Structural Removal 2021-092

To: Regional Environmental Officer, GOMR, Office of Environmental Compliance, Bureau of Safety and Environmental Enforcement (MS GE466 MS G)

From: Chief, Environmental Operations Section, Office of Environment, GOM OCS Region (MS GM881A)

Subject: National Environmental Policy Act Review of Fieldwood Energy Offshore, LLC's Structural Removal Application Number 2021-092

Our National Environmental Policy Act (NEPA) review of the subject action is complete and results in a recommendation that the proposed action be approved with a Finding of No Significant Impact (FONSI), conditioned as indicated below.

The Bureau of Ocean Energy Management (BOEM) has prepared a Site-Specific Environmental Assessment (SEA) (No. 2021-092) complying with the NEPA regulations under the Council on Environmental Quality (40 CFR § 1501.3 and § 1501.5), the United States Department of the Interior, NEPA implementing regulations (43 CFR § 46), and BOEM policy, which require an evaluation of proposed major federal actions, which under BOEM jurisdiction includes structure removal activity on the Outer Continental Shelf (OCS). We make the following recommendation to the Bureau of Safety and Environmental Enforcement (BSEE) in concordance with the Memorandum of Agreement between BOEM and BSEE regarding "*NEPA and Environmental Compliance*," dated October 1, 2018.

The Proposed Action: Fieldwood Energy Offshore, LLC (Fieldwood) proposes to remove Platform A in Vermilion Block 196, Lease OCS-G 19760, Complex ID 912-1, using explosive severance methods. Abrasives or mechanical cutting will be used as back-up. The structure is located at a water depth of 116 feet (ft) (35.4 meters (m)) and lies approximately 48.4 miles (77.9 kilometers) from the nearest Louisiana shoreline. Operations will be conducted from an onshore support base in Intercoastal City, Louisiana. The operator will remove all casing wellhead equipment and piling to a depth of at least 15 ft (4.6 m) below mud line. The piles and conductors will be severed using 80-200 lb. explosive charges. The maximum anchor radius employed by the lift vessel/derrick barge will be 5,000 ft (1,524 m). According to the operator, the structure will be removed because there is no further use (Fieldwood, 2021). Fieldwood proposes to conduct site clearance trawling over a survey grid designed to cover an area with a radius of 1,320 ft (402 m) from the center of the structure for site clearance verification.

Factors Considered in this Determination: The impact analysis for the proposed activity focused on the decommissioning activities, the site clearance activities, and the resources that may be potentially impacted. The impact producing factors (IPF) include: (1) noise/pressure-waves from explosive-severance charges; (2) emissions from decommissioning vessels/equipment; (3) vessel discharges and turbidity; (4) seafloor disturbances from mooring and trawling activities; (5) habitat loss (via removal of the facilities from the OCS); and (6) marine trash and debris.

In this SEA BOEM has considered three alternatives: (1) No Action, (2) Proposed Action as Submitted; and (3) the Proposed Action with Additional Conditions of Approval. BOEM has assessed the impacts of the proposed action on the following significant resources:

1) Marine mammals;
2) Sea turtles;
3) Fish resources and essential fish habitat;
4) Benthic resources; and
5) Archaeological resources.

Resources on the sea bottom could be disturbed if they were present, such as benthic biological communities and shipwrecks. Because direct contact is potentially the most disruptive potential impact for resources fixed or lying on the sea bottom, it is weighted most heavily out of all other potential impact factors. Impact significance levels are explained in **Chapter 3.1** of SEA 2021-092. Potential impacts from

the proposed activities to marine mammals and sea turtles have been mitigated to non-significance. Potential impacts to fish resources and essential fish habitat, archaeological resources, and benthic resources from the proposed activities were determined to be insignificant.

Alternatives and Conditions of Approval: In the SEA No. 2021-092 BOEM has considered three alternatives: (1) No Action; (2) Proposed Action as Submitted; and (3) Proposed Action with Additional Conditions of Approval. Our evaluation in this SEA recommends Alternative 3 and serves as the basis for approving the proposed action. BOEM concludes that no significant impacts are expected to occur to any affected resource by allowing the proposed action to proceed, provided that the specific conditions of approval identified below are met by the operator.

- **EXPLOSIVE-SEVERANCE MITIGATION PACKAGE SW-4:** The operator is proposing explosive-severance activities that are covered under Explosive-Severance Mitigation Package SW-4. Detailed pre- and post-detonation mitigation(s) requirements can be found in Appendix A of this SEA.

- **FISH (STRUCTURE REMOVALS USING EXPLOSIVES):** Under the Magnuson-Stevens Fisheries Conservation and Management Act, 50 CFR § 600.725 prohibits the use of explosives to take reef fish in the Exclusive Economic Zone. Consequently, those involved in explosive structure removals must not take such stunned or killed fish on board their vessels. Should this happen, they could be charged by the National Marine Fisheries Service (NMFS) with violation of the Act. If you have questions, contact NMFS at (727) 824-5344.

- **PROGRESSIVE-TRANSPORT/"HOPPING" (STRUCTURE REMOVALS):** In accordance with OCSLA requirements (30 CFR § 250.1727(g)), if at any point in your decommissioning schedule progressive-transport/"hopping" activities are required to section your jacket assembly or support material barge loading, a prior written request must be submitted, and approval must be obtained from the Regional Supervisor/Field Operations. Your request to use progressive-transport must include a detailed procedural narrative and separate location plat for each "set-down" site, showing pipelines, anchor patterns for the derrick barge, and any known archaeological and/or potentially sensitive biological features. The diagram/map of the route to be taken from the initial structure location along the transport path to each site must also be submitted with your request. If the block(s) that you intend to use as "set-down" sites have not been surveyed as per NTL No. 2009-G39 and NTL No. 2005-G07, you may be required to conduct the necessary surveys/reporting prior to mobilizing on site and conducting any seafloor-disturbing activities.

- **ARCHAEOLOGICAL RESOURCE REPORTING DURING SITE-CLEARANCE:** Per 30 CFR 250.194(c) and clarified in NTL No. 2005-G07, if during site clearance operations you discover any object of potential archaeological significance you are required to immediately halt operations. In addition, you must immediately report this discovery to the BSEE Office of Environmental Compliance (Env-Compliance-Arc@bsee.gov) and contact BSEE FPO at (504) 736-2950. Additional guidance will be provided to the operator as to what steps will be needed to protect any potential submerged archaeological resources. Additionally, as specified under 30 CFR 250.1743:

  - If using trawls to verify site clearance, you are required to provide the trawling logs for both heavy-duty nets and verification nets with descriptions of each item recovered. Should you only pull site clearance verification nets, please clearly state this within the body of the Site Clearance Report. In addition, provide ALL vessel logs related to vessels that were used to recover items during site clearance operations (e.g., anchor handling vessels, lift boats, dive support vessels, tugboats, etc.). If you did not use any vessels to recover items, please clearly state this within the body of the Site Clearance Report.

  - With your Site Clearance Report you are also required to provide a CD or DVD of all digital photographs of the items recovered during the use of the heavy-duty trawl nets, site clearance verification trawl nets, diver recovery, and any other methods used. Each photograph must be of appropriate scale and size so that individual items can be identified. All photographs of recovered items must also correspond with the items recovered and listed on individual lines within the logs. In addition, when you submit your photographs, you should label each photograph file name so that it represents the individual trawl line from which the items were recovered.

- **SITE-CLEARANCE TRAWLING REPORTING:** If trawling is used to comply with the site-clearance verification requirements under 30 CFR §§ 250.1740-1743 which mandates that turtle excluder devices (TED) be removed from the trawl nets to facilitate the collection of seabed debris, you must abide by maximum trawl times of 30 minutes, allowing for the removal of any captured sea turtles. If during your trawling activities, you capture a sea turtle in your nets, you must:

    1. Contact BSEE's Office of Environmental Compliance (OEC) at protectedspecies@bsee.gov and NMFS' Southeast Regional Office (SERO) at takereport.nmfsser@noaa.gov immediately;

    2. Resuscitate and release any captured sea turtles as per NMFS' guidelines found online at ftp://ftp.library.noaa.gov/noaa_documents.lib/NMFS/SEFSC/TM_NMFS_SEFSC/NMFS_SEFSC_TM_580.pdf (see page 3-6; Plate 3-1); and

    3. Photograph the turtle and complete a sea turtle stranding form for each sea turtle caught in your nets. The form can be found at: https://www.sefsc.noaa.gov/species/turtles/strandings.htm and submit to NMFS and BSEE (to the email addresses noted above).

- **COMPLIANCE WITH BIOLOGICAL OPINION TERMS AND CONDITIONS AND REASONABLE AND PRUDENT MEASURES:** This approval is conditioned upon compliance with the Reasonable and Prudent Measures and implementing Terms and Conditions of the Biological Opinion issued by the National Marine Fisheries Service on March 13, 2020 and the amendment issued on April 26, 2021. This includes mitigation, particularly any appendices to Terms and Conditions applicable to the plan, as well as record-keeping and reporting sufficient to allow BOEM and BSEE to comply with reporting and monitoring requirements under the BiOp; and any additional reporting required by BOEM or BSEE developed as a result of BiOp implementation. The NMFS Biological Opinion may be found here: (https://www.fisheries.noaa.gov/resource/document/biological-opinion-federally-regulated-oil-and-gas-program-activities-gulf-mexico). The amendment can be found here: https://repository.library.noaa.gov/view/noaa/29355. The Appendices and protocols may be found here: (https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico). The amendment provided updates to Appendices A, C and I which may be found here: https://repository.library.noaa.gov/view/noaa/29355.

- **SUPPORT BASES AND VESSEL TRANSIT ROUTES:** Approval of your permit is conditioned upon your use of the support bases and vessel transit routes as described in your plan. BOEM/BSEE must be notified at least 15 days prior to any vessel route changes that require transit of the Bryde's Whale area, and you must receive prior approval for that transit from BOEM/BSEE.

- **MARINE TRASH AND DEBRIS AWARENESS AND ELIMINATION:** The applicant will follow the protocols provided under Appendix B. Gulf of Mexico Marine Trash and Debris Awareness and Elimination Survey Protocols found in the Biological Opinion issued by the National Marine Fisheries Service on March 13, 2020. The protocols can be accessed on NOAA Fisheries internet website at https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico.

- **VESSEL-STRIKE AVOIDANCE/REPORTING**: The applicant will follow the protocols provided under Appendix C. Gulf of Mexico Vessel Strike Avoidance and Injured/Dead Aquatic Protected Species Reporting Protocols found in the Biological Opinion amendment issued by the National Marine Fisheries Service on April 26, 2021. The guidance can be accessed on the NOAA Fisheries internet site at https://repository.library.noaa.gov/view/noaa/29355.

- **SEA TURTLE RESUSCITATION GUIDELINES:** The applicant will follow the guidance provided under Appendix J. Sea Turtle Handling and Resuscitation Guidelines found in the Biological Opinion issued by the National Marine Fisheries Service on March 13, 2020. The guidance can be accessed on the NOAA Fisheries internet site at https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico.

- **SLACK-LINE PRECAUTIONS CONDITION OF APPROVAL**: If operations require the use of flexible, small diameter (< 2 inch) lines to support operations (with or without divers), operators/contractors

must reduce the slack in the lines, except for human safety considerations, to prevent accidental entanglement of protected species (i.e. species protected under the Endangered Species Act [ESA] and/or Marine Mammal Protection Act [MMPA]). This requirement includes tether lines attached to remotely operated equipment. The requirements below must be followed for any activities entailing use of flexible, small diameter lines that will not remain continuously taut, except when complying with these requirements would put the safety of divers, crew or the vessel at risk:

- Operators must utilize tensioning tools and/or other appropriate procedures to reduce unnecessary looseness in the lines and/or potential looping;
- The lines must remain taut, as long as additional safety risks are not created by this action;
- A line tender must be present at all times during dive operations and must monitor the line(s) the entire time a diver is in the water; and
- Should the line tender and/or diver become aware of an entanglement of an individual protected species, the reporting requirements described in the *Reporting Requirements* COA must be followed as soon as safety permits.

- **REPORTING REQUIREMENTS CONDITION OF APPROVAL:** Review of your proposed activities identified use of equipment that has the potential for entanglement and/or entrapment of protected species (i.e. species protected under the Endangered Species Act [ESA] and/or Marine Mammal Protection Act [MMPA]) that could be present during operations. In case of entrapment, procedures and measures for reporting are dependent upon the situation at hand. **These requirements replace those specific to dead and injured species reporting in respective sections of Appendix A (insofar as they relate to geophysical surveys) and Appendix C of the 2020 Biological Opinion on the Bureau of Ocean Energy Management's Oil and Gas Program Activities in the Gulf of Mexico**.

  *Incidents Requiring **Immediate** Reporting*

  Certain scenarios or incidents require immediate reporting to Federal agencies; these are described below:

  Should any of the following occur at any time, **immediate reporting** of the incident is required after personnel and/or diver safety is ensured:

  - Entanglement or entrapment of a protected species (i.e., an animal is entangled in a line or cannot or does not leave a moon pool of its own volition).
  - Injury of a protected species (e.g., the animal appears injured or lethargic). Interaction, or contact with equipment by a protected species.
  - Any observation of a leatherback sea turtle within a moon pool (regardless of whether it appears injured, or an interaction with equipment or entanglement/entrapment is observed).

  1. As soon as personnel and/or diver safety is ensured, report the incident to National Marine Fisheries Service (NMFS) by contacting the appropriate expert for 24-hr response. If you do not receive an immediate response, you must keep trying until contact is made. Any failed attempts should be documented. Contact information for reporting is as follows:

     a. **Marine mammals**: contact **Southeast Region's Marine Mammal Stranding Hotline at 1-877-433-8299.**

     b. **Sea turtles**: contact **Brian Stacy, Veterinary Medical Officer at 352-283- 3370**. If unable to reach Brian Stacy, contact Lyndsey Howell at (301) 310 - 3061. This includes the immediate reporting of **any observation of a leatherback sea turtle within a moon pool.**

     c. Other protected species (e.g., giant manta ray, oceanic whitetip shark, or Gulf sturgeon): contact the **ESA Section 7 biologist at 301-427-8413 (nmfs.psoreview@noaa.gov)** and report all incidents to takereport.nmfs@noaa.gov

     d. Minimum reporting information is described below:

i. Time, date, water depth, and location (latitude/longitude) of the first discovery of the animal;

ii. Name, type, and call sign of the vessel in which the event occurred;

iii. Equipment being utilized at time of observation;

iv. Species identification (if known) or description of the animal involved;

v. Approximate size of animal;

vi. Condition of the animal during the event and any observed injury/behavior;

vii. Photographs or video footage of the animal, only if able; and

viii. General narrative and timeline describing the events that took place.

2. After the appropriate contact(s) have been made for guidance/assistance as described in 1 above, you may call BSEE at 985-722-7902 (24 hours/day) for questions or additional guidance on recovery assistance needs (if still required) and continued monitoring requirements. You may also contact this number if you do not receive a timely response from the appropriate contact(s) listed in 1. above.

   a. Minimum post-incident reporting includes all information described above (under 1.d.i-viii) in addition to the following:

      i. NMFS liaison or stranding hotline that was contacted for assistance;

      ii. For moon pool observations or interactions:

      iii. Size and location of moon pool within vessel (e.g., hull door or no hull door);

      iv. Whether activities in the moon pool were halted or changed upon observation of the animal; and

      v. Whether the animal remains in the pool at the time of the report, or if not, the time/date the animal was last observed.

Reporting of Observations of Protected Species within an Enclosed Moon Pool

If a protected species is observed within an enclosed moon pool and does not demonstrate any signs of distress or injury or an inability to leave the moon pool of its own volition, measures described in this section must be followed (only in cases where they do not jeopardize human safety). Although this particular situation may not require immediate assistance and reporting as described under *Incidents Requiring Immediate Reporting* (see above), a protected species could potentially become disoriented with their surroundings and may not be able to leave the enclosed moon pool of their own volition. In order for operations requiring use of a moon pool to continue, the following reporting measures must be followed:

Within 24 hours of any observation, and daily after that for as long as an individual protected species remains within a moon pool (i.e., in cases where an ESA listed species has entered a moon pool but entrapment or injury has not been observed), the following information must be reported to BSEE (protectedspecies@bsee.gov) and BOEM (protectedspecies@boem.gov):

1. For an initial report, all information described under 1.d.i-viii above should be included.

2. For subsequent daily reports:

   a. Describe the animal's status to include external body condition (e.g., note any injuries or noticeable features), behaviors (e.g., floating at surface, chasing fish, diving, lethargic, etc.), and movement (e.g., has the animal left the moon pool and returned on multiple occasions?);

   b. Description of current moon pool activities, if the animal is in the moon pool (e.g., drilling, preparation for demobilization, etc.);

c. Description of planned activities in the immediate future related to vessel movement or deployment of equipment;

d. Any additional photographs or video footage of the animal, if possible;

e. Guidance received and followed from NMFS liaison or stranding hotline that was contacted for assistance;

f. Whether activities in the moon pool were halted or changed upon observation of the animal; and

g. Whether the animal remains in the pool at the time of the report, or if not, the time/date the animal was last observed.

Conclusion: BOEM has evaluated the potential environmental impacts of the proposed action. Based on the SEA No. 2021-092, we conclude that the proposed action would have no significant impact on the environment provided that the avoidance measures required by the specific conditions of approval are met by the operator. An Environmental Impact Statement is not required.

PERRY BOUDREAUX

Digitally signed by PERRY BOUDREAUX
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January 7, 2022
Date

Chief, Environmental Operations Section
Office of Environment
Gulf of Mexico Regional Office
Bureau of Ocean Energy Management

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF OCEAN ENERGY MANAGEMENT
GULF OF MEXICO OCS REGION
NEW ORLEANS, LOUISIANA

SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT

OF

STRUCTURE-REMOVAL APPLICATION ES/SR NO. 2021-092

FOR

Fieldwood Energy Offshore, LLC

IN

Vermilion Block 196
Lease OCS-G 19760
Complex ID 912-1

Date Submitted: December 2, 2021
Commencement Date: May, 2022

RELATED ENVIRONMENTAL DOCUMENTS

Programmatic Environmental Assessment for Structure-Removal Operations
on the Gulf of Mexico Outer Continental Shelf (OCS EIS/EA MMS 2005-013)

Final Environmental Impact Statement for Gulf of Mexico OCS Oil and Gas Lease Sales: 2017-2022;
Gulf of Mexico Lease Sales 249, 250, 251, 252, 253, 254, 256, 257, 259, and 261
(OCS EIS/EA BOEM 2017-009)

Gulf of Mexico OCS Lease Sale
Final Supplemental Environmental Impact Statement 2018
(OCS EIS/EA BOEM 2017-074)

Biological Opinion of the Federally Regulated Oil and Gas Program Activities in the Gulf of Mexico
(NMFS March 13, 2020)

Amended Incidental Take Statement and Revised Appendices to the Programmatic Biological Opinion
on the Gulf of Mexico Oil and Gas Program
(NMFS April 26, 2021)

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1. PROPOSED ACTION

The purpose of this Site-Specific Environmental Assessment (SEA) is to assess if the specific impacts associated with proposed decommissioning activities, outlined in ES/SR 2021-092 initially submitted by Fieldwood Energy Offshore, LLC (Fieldwood) on December 2, 2021, will significantly affect the quality of the human, coastal, and marine environments within the meaning of Section 102(2)(c) of the National Environmental Policy Act (NEPA) and whether an Environmental Impact Statement (EIS) must be prepared. Fieldwood proposes to remove Platform A from Vermilion Block 196 in the Central Planning Area safely and with minimal degradation to the environment while adhering to the Outer Continental Shelf Lands Act (OCSLA) regulations, binding lease agreements, and other enforceable OCS-related laws.

This SEA tiers from several National Environmental Policy Act (NEPA) documents which evaluated a broad spectrum of potential impacts resulting from decommissioning activities across the Eastern, Central, and Western Planning Areas of the Gulf of Mexico (GOM) Outer Continental Shelf (OCS):

- Structure-Removal Operations on the Gulf of Mexico Outer Continental Shelf: Final Programmatic Environmental Assessment (PEA) (USDOI, MMS, 2005);
- Gulf of Mexico OCS Oil and Gas Lease Sales: 2017-2022; Gulf of Mexico Lease Sales 249, 250, 251, 252, 253, 254, 256, 257, 259, and 261; Final Environmental Impact Statement (Multisale EIS) (USDOI, BOEM, 2017a);
- Gulf of Mexico OCS Lease Sale Final Supplemental Environmental Impact Statement 2018 (2018 SEIS) (USDOI, BOEM, 2017b);
- Biological Opinion on the Federally Regulated Oil and Gas Program Activities in the Gulf of Mexico (NMFS 2020 BO) (Issued by National Marine Fisheries Service [NMFS] March 13, 2020); and
- Amended Incidental Take Statement and Revised Appendices to the Programmatic Biological Opinion on the Gulf of Mexico Oil and Gas Program (NMFS 2021 Amended ITS) (Issued by NMFS April 26, 2021).

"Tiering" provided for in the NEPA implementing regulations (40 CFR 1501.11) is designed to reduce and simplify the scope of subsequent environmental analyses. Tiering is also subject to additional guidance under the United States Department of the Interior (DOI) regulations at 43 CFR § 46.140. Under the DOI regulation the site-specific analysis must note the conditions and effects addressed in the programmatic document that remain valid and which conditions and effects require additional review.

Chapter 3 of this SEA will focus on information including a brief discussion of the known effects on analyzed resources related to the environmental effects of this action. Where applicable, relevant affected environment discussions and impact analyses from the PEA, the Multisale EIS, and 2018 SEIS are summarized and utilized for these site-specific analyses and are incorporated by reference into this SEA. Relevant conditions of approval identified in the PEA, Multisale EIS, 2018 SEIS, NMFS 2020 BO, and NMFS 2021 Amended ITS have been considered in the evaluation of the proposed action.

1.1. BACKGROUND

BOEM and the Bureau of Safety and Environmental Enforcement (BSEE) are mandated to manage the orderly leasing, exploration, and development of OCS oil, gas, and mineral resources while ensuring safe operations and the protection of the human, coastal, and marine environments. One purpose of BOEM's regulatory program is to ensure adequate environmental reviews are conducted on all decommissioning proposals that would help support health and safety while simultaneously protecting the sensitive marine environment.

During every stage of exploration, development, and production of oil, gas, and mineral (sulfur) operations, structures are set on or into the seafloor to:

- Aid with and/or facilitate well operations and protection;
- Emplace drilling and production platforms and vessel moorings;
- Install pipelines; and
- Deploy subsea equipment.

To satisfy the regulatory requirements and lease agreements for the eventual removal of these structures, decommissioning operations employ a wide range of activities that oversee any topsides removal (decking and structure above the waterline), seafloor severing, component lifting and loading, site-clearance verification work, and final transportation of the structure back to shore for salvage or to an alternate OCS site for reuse or reefing.

The scope of the effects on GOM resources from activities proposed in Fieldwood's ES/SR application, 2021-092, were fully discussed and analyzed in the PEA. Neither the specific location, equipment, nor the duration of this proposal will result in impacts different from those discussed in the PEA, the Multisale EIS, 2018 SEIS, and NMFS 2020 BO prepared since that time.

1.2. Purpose and Need for the Proposed Action

The purpose of the proposed action is to sever and remove all objects from the seafloor safely and with minimal degradation to the environment while adhering to the decommissioning guidelines of the OCSLA regulations, binding lease agreements, and other enforceable OCS-related laws. The proposed action also serves a secondary purpose for BOEM by providing measures to ensure that nothing will be exposed on the seafloor after a decommissioning that could interfere with navigation, commercial fisheries, future oil and gas operations, or other OCS uses (marine minerals) in the area.

The proposed action is needed to allow Fieldwood to comply with OCSLA regulations (30 CFR § 250.1703 and § 250.1725); wherein, operators are required to remove their facilities and associated seafloor obstructions from their leases within one year of lease termination or after a structure has been deemed obsolete or unusable. These regulations also require the operator to sever bottom-founded objects and their related components at least 15 feet (ft) (4.6 meters (m)) below the mudline (BML) (30 § 250.1728(a)). A discussion of the other legal and regulatory mandates to remove abandoned oil and gas structures from Federal waters can be found in the PEA.

In response to the proposed action in Fieldwood's application, BOEM has regulatory responsibility, consistent with the OCSLA and other applicable laws, to recommend to BSEE to approve, approve with modifications or conditions of approval, or deny the application. BOEM's regulations provide criteria that BOEM will apply in reaching a decision and providing for any applicable conditions of approval.

1.3. Description of the Proposed Action

Fieldwood proposes to remove Platform A in Vermilion Block 196, Lease OCS-G 19760, Complex ID 912-1, using explosive severance methods. Abrasive or mechanical cutting will be used as back up. The structure is located at a water depth of 116 ft (35.4 m) and lies approximately 48.4 miles (77.9 kilometers) from the nearest Louisiana shoreline. Operations will be conducted from an onshore support base in Intercoastal City, Louisiana. The operator will remove all casing wellhead equipment and piling to a depth of at least 15 ft (4.6 m) BML. The piles and conductors will be severed using 80-200 lb. explosive charges. The maximum anchor radius employed by the lift vessel/derrick barge will be 5,000 ft (1,524 m). Fieldwood's decommissioning permit application includes additional information about the proposed activities and is incorporated herein by reference. According to the operator, the structure will be removed because there is no further use (Fieldwood, 2021). Fieldwood proposes to conduct site clearance trawling over a survey grid designed to cover an area with a radius of 1,320 ft (402 m) from the center of the structure for site clearance verification.

2. ALTERNATIVES CONSIDERED

2.1. The No Action Alternative

Alternative 1— If selected, the operator would not undertake the proposed activities. If the proposed activities are not undertaken, all environmental impacts, including routine and accidental would not occur, and there would be no contribution to cumulative impacts to the environmental and cultural resources described in the PEA, Multisale EIS, 2018 SEIS, NMFS 2020 BO, NMFS 2021 Amended ITS, and this SEA.

2.2. THE PROPOSED ACTION AS SUBMITTED

Alternative 2— If selected, the operator would undertake the proposed activities as requested in their plan. This alternative assumes that the operator will conduct their operations in accordance with their lease stipulations, the OCSLA and all applicable regulations (as per 30 CFR § 550.101(a)), and guidance provided in all appropriate NTLs (as per 30 CFR § 550.103). However, no additional, site-specific conditions of approval would be required by BOEM.

2.3. THE PROPOSED ACTION WITH ADDITIONAL CONDITIONS OF APPROVAL

Alternative 3—This is BOEM's *Preferred Alternative* — If selected, the operator would undertake the proposed activity, as requested and conditioned by stipulations, regulations, and guidance (similar to Alternative 2); however, BOEM would require the operator to undertake additional conditions of approval as identified by BOEM in accordance with NMFS and in accordance with the NMFS 2020 BO and NMFS 2021 Amended ITS (listed in **Chapter 2.4** below and described in the effects analyses) in order to fully address the potential site and project specific impacts of the proposed action.

2.4. SUMMARY AND COMPARISON OF THE ALTERNATIVES

Alternative 1, the No Action Alternative, would prevent the timely removal of obsolete or abandoned structures within a period of one year after termination of the lease or upon termination of a right-of-use and easement. Alternative 1 would not result in any impacts to the environmental resources analyzed in **Chapter 3**, but it does not meet the underlying purpose and need.

Alternative 2 would allow for the removal of obsolete or abandoned structures but would not include any conditions of approval or monitoring measures beyond what was stated in the application. However, BOEM has determined that additional conditions of approval are needed to minimize or negate possible environmental impacts.

Alternative 3 is the Preferred Alternative, based on the analysis of potential impacts to resources described in **Chapter 3**, because it meets the underlying purpose and need and also implements conditions of approval and monitoring requirements (described directly below) that adequately limit or negate potential impacts.

Protective Measures Required under the Preferred Alternative

The need for, and utility of, the following protective measures are discussed in the relevant impact analysis chapters of this SEA. The following protective measures and reporting requirements were identified to ensure adequate environmental protection:

- **EXPLOSIVE-SEVERANCE MITIGATION PACKAGE SW-4:** The operator is proposing explosive-severance activities that are covered under Explosive-Severance Mitigation Package SW-4. Detailed pre- and post-detonation mitigation(s) requirements can be found in Appendix A of this SEA.
- **FISH (STRUCTURE REMOVALS USING EXPLOSIVES):** Under the Magnuson-Stevens Fisheries Conservation and Management Act, 50 CFR § 600.725 prohibits the use of explosives to take reef fish in the Exclusive Economic Zone. Consequently, those involved in explosive structure removals must not take such stunned or killed fish on board their vessels. Should this happen, they could be charged by the National Marine Fisheries Service (NMFS) with violation of the Act. If you have questions, contact NMFS at (727) 824-5344.
- **PROGRESSIVE-TRANSPORT/"HOPPING" (STRUCTURE REMOVALS):** In accordance with OCSLA requirements (30 CFR § 250.1727(g)), if at any point in your decommissioning schedule progressive-transport/"hopping" activities are required to section your jacket assembly or support material barge loading, a prior written request must be submitted, and approval must be obtained from the Regional Supervisor/Field Operations. Your request to use progressive-transport must include a detailed procedural narrative and separate location plat for each "set-down" site, showing pipelines, anchor patterns for the derrick barge, and any known archaeological and/or potentially sensitive biological features. The diagram/map of the route to be taken from the initial structure location along the transport path to each site must also be submitted with your request. If the

block(s) that you intend to use as "set-down" sites have not been surveyed as per NTL No. 2009-G39 and NTL No. 2005-G07, you may be required to conduct the necessary surveys/reporting prior to mobilizing on site and conducting any seafloor-disturbing activities.

- **ARCHAEOLOGICAL RESOURCE REPORTING DURING SITE-CLEARANCE:** Per 30 CFR 250.194(c) and clarified in NTL No. 2005-G07, if during site clearance operations you discover any object of potential archaeological significance you are required to immediately halt operations. In addition, you must immediately report this discovery to the BSEE Office of Environmental Compliance (Env-Compliance-Arc@bsee.gov) and contact BSEE FPO at (504) 736-2950. Additional guidance will be provided to the operator as to what steps will be needed to protect any potential submerged archaeological resources. Additionally, as specified under 30 CFR 250.1743:

  - If using trawls to verify site clearance, you are required to provide the trawling logs for both heavy-duty nets and verification nets with descriptions of each item recovered. Should you only pull site clearance verification nets, please clearly state this within the body of the Site Clearance Report. In addition, provide ALL vessel logs related to vessels that were used to recover items during site clearance operations (e.g., anchor handling vessels, lift boats, dive support vessels, tugboats, etc.). If you did not use any vessels to recover items, please clearly state this within the body of the Site Clearance Report.

  - With your Site Clearance Report you are also required to provide a CD or DVD of all digital photographs of the items recovered during the use of the heavy-duty trawl nets, site clearance verification trawl nets, diver recovery, and any other methods used. Each photograph must be of appropriate scale and size so that individual items can be identified. All photographs of recovered items must also correspond with the items recovered and listed on individual lines within the logs. In addition, when you submit your photographs, you should label each photograph file name so that it represents the individual trawl line from which the items were recovered.

- **SITE-CLEARANCE TRAWLING REPORTING**: If trawling is used to comply with the site-clearance verification requirements under 30 CFR §§ 250.1740-1743, which mandates that turtle excluder devices (TED) be removed from the trawl nets to facilitate the collection of seabed debris, you must abide by maximum trawl times of 30 minutes, allowing for the removal of any captured sea turtles. If during your trawling activities, you capture a sea turtle in your nets, you must:

  1. Contact BSEE's Office of Environmental Compliance (OEC) at protectedspecies@bsee.gov and NMFS' Southeast Regional Office (SERO) at takereport.nmfsser@noaa.gov immediately;
  2. Resuscitate and release any captured sea turtles as per NMFS' guidelines found online at ftp://ftp.library.noaa.gov/noaa_documents.lib/NMFS/SEFSC/TM_NMFS_SEFSC/NMFS_SEFSC_TM_580.pdf (see page 3-6; Plate 3-1); and
  3. Photograph the turtle and complete a sea turtle stranding form for each sea turtle caught in your nets. The form can be found at: https://www.sefsc.noaa.gov/species/turtles/strandings.htm and submit to NMFS and BSEE (to the email addresses noted above).

- **COMPLIANCE WITH BIOLOGICAL OPINION TERMS AND CONDITIONS AND REASONABLE AND PRUDENT MEASURES:** This approval is conditioned upon compliance with the Reasonable and Prudent Measures and implementing Terms and Conditions of the Biological Opinion issued by the National Marine Fisheries Service on March 13, 2020 and the amendment issued on April 26, 2021. This includes mitigation, particularly any appendices to Terms and Conditions applicable to the plan, as well as record-keeping and reporting sufficient to allow BOEM and BSEE to comply with reporting and monitoring requirements under the BiOp; and any additional reporting required by BOEM or BSEE developed as a result of BiOp implementation. The NMFS Biological Opinion may be found here: (https://www.fisheries.noaa.gov/resource/document/biological-opinion-federally-regulated-oil-and-gas-program-activities-gulf-mexico). The amendment can be found here: https://repository.library.noaa.gov/view/noaa/29355. The Appendices and protocols may be found here: (https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico). The amendment provided updates to

Appendices A, C and I which may be found here: https://repository.library.noaa.gov/view/noaa/29355.

- **SUPPORT BASES AND VESSEL TRANSIT ROUTES:** Approval of your permit is conditioned upon your use of the support bases and vessel transit routes as described in your plan. BOEM/BSEE must be notified at least 15 days prior to any vessel route changes that require transit of the Bryde's Whale area, and you must receive prior approval for that transit from BOEM/BSEE.

- **MARINE TRASH AND DEBRIS AWARENESS AND ELIMINATION:** The applicant will follow the protocols provided under Appendix B. Gulf of Mexico Marine Trash and Debris Awareness and Elimination Survey Protocols found in the Biological Opinion issued by the National Marine Fisheries Service on March 13, 2020. The protocols can be accessed on NOAA Fisheries internet website at https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico.

- **VESSEL-STRIKE AVOIDANCE/REPORTING**: The applicant will follow the protocols provided under Appendix C. Gulf of Mexico Vessel Strike Avoidance and Injured/Dead Aquatic Protected Species Reporting Protocols found in the Biological Opinion amendment issued by the National Marine Fisheries Service on April 26, 2021. The guidance can be accessed on the NOAA Fisheries internet site at https://repository.library.noaa.gov/view/noaa/29355.

- **SEA TURTLE RESUSCITATION GUIDELINES:** The applicant will follow the guidance provided under Appendix J. Sea Turtle Handling and Resuscitation Guidelines found in the Biological Opinion issued by the National Marine Fisheries Service on March 13, 2020. The guidance can be accessed on the NOAA Fisheries internet site at https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico.

- **SLACK-LINE PRECAUTIONS CONDITION OF APPROVAL:** If operations require the use of flexible, small diameter (< 2 inch) lines to support operations (with or without divers), operators/contractors must reduce the slack in the lines, except for human safety considerations, to prevent accidental entanglement of protected species (i.e., species protected under the Endangered Species Act [ESA] and/or Marine Mammal Protection Act [MMPA]). This requirement includes tether lines attached to remotely operated equipment. The requirements below must be followed for any activities entailing use of flexible, small diameter lines that will not remain continuously taut, except when complying with these requirements would put the safety of divers, crew or the vessel at risk:

    - Operators must utilize tensioning tools and/or other appropriate procedures to reduce unnecessary looseness in the lines and/or potential looping;
    - The lines must remain taut, as long as additional safety risks are not created by this action;
    - A line tender must be present at all times during dive operations and must monitor the line(s) the entire time a diver is in the water; and
    - Should the line tender and/or diver become aware of an entanglement of an individual protected species, the reporting requirements described in the *Reporting Requirements* COA must be followed as soon as safety permits.

- **REPORTING REQUIREMENTS CONDITION OF APPROVAL:** Review of your proposed activities identified use of equipment that has the potential for entanglement and/or entrapment of protected species (i.e. species protected under the Endangered Species Act [ESA] and/or Marine Mammal Protection Act [MMPA]) that could be present during operations. In case of entrapment, procedures and measures for reporting are dependent upon the situation at hand. **These requirements replace those specific to dead and injured species reporting in respective sections of Appendix A (insofar as they relate to geophysical surveys) and Appendix C of the 2020 Biological Opinion on the Bureau of Ocean Energy Management's Oil and Gas Program Activities in the Gulf of Mexico**.

  *Incidents Requiring **Immediate** Reporting*

Certain scenarios or incidents require immediate reporting to Federal agencies; these are described below:

Should any of the following occur at any time, **immediate reporting** of the incident is required after personnel and/or diver safety is ensured:

- Entanglement or entrapment of a protected species (i.e., an animal is entangled in a line or cannot or does not leave a moon pool of its own volition).
- Injury of a protected species (e.g., the animal appears injured or lethargic). Interaction, or contact with equipment by a protected species.
- Any observation of a leatherback sea turtle within a moon pool (regardless of whether it appears injured, or an interaction with equipment or entanglement/entrapment is observed).

1. As soon as personnel and/or diver safety is ensured, report the incident to National Marine Fisheries Service (NMFS) by contacting the appropriate expert for 24-hr response. If you do not receive an immediate response, you must keep trying until contact is made. Any failed attempts should be documented. Contact information for reporting is as follows:

   a. **Marine mammals**: contact **Southeast Region's Marine Mammal Stranding Hotline at 1-877-433-8299.**

   b. **Sea turtles**: contact **Brian Stacy, Veterinary Medical Officer at 352-283- 3370**. If unable to reach Brian Stacy, contact Lyndsey Howell at (301) 310-3061. This includes the immediate reporting of **any observation of a leatherback sea turtle within a moon pool.**

   c. Other protected species (e.g., giant manta ray, oceanic whitetip shark, or Gulf sturgeon): contact the **ESA Section 7 biologist at 301-427-8413 (nmfs.psoreview@noaa.gov)** and report all incidents to takereport.nmfs@noaa.gov

   d. Minimum reporting information is described below:

      i. Time, date, water depth, and location (latitude/longitude) of the first discovery of the animal;

      ii. Name, type, and call sign of the vessel in which the event occurred;

      iii. Equipment being utilized at time of observation;

      iv. Species identification (if known) or description of the animal involved;

      v. Approximate size of animal;

      vi. Condition of the animal during the event and any observed injury / behavior;

      vii. Photographs or video footage of the animal, only if able; and

      viii. General narrative and timeline describing the events that took place.

2. After the appropriate contact(s) have been made for guidance/assistance as described in 1 above, you may call BSEE at 985-722-7902 (24 hours/day) for questions or additional guidance on recovery assistance needs (if still required) and continued monitoring requirements. You may also contact this number if you do not receive a timely response from the appropriate contact(s) listed in 1. above.

   a. Minimum post-incident reporting includes all information described above (under 1.d.i-viii) in addition to the following:

      i. NMFS liaison or stranding hotline that was contacted for assistance;

      ii. For moon pool observations or interactions:

      iii. Size and location of moon pool within vessel (e.g., hull door or no hull door);

      iv. Whether activities in the moon pool were halted or changed upon observation of the animal; and

v. Whether the animal remains in the pool at the time of the report, or if not, the time/date the animal was last observed.

Reporting of Observations of Protected Species within an Enclosed Moon Pool

If a protected species is observed within an enclosed moon pool and does not demonstrate any signs of distress or injury or an inability to leave the moon pool of its own volition, measures described in this section must be followed (only in cases where they do not jeopardize human safety). Although this particular situation may not require immediate assistance and reporting as described under *Incidents Requiring Immediate Reporting* (see above), a protected species could potentially become disoriented with their surroundings and may not be able to leave the enclosed moon pool of their own volition. In order for operations requiring use of a moon pool to continue, the following reporting measures must be followed:

Within 24 hours of any observation, and daily after that for as long as an individual protected species remains within a moon pool (i.e., in cases where an ESA listed species has entered a moon pool but entrapment or injury has not been observed), the following information must be reported to BSEE (protectedspecies@bsee.gov) and BOEM (protectedspecies@boem.gov):

1. For an initial report, all information described under 1.d.i-viii above should be included.
2. For subsequent daily reports:
   a. Describe the animal's status to include external body condition (e.g., note any injuries or noticeable features), behaviors (e.g., floating at surface, chasing fish, diving, lethargic, etc.), and movement (e.g., has the animal left the moon pool and returned on multiple occasions?);
   b. Description of current moon pool activities, if the animal is in the moon pool (e.g., drilling, preparation for demobilization, etc.);
   c. Description of planned activities in the immediate future related to vessel movement or deployment of equipment;
   d. Any additional photographs or video footage of the animal, if possible;
   e. Guidance received and followed from NMFS liaison or stranding hotline that was contacted for assistance;
   f. Whether activities in the moon pool were halted or changed upon observation of the animal; and
   g. Whether the animal remains in the pool at the time of the report, or if not, the time/date the animal was last observed.

2.5. Alternatives Considered but Not Analyzed in Detail

Other alternatives considered but not analyzed in detail include:

- "In-situ" abandonments only (no decommissioning permitted).
- Decommissionings with "unlimited" severance options (no limit on explosive charge).
- Decommissionings with "seasonal' severance options (seasonal removal restrictions).

In-situ abandonments would require modifications to the OCSLA to allow for expired lease obstructions and increased navigation hazards. Abandoned structures would require continual maintenance and present space use conflicts with future leaseholders and other potential users of the GOM OCS. Employing unlimited severance options to remove a structure was not analyzed in detail because the potential impact zone for marine protected species is directly related to explosive charge size. Seasonal removal was not analyzed further because this option relied upon incomplete seasonal data and failed to account for intermittent decommissioning needs. Fieldwood's proposed action meets the objectives of the purpose and need while being feasible under the regulatory directives of the OCSLA and all other applicable guidance.

3. DESCRIPTION OF THE AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

3.1. INTRODUCTION

The discussion below will: (1) describe/summarize the pertinent potentially affected resources; (2) determine whether the proposed action and its impact-producing factors (IPF) will have significant impacts on the human, coastal, or marine environments of the GOM; and (3) identify significant impacts, if any, that may require further NEPA analysis in an EIS. The description of the affected environment and impact analysis are presented together in this section for each resource.

For each potentially affected resource, BOEM staff reviewed and analyzed all currently available peer-reviewed literature and integrated these data and findings into the analyses below. The analyses cite the best available, relevant scientific literature. BOEM performed this analysis to determine whether Fieldwood's proposed activities will significantly impact the human, coastal, or marine environments of the GOM. Additionally, the analysis covered the area of the proposed anchor radius plus an additional 500 ft (152 m). For the impact analysis, resource-specific significant criteria were developed for each category of the affected environment and are described in Chapter 4 of the PEA. The criteria for impacts to environmental resources (other than marine protected species) were classified as significant or not significant, while the impacts on marine mammals and sea turtles are generally classified into one of the three following impact levels:

- Significant Adverse Impact (including those that could be mitigated to no significance);
- Adverse but Not Significant Impact; or
- Negligible Impact.

Preliminary screening for this assessment was based on a review of this relevant literature; previous SEAs; the PEA (USDOI, MMS, 2005); the Multisale EIS (USDOI, BOEM, 2017a); the 2018 SEIS (USDOI, BOEM, 2017b); the NMFS 2020 BO (USDOC, NMFS, 2020a); the NMFS 2021 Amended ITS (USDOC, NMFS, 2021); and relevant literature pertinent to historic and projected activities. BOEM initially considered the following resources for impact analysis:

- air quality;
- water quality (coastal and marine waters);
- marine mammals (including Endangered Species Act (ESA)-listed species and strategic stocks);
- sea turtles (all are ESA-listed species);
- fish resources, commercial and recreational fishing, and essential fish habitat (EFH);
- benthic resources (live-bottom [Pinnacle Trend] communities, topographic features, and potentially sensitive benthic features);
- archaeological resources;
- pipelines and cables;
- military use, warning, and test areas; and
- navigation and shipping.

In the PEA, the impact analysis focused on a broad group of decommissioning activities and resources with the potential for impacts. The IPFs include: (1) noise/pressure-waves from explosive-severance charges; (2) emissions from decommissioning vessels/equipment; (3) vessel discharges and turbidity; (4) seafloor disturbances from mooring and trawling activities; and (5) habitat loss (via removal of the facilities from the OCS). However, for the purposes of this SEA, BOEM has not included analyses of resource areas that were evaluated and considered under the PEA as having negligible impacts from decommissioning activities. The most recent evaluation of the best available peer-reviewed scientific literature continues to support this conclusion for the following resource categories:

- air quality;
- water quality (coastal and marine waters);
- fish resources, commercial and recreational fishing, and EFH;
- benthic resources;

- pipelines and cables;
- military use, warning, and test areas; and
- navigation and shipping.

For this SEA BOEM evaluated the potential impacts from the applicant's proposed activities in the GOM on the following resource categories:

- marine mammals (including threatened/endangered and non-ESA-listed species);
- sea turtles (all are ESA-listed species);
- fish resources and EFH;
- benthic resources; and
- archaeological resources.

3.2. MARINE MAMMALS

The life history, population dynamics, status, distribution, behavior, and habitat use of baleen and toothed whales can be found in Chapter 3.2 of the PEA and Chapter 4.9 of the Multisale EIS and 2018 SEIS and is incorporated by reference. The GOM marine mammal community is diverse and distributed throughout the GOM, with the greatest abundances and diversity of species inhabiting oceanic and OCS waters. Twenty-one species of cetaceans and one species of sirenian regularly occur in the GOM and are identified in NMFS' Gulf of Mexico Stock Assessment Reports (Jefferson et al., 1992; Davis et al., 2000; Hayes et al., 2020). The GOM's Cetacea include the suborders Mysticeti (i.e., baleen whales) and Odontoceti (i.e., toothed whales), and the order Sirenia, which includes the West Indian manatee. While all marine mammals are protected under the Marine Mammal Protection Act (MMPA), the sperm whale and GOM Bryde's whale are listed as endangered, and the West Indian manatee is listed as threatened under the ESA.

3.2.1. Impact Analysis

The IPFs for marine mammals from decommissioning and structural removal were discussed in Chapter 4.3 of the PEA (USDOI, MMS, 2005). Effects of oil and gas activity on marine mammals were also discussed in Chapter 4.9 of the Multisale EIS and 2018 SEIS. This SEA tiers from both of these documented analyses. Potential impacts to marine mammals from the detonation of explosives include lethal and injurious incidental take, as well as physical or acoustic harassment. Injury to the lungs and intestines and/or auditory system could occur. Harassment of marine mammals as a result of a noninjurious physiological response to the explosion-generated shock wave as well as to the acoustic signature of the detonation is also possible.

BOEM concluded in the PEA that marine mammal injury is not expected from explosive structure-removal operations, provided that existing guidelines and conditions of approval requirements are followed. Appendix F of the PEA (USDOI, MMS, 2005) and Appendix I of the NMFS 2021 Amended ITS (USDOC, NMFS, 2021) requires that trained observers watch for protected species in the vicinity of the structures to be removed. This ensures sensitive animals are clear of the area prior to detonations and minimizes adverse effects on marine mammals from these activities as consultations are ongoing.

OCS service vessels associated with the proposed activities also pose a hazard to marine mammals located near the surface that would be at risk of collision with the vessels. To minimize the potential for vessel strikes, operators should implement the protocols provided in Appendix C of the NMFS 2021 Amended ITS which contains vessel strike avoidance and injured/dead protected species reporting for marine mammals and other protected species. The protocols provided in Appendix C can be accessed on NMFS' internet website at https://repository.library.noaa.gov/view/noaa/29355. The accidental discharge of marine trash and debris generated during oil and gas activities has the potential to impact marine mammals through ingestion or entanglement. Application of the protocols outlined in Appendix B of the NMFS 2020 BO should decrease the potential of marine mammal interaction with marine trash and debris.

3.2.1.1. Alternatives

Alternative 1: Non-approval of the proposed action would prevent applicants from conducting the proposed activities and the IPFs on marine mammals would not occur. No associated vessel traffic related to the operations eliminates a risk of collisions with marine mammals.

Alternative 2: Approval of the proposed action would allow the applicant to conduct the proposed activity with no additional conditions of approval required by BOEM. Examples of potential impacts to marine mammals without applying conditions of approval and monitoring measures include but are not limited to injury/take from pressure waves from use of explosives underwater; behavioral changes; frequency masking; or non-auditory effects on marine mammals. This alternative would likely not adequately limit or negate potential impacts on marine mammals.

Alternative 3: Approval of the proposed action with additional conditions of approval allows the applicant to conduct the proposed activity, but with conditions of approval and monitoring measures identified in Appendix F of the PEA (USDOI, MMS, 2005) and Appendix I of the NMFS 2021 Amended ITS (USDOC, NMFS, 2021). These documents describe conditions of approval requirements in the new ESA and MMPA guidance that requires trained observers to watch for protected species in the vicinity of the structures to be removed.

Conclusion: Although there could be impacts to marine mammals from the proposed action, proper adherence to the conditions of approval and monitoring measures would prevent or minimize the possible impacts of the proposed action on marine mammals. The impacts of the proposed action are expected to be potentially adverse but not significant. With conditions of approval in place, the potential impacts to marine mammals are expected to be negligible.

3.3. SEA TURTLES

The life history, population dynamics, status, distribution, behavior, and habitat use of sea turtles can be found in Chapter 3.2 of the PEA and Chapter 4.9 of the Multisale EIS and 2018 SEIS and is incorporated by reference into this SEA. Five ESA-listed sea turtle species are present throughout the northern GOM year-round: Northwest Atlantic Ocean distinct population segment (DPS) loggerhead (*Caretta caretta*); Kemp's ridley (*Lepidochelys kempii*); North Atlantic Ocean DPS green (*Chelonia mydas*); Northwest Atlantic Ocean DPS (proposed) leatherback (*Dermochelys coriacea*); and hawksbill (*Eretmochelys imbricata*). However, only Kemp's ridley and loggerhead sea turtles commonly nest on beaches in the GOM during the nesting season. All five species are highly migratory with individuals migrating into nearshore waters as well as other areas of the GOM, North Atlantic Ocean, and the Caribbean Sea.

3.3.1. Impact Analyses

The IPFs for sea turtles from the proposed activities were discussed in the PEA (USDOI, MMS, 2005). The effects from oil and gas activity on the proposed action on sea turtles was also discussed in Chapter 4.9 of the Multisale EIS and 2018 SEIS. This SEA tiers from both of these analyses. Sea turtles can be impacted by the proposed activities by way of degradation of water quality and its associated short-term effects, vessel collision, site-clearance trawling, entanglement or ingestion of marine trash and debris, and the physical effects of underwater explosions.

The potential for lethal effects could occur from the detonations of explosive-severance tools (and associated pressure wave), chance collisions with OCS service vessels associated with the proposed activities, and potential capture in site-clearance trawls.

BOEM concluded in the PEA that sea turtle injury is not expected from explosive structure-removal operations, provided that existing guidelines and conditions of approval requirements are followed. Appendix F of the PEA (USDOI, MMS, 2005) and Appendix I of the NMFS 2021 Amended ITS (USDOC, NMFS, 2021) describe requirements that trained observers watch for protected species in the vicinity of the structures to be removed prior to detonations to ensure sensitive animals are clear of the area in order to minimize adverse effects onto sea turtles from these activities.

OCS service vessels associated with the proposed activities pose a hazard to sea turtles located near the surface that would be at risk of collision with the vessels. To minimize the potential for vessel strikes, operators should implement the protocol provided in Appendix C of the NMFS 2021 Amended ITS which contains vessel strike avoidance and injured/dead protected species reporting for sea turtles and other

protected species. The protocol provided in Appendix C can be accessed on NMFS' internet website at https://repository.library.noaa.gov/view/noaa/29355.

Under the guidelines provided in Appendix F of the PEA (USDOI, MMS, 2005) and site-clearance verification requirements under 30 CFR §§ 250.1740-1743, site-clearance trawling employing trawl nets which do not utilize turtle excluder devices can be a method to ensure the seafloor of the lease is returned to its prelease state. The trawls have the potential to capture and drown sea turtles in the vicinity of the trawl site. To reduce the risk of capture and possible drowning of sea turtles, reasonable mitigating measures are applied. These measures include: 1) use trawl nets with a minimum stretched mesh size of 4 inches at the cod end and 2 inches elsewhere. Trawl nets shall have a maximum stretched mesh size of 6 inches; 2) abide by maximum trawl times of 30 min, allowing for the removal of any captured sea turtles, and 3) in the event that a trawling contractor captures a sea turtle, the contractor must contact BSEE's Office of Environmental Compliance (OEC) at protectedspecies@bsee.gov and NMFS' Southeast Regional Office (SERO) at takereport.nmfsser@noaa.gov immediately. Additional measures would include the resuscitation and release of any captured sea turtles as per the guidelines under Appendix J of the NMFS 2020 BO and can be accessed on NMFS's internet website at https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico. Photographic documentation and a complete sea turtle stranding form for each sea turtle caught in the trawl nets would also be required. The sea turtle stranding form can be found at https://www.sefsc.noaa.gov/species/turtles/strandings.htm and submitted to NMFS and BSEE (same addresses as above). The accidental discharge of marine trash and debris generated during oil and gas activities has the potential to impact sea turtles through ingestion or entanglement. Application of the protocols outlined in Appendix B of the NMFS 2020 BO should decrease the potential of sea turtle interaction with marine trash and debris.

Most removal activities utilizing explosive severance methods are expected to have sublethal effects on sea turtles that are in the immediate area of activity (*e.g.*, behavioral flight response upon detonation of explosives). The impacts of the proposed action are expected to be negligible most of the time, with occasional impacts being potentially adverse but not significant. No significant adverse effects on the population size and recovery of any sea turtle species in the GOM are expected as consultations are ongoing.

3.3.1.1. Alternatives

Alternative 1: Non-approval of the proposed action would prevent applicants from conducting the proposed activities. The IPFs to sea turtles would not occur. The chance for collisions with OCS service vessels associated with decommissioning activities, or potential capture in site-clearance trawls, would be eliminated.

Alternative 2: Approval of the proposed action would allow the applicant to conduct the proposed activity with no additional conditions of approval and monitoring measures required by BOEM. Examples of potential impacts to sea turtles would be degradation of water quality and its associated short-term effects, vessel collisions, site-clearance trawling, and the physical effects of underwater explosions. The potential for lethal effects could occur from the detonations of explosive-severance tools (and associated pressure wave), chance collisions with OCS service vessels associated with decommissioning activities, and potential capture in site-clearance trawls.

Alternative 3: Approval of the proposed action with additional conditions of approval allows the applicant to conduct the proposed activity, but with conditions of approval and monitoring measures identified in Appendix F of the PEA (USDOI, MMS, 2005), Appendix C and I of the NMFS 2021 Amended ITS (USDOC, NMFS, 2021) and Appendix B and J of the NMFS 2020 BO. These documents specify conditions of approval requirements in the ESA and MMPA guidance that requires trained observers to watch for protected species of sea turtles and marine mammals in the vicinity of the structures to be removed. Mitigative measures will be implemented by BSEE, in coordination with NMFS and in accordance with the NMFS ESA consultation requirements and the MMPA take-regulations.

Conclusion: Although there could be impacts to sea turtles from the proposed action, proper adherence to the conditions of approval and monitoring measures as outlined above would preclude or lessen the impacts of the proposed action on sea turtles. The impacts of the proposed action are expected to be negligible most of the time, with occasional impacts being potentially adverse but not significant. No significant adverse effects from the proposed activities on the population size and recover of any sea turtle species in the GOM are expected.

3.4. FISH RESOURCES

The distribution of fish resources and fish habitat can be found in Chapters 4.7 (Fish Resources), 4.6 (Live Bottom Habitats), and 4.5 (*Sargassum* and Associated Communities) of the Multisale EIS and 2018 SEIS and Chapter 3.2 of the PEA, and the information is incorporated by reference into this SEA.

The NMFS 2020 BO identified the following Federally listed endangered fish species in the GOM: The Gulf sturgeon, the oceanic whitetip shark, and the giant manta ray. The Gulf sturgeon (*Acipenser oxyrinchus*) was listed as threatened October 30, 1991 (56 CFR §49653, September 30, 1991). The oceanic whitetip shark (*Carcharhinus longimanus*) was listed as threatened January 30, 2018 under the ESA (83 FR 4153). The giant manta ray (*Manta birostris*) was listed as threatened January 22, 2018 under the ESA (83 FR 2916). A detailed description of the Gulf sturgeon and critical habitat, and oceanic white tip shark and giant manta ray may be found in Sections 6.2.11 to 6.2.14 of the NMFS 2020 BO.

Threatened or Endangered Species

Three GOM fish species, the Gulf sturgeon, oceanic white-tip shark, and the giant manta ray, are protected under the ESA. All three species are listed as threatened. In this region, the Gulf sturgeon is predominantly distributed in the rivers and nearshore waters of the northeastern GOM, from Lake Pontchartrain in Louisiana to the Suwannee River in Florida. The EFH for the oceanic whitetip shark in the project area includes localized areas in the central GOM and Florida Keys. Although no EFH or critical habitat has been designated, the giant manta rays are widespread in the GOM. Giant manta rays occupy tropical, subtropical, and temperate oceanic waters and productive coastlines and are commonly found offshore in oceanic waters but are sometimes found feeding in shallow waters (less than 10 m) during the day (Miller, 2016).

Non-ESA-Listed Species

The distribution of fishes varies widely, and species may be associated with different habitats at various life stages. This analysis highlights behaviors and habitat preferences, but it does not attempt to provide a comprehensive list of all potentially impacted fauna. For purposes of this analysis, habitat preferences can be divided into three broad categories: estuarine; coastal; and oceanic. Exposure to specific IPFs generated by OCS oil- and gas-related routine activities and accidental events can vary among these categories. Coastal and oceanic resources are further broken into benthic and pelagic zones to address differences in potential exposure to IPFs within a given habitat category.

3.4.1. Impact Analyses

Explosive severance methods used during structural removal would be expected to result in localized adverse impacts to fish resources as a result of shockwave-related fish mortality, bottom-disturbing activities resulting in the resuspension of sediments, and habitat modification.

For the purpose of this analysis, bottom-disturbing activities are distinguished from habitat modification by the relatively short period of time over which disturbances occur. Anchoring, drilling, trenching, pipe-laying, and structure emplacement are examples of OCS oil- and gas-related activities that disturb the seafloor. Additionally, the installation or removal of platforms and subsea systems are examples of habitat modification. Although installed facilities are temporary, the operational life is long term and may impact the distribution of species in an area (Carr and Hixon, 1997; Gallaway et al., 2009; Shipp and Bortone, 2009). The effects of artificial habitat loss through decommissioning activities are discussed in Chapter 4.7 in the Multisale EIS and 2018 SEIS (USDOI, BOEM, 2017a and b).

Fish mortality can occur as a result of decommissioning operations using explosive severance methods (Gitschlag et al., 2001). The resulting shockwaves are assumed to be lethal to fish in close proximity to the platform being removed (Gitschlag et al., 2001; Scarborough-Bull and Kendall, 1992; Young, 1991). A more detailed discussion of acoustic shockwave impacts is provided in Chapter 4.7 of the Multisale EIS and 2018 SEIS. Due to the localized nature of the effects, impacts to fish resources as a result of decommissioning activities using explosive severance are expected to range from negligible for most species to minor for species most commonly associated with OCS oil and gas platforms.

Therefore, it is expected that decommissioning activities would have a locally minor, but overall negligible effect on fish resources because the impacts of these activities would affect a limited geographic

area (*i.e.,* only those fish that are in close proximity to the removal site and that do not leave the area) and would not rise to any population-level impacts across the GOM.

3.4.1.1. Alternatives

Alternative 1: Non-approval of the proposed action would prevent applicants from conducting the proposed activities. The IPFs on fish or essential fish habitat would not occur.

Alternative 2: Approval of the proposed action would allow the applicant to conduct the proposed activities with no additional conditions of approval and monitoring measures required by BOEM. As described in the analyses above, impacts to fish resources from the proposed action, such as alteration of local habitat due to structure removal, hearing impairment or loss, behavioral disruption, or fish mortality from underwater explosions, are expected to be localized and not lead to significant impacts.

Alternative 3: Approval of the proposed action with additional conditions of approval would allow the applicant to undertake the proposed activities. Impacts to fish resources from the proposed action are expected to be short-term, localized and not lead to significant impacts.

Conclusion: Although the proposed action would be expected to impact fish resources, the impacts of the proposed action are expected to be locally minor, but negligible overall.

3.5. Benthic Biological Resources

A description of live bottom features (topographic and pinnacle) and other potentially sensitive biologic features can be found in Chapters 4.4, 4.6, and 4.9 of the Multisale EIS and 2018 SEIS and in Chapter 4.3 of the PEA. These descriptions are incorporated by reference into this SEA. The vast majority of the GOM has a soft, muddy bottom in which burrowing infauna are the most abundant invertebrates; so-called soft-bottom communities. A small area of the GOM seabed contains hard/live bottom, particularly those having measurable vertical relief, which can serve as important habitat for a wide variety of marine organisms. Encrusting algae and sessile invertebrates such as corals, sponges, sea fans, sea whips, hydroids, anemones, ascidians, and bryozoans may attach to and cover hard substrates, thereby creating "live bottoms," a term first coined by Cummins et al. (1962).

3.5.1. Impact Analyses

The IPFs for benthic resources from decommissioning and structural removal were discussed in Chapter 3.2 of the PEA (USDOI, MMS, 2005). The effects of oil and gas activity on benthic resources, especially potentially sensitive live/hard bottom communities, were discussed in Chapters 4.4, 4.6, and 4.9 of the Multisale EIS and 2018 SEIS. This SEA tiers from both of these analyses. The term bottom-disturbing activity includes any activity that results in the disturbance of the seafloor during the exploration, production, or decommissioning phase of OCS operations. The IPFs associated with the proposed action are bottom-disturbing activities that could result in physical damage to hard-bottom features and include: direct physical contact from anchoring; damage or death to any organisms within the vicinity of the blast or associated sediment plume; progressive-transport (i.e., jacket-hopping); trawling activities associated with site clearance; increased turbidity, and covering or smothering of sensitive habitats with suspended sediments from other associated activities (*e.g.,* water-jetting the sediment from structure piles). Long-term turbidity is not expected from platform removal operations.

The Live Bottom (Pinnacle Trend) Stipulation and the Topographic Features Stipulation would minimize impacts in the vicinity of pinnacle trends and topographic features, both of which sustain sensitive offshore habitats. Both of these stipulations are now incorporated into NTL No. 2009-G39, *Biologically Sensitive Underwater Features and Areas.*

3.5.1.1. Alternatives

Alternative 1: Non-approval of the proposed action would prevent applicants from conducting the decommissioning activities. There would be no bottom impacts from vessel anchoring that would result in increased turbidity and covering or smothering of sensitive habitats with suspended sediments.

Alternative 2: Approval of the proposed action would allow the applicant to conduct the proposed action with no additional conditions of approval and monitoring measures required by BOEM. This alternative includes adherence to BOEM NTL No. 2009-G39, which the operator agreed to as part of their

lease stipulations. The operator proposes decommissioning activities at a site or sites that may be located near potentially sensitive benthic communities or hard bottom habitat, which, without additional conditions of approval, may lead to potential impacts to those sites. This alternative may not adequately limit or negate potential impacts to benthic resources.

Alternative 3: Approval of the proposed action would allow the applicant to undertake the proposed activities with additional conditions of approval as identified by BOEM. Alternative 3 differs from Alternative 2 because conditions of approval in addition to BOEM NTL No. 2009-G39 may be applied if necessary to avoid impacts to potentially sensitive benthic resources.

Conclusion: Although potentially sensitive benthic resources could be impacted by the proposed action, proper adherence to the operator's lease stipulations would preclude or minimize significant impacts to these resources from the associated bottom-disturbing activities. The impacts of the proposed action are not expected to be significant.

3.6. Archaeological Resources

Archaeological resources are any material remains of human life or activities that are at least 50 years of age and that are of archaeological interest (30 CFR § 551.1). A description of archaeological resources (prehistoric and historic) can be found in Chapter 4.13 of the Multisale EIS and 2018 SEIS and Chapter 3.3 of the PEA and is incorporated by reference into this SEA. As obligated under OCSLA regulations (30 CFR § 551.6 (a) (5)), applicants are not allowed to disturb archaeological resources while conducting their proposed activities.

Pre-contact period submerged archaeological sites are sites formed on the terrestrial landscape inundated by global sea-level rise during the late Pleistocene and Holocene. Geographic features that have a high probability for associated pre-contact sites in the northwestern and north central Gulf (from Texas to Alabama) include barrier islands and back barrier embayments, river channels and associated floodplains and terraces, and salt dome features. Pre-contact resources may be located in areas in which the most conservative documented and best available local and regional sea-level curves indicate the area was once sub-aerially exposed.

Historic archaeological resources on the OCS include submerged shipwrecks and the Ship Shoal lighthouse. Investigations identified over 4,000 potential shipwreck locations in the Gulf, nearly 1,500 of which occur on the OCS (Garrison et al., 1989). Historic shipwrecks have, to date, been primarily discovered through oil industry sonar surveys in water depths up to 9,000 ft (2,743 m). In both 2005 and 2011, BOEM revised its guidelines for conducting archaeological surveys and expanded the list of blocks requiring a survey and assessment. The list of blocks is available on BOEM's website under NTL No. 2005-G07 and NTL No. 2011-JOINT-G01. Since 2005, over 30 possible historic shipwrecks have been reported in the expanded area. At present, some form of archaeological survey or investigation is required for all new bottom disturbing activities.

3.6.1. Impact Analyses

The IPFs on archaeological resources from proposed activities were discussed in Chapter 4.4 of the PEA (USDOI, MMS, 2005). The effects of oil and gas activity on archaeological resources were discussed in Chapter 4.13 of the Multisale EIS and 2018 SEIS and are incorporated by reference. The IPFs associated with the proposed action that could affect archaeological resources include direct physical contact from anchoring; progressive-transport (i.e., jacket-hopping); and trawling activities associated with site clearance.

3.6.1.1. Alternatives

Alternative 1: Non-approval of the proposed action would prevent applicants from conducting the decommissioning activities. There would be no bottom impacts from vessel anchoring progressive-transport (i.e., jacket-hopping) and trawling activities associated with site clearance that could result in potential loss of any known or unknown historic archaeological resource.

Alternative 2: Approval of the proposed action would allow the applicant to conduct the proposed action with no additional conditions of approval and monitoring measures required by BOEM. Examples of potential impacts to archaeological resources and the following analysis include, but are not limited to, damage to potential archaeological resources from the proposed activity. More details on the potential for

impact absence that results from imposing the conditions of approval are described in Chapter 4.4 of the PEA. The operator proposes decommissioning activities at sites that may be located near potential archaeological resources which, without additional conditions of approval, may lead to potential impacts to those sites. This alternative would not adequately limit or negate potential impacts to archaeological resources.

Alternative 3: Approval of the proposed action would allow the applicant to undertake the proposed activities with additional conditions of approval that BOEM would require the locations for new bottom-disturbing activities to be reviewed for any archaeological resources before action is taken. Alternative 3 limits or negates potential impacts on archaeological resources by avoiding known archaeological resources.

Conclusion: Although there could be impacts to known archaeological sites from the proposed action, proper adherence to the conditions of approval and existing requirements negates or minimizes the potential for significant impacts to these resources. The impacts of the proposed action are not expected to be significant.

3.7. CUMULATIVE IMPACTS

Cumulative impacts from the proposed action were discussed in the PEA (USDOI, MMS, 2005) for resources not directly considered in this SEA and for protected and non-protected species of marine mammals (Chapter 4.5.3), sea turtles (Chapter 4.5.4), protected and non-protected species of fish and essential fish habitat (Chapter 4.5.5), archaeological resources (Chapter 4.5.7), and benthic resources (Chapter 4.5.6). Based on the cumulative impact scenarios and assessments presented in the PEA and Multisale EIS and 2018 SEIS and the potential effectiveness of assigned protocols from the NMFS 2020 BO, NMFS 2021 Amended ITS, and lease stipulations, BOEM expects that potential cumulative impacts from decommissioning activities (i.e. explosive-severance, vessel discharges, nonexplosive-severance products, habitat removal/salvage, vessel anchoring, progressive transport, site-clearance trawling, and sediment redistribution) would not be significant.

4. CONSULTATION AND COORDINATION

The Endangered Species Act of 1973 (ESA) (16 U.S.C. §§ 1531 *et seq*.), as amended, establishes a national policy designed to protect and conserve threatened and endangered species and the ecosystems upon which they depend. Section 7(a)(2) of the ESA requires each Federal agency to ensure that any action that they authorize, fund, or carry out is not likely to jeopardize the continued existence of a listed species or result in the adverse modification of designated critical habitat. On April 20, 2018, the U.S. Fish and Wildlife Service (FWS) issued its 10-year programmatic Biological Opinion (BO) for BOEM and BSEE's oil and gas activities in the GOM. The FWS BO does not include any terms and conditions for the protection of endangered species that the Bureaus, lessees, or operators must implement. The FWS BO also noted that any future consultations may be informal, dependent upon the likelihood of take.

On March 13, 2020, the National Marine Fisheries Service (NMFS) issued a Biological Opinion (NMFS 2020 BO) and related terms and conditions for oil and gas activities in the Gulf of Mexico for the protection of these species, including holding lease sales. The NMFS 2020 BO addresses any future lease sales and any approvals issued by BOEM and BSEE, under both existing and future OCS oil and gas leases in the GOM, over a 10-year period. Applicable terms and conditions and reasonable and prudent measures from the NMFS 2020 BO will be applied at the lease sale stage; other specific conditions of approval will also be applied to post-lease approvals. The NMFS 2020 BO may be found here:

https://www.fisheries.noaa.gov/resource/document/biological-opinion-federally-regulated-oil-and-gas-program-activities-gulf-mexico.

The Appendices and protocols may be found here:

https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico.

In November 2020, BOEM and BSEE in the spirit of adaptive management and in agreement with NMFS, submitted revised procedures for the NMFS 2020 BO, in that, some activities previously requiring step-down review by NMFS to not be continued and apply programmatic standardized mitigation measures to protect resources. BOEM petitioned NMFS for rulemaking under the MMPA, to assist industry in

obtaining incidental take coverage for marine mammals due to oil and gas and G&G surveys in the GOM. NMFS issued a final rule as a result of the petition on January 19, 2021 (86 FR 5322) with an effective date of April 19, 2021. On April 26, 2021, the NMFS 2020 BO was amended to incorporate adaptive management for step-down review, MMPA Rulemaking, and revised Appendices A, C, and I.

BOEM completed consultation with NOAA's National Marine Fisheries Service (NMFS) regarding the Magnuson-Stevens Fisheries Conservation and Management Act on July 10, 2017 by the receipt of a comment letter from NMFS. The NMFS letter acknowledged their receipt of the Essential Fish Habitat (EFH) Assessment and the supporting 2017-2022 MultiSale Lease NEPA document, provided a determination that the Programmatic Consultation was an appropriate mechanism to evaluate EFH impacts and confirmed the adoption of the BOEM/BSEE mitigation measures outlined in the June 8, 2016, BOEM EFH Assessment to ensure adverse impacts are avoided, minimized, and offset. This consultation remains in effect for 2017-2022 activities but not if modifications are made to the BOEM/BSEE programs that would result in changes to potential adverse effects on EFH which would trigger additional consultation.

In accordance with the National Historic Preservation Act (54 U.S.C. §§ 300101 *et seq*.), Federal agencies are required to consider the effects of their undertakings on historic properties. The implementing regulations for Section 106 of the National Historic Preservation Act, issued by the Advisory Council on Historic Preservation (36 CFR § 800), specify the required review process. In accordance with 36 CFR § 800.8(c), BOEM intends to use the NEPA substitution process and documentation for preparing an EIS/ROD or an EA/FONSI to comply with Section 106 of the National Historic Preservation Act in lieu of 36 CFR §§ 800.3-800.6.

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7. APPENDIX

Appendix A - Conditions of Approval Requirements

APPENDIX A

CONDITIONS OF APPROVAL REQUIREMENTS

Mitigation Requirements

FISH (STRUCTURE REMOVALS USING EXPLOSIVES): Under the Magnuson-Stevens Fisheries Conservation and Management Act, 50 CFR § 600.725 prohibits the use of explosives to take reef fish in the Exclusive Economic Zone. Consequently, those involved in removal operations must not take such stunned or killed fish on board their vessels. Should this happen, they could be charged by the National Marine Fisheries Service (NMFS) with violation of the Act. If you have questions, contact NMFS at (727) 824-5344.

PROGRESSIVE-TRANSPORT/"HOPPING" (STRUCTURE REMOVALS): In accordance with OCSLA requirements (30 CFR § 250.1727(g)), if at any point in your decommissioning schedule progressive-transport/"hopping" activities are required to section your jacket assembly or support material barge loading, a prior written request must be submitted and approval must be obtained from the Regional Supervisor/Field Operations. Your request to use progressive-transport must include a detailed procedural narrative and separate location plat for each "set-down" site, showing pipelines, anchor patterns for the derrick barge, and any known archaeological and/or potentially sensitive biological features. The diagram/map of the route to be taken from the initial structure location along the transport path to each site must also be submitted with your request. If the block(s) that you intend to use as "set-down" sites have not been surveyed as per NTL No. 2009-G39 and NTL No. 2005-G07, you may be required to conduct the necessary surveys/reporting prior to mobilizing on site and conducting any seafloor-disturbing activities.

ARCHAEOLOGICAL RESOURCE REPORTING DURING SITE-CLEARANCE: Per 30 CFR 250.194(c) and clarified in NTL No. 2005-G07, if during site clearance operations you discover any object of potential archaeological significance you are required to immediately halt operations. In addition, you must immediately report this discovery to the BSEE Office of Environmental Compliance (Env-Compliance-Arc@bsee.gov) and contact BSEE FPO at (504) 736-2950. Additional guidance will be provided to the operator as to what steps will be needed to protect any potential submerged archaeological resources. Additionally, as specified under 30 CFR 250.1743:

- If using trawls to verify site clearance, you are required to provide the trawling logs for both heavy-duty nets and verification nets with descriptions of each item recovered. Should you only pull site clearance verification nets, please clearly state this within the body of the Site Clearance Report. In addition, provide ALL vessel logs related to vessels that were used to recover items during site clearance operations (e.g., anchor handling vessels, lift boats, dive support vessels, tugboats, etc.). If you did not use any vessels to recover items, please clearly state this within the body of the Site Clearance Report.

- With your Site Clearance Report you are also required to provide a CD or DVD of all digital photographs of the items recovered during the use of the heavy-duty trawl nets, site clearance verification trawl nets, diver recovery, and any other methods used. Each photograph must be of appropriate scale and size so that individual items can be identified. All photographs of recovered items must also correspond with the items recovered and listed on individual lines within the logs. In addition, when you submit your photographs, you should label each photograph file name so that it represents the individual trawl line from which the items were recovered.

SITE-CLEARANCE TRAWLING REPORTING: If trawling is used to comply with the site-clearance verification requirements under 30 CFR §§250.1740-1743 which mandates that turtle excluder devices (TED) be removed from the trawl nets to facilitate the collection of seabed debris, you must abide by maximum trawl times of 30 minutes, allowing for the removal of any captured sea turtles. If during your trawling activities, you capture a sea turtle in your nets, you must:

1. Contact BSEE's Office of Environmental Compliance (OEC) at protectedspecies@bsee.gov and NMFS' Southeast Regional Office (SERO) at takereport.nmfsser@noaa.gov immediately;
2. Resuscitate and release any captured sea turtles as per NMFS' guidelines found online at ftp://ftp.library.noaa.gov/noaa_documents.lib/NMFS/SEFSC/TM_NMFS_SEFSC/NMFS_SEFSC_TM_580.pdf (see page 3-6; Plate 3-1); and
3. Photograph the turtle and complete a sea turtle stranding form for each sea turtle caught in your nets. The form can be found at https://www.sefsc.noaa.gov/species/turtles/strandings.htm and submit to NMFS and BSEE (to the email addresses noted above).

COMPLIANCE WITH BIOLOGICAL OPINION TERMS AND CONDITIONS AND REASONABLE AND PRUDENT MEASURES: This approval is conditioned upon compliance with the Reasonable and Prudent Measures and implementing Terms and Conditions of the Biological Opinion issued by the National Marine Fisheries Service on March 13, 2020 and the amendment issued on April 26, 2021. This includes mitigation, particularly any appendices to Terms and Conditions applicable to the plan, as well as record-keeping and reporting sufficient to allow BOEM and BSEE to comply with reporting and monitoring requirements under the BiOp; and any additional reporting required by BOEM or BSEE developed as a result of BiOp implementation. The NMFS Biological Opinion may be found here: (https://www.fisheries.noaa.gov/resource/document/biological-opinion-federally-regulated-oil-and-gas-program-activities-gulf-mexico). The amendment can be found here: https://repository.library.noaa.gov/view/noaa/29355. The Appendices and protocols may be found here: (https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico). The amendment provided updates to Appendices A, C and I which may be found here: https://repository.library.noaa.gov/view/noaa/29355.

SUPPORT BASES AND VESSEL TRANSIT ROUTES: Approval of your permit is conditioned upon your use of the support bases and vessel transit routes as described in your plan. BOEM/BSEE must be notified at least 15 days prior to any vessel route changes that require transit of the Bryde's Whale area, and you must receive prior approval for that transit from BOEM/BSEE.

MARINE TRASH AND DEBRIS AWARENESS AND ELIMINATION: The applicant will follow the protocols provided under Appendix B. Gulf of Mexico Marine Trash and Debris Awareness and Elimination Survey Protocols found in the Biological Opinion issued by the National Marine Fisheries Service on March 13, 2020. The protocols can be accessed on NOAA Fisheries internet website at https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico.

VESSEL-STRIKE AVOIDANCE/REPORTING: The applicant will follow the protocols provided under Appendix C. Gulf of Mexico Vessel Strike Avoidance and Injured/Dead Aquatic Protected Species Reporting Protocols found in the Biological Opinion amendment issued by the National Marine Fisheries Service on April 26, 2021. The guidance can be accessed on the NOAA Fisheries internet site at https://repository.library.noaa.gov/view/noaa/29355.

SEA TURTLE RESUSCITATION GUIDELINES: The applicant will follow the guidance provided under Appendix J. Sea Turtle Handling and Resuscitation protocols found in the Biological Opinion issued by the National Marine Fisheries Service on March 13, 2020. The guidance can be accessed on the NOAA Fisheries internet site at https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico.

SLACK-LINE PRECAUTIONS CONDITION OF APPROVAL: If operations require the use of flexible, small diameter (< 2 inch) lines to support operations (with or without divers), operators/contractors must reduce the slack in the lines, except for human safety considerations, to prevent accidental entanglement of protected species (i.e. species protected under the Endangered Species Act [ESA] and/or Marine Mammal Protection Act [MMPA]). This requirement includes tether lines attached to remotely operated equipment. The requirements below must be followed for any activities entailing use of flexible, small diameter lines that will not remain continuously taut, except when complying with these requirements would put the safety of divers, crew or the vessel at risk:

- Operators must utilize tensioning tools and/or other appropriate procedures to reduce unnecessary looseness in the lines and/or potential looping;
- The lines must remain taut, as long as additional safety risks are not created by this action;
- A line tender must be present at all times during dive operations and must monitor the line(s) the entire time a diver is in the water; and
- Should the line tender and/or diver become aware of an entanglement of an individual protected species, the reporting requirements described in the *Reporting Requirements* COA must be followed as soon as safety permits.

REPORTING REQUIREMENTS CONDITION OF APPROVAL: Review of your proposed activities identified use of equipment that has the potential for entanglement and/or entrapment of protected species (i.e. species protected under the Endangered Species Act [ESA] and/or Marine Mammal Protection Act [MMPA]) that could be present during operations. In case of entrapment, procedures and measures for reporting are dependent upon the situation at hand. **These requirements replace those specific to dead and injured species reporting in respective sections of Appendix A (insofar as they relate to geophysical surveys) and Appendix C of the 2020 Biological Opinion on the Bureau of Ocean Energy Management's Oil and Gas Program Activities in the Gulf of Mexico**.

*Incidents Requiring **Immediate** Reporting*

Certain scenarios or incidents require immediate reporting to Federal agencies; these are described below:

Should any of the following occur at any time, **immediate reporting** of the incident is required after personnel and/or diver safety is ensured:

- Entanglement or entrapment of a protected species (i.e., an animal is entangled in a line or cannot or does not leave a moon pool of its own volition).
- Injury of a protected species (e.g., the animal appears injured or lethargic). Interaction, or contact with equipment by a protected species.
- Any observation of a leatherback sea turtle within a moon pool (regardless of whether it appears injured, or an interaction with equipment or entanglement/entrapment is observed).

1. As soon as personnel and/or diver safety is ensured, report the incident to National Marine Fisheries Service (NMFS) by contacting the appropriate expert for 24-hr response. If you do not receive an immediate response, you must keep trying until contact is made. Any failed attempts should be documented. Contact information for reporting is as follows:
   a. **Marine mammals**: contact **Southeast Region's Marine Mammal Stranding Hotline at 1-877-433-8299.**
   b. **Sea turtles**: contact **Brian Stacy, Veterinary Medical Officer at 352-283- 3370**. If unable to reach Brian Stacy, contact Lyndsey Howell at (301) 310-3061. This includes the immediate reporting of **any observation of a leatherback sea turtle within a moon pool.**
   c. Other protected species (e.g., giant manta ray, oceanic whitetip shark, or Gulf sturgeon): contact the **ESA Section 7 biologist at 301-427-8413 (nmfs.psoreview@noaa.gov)** and report all incidents to takereport.nmfs@noaa.gov
   d. Minimum reporting information is described below:
      i. Time, date, water depth, and location (latitude/longitude) of the first discovery of the animal;
      ii. Name, type, and call sign of the vessel in which the event occurred;
      iii. Equipment being utilized at time of observation;
      iv. Species identification (if known) or description of the animal involved;
      v. Approximate size of animal;
      vi. Condition of the animal during the event and any observed injury / behavior;
      vii. Photographs or video footage of the animal, only if able; and
      viii. General narrative and timeline describing the events that took place.
2. After the appropriate contact(s) have been made for guidance/assistance as described in 1 above, you may call BSEE at 985-722-7902 (24 hours/day) for questions or additional guidance on recovery assistance needs (if still required) and continued monitoring requirements. You may also

contact this number if you do not receive a timely response from the appropriate contact(s) listed in 1. above.

a. Minimum post-incident reporting includes all information described above (under 1.d.i-viii) in addition to the following:

   i. NMFS liaison or stranding hotline that was contacted for assistance;

   ii. For moon pool observations or interactions:

   iii. Size and location of moon pool within vessel (e.g., hull door or no hull door);

   iv. Whether activities in the moon pool were halted or changed upon observation of the animal; and

   v. Whether the animal remains in the pool at the time of the report, or if not, the time/date the animal was last observed.

Reporting of Observations of Protected Species within an Enclosed Moon Pool

If a protected species is observed within an enclosed moon pool and does not demonstrate any signs of distress or injury or an inability to leave the moon pool of its own volition, measures described in this section must be followed (only in cases where they do not jeopardize human safety). Although this particular situation may not require immediate assistance and reporting as described under *Incidents Requiring Immediate Reporting* (see above), a protected species could potentially become disoriented with their surroundings and may not be able to leave the enclosed moon pool of their own volition. In order for operations requiring use of a moon pool to continue, the following reporting measures must be followed:

Within 24 hours of any observation, and daily after that for as long as an individual protected species remains within a moon pool (i.e., in cases where an ESA listed species has entered a moon pool but entrapment or injury has not been observed), the following information must be reported to BSEE (protectedspecies@bsee.gov) and BOEM (protectedspecies@boem.gov):

1. For an initial report, all information described under 1.d.i-viii above should be included.

2. For subsequent daily reports:

   a. Describe the animal's status to include external body condition (e.g., note any injuries or noticeable features), behaviors (e.g., floating at surface, chasing fish, diving, lethargic, etc.), and movement (e.g., has the animal left the moon pool and returned on multiple occasions?);

   b. Description of current moon pool activities, if the animal is in the moon pool (e.g., drilling, preparation for demobilization, etc.);

   c. Description of planned activities in the immediate future related to vessel movement or deployment of equipment;

   d. Any additional photographs or video footage of the animal, if possible; Guidance received and followed from NMFS liaison or stranding hotline that was contacted for assistance;

   e. Guidance received and followed from NMFS liaison or stranding hotline that was contacted for assistance;

   f. Whether activities in the moon pool were halted or changed upon observation of the animal; and

   g. Whether the animal remains in the pool at the time of the report, or if not, the time/date the animal was last observed.

EXPLOSIVE-SEVERANCE MITIGATION CATEGORY SW-4: The operator is proposing explosive-severance activities that are covered under Mitigation Scenario SW-4. Pre- and post-detonation mitigation(s) requirements can be found below. SW = water depths less than 200 m (656 ft); DW = water depths greater than 200 m (656 ft).

Mitigation scenario Number	Net explosive weight (lb)	Pre-Det Surface Survey (min)	Pre-Det Aerial Survey (min)	Pre-Det PAM (min)	Animal Sightings Waiting Period (min)	*Sargassum* Habitat Waiting Period	Post-Det Surface Survey (min)	Post-Det Aerial Survey (min)	Post-Post-Det Aerial Survey within one Week
SHALLOW WATER									
SW-1	1-10	60	N/A	N/A	30	Until visually inspected or *Sargassum* floats out of Impact Zone	30	N/A	No
SW-2	>10-20	90	45	N/A	30		N/A	30	No
SW-3	>20-80	90	45	N/A	30		N/A	30	No
SW-4	>80-200	120	60	N/A	30		N/A	30	No
SW-5	>200-500	150	90	N/A	45		N/A	30	No
DEEPWATER									
DW-1	1-10	90	N/A	N/A	45	Until visually inspected or *Sargassum* floats out of Impact Zone	30	N/A	No
DW-2	>10-20	90	45	N/A	45		N/A	30	No
DW-3	>20-80	90	60	150	45		N/A	30	Yes
DW-4	>80-200	150	60	180	45		N/A	30	Yes
DW-5	>200-500	180	90	270	45		N/A	30	Yes

MITIGATION CATEGORY SW-4: The applicant will follow the protocols listed below and provided under Appendix I, Explosive Removal of Structures Measures found in the Biological Opinion amendment issued by the National Marine Fisheries Service on April 26, 2021. The detailed protocols can be accessed on NOAA Fisheries internet website at https://www.fisheries.noaa.gov/resource/document/appendices-biological-opinion-federally-regulated-oil-and-gas-program-gulf-mexico.

Section I	Sargassum habitat monitoring
Section II	Requirements for establishing impact zones
Section III	Requirements for differing scenario mitigations
Section IV	Requirements for surface monitoring surveys
Section V	Requirements for pre-detonation aerial surveys
Section VI	Requirements for passive acoustic monitoring (PAM)
Section VII	Requirements for waiting periods for surface aerial and PAM surveys
Section VIII	Requirements for post-detonation and post-post detonation monitoring
Section IX	Requirements for the recovery of sea turtles
Section X	Protected species observer requirements
Section XI	Requirements for reporting