological stations (i.e., Coastwide Reference Monitoring System [CRMS] sites). Development of a fixed area sampling gear monitoring design that will be implemented in Task 2; these sampling locations would align with the reference sites and previously restored marsh locations that are identified during analysis of LDWF abundance data. 2) Implement the fixed-area sampling gear monitoring design (i.e., field sampling). 3) Analyze fixed-area sampling gear monitoring dataset respective of hydrological and other habitat variables identified in Task 1 as influential of marsh faunal communities.

Tasks 1 and 3 will lead to recommended reference ranges (from reference sites) and restoration targets (from previously restored sites) proposed to the LA TIG for adaptation in order to assess and quantify the success of Deepwater Horizon (DWH) related marsh restoration activities. This BE Form focuses on Task 2 given the other Tasks within this project will not directly take place in or affect protected resources. The field sampling (Task 2) component of this project will implement up to 3 years of fixed-area sampling (i.e., drop sampler and/or throw-trap) in estuarine marshes and open waters immediately adjacent to estuarine marshes, including reference and previously restored marsh locations, to improve understanding of fish and invertebrate epifaunal communities' associations with reference and restored marsh habitats/sub-habitats (i.e., distance from marsh edge). This data will be used to develop reference range and restoration target values for these marsh epifaunal communities to guide planning and assessment of Deepwater Horizon restoration activities.

NOAA and other researchers have experience utilizing this sampling gear in shallow, nearshore environments; thus, the use of these gears in this project does not constitute development of new techniques and is typical of previous work. These gear are deployed either from a boom attached to a shallow water vessel (~2.6 m² drop sampler) or 'thrown' directly into shallow (\leq ~1 m depth) open waters immediately adjacent to marsh edge habitat (1 m² throw trap). The sampling design will target previously restored marshes of various ages in order to better understand how associated fish and invertebrate communities evolve with respect to age of the previously constructed restoration project. The use of this sampling gear is crucial for establishing fish and invertebrate densities (i.e., # per m²), which are preferable to other sampling gears that report abundances (i.e., catch-per-unit-effort) for extrapolating across a broader project footprint area. These sampling efforts are anticipated to produce minor, hyper-localized impacts on estuarine habitats during sampling gear deployment and collection of entrapped fishes and invertebrates. The collected fishes and invertebrates would be retained for later laboratory analysis in order to identify these organisms to the lowest taxonomic level possible (e.g., species or genus). The small surface area sampled by the fixed-area sampling gear (\leq 2.6 m²) would further minimize their impacts. Vegetation enclosed by the footprint (\leq 2.6 m²) of the deployed gear would be removed in order to associate fish and invertebrate communities with marsh vegetation percent cover and vegetation community composition. Other marsh vegetation outside of the sampling gear may be temporarily impacted during sample recovery. These actions will likely produce short-term impacts (1 day for sampling, \leq ~6 months for vegetation regeneration) but no long-

term impacts are anticipated. Samples will be collected in duplicate (subsamples within primary sampling unit) in three sub-habitats (marsh interior, marsh edge, near-marsh open water: 3 primary sampling units), yielding 6 samples per site and sampling event.

While the actual study design will be completed during the initial year of the project (Task 1), it is anticipated that 40 reference sites and 12 previously restored marsh locations will be targeted; within the 12 previously restored locations, 3 replicate sites will be selected (n=36). Thus, 76 sampling sites will be monitored, with sampling events anticipated to occur on a seasonal basis (76 sites x 4 seasonal events = 304 sampling events) annually or 912 sampling events across the anticipated 3 years of monitoring. Incorporating the 3 marsh sub-habitat primary sampling units, which would be sampled in duplicate for replication (3x2=6), this would yield 5,472 samples collected in marsh habitat over the course of the project. Using an estimated sampling footprint of 2.6 m² (the maximum footprint of each sample), this level of sampling would impact ~0.014 km² in total. This project does not include construction activities, so no over- or in-water features will be constructed and no dust, erosion or sediment controls will occur. These sampling activities will be conducted from small vessels (Class 1 or smaller, <26 ft) in order to safely access shallow marsh areas without damaging benthic resources while in transit between specific sampling sites. While interactions with other protected resources (e.g., dolphins) may occur, most likely during transit between sampling locations, field crews will utilize well established NOAA Best Practices to avoid boat collisions (e.g., designate a non-pilot crew member to assist with observing/detecting protected resources in order to avoid their interactions while in transit to sampling locations).

Consistency Analysis

The proposed action is within the following CBRS Units: S01, S01A, S02, S03, S04, S05, and S06 and the following OPA: LA-04P. Programmatic activities include the following Louisiana parishes: Plaquemines, Jefferson, Lafourche, and Terrebonne. Therefore, this project is subject to a Consistency Analysis under CBRA. Within the CBRS Unit, the proposed action involves no construction and consists primarily of the study of fish and wildlife resources and habitats. Consequently, this activity is consistent with CBRA per exemption 16 U.S.C. 3505(a)(6)(A) for “Projects for the study, management, protection, and enhancement of fish and wildlife resources and habitats, including acquisition of fish and wildlife habitats, and related lands, stabilization projects for fish and wildlife habitats, and recreational projects.” The purposes of CBRA are “to minimize the loss of human life, wasteful expenditure of Federal revenues, and the damages to fish, wildlife, and other natural resources associated with the coastal barriers along the Atlantic and Gulf Coasts...” 16 U.S.C. §3501(b). This project is designed to enhance natural resources injured by the Deepwater Horizon oil spill. Accordingly, this project is consistent with the purposes of CBRA and the exemption below.

Applicable Exception(s) under 16 U.S.C. 3505(a)

- ☒ 16 U.S.C. 3505(a)(6)(A): **Projects for the study, management, protection, and enhancement of fish and wildlife resources and habitats**, including acquisition of fish and wildlife habitats, and related lands, stabilization projects for fish and wildlife habitats, and recreational projects.

Consistency Determination

- Located within OPA and not subject to a consistency determination.
- Meets the selected CBRA exception(s) and requires no further case-by-case consultation
- Meets different CBRA exception(s) than the one(s) selected above (see additional information/comments below) and requires no further case-by-case consultation
- Does not meet the selected CBRA exception or requires separate case-by-case consultation (see additional information/comments below)

Additional Information/Comments:

LA Nekton Study: FWS# CBRA-FWCA-2022-36
until placed into Ecosphere.



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A handwritten signature in black ink, appearing to read "Patricia Kelly".

Patricia Kelly, Regions 2 & 4 CBRA Coordinator

August 17, 2022
Date

Figure 1. Map showing the Nekton References and Targets: Assessing the Abundance and Density of Fish and Invertebrates Associated with Louisiana’s Marsh Habitat project area.

