



United States Department of the Interior

FISH AND WILDLIFE SERVICE
Deepwater Horizon Gulf Restoration Office
341 Greeno Road North, Suite A
Fairhope, Alabama 36532



In Reply Refer To:
FWS/R4/DH NRDAR

Memorandum

April 24, 2026

To: Memorandum To File

From: Michael Barron, Deepwater Horizon Gulf Restoration Office

Subject: Documentation of Compliance with the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act, and the Coastal Barrier Resources Act for the Regionwide Trustee Implementation Group Project: Improving Resilience for Oysters by Linking Brood Reefs and Sink Reefs, Florida Component

The Deepwater Horizon Regionwide Trustee Implementation Group is implementing the project: Improving Resilience for Oysters by Linking Brood Reefs and Sink Reefs, Florida Component. This project evaluates oyster monitoring activities at two potential restoration sites: Horseshoe Cove and Cedar Key. The goal is to collect baseline data on oyster recruitment, reef presence, and environmental conditions. This information will be used to finalize restoration actions for oyster reef construction/implementation of the project.

We reviewed the Biological Evaluation form (attached) for impacts to bald eagles (*Haliaeetus leucocephalus*) in accordance with the Bald and Golden Eagle Protection Act of 1940 as amended (16 U.S.C. 668-668c) and migratory birds in accordance with the Migratory Bird Treaty Act of 1918 as amended (16 U.S.C. 703-712) and determined that take would be avoided. We also determined that the Coastal Barrier Resources Act of 1982 (16 U.S.C. § 3501 et seq.) is not applicable for this project. If modifications are made to the project in a manner that may affect eagles and/or migratory birds or their habitats; or additional information involving potential effects becomes available; compliance with the above statutes may be reevaluated.

If you have questions or concerns regarding this memo, please contact Michael Barron of this office at 251-421-7030 or michael_barron@fws.gov.

Attachment (1)

Biological Evaluation Form

Deepwater Horizon Oil Spill Restoration

U.S. Fish and Wildlife Service & National Marine Fisheries Service

This Biological Evaluation (BE) form will be filled out by the Implementing Trustee and used by the U. S. Fish and Wildlife Service (USFWS) and the National Oceanic and Atmospheric Administration (NOAA) regulatory agencies. The form will provide information to initiate informal Section 7 consultations under the Endangered Species Act (ESA) and may be used to document a No Effect determination or to initiate pre-consultation technical assistance.

It is recommended that this form also be completed to inform and evaluate additional needs for compliance with the following authorities: Migratory Bird Treaty Act (MBTA), Marine Mammal Protection Act (MMPA), Coastal Barrier Resources Act (CBRA), and Bald and Golden Eagle Protection Act (BGEPA). Section 106 of the National Historic Preservation Act (NHPA) submittal information can be found in Section P of this document.

Further information may be required beyond what is captured on this form. Note: if you need additional space for writing, please attach pages as needed.

For assistance, please contact the compliance liaisons

U.S Fish and Wildlife Service: Michael Barron at michael_barron@fws.gov

National Marine Fisheries Service (NMFS): Christy Fellas at christina.fellas@noaa.gov

A. Project Identification

Federal Agency/Agencies Responsible For Consultation Actions:

☒ USFWS ☒ NOAA ☐ Environmental Protection Agency (EPA) ☐ U.S. Department of Agriculture (USDA)

Implementing Trustee(s): Florida Fish and Wildlife Conservation

Commission (FWC) Contact Name: Gareth Leonard, 850-617-9452, gareth.leonard@myfwc.com

Project Name: Improving Resilience for Oysters by Linking Brood Reefs and Sink Reefs, Florida Component DIVER ID# 318 Trustee Implementation Group (TIG):

Regionwide TIG Restoration Plan # 1

Name of Person Completing this Form: Gareth Leonard/Amy Raker

Name of Project Lead: Morgan Eason

Date Form Completed: April

22, 2026 Date Form

Updated: Click here to

enter text.

B. Project Phase

Please choose the box which best describes the project status, as proposed in this BE form, check ALL that apply:

- ☐ This project includes a construction phase (approval/funding includes actual construction)
☒ This project only includes planning, engineering, and design (construction phase will be approved/funded later) ☐ This project does not include any construction or groundwork (project entails only office work such as data analysis and modeling or tasks such as education, outreach, and training)

C. Project Location

I. State and County/Parish of action area

In Florida, this project will occur off the coast of Dixie and Levy Counties at two potential restoration sites, Horseshoe Cove and Cedar Key, an area of 15.99 mi² (Figure 1). These sites were identified using the Suwannee Sound Oyster Restoration Suitability Model, developed through the FL TIG's *Conducting habitat suitability analyses to identify optimal oyster restoration locations along Florida's Gulf coast* project. Once restoration actions are finalized, an updated BE for construction and implementation activities will be submitted.

II. Latitude/Longitude for action area (Decimal degrees and datum [e.g., 27.71622°N, 80.25174°W NAD83]) online conversion here: <https://www.fcc.gov/encyclopedia/degrees-minutes-seconds-tofrom-decimal-degrees> Horseshoe Cove (29.41634, -83.24088); Cedar Key (29.18443, -83.07093)

III. Maps, Drawings, and GIS Data

Please insert any maps, aerial photographs, or design drawings here or attach to the end of this BE form. GIS files are required and should be added to the same SharePoint folder location as the BE form. Examples of such supporting documentation include, but are not limited to:

- Plan view of design drawings
- Aerial images of project action area and surrounding area, showing state or regional scale
- Map of project area with elements proposed (polygons showing proposed construction elements)
- Map of action area with critical habitat units or sensitive habitats overlaid
- GIS Files are required for all projects with a field component and may be in ARCGIS, KMZ, or CAD format with a WGS 84
- Coordinate System; GIS should be a polygon with no polylines; File should be no more than 2MB total and 30K vertices

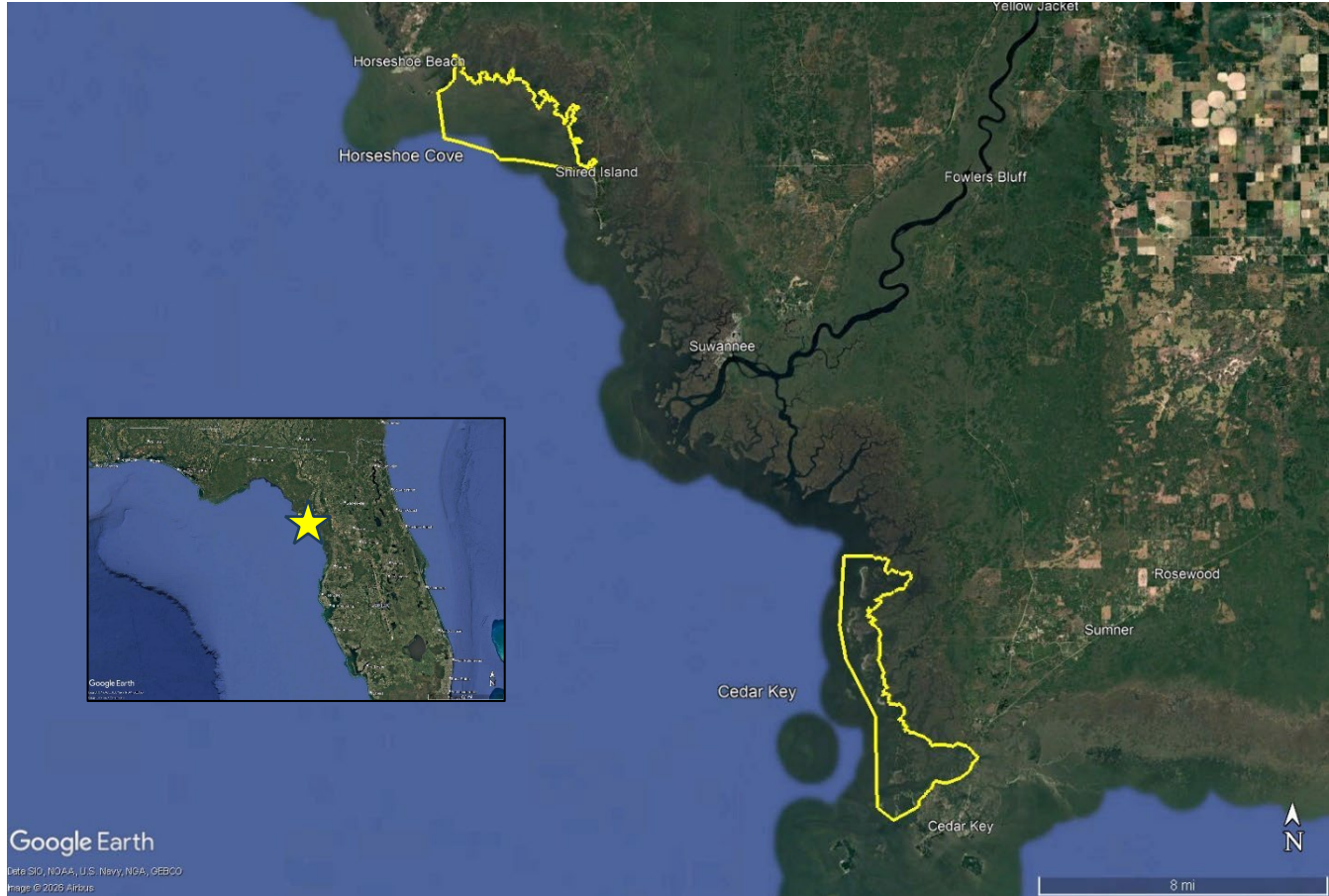


Figure 1: Project footprint at Horseshoe Cove to the north and Cedar Key to the south (shown in yellow).

D. Existing Compliance Documentation

National Environmental Policy Act (NEPA) Documents

Are there any **existing** draft or final NEPA analyses (not PDARP/PEIS) that cover all or part of this project such as a draft or final RP, USACE permit or programmatic NEPA analysis, or a NEPA analysis completed by another Federal agency?

☒ YES (complete) ☐ YES (in process) ☐ NO

Federal Permits

Have any federal permits been obtained for this project, if so which ones and what is the permit

number(s)? For example, a USACE permit or MMPA permit.

☐ YES (complete) ☐ YES (in process) ☒ NO

If yes to any question above, please provide details in the text box (i.e. SharePoint link to NEPA document, year, lead federal agency, Point of Contact, copy of the USACE permit or permit application, etc.). Documents should be uploaded to the appropriate project compliance folder on SharePoint.

A complete National Environmental Policy Act (NEPA) analysis for this project is included in the *Deepwater Horizon Oil Spill Regionwide Trustee Implementation Group Final Restoration Plan/Environmental Assessment 1: Birds, Marine Mammals, Oysters, and Sea Turtles*¹.

E. Description of Action Area

Provide a description of the existing environment (e.g., topography, vegetation type, soil type, substrate type, water quality, water depth, tidal/riverine/estuarine, hydrology and drainage patterns, current flow and direction), and land uses (e.g., public, residential, commercial, industrial, agricultural). Describe all areas that may be directly or indirectly affected by the action. If critical habitat (CH) is not designated in the area, then describe any suitable habitat in the area.

a. Waterbody & Wetlands

If applicable. Name the body of water, including wetlands (freshwater or estuarine), on which the project is located. If applicable, please describe water quality, depth, hydrology, current flow, and direction of flow.

The two potential restoration sites are in Horseshoe Cove and in Suwannee Sound near Cedar Key, extending from Cedar Key to the mouth of the Suwannee River. This area includes estuarine salt marshes, tidal creeks, and the estuarine zones associated with the Suwannee River.

Does the project area include a river or estuary?

☒ YES ☐ NO

If yes, please approximate the navigable distance from the project location to the marine environment.

Project activities, including access to potential restoration sites, will occur within three primary navigable channels marked by the Horseshoe Beach outer range marker (approx. 29.403814° N, -83.312385° W), the mouth of the Suwannee River (approx. 29.263988° N, -83.176876° W), and the Northwest Channel of Cedar Key (approx. 29.138597° N, -83.097828° W). Waters outside the channels and shoreward of the range markers contain numerous submerged hazards, including unmarked shallow creeks, shoals, and reefs. The project footprint lies within estuarine and nearshore marine waters of the Gulf and is effectively contiguous with the marine environment (0–6 miles from open Gulf waters).

b. Existing Structures

¹ <https://www.gulfspillrestoration.noaa.gov/media/document/finalrpea-20210916-tigapproved0pdf>

If applicable. Describe the current and historical structures found in the action area (e.g., buildings, parking lots, docks, seawalls, groynes, jetties, marina). If known, please provide the years of construction.

Boat ramps, docks, and associated parking areas occur at several public access points in the region, including Horseshoe Beach, the Suwannee River, and Cedar Key. These structures will be used to launch vessels and park trucks/trailers.

c. Seagrasses & Other Marine Vegetation

If applicable. Describe seagrasses found in action area. If a benthic survey was done, provide the date it was completed and a copy of the report. Estimate the species area of coverage and density. Attach a separate map showing the location of the seagrasses in the action area.

Seagrass is present in the offshore extent of Suwannee Sound. In the Suwannee Sound Oyster Restoration Suitability Model, the presence and density of seagrass habitat was represented by the “FWC Seagrass Habitat in Florida” GIS layer, which compiles seagrass mapping in state waters from multiple sources through December 2024. Classifications of seagrass habitat include “discontinuous” and “continuous” seagrass coverage, representing areas of lower and higher seagrass density, respectively. [Seagrass habitat](#) was scored in the suitability model such that areas without seagrass received the highest suitability scores and areas with continuous seagrass beds received lower suitability scores (Figure 2). This mapping layer was used to identify potential restoration locations that avoid mapped seagrass habitat. Project activities avoid mapped seagrass habitats based on the most recent available GIS data. If seagrass is observed in the field, monitoring activities will be adjusted to avoid impacts.

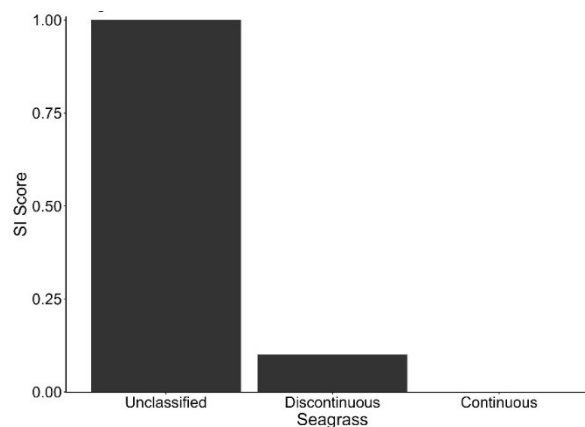


Figure 2: Habitat suitability score for seagrass GIS layer based on habitat classification.

d. Mangroves

If applicable. Describe the mangroves found in action area. Indicate the species found (red, black, white), the species area of coverage in square footage and linear footage along project shoreline. Attach a separate map showing the location of the mangroves in the action area.

Both red mangroves (*Rhizophora mangle*) and black mangroves (*Avicennia germinans*) occur along the shorelines of Cedar Key and in portions of Suwannee Sound. These mangrove habitats are located outside of the project footprint. Project activities will not occur within or directly impact mangrove

habitats.

e. Corals

If applicable. Describe the corals found in action area. If a benthic survey was done, provide the date it was completed and a copy of the report. Estimate the species area of coverage and density. Attach a separate map showing the location of the corals in the action area.

N/A.

f. Uplands

If applicable. Describe the current terrestrial habitat in which the project is located (e.g. pasture, forest, meadows, beach and dune habitats, etc.).

N/A, no project activities will occur in terrestrial habitats.

g. Soils and Sediments

If applicable. Indicate topography, soil type, substrate type.

Substrate across the project footprint varies but is primarily composed of sand, mud, silt, clay, limestone, and shell typical of shallow estuarine environments.

h. Land Use

If applicable. Indicate existing or previous land use activities (agriculture, dredge disposal, etc).

N/A

i. Marine Mammals

Please select the following marine mammals that could be present within the project area:

Dolphins	☒ YES	☐ NO
Whales	☐ YES	☒ NO
Manatees	☒ YES	☐ NO

If applicable. Indicate and describe the species found in the action area. Use NMFS' Stock Assessment Reports for more information, see <http://www.nmfs.noaa.gov/pr/sars/region.htm>

The project occurs within the range of the Northern Gulf of Mexico Continental Shelf, Gulf of Mexico Eastern Coastal, and Gulf of Mexico Northern Coastal stocks of bottlenose dolphins (*Tursiops truncatus*). West Indian manatees (*Trichechus manatus latirostris*) may also occur within the project footprint.

F. Project Description

Describe the Proposed Action/Project Objectives: What are you trying to accomplish and how with this project?
Describe in detail the construction equipment and methods needed; long term vs. short term impacts; duration of

short term impacts; dust, erosion, and sedimentation controls; restoration areas; if the project is growth-inducing or facilitates growth; whether the project is part of a larger project or plan; and what permits will need to be obtained.

Construction methods: Provide a detailed account of construction methods. It is important to include step-by-step descriptions of how demolition or removal of structures is conducted and if any debris will be moved and how. Describe how construction will be implemented, what type and size of materials will be used and if machines will be used, manual labor, or both. Indicate if work will be done from upland, barge, or both.)

Attach a separate map showing project footprint, avoidance areas, construction accesses, staging/laydown areas. Or place those files in the same folder as the BE form on SharePoint

This BE evaluates oyster monitoring activities at two potential restoration sites: Horseshoe Cove and Cedar Key. The goal is to collect baseline data on oyster recruitment, reef presence, and environmental conditions. This information will be used to finalize restoration actions for oyster reef construction/implementation of the project at which point an updated BE will be submitted. No monitoring activities will occur in terrestrial habitats.

Boat ramps, docks, and parking lots will be used to launch vessels and park trucks/trailers. Transit to sampling stations will occur via navigational channels and previously determined routes that meet required water depth for each vessel. Vessels may include a 20-foot Sea Ark 2072 MVT hull, an 18-foot GTO Standard Airboat (2025), and a 24-foot Overton hull vessel (2021).

Recruitment Monitoring

Baseline oyster recruitment will be assessed using in-situ spat traps deployed at intertidal stations (Figure 3). Traps will be constructed from PVC pipe, cinder blocks, 6" crab pot floats (buoys), polypropylene rope encased in flexible vinyl tubing, and "stringers" made of clean adult-sized oyster shells and galvanized wire (Figure 4). Three replicate spat traps will be deployed at SS3 (Horseshoe Cove) and SS8 (Cedar Key) via vessel or wading. Traps will be checked monthly (mean 28 days). Stringers from each trap will be collected, labeled with site, station, and date, and transported to the laboratory for spat counts. T-bars and cinderblocks will be cleaned of epibionts and algae with oyster knives or scrapers, and new stringers will be attached for redeployment. Station depth and water quality parameters (temperature, salinity, dissolved oxygen [DO], pH, turbidity) will be recorded at each collection. All spat traps will be maintained for up to 12 months. Post-construction monitoring would likely occur at these same locations; final details will be included in the construction BE for evaluation. On-water work will be minimal and will include collecting and replacing stringers and scraping traps. All remaining sample processing will occur in the laboratory.

Continuous Water Quality Monitoring

Within each restoration area, a Star-Oddi DST CT data logger will be deployed within approximately 100 meters of the recruitment monitoring stations. Each logger will be attached to a cinder block with 6" crab pot floats (buoys) and polypropylene rope encased in flexible vinyl tubing to maintain its position in the water column. Data loggers will be maintained for up to 12 months. Post-construction monitoring would likely occur at these same locations; final details will be included in the construction BE for evaluation.

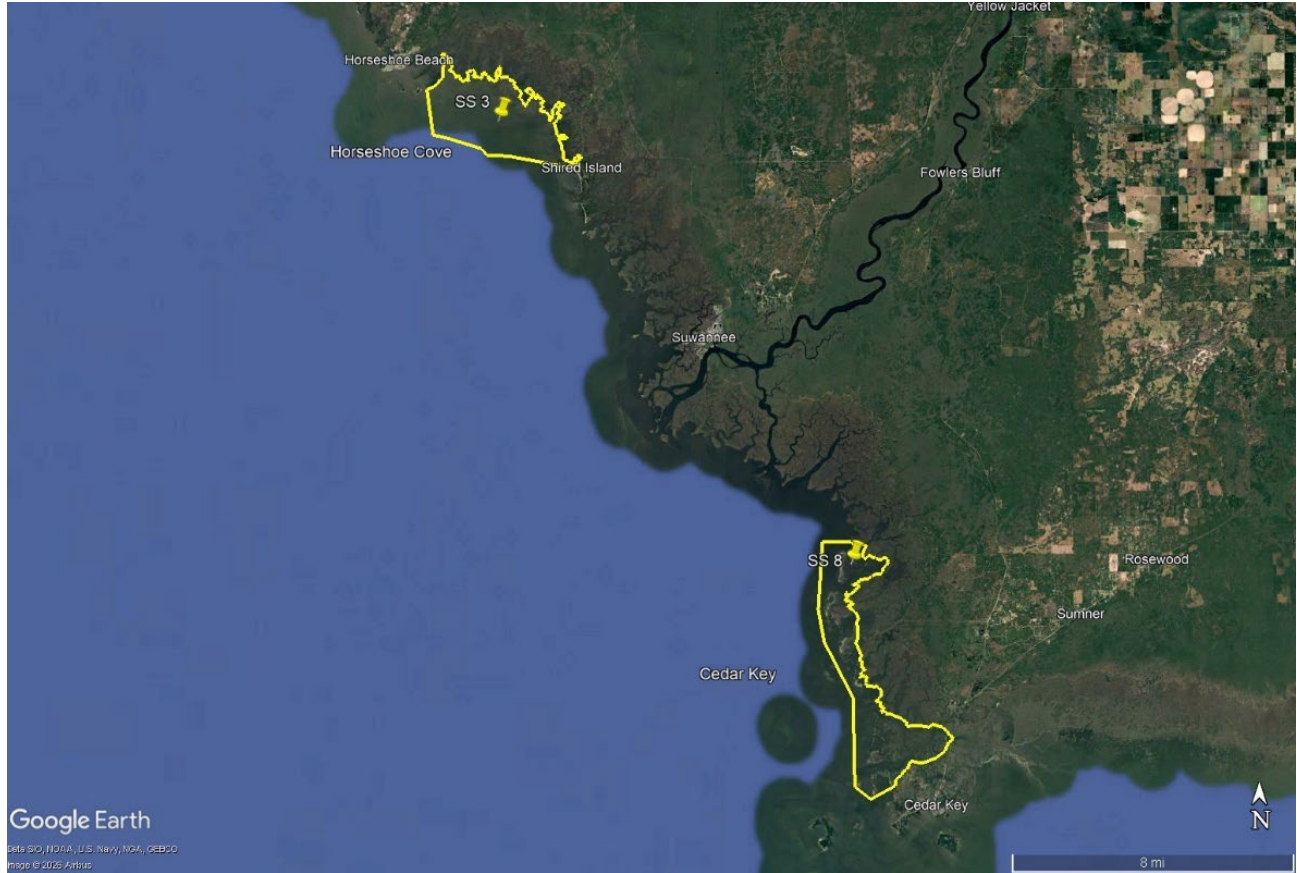


Figure 3: Recruitment stations.



Figure 4: Subtidal (left) and intertidal (right) oyster spat traps with stringers.

Quadrat Sampling

Survey locations will be established within the Horseshoe Cove and Cedar Key potential restoration sites. If reef size is greater than 10 continuous acres, sampling stations will be selected through random selection of 0.1' latitude x 0.1' longitude "MicroGrid" cells (approximately 175 x 175 m).

Vessels will transport staff to sampling locations and will anchor within approximately 30 yards of sampling stations. Due to the variable water depths, sampling at Horseshoe Cove will likely be conducted via SCUBA and wading and at Cedar Key via wading.

Annually, from October through January, a minimum of 15 quadrats per sampling location (five quadrats at three reefs) will be processed in situ to measure total sample weight, total number of live and dead oysters, shell height of up to 50 live oysters, and the number of oyster drills and crown conch. Location and depth will be recorded using Real-Time Kinematic (RTK) GPS and water quality parameters (temperature, salinity, DO, and pH) will be recorded using a water quality meter. For intertidal reefs, the edge of the reef will be mapped using RTK GPS, with the reef defined as areas where oysters provide at least 25% cover. Reef height will be measured at the highest point, and approximate locations of quadrat samples will be recorded. Each survey location will be marked with four buoys placed at the corners of the sampling area. Water quality parameters, location, time, and dive start/end times (if applicable) will be recorded prior to sampling. Divers will collect all surface material within each quadrat using catch bags, following a systematic grid pattern (e.g. top to bottom or left to right) to ensure all material is collected. After processing and recording data, all sampled material will be returned to the water within the footprint of the reef from which it was collected. Once sampling is complete, corner marker buoys will be retrieved. The sampler will move at least 1.5 meters in a random direction before deploying the next quadrat. This process will be repeated until all quadrat samples are collected.

All in-water activities will be temporary, localized, and of short duration, with no permanent habitat alteration.

Construction Schedule (What is the anticipated schedule for major phases of work? Include duration of in-water work.)

In 2026-2027, FWC will conduct oyster monitoring activities as outlined in this BE. These activities will occur periodically, with in-water work associated with recruitment monitoring, quadrat sampling, and water quality monitoring occurring intermittently and lasting only a few hours per sampling event.

Future work will include compiling and analyzing newly collected monitoring data along with existing datasets, including bottom mapping, water quality, habitat suitability indices (HSIs), and larval transport models. These data will inform engineering and design, environmental compliance consultations, and permitting for restoration activities. A separate BE will be submitted to evaluate construction and implementation activities once these monitoring actions are finalized.

Specific In-Water and/or Terrestrial Construction Methods

Please check yes or no for the following questions related to in-water work and overwater structures

<i>Does this project include in-water work?</i>	☒ YES	☐ NO
<i>Does this project include terrestrial construction?</i>	☐ YES	☒ NO
<i>Does this project include construction of an overwater structure?</i>	☐ YES	☒ NO
<i>Will fishing be allowed from this overwater structure?</i>	☐ YES	☒ NO

Will wildlife observation be allowed from this overwater structure?	☐ YES ☒ NO
Will boat docking be allowed from this overwater structure?	☐ YES ☒ NO

If this is a fishing pier, please provide the following information: public or private access to pier, estimated number of people fishing per day, plan to address hook and line captures of protected species, specific operating hours/open 24 hours, artificial lighting of pier (if any), number of fish cleaning stations, and number of pier attendants (if any).

N/A

Pilings & Sheetpiles: If this project includes installation of pilings or sheets, please provide answers to questions 1-11 listed below

1. Method of pile installation	N/A
2. Material type of piles used	N/A
3. Size (width) of piles/sheets	N/A
4. Total number of piles/sheets	N/A
5. Number of strikes for each single pile	N/A
6. Number of strikes per hour (for a single pile)	N/A
7. Expected number of piles to be driven each day	N/A
8. Expected amount of time needed to drive each pile (minutes of driving activities)	N/A
9. Expected number of sequential days spent pile driving	N/A
10. Whether pile driving occurring in-water or on land	N/A
11. Depth of water where piles will be driven	N/A

Marinas and Boat Slips (Describe the number and size of slips and if the number of new slips changes from what is currently available at the project. Indicate how many are wet slips and how many are dry slips. Estimate the shadow effect of the boats - the area (sqft) beneath the boats that will be shaded.)

N/A

Boat Ramp (Describe the number and size of boat ramps, the number of vessels that can be moored at the site (e.g., staging area) and if this is a public or private ramp. Indicate the boat trailer parking lot capacity, and if this number changes from what is currently available at the project.)

N/A

Shoreline Armoring (This includes all manner of shoreline armoring (e.g., riprap, seawalls, jetties, groins, breakwaters, etc.). Provide specific information on material and construction methodology used to install the shoreline armoring materials. Include linear footage and square footage. Attach a separate map showing the location of the shoreline armoring in the action area.

N/A

Dredging or digging (Provide details about dredge type (hopper, cutterhead, clamshell, etc.), maximum depth of

dredging, area (ft²) to be dredged, volume of material (yd³) to be produced, grain size of material, sediment testing for contamination, spoil disposition plans, and hydrodynamic description (average current speed/direction)). N/A

If digging in the terrestrial environment. Please describe fully with details about all proposed digging, including possible water jetting, vibration methods to install pilings for dune walk-over structure, or other methods. If using devices/methods/turtle relocation dredging to relocate sea turtles, then describe the methods here.

N/A

Blasting (Projects that use blasting might not qualify as “minor projects,” and a Biological Assessment (BA) may need to be prepared for the project. Arrange a technical consultation meeting with NMFS Protected Resources Division to determine if a BA is necessary. Please include explosive weights and blasting plan.)

N/A

Artificial Reefs (Provide a detailed account of the artificial reef site selection and reef establishment decisions [i.e., management and siting considerations, stakeholder considerations, environmental considerations, long term maintenance plan (periodic clean-up of lost fishing gear/debris)], deployment schedule, materials used, deployment methods, as well as final depth profile and overhead clearance for vessel traffic. For additional Information and detailed guidance on artificial reefs, please refer to the artificial reef program websites for the particular state the project will occur in.

N/A

h. Fishery Activities (Describe any use of gear that could entangle or capture protected species. This includes activities that may enhance fishing opportunities (e.g. fishing piers) or be fishery/gear research related (e.g. involve trawl gear, gillnets, hook and line gear, crab pots etc)).

Spat traps will be constructed from PVC pipe, cinder blocks, 6” crab pot floats (buoys), polypropylene rope, and “stringers” made of clean adult-sized oyster shells and galvanized wire (Figure 4). In-water lines (rope, chain, and cable) will be enclosed in a plastic or rubber sleeve/tube to add rigidity and prevent the line from looping and tangling. These design features minimize the risk of entanglement for protected species.

G. NOAA Essential Fish Habitat (EFH)

If applicable, describe any designated Essential Fish Habitat within the project area in the text box and answer the questions below about habitat effects, conversions or benefits. If there is no EFH in your project area, enter N/A in the box below and move to section F.

Depending on the effects of your project, EFH consultation with NMFS may be required:

<https://www.fisheries.noaa.gov/southeast/consultations/essential-fish-habitat-consultations-southeast>

The project footprint occurs within areas designated as Essential Fish Habitat (EFH) for federally managed species in the Gulf. EFH in the project area includes estuarine and nearshore habitats, such as oyster reef and unconsolidated bottom (e.g., sand, mud, and shell), which are utilized by these species.

In this table, please use checkboxes to indicate which EFH eco-region(s) and habitat zone(s) in which the project is located. For more information about EFH Eco Regions see the references here: [EFH ecoregion information on SharePoint https://portal.gulfcouncil.org/EFHreview.html](https://portal.gulfcouncil.org/EFHreview.html)

<u>Gulf of Mexico EFH Eco-Region</u>	<u>Estuarine</u>	<u>Nearshore</u>	<u>Offshore</u>
Eco-Region 1: South Florida (Florida Keys north to Tarpon Springs, Florida)	☐	☐	☐
Eco-Region 2: North Florida (Tarpon Springs, Florida, north and west to Pensacola Bay, Florida)	☒	☒	☐
Eco-Region 3: East Louisiana, Mississippi, and Alabama (Pensacola Bay, Florida, west to the Mississippi River Delta)	☐	☐	☐
Eco-Region 4: East Texas and West Louisiana (Mississippi River Delta west and south to Freeport, Texas)	☐	☐	☐
Eco-Region 5: West Texas (Freeport, Texas south to the U.S./Mexico border)	☐	☐	☐

Effects to EFH

In this section, please indicate if your project has effects on EFH, either beneficial or adverse. For example, whether the project creates, improves, removes or converts habitat. Please describe the types of habitats that will be affected by the project, including number of acres.

Will this project affect EFH?	☒ YES ☐ NO
If not, please proceed to section X. (For example, your project is wholly upland or includes only desktop analysis tasks) If yes, please proceed to additional boxes below.	

Will this project have beneficial effects to EFH?	☐ YES ☒ NO
If yes, please describe how your project will have beneficial effects in the text box below:	

N/A

Will this project have adverse effects on EFH?	☒ YES ☐ NO
If yes, please describe what type of adverse effects your project will cause to EFH in the text box below:	

Effects to EFH will be minimal, temporary, and limited to minor disturbance of unconsolidated substrates during project activities.

ESA Determination Definitions

Please make the appropriate choice in the drop down menus for both species and designated critical habitat in the NMFS and USFWS tables in Section H and I below.

NE = no effect. This determination is appropriate when the proposed action will not directly, indirectly, or cumulatively impact, either positively or negatively, any listed, proposed, candidate species or designated or proposed critical habitat.

NLAA = may affect, not likely to adversely affect. This determination is appropriate when the proposed action is not likely to adversely impact any listed, proposed, candidate species or designated/proposed critical habitat or there may be beneficial effects to these resources. This conclusion is appropriate when effects to the species or critical habitat will be wholly beneficial, discountable, or insignificant. **BENEFICIAL EFFECTS** are contemporaneous positive effects without any adverse effects to the species or habitat. **INSIGNIFICANT EFFECTS** relate to the size of the impact of the project and should never reach the scale where take occurs. **DISCOUNTABLE EFFECTS** are those that are extremely unlikely to occur. Based on best judgment, a person would not: (1) be able to meaningfully measure, detect, or evaluate insignificant effects; or (2) expect discountable effects to occur

LAA = may affect, likely to adversely affect. This determination is appropriate when the proposed action is likely to adversely impact any listed, proposed, candidate species or designated/proposed critical habitat. This conclusion is reached if any adverse effect to listed species or critical habitat may occur as a direct or indirect result of the proposed action or its interrelated or interdependent actions, and the effect is not discountable or insignificant. In the event the overall effect of the proposed action is beneficial to the listed species or critical habitat but may also cause some adverse effect on individuals of the listed species or segments of the critical habitat, then the determination is "likely to adversely affect." Any LAA determination requires formal section 7 consultation and will require additional information.

H. NOAA ESA Species and Critical Habitat and Effects Determination Requested

If your project occurs in a location that does not contain any listed NOAA species or designated Critical Habitats, please check the box below. If this box is checked, you may skip Section H. and proceed to Section I.

- ☐ This project occurs in a location that does not contain any listed NOAA species or designated Critical Habitats.
- ☐ All ESA effects have been accounted for under an existing consultation.
- ☐ Some ESA effects have been accounted for under an existing consultation.

1. List all species, critical habitat, proposed species and proposed critical habitat that may be found in the action area. Species that do not currently occur in the action area (but are listed on county species lists) do not need to be listed in drop downs. For species not included in the drop down menu please add manually to the table.

2. Attach a separate map identifying species/critical habitat locations within the action area. For information on species and critical habitat under NMFS jurisdiction, visit:

https://www.fisheries.noaa.gov/species-directory?q=&field_species_categories_vocab=All&field_region_vocab=1000001121

If Gulf sturgeon in marine waters may be affected, include them in the table here. If Gulf Sturgeon in riverine/freshwater may be affected include them in the USFWS table below in Section I. If sea turtles in water may be affected include them in the table here. If sea turtles on land may be affected include them in the USFWS table below in Section I.

Species and/or Critical Habitat	CH Unit (if applicable)	Location (Sea turtles and Gulf Sturgeon <u>only</u>)	Determinations (see definitions below)	For "No Effect", please select justification.
Gulf Sturgeon (T)		Marine	May Affect, Not Likely to Adversely Affect	Choose one
Gulf Sturgeon CH	14 Suwannee Sound		May Affect, Not Likely to Adversely Affect	Choose one
Loggerhead Sea Turtle (T)		Marine	May Affect, Not Likely to Adversely Affect	Choose one
Green Sea Turtle (T)			May Affect, Not Likely to Adversely Affect	Choose one
Hawksbill Sea Turtle (E)		Marine	No Effect	No suitable habitat action area
Leatherback Sea Turtle (E)		Marine	May Affect, Not Likely to Adversely Affect	Choose one
Kemp's Ridley Sea Turtle (E)		Marine	May Affect, Not Likely to Adversely Affect	Choose one

Smalltooth Sawfish (E)		Marine	May Affect, Not Likely to Adversely Affect	Choose one
Giant Manta Ray (T)			May Affect, Not Likely to Adversely Affect	Choose one

I. USFWS Species and Critical Habitat and Effects Determination Requested

If your project occurs in a location that does not contain any listed USFWS species or designated Critical Habitats, please check the box below. If this box is checked, you may skip Section I and proceed to Section J.

- ☐ This project occurs in a location that does not contain any listed USFWS species or designated Critical Habitats. ☐ **All** ESA effects have been accounted for under an existing consultation.
- ☐ **Some** ESA effects have been accounted for under an existing consultation.

1. List all species, critical habitat, proposed species and proposed critical habitat **generated by IPaC** that may be found in the action area. For species not included in the drop down menu please add manually to the table. The IPaC website can be found here: <https://ipac.ecosphere.fws.gov/>.

2. Attach a separate map identifying species/critical habitat locations within the action area.

If Gulf sturgeon in riverine/freshwater waters may be affected, include them in the table here. If Gulf Sturgeon in marine waters may be affected include them in the NMFS table above in Section H. If sea turtles on land may be affected include them in the table here. If sea turtles in water may be affected include them in the NMFS table above in Section H.

Species and/or Critical Habitat	CH Unit (if applicable)	Location (Sea turtles and Gulf Sturgeon <u>only</u>)	Determinations (see definitions below)	For "No Effect", please select justification.
Florida salt marsh vole			No Effect	No suitable habitat action area
Tricolored bat			FWC does not wish to conference on proposed species/CH at this time.	
West Indian Manatee			May Affect, Not Likely to Adversely Affect	Choose one
Eastern black rail			No Effect	No suitable habitat action area
Florida scrub-jay			No Effect	No suitable habitat action area
Piping plover			May Affect, Not Likely to Adversely Affect	Choose one

Rufa red knot			May Affect, Not Likely to Adversely Affect	Choose one
Rufa red knot CH			FWC does not wish to conference on proposed species/CH at this time.	
Cedar Key mole skink			FWC does not wish to conference on proposed species/CH at this time.	
Cedar Key mole skink CH			FWC does not wish to conference on proposed species/CH at this time.	
Eastern indigo snake			No Effect	No suitable habitat action area
Southern hognose snake			FWC does not wish to conference on proposed species/CH at this time.	
Gulf Sturgeon		Riverine/Freshwater	No Effect	Activities have No Effect on Species/CH
Gulf Sturgeon CH	7	Riverine/Freshwater	No Effect	Activities have No Effect on Species/CH
Monarch butterfly			FWC does not wish to conference on proposed species at this time.	

J. Effects of the Proposed Project to the Species and Actions to Reduce Impacts

NOTE: Species selected as “No Effect” with justification in tables above do not need to be addressed in Section J.

1. Explain the potential beneficial and adverse effects to each species listed above. Describe what, when, and how the species will be impacted and the likely response to the impact. Be sure to include direct, indirect, and cumulative impacts and where possible, quantify effects.

If species are present (or potentially present) and will not be adversely affected describe your rationale. If species are unlikely to be present in the general area or action area, explain why. This justification provides documentation for your administrative record, avoids the need for additional correspondence regarding the species, and helps expedite review.

Some species listed in Sections H and I may occur within suitable habitat in the project footprint and therefore have a “May Affect, Not Likely to Adversely Affect” (NLAA) determination. These include Gulf sturgeon (marine), four species of sea turtles (green, Kemp’s Ridley, leatherback, and loggerhead), smalltooth sawfish, giant manta ray, West Indian manatee, rufa red knots, and piping plovers. Potential

stressors associated with proposed activities include vessel transit, temporary anchoring, diver presence, and placement and retrieval of monitoring equipment (e.g., spat traps and water quality loggers). FWC will coordinate with area managers (e.g., park rangers, biologists) and other FWC staff, as needed, to identify, plan, and adaptively implement project activities. This coordination will ensure that project goals are met while minimizing potential effects to ESA-listed species.

FWC's vessel-based field operations will be designed to safely access monitoring sites while minimizing potential effects to ESA-listed species. Vessels will travel from existing access points to monitoring sites, following all posted speed zones, or operating at idle/no-wake speeds where speed zones are not posted. Field work will occur during daylight hours, and vessel operation will be limited in frequency, duration, and speed, particularly in shallow waters. Standard BMPs for vessel, diver, and equipment use will be implemented. If ESA-listed species are observed entering monitoring sites, activities will temporarily halt until animals leave the area of their own volition.

Species-specific measures will be implemented to minimize potential effects to ESA-listed species.

- Gulf sturgeon (riverine/freshwater) may occur within riverine systems used by project vessels to access monitoring sites. Vessel operations will maintain a minimum draft of 4 feet; if water depth is less than 4 feet between the keel/propeller and the river bottom, vessels will operate at idle/no-wake speeds. In some cases, shallow-draft paddlecraft or low-impact trolling motors may be used. Given these measures, no disturbance, injury, or habitat alteration is expected. Therefore, the proposed actions will have no effect on Gulf sturgeon (riverine/freshwater).
- Gulf sturgeon (marine) may seasonally utilize nearshore marine waters within the project footprint; however, use of shallow estuarine and nearshore areas is expected to be infrequent and temporary. Vessel monitoring and transit will be limited in duration and spatial extent and will occur at low speeds. Therefore, the proposed actions may affect, but are not likely to adversely affect Gulf sturgeon (marine); any effects are expected to be insignificant.
- Sea turtles (loggerhead, green, leatherback, Kemp's Ridley) may transit through the project footprint; however, shallow estuarine habitats are not primary feeding areas, and use of the project footprint is expected to be infrequent and temporary given the limited duration and low-intensity nature of vessel transit and in-water monitoring activities. Therefore, the proposed actions may affect, but are not likely to adversely affect sea turtles; any effects are expected to be insignificant.
- Giant manta rays may use the project footprint for migration and foraging; however, occurrences in shallow estuarine habitats are expected to be infrequent and temporary due to the limited spatial extent and short duration of project activities. Therefore, the proposed actions may affect, but are not likely to adversely affect giant manta rays; any effects are expected to be insignificant.
- Smalltooth sawfish may occur in shallow estuarine habitats within the project footprint; however, any potential effects are expected to be rare and temporary due to the limited spatial extent of work, short duration of activities, and low-speed vessel operation. Therefore, the proposed actions may affect, but are not likely to adversely affect smalltooth sawfish; any effects are expected to be insignificant.

- West Indian manatees may use nearshore estuarine habitats within the project footprint; however, the short-term, localized nature of work, adherence to vessel speed limits, and the limited duration of vessel operations are expected to result in infrequent and temporary effects. Therefore, the proposed actions may affect, but are not likely to adversely affect West Indian manatees; any effects are expected to be insignificant.
- Rufa red knots and piping plovers may use intertidal habitats within the project footprint during migration and wintering periods. However, use of areas in or adjacent to the project footprint is expected to be temporary and intermittent due to the short duration and limited spatial extent of intertidal monitoring activities. Field crews will visually survey shorebirds prior to initiating work and avoid or delay activities if birds are present. Shorebirds are highly mobile and are expected to avoid active work areas and resume normal behavior shortly after activities cease. Therefore, the proposed actions may affect, but are not likely to adversely affect rufa red knots and piping plovers; any effects are expected to be insignificant.

In summary, based on the temporary, localized, and low-intensity nature of the proposed activities, any effects to ESA-listed species are expected to be short-term and insignificant. No habitat modification, impacts to prey resources, or disruption of normal behavioral patterns at the population level are anticipated. Therefore, the proposed actions may affect, but are not likely to adversely affect ESA-listed species. FWC will reinstate consultation with NOAA/USFWS if new information arises or project activities are modified in a manner that could affect listed species not previously evaluated.

II. Explain the actions to reduce adverse effects to each species listed above. For each species for which impacts were identified, describe any Conservation Measures and/or BMPs that will be implemented to avoid or minimize the impacts. Conservation Measures and/or BMPs are designed to avoid or minimize effects to listed species and critical habitats or further the recovery of the species under review. Conservation Measures and/or BMPs are considered part of the proposed action and their implementation is required. Any changes to, modifications of, or failure to implement these conservation measures may result in a need to reinstate this consultation.

FWC will implement all required NMFS and FWC permit conditions and conservation measures to minimize effects to ESA-listed species. These measures include observing all posted speed zones and operating vessels at idle/no-wake speeds where no limits are posted; conducting field activities only during daylight hours; temporarily halting monitoring if ESA-listed species enter work areas; following standard BMPs for vessel, diver, and equipment use; and, for shorebirds (rufa red knots and piping plovers), visually surveying intertidal areas prior to initiating work and avoiding or delaying activities if birds are present. Collectively, these measures are designed to avoid or minimize effects to ESA-listed species and their habitats and to ensure any effects are temporary, localized, and insignificant. Failure to implement these measures, or modifications to project activities that reduce their effectiveness, may require reinstatement of consultation.

Frequently Recommended Conservation Measures and BMPs: This checklist provides standard practices recommended by NMFS and USFWS. Please select any BMPs that will be implemented:

- | | |
|-------------------------------------|---|
| ☒ | NMFS Protected Species Construction Conditions (2021) ² |
| ☒ | NMFS Measures for Reducing the Entrapment Risk to Protected Species |
| ☒ | NMFS Vessel Strike Avoidance Measures (2021) |
-
- | | |
|-------------------------------------|--|
| ☒ | USFWS Standard Manatee in Water Conditions (2011) ³ and Appropriate State Manatee Conditions ⁴ |
|-------------------------------------|--|

Additional BMPs or Conservation Measures

Chapter 6 of the PDARP included an important appendix (6.A) of best practices, see information starting on page 6-173. http://www.gulfspillrestoration.noaa.gov/sites/default/files/wp-content/uploads/Chapter-6_Environmental-Consequences_508.pdf

Use the box below to indicate which best management practices or conservation measures you'll be using in your project (that were not listed in Section I above)

N/A

K. Effects to Critical Habitats and Actions to Reduce Impacts

NOTE: Species selected as “No Effect” with justification in table do not need to be addressed in Section I or J.

I. Explain the potential beneficial and adverse effects to critical habitat listed above. Describe what, when, and how the critical habitat will be impacted and the likely response to the impact. Be sure to include direct, indirect, and cumulative impacts to physical and biological features, and where possible, quantify effects (e.g. acres of habitat, miles of habitat).

Describe your rationale if designated or proposed critical habitats are present and will not be adversely affected.

Project activities may occur within Gulf sturgeon critical habitat in both riverine/freshwater and marine areas; effects are evaluated separately below.

Activities in riverine systems will be limited to vessel transit to monitoring sites. Vessels will maintain a minimum draft of 4 feet or operate at idle/no-wake speeds in shallower areas and may include shallow-draft paddlecraft or low-impact trolling motors. These activities will not alter habitat conditions or affect primary constituent elements (PCEs) or physical and biological features (PBFs). Therefore, the proposed actions will have no effect on Gulf sturgeon critical habitat in riverine/freshwater areas.

² <https://www.fisheries.noaa.gov/southeast/consultations/regulations-policies-and-guidance>

³ <https://www.fws.gov/media/2011-standard-manatee-construction-conditions-water-work>

⁴ Contact USFWS representative for appropriate documents.

The project footprint overlaps with Gulf sturgeon critical habitat in Suwannee Sound. Proposed monitoring activities are temporary, small in scale, and limited to previously disturbed or unvegetated areas. No in-water construction, substrate alteration, vegetation removal, or permanent habitat modification will occur.

As a result, any direct, indirect, and cumulative effects to PCEs and PBFs (e.g., water quality, substrate composition, and prey availability) would be limited to short-term, localized disturbance from vessel presence and monitoring activities; these effects are expected to be insignificant. Therefore, the proposed actions may affect but are not likely to adversely affect Gulf sturgeon critical habitat.

II. Explain the actions to reduce adverse effects to critical habitat listed above. For critical habitat for which impacts were identified, describe any conservation measures (e.g. BMPs) that will be implemented to avoid or minimize the impacts. Conservation measures are designed to avoid or minimize effects to listed species and critical habitats or further the recovery of the species under review.

Conservation measures are considered part of the proposed action and their implementation is required. Any changes to, modifications of, or failure to implement these conservation measures may result in a need to reinitiate this consultation.

FWC will implement all required NMFS PDCs (see attached) and FWC permit conditions and conservation measures to minimize effects to Gulf sturgeon critical habitat. These measures include operating vessels at idle/no-wake speeds, conducting fieldwork during daylight hours, and deploying equipment only in previously disturbed or unvegetated areas.

No permanent modifications to substrate, vegetation, or other habitat features will occur. These conservation measures will avoid or minimize potential impacts to PCEs and PBFs. Implementation of these measures is required as part of the proposed action, and any modifications or failure to implement these measures may require reinitiation of consultation.

L. Marine Mammals

I. The Marine Mammal Protection Act (MMPA) prohibits the taking (including disruption of behavior, entrapment, injury, or death) of all marine mammals (e.g., whales, dolphins, manatees). However, the MMPA allows limited exceptions to the take prohibition if authorized, such as the incidental (i.e., unintentional but not unexpected) take of marine mammals. The following questions are designed to allow the Agencies to quickly determine if your action has the potential to take marine mammals. If the information provided indicates that incidental take is possible, further discussion with the Agencies is required.

Is your activity occurring in or on marine or estuarine waters? ☒ YES ☐ NO

If yes, is your activity likely to cause large-scale, ecosystem level impacts to the quality (e.g. salinity, temperature) of marine or estuarine waters? ☐ YES ☒ NO

II. If Yes, describe activities further using checkboxes. Does your activity involve any of the following:

YES	NO	ACTIVITY
☐	☒	a) Use of active acoustic equipment (e.g., echosounder) producing sound below 200 kHz
☐	☒	b) In-water construction or demolition
☒	☐	c) Temporary or fixed use of active or passive sampling gear (e.g., nets, lines, traps; turtle relocation trawls)
☐	☒	d) In-water Explosive detonation
☐	☒	e) Aquaculture
☐	☒	f) Restoration of barrier islands, levee construction or similar projects
☐	☒	g) Fresh-water river diversions
☐	☒	h) Building or enhancing areas for water-related recreational use or fishing opportunities (e.g. fishing piers, bridges, boat ramps, marinas)
☐	☒	i) Dredging or in-water construction activities to change hydrologic conditions or connectivity, create breakwaters and living shorelines, etc.
☐	☒	j) Conducting driving of sheet piles or pilings
☐	☒	k) Use of floating pipeline during dredging activities

III. If you checked "Yes" to any of the activities immediately above or the activity could impact the quality of marine or estuarine waters, please describe the nature of the activities in more detail or indicate which section of the form already includes these descriptions. See the NOAA Acoustic Guidance for more information:

<http://www.nmfs.noaa.gov/pr/acoustics/faq.htm>

See Section F (Project Description) for detailed descriptions of sampling gear and deployment methods associated with monitoring activities. Activities are not expected to result in the take of marine mammals under the MMPA due to their short duration, limited spatial extent, and implementation of standard avoidance measures, including adherence to all applicable manatee protection conditions (e.g., idle/no-wake speeds, pre-activity monitoring, and cessation of work if animals are observed within the work area).

IV. *Frequently Recommended BMPs for marine mammals (manatees are covered in Section I above): This checklist provides standard BMPs recommended by NOAA. Please select any BMPs that will be implemented:*

☒	NMFS Southeast U.S. Marine Mammal and Sea Turtle Viewing Guidelines ⁴
☒	NMFS Protected Species Construction Conditions (2021) ⁵
☒	NMFS Measures for Reducing the Entrapment Risk to Protected Species (2012) ³
☒	NMFS Vessel Strike Avoidance Measures and Reporting for Mariners (2021) ³
☐	NMFS Reproducing and posting outreach signs: Dolphin Friendly Fishing Tips sign, Don't Feed Wild Dolphins sign ⁶

If not listed above, please describe any additional BMPs or conservation measures that may be implemented for

⁴ <https://www.fisheries.noaa.gov/topic/marine-life-viewing-guidelines>

⁵ <https://www.fisheries.noaa.gov/southeast/consultations/regulations-policies-and-guidance>

⁶ <https://www.fisheries.noaa.gov/southeast/consultations/protected-species-educational-signs>

marine mammals. N/A

M. Bald Eagles (Bald and Golden Eagle Protection Act)

Are bald eagles present in the action area? ☒ YES ☐ NO

Whether Bald Eagles are present or not, the following conservation measures should be implemented to protect eagles or in the case that previously unknown eagles are documented:

1. If bald eagle breeding or nesting behaviors are observed or a nest is discovered or known, all activities (e.g., walking, camping, clean-up, use of a UTV, ATV, or boat) should avoid the nest by a minimum of 660 feet. If the nest is protected by a vegetated buffer where there is *no* line of sight to the nest, then the minimum avoidance distance is 330 feet. This avoidance distance shall be maintained from the onset of breeding/courtship behaviors until any eggs have hatched and eaglets have fledged (approximately 6 months).
2. If a similar activity (e.g., driving on a roadway) is closer than 660 feet to a nest, then you may maintain a distance buffer as close to the nest as the existing tolerated activity.
3. If a vegetated buffer is present and there is no line of sight to the nest and a similar activity is closer than 330 feet to a nest, then you may maintain a distance buffer as close to the nest as the existing tolerated activity.
4. In some instances, activities conducted at a distance greater than 660 feet of a nest may result in disturbance. If an activity appears to cause initial disturbance, the activity shall stop and all individuals and equipment will be moved away until the eagles are no longer displaying disturbance behaviors.

Will you implement the above measures? ☒ YES ☐ NO

If these measures cannot be implemented, then you must contact the Service's Migratory Bird Permit Office.

Texas – (505) 248-7882 or by email: permitsR2MB@fws.gov

Louisiana, Mississippi, Alabama, Florida – (404) 679-7070 or by email: permitsR4MB@fws.gov

N. Migratory Bird Treaty Act

In accordance with the Migratory Bird Treaty Act of 1918 as amended (16 U.S.C. 703-712), will this project cause the take of any birds covered under this act? ☐ YES ☒ NO

If YES, please explain and indicate if the pertinent permits will be or have been obtained:

Project proponent will review the appropriate BMPs and CMs found at the following website and implement the appropriate measures to the extent practicable: <https://www.fws.gov/about-reducing-impacts-migratory-birds>

☒ YES ☐ NO

If NO, please explain:

O. Request Approval for Use of NMFS PDCs for This Project

Complete this section only if your project qualifies for streamlined ESA consultation under the ESA Framework Programmatic Biological Opinion completed by NMFS. [More information can be found on SharePoint.](#)

To be eligible for streamlined ESA consultation with NMFS, you must implement all Project Design Criteria (PDCs) applicable to your project. Check “yes” for PDC categories that apply to the proposed project, and [request PDC checklist from NMFS.](#)

Approval requested for the following categories (checklist must be filled out and verified): ☐ **Marsh Creation, Maintenance or Enhancement**

- ☐ **Living Shorelines Construction, Maintenance or Expansion**
- ☐ **Removal of Derelict Fishing Gear or Other Marine Debris**
- ☐ **Oyster Reef Creation, Maintenance or Enhancement**
- ☐ **Pile Supported Structures including Non-Fishing Piers, Anchored Buoys and In-water Signposts** ☐ **Artificial Reefs Construction, Maintenance or Expansion**
- ☐ **Boat Ramps Installation, Repair, Replacement or Removal**
- ☐ **Water-Management Outfall Structures and Associated Endwalls Installation, Replacement and Removal** ☐ **Establishing or Restoring SAV**
- ☒ **Scientific Surveys and Research Projects and the Installation, Repair or Removal of Equipment**

P. Submitting the BE Form

We request that all BE forms and consultation materials be uploaded to SharePoint for review. Once a draft is uploaded, send an email to each of the Compliance Coordinators with a link to the document(s). We will conduct a preliminary review and provide any comments and feedback, including any requests for modifications or additional information.

If modifications or additional information are necessary, we will work with you until the BE form is considered complete. Once complete, the proponent should make a PDF of the form and

upload it to SharePoint. We will use the Biological Evaluation form to initiate all appropriate consultations.

Section 106 of the National Historic Preservation Act review can be started by submitting the final version of the BE form to the online NHPA Submission Portal:

<https://www.fws.gov/doid/group/compliance-reviews/nhpa106project-submission-form>.

Questions may be directed to:

NMFS ESA § 7 Consultation

Christy Fellas, National Oceanic and Atmospheric Administration

Email: Christina.Fellas@noaa.gov

Phone: 727-551-5714

USFWS ESA § 7 Consultation

Michael Barron, Department of the Interior

Email: michael_barron@fws.gov

Phone: 251-421-7030

NHPA Consultation

Benjamin Frater, Department of the Interior

Email: benjamin_frater@fws.gov

Phone: 404-314-8815