

STRUCTURE REMOVAL 2022-133A

To: Regional Environmental Officer, GOAR, Office of Environmental Compliance, Bureau of Safety and Environmental Enforcement (MS GM367)

From: Supervisor, Environmental Assessment Unit 2, Office of Environment, GOAR OCS Region (MS GM633B)

Subject: National Environmental Policy Act Review of Talos Energy Offshore, LLC's Structure Removal Application Number 2022-133A

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, conditioned as indicated below.

The Bureau of Ocean Energy Management (BOEM) has prepared a Site-Specific Environmental Assessment (SEA) for Structure Removal applications 2022-133A complying with NEPA at 42 United States Code (U.S.C.) §§ 4321 et seq. The United States Department of the Interior (DOI) NEPA implementing regulations at 43 Code of Federal Regulations (CFR) Part 46, DOI NEPA Handbook § 1.5, and BOEM policy 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.

Secretary of the Interior Doug Burgum issued Secretary's Order 3423, which directed the renaming of the Gulf of Mexico to the Gulf of America. As a result, BOEM updated existing content while legacy content such as previously published reports, studies, and NEPA documents remain unchanged.

The Proposed Action: Talos Energy Offshore, LLC (Talos) proposes to remove Platform A in Vermilion Block 279, Lease OCS-G 11881, Complex ID 32030-1, using explosive severance methods. Abrasives or mechanical cutting will be used as back-up. The structure is located at a water depth of 180 feet (ft) (55 meters (m)) and lies approximately 81 miles (130 kilometers (km)) from the nearest Louisiana shoreline. Operations will be conducted from an onshore support base in Port Fourchon, 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 derrick barge will be 5,000 ft (1,524 m). Talos proposes to reef the jacket of the structure in the Louisiana Department of Wildlife and Fisheries' East Cameron 272 Reef. The decks and equipment will be transported to shore for disposal. According to the operator, the structure will be removed because there is no further production (Talos, 2026). Talos 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.

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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,
- 5) Archaeological resources.

Resources on the sea bottom, such as benthic biological communities and shipwrecks, could be disturbed if they were present. 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 the SEA for applications 2022-133A. Potential impacts from the proposed activities to marine mammals, sea turtles, archaeological resources, and benthic resources have been mitigated to non-significance. Potential impacts to fish resources and essential fish habitat from the proposed activities were determined to be insignificant.

Alternatives and Conditions of Approval: In the SEA for applications 2022-133A, 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.

- **PROJECT CRITERIA:** The applicant will adhere to the following Project Criteria, as described in the Appendix to this SEA.
 - **MARINE DEBRIS PROJECT CRITERIA**
 - **VESSEL STRIKE AVOIDANCE AND INJURED AND/OR DEAD AQUATIC PROTECTED SPECIES REPORTING PROJECT CRITERIA**
 - **VESSEL TRANSIT WITHIN THE RICE'S WHALE AREA**
 - **IN-WATER LINE PRECAUTION PROJECT CRITERIA**
 - **EXPLOSIVE SEVERANCE SCENARIO MITIGATION PROJECT CRITERIA**
 - **SITE-CLEARANCE TRAWLING REPORTING PROJECT CRITERIA**
 - **SEA TURTLE RESUSCITATION GUIDELINES PROJECT CRITERIA**
- **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 NMFS with violation of the Act. If you have questions, contact NMFS at (727) 824-5344.
- **PROGRESSIVE-TRANSPORT/"HOPPING" (STRUCTURE REMOVALS):** In accordance with the Outer Continental Shelf Lands Act (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

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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 Notice to Lessees (NTL) No. 2009-G39 and 30 CFR § 550.194, 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 reiterated in 30 CFR § 550.195, 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 (OEC) at Env-Compliance-Arc@bsee.gov, contact the BSEE Marine Archaeologists at 504-736-2947, and send a confirmation email to archaeology@boem.gov. 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.

- **NON-RECURRING MITIGATION (HARD BOTTOMS/PINNACLES/PSBFs):** Review of the application indicates there are Potentially Sensitive Benthic Features (PSBFs - labeled as possible outcrops on your anchor plat) located in the vicinity of proposed bottom-disturbing activities at the proposed reef site. These features likely provide habitat for sensitive biological communities. Any bottom-disturbing activities, including anchoring and jacket placement, must avoid PSBFs depicted on your anchor plat by at least 100 feet (ft).

All bottom disturbing activities **must** avoid contact with any hard bottoms by a minimum of 100 ft. Include in your Post-removal Report as-built plats, at a scale of 1 inch = 1,000 ft with DGPS accuracy, depicting the as-placed location of all anchors, anchor chains, and wire ropes deployed on the seafloor during the decommissioning activities. BOEM also **requires** that efforts be made (e.g., mid-line buoys) to provide a minimum clearance of anchor lines from the seafloor in the event that they cross hard bottom. Please indicate the locations of mid-line buoys (if used) and the minimum clearance from the hard bottom in the as-placed anchor plat maps.

Because of the density of PSBFs in the proposed anchoring area, BOEM suggests the following additional **optional mitigation** that before anchors are placed, the operator perform a side-scan/sector-scan of the seabed in the anchoring areas. The scans should be of sufficient resolution to determine the presence and outline of hard bottom habitat on a scale of roughly 1m x 1m and cover the entirety of the anchoring locations. The operator may use the survey results to inform anchor placement.

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- **NON-RECURRING MITIGATION (HARD BOTTOMS/PINNACLES/PSBFs - PAS):** Prior to the removal operation, the Operator shall conduct a tow route survey and submit it with their post-activity completion report to BSEE with a scale of 1 inch = 1,000 ft. The survey should be of sufficient resolution to identify seafloor features 0.5 m (1.64 ft) in length at maximum range as well determine changes in vertical relief at a resolution of 0.5 m (1.64 ft). A side scan sonar mosaic is strongly preferred. Should the survey indicate any hard bottom present, the tow route is to be adjusted to avoid any hard bottom areas by a distance of at least 100 ft. Additionally, when the jacket is lifted and towed to the reefing site, the lowest point of the jacket is to be maintained a minimum of 15 ft above the shallowest contour (i.e., 15-ft clearance) during the transit.

Conclusion: BOEM has evaluated the potential environmental impacts of the proposed action. Based on the SEA for applications 2022-133A, 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

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May 12, 2026

Date

Perry Boudreau
Supervisor, Environmental Assessment Unit 2
Office of Environment, Gulf of America OCS Region
Bureau of Ocean Energy Management

Certification of Environmental Assessment Compliance

This letter certifies that the attached site-specific environmental assessment (SEA) for Structure Removal Application Number 2022-133A submitted by Talos Decommissioning, Inc complies with the requirements outlined in Section 1.5 of the United States Department of the Interior (DOI) Handbook of National Environmental Policy Act (NEPA) Implementing Procedures (516 DM 1).

Page Limit Certification

The SEA, not including citations and appendices, does not exceed the 75-page limit. This document has been prepared in accordance with the specified formatting criteria outlined in Section 1.5(e) of 516 DM 1. As the responsible official, I certify that the breadth and depth of the analysis have been tailored to meet this page limit. This SEA represents the Bureau of Ocean Energy Management's (BOEM's) good-faith effort to prioritize the most important considerations required by NEPA within the mandated page limits. Our prioritization reflects the bureau's expert judgment, and any considerations addressed briefly or left unaddressed were, in our judgment, not of a substantive nature that would have meaningfully informed the environmental effects or the resulting decision.

Deadline Certification

This SEA has been completed within the required statutory deadline described in Section 1.5(f) of 516 DM 1. The completion date of this document is within one year of January 7, 2026, which is when the Structure Removal Application was accepted as complete. I certify that this document represents the bureau's good-faith effort to fulfill NEPA's requirements within the congressional timeline. In our expert opinion, the analysis is thorough and adequate to inform and reasonably explain the bureau's decision regarding the proposed action

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Perry Boudreaux
Supervisor, Environmental Assessment Unit 2
Office of Environment, Gulf of America OCS Region
Bureau of Ocean Energy Management

May 12, 2026

Date

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

SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT
OF

STRUCTURE-REMOVAL APPLICATION ES/SR NO.
2022-133A

FOR

Talos Energy Offshore, LLC

IN

Vermilion Block 279
Lease OCS-G 11881
Complex ID 32030-1

Date Submitted: January 7, 2026

Commencement Date: July 2026

RELATED ENVIRONMENTAL DOCUMENTS

Biological Opinion Oil and Gas Leasing, Exploration, Development, Production,
Decommissioning, and All Related Activities in the Gulf of Mexico Outer Continental Shelf
(FWS April 20, 2018)

Programmatic description of the potential effects from Gulf of Mexico OCS oil- and gas-related
activities: A supporting information document (OCS SID BOEM 2023-053)

Biological and Conference Opinion on Bureau of Ocean Energy Management and Bureau of
Safety and Environmental Enforcement's Oil and Gas Program Activities in the Gulf of America
(NMFS May 20, 2025)

Gulf of America Regional OCS Oil and Gas Lease Sales and Post Lease Activities Final
Programmatic Environmental Impact Statement (OCS EIS/EA BOEM 2025-042)

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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 2022-133A initially submitted by Talos Energy Offshore, LLC (Talos) on January 7, 2026, 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. Talos proposes to remove Platform A from Vermilion Block 279 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 Outer Continental Shelf (OCS) related laws.

The potential effects or impacts caused by similar actions to those proposed were examined at a basin-wide scale on the OCS in the *Gulf of America Regional OCS Oil and Gas Lease Sales and Post Lease Activities Final Programmatic Environmental Impact Statement (2025 PEIS)* (OCS EIS/EA BOEM 2025-042; BOEM 2025), from which this SEA is tiered.

“Tiering” designed to reduce and simplify the size of environmental assessments by eliminating repetitive discussions of impacts considered in prior NEPA compliance documents, allowing analysis to focus on those site-specific concerns and effects related to the action proposed. Tiering is subject to additional guidance under the United States Department of the Interior (DOI) regulations at 43 Code of Federal Regulations (CFR) § 46.140 and the DOI NEPA Handbook § 3.2(c), wherein the site-specific analysis must note which conditions and effects addressed in the programmatic document remain valid and which conditions and effects require additional review.

This SEA also incorporates by reference the evaluations from the relevant environmental documents listed below:

- 2018 FWS BO – Biological Opinion Oil and Gas Leasing, Exploration, Development, Production, Decommissioning, and All Related Activities in the Gulf of Mexico Outer Continental Shelf, United States Fish and Wildlife Service (FWS) April 20, 2018 (FWS, 2018).
- 2023 SID – Programmatic description of the potential effects from Gulf of Mexico OCS oil- and gas-related activities: A supporting information document (OCS SID BOEM 2023-053; BOEM, 2023).
- 2025 NMFS BiOp – Biological and Conference Opinion on Bureau of Ocean Energy Management and Bureau of Safety and Environmental Enforcement’s Oil and Gas Program Activities in the Gulf of America and Appendices and Attachments, National Marine Fisheries Service (NMFS) May 20, 2025 (NMFS, 2025).

Secretary of the Interior Doug Burgum issued Secretary’s Order 3423, which directed the renaming of the Gulf of Mexico to the Gulf of America. As a result, the Bureau of Ocean Energy Management (BOEM) updated existing content while legacy content such as previously published reports, studies, and NEPA documents remain unchanged.

Chapter 3 of this SEA will include a brief discussion of the known effects on analyzed resources potentially affected by the proposed action. Where applicable, relevant affected environment discussions and impact analyses from the 2023 SID and 2025 PEIS are summarized and utilized for these site-specific analyses and are incorporated by reference into this SEA. Relevant conditions of approval (COAs) identified in the 2023 SID, 2025 NMFS BiOp, and 2025 PEIS have been considered in the evaluation of the proposed action.

Talos proposes to reef the jacket of Vermilion Block 279 Platform A in the Louisiana Department of Wildlife and Fisheries’ (LDWF) East Cameron 272 Reef. Disposal of obsolete offshore oil and gas platforms is not only a financial liability for the oil and gas industry, but it can also be a loss of productive marine habitat. The use of obsolete oil and gas platforms for reefs has proven to be highly successful. Their availability, design profile, durability, and stability

provide a number of advantages over the use of traditional artificial reef materials. To capture this valuable fish habitat, the States of Louisiana, Texas, and Mississippi, in 1986, 1989, and 1999, respectively, passed enabling legislation and signed into law a Rigs to Reef (RTR) program to coincide with their respective States' Artificial Reef Plan. Alabama and Florida have no RTR legislation. The State laws set up a mechanism to transfer ownership and liability of the platform from oil and gas companies to the State when the platform ceases production, and the lease is terminated. The company (donor) saves money by donating a platform to the State (recipient) for a reef rather than scrapping the platform onshore. The States' artificial reef planning areas, general permit areas, and permitted artificial reef sites within the area of influence are discussed in the 2023 SID.

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.
- 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 Gulf resources from activities proposed in Talos's ES/SR applications, 2022-133A, were fully discussed and analyzed. Neither the specific location, equipment, nor the duration of this proposal will result in impacts different from those discussed in the 2023 SID, 2025 NMFS BiOp, and 2025 PEIS.

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 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 Talos 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 CFR § 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 2023 SID.

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

1.3. Description of the Proposed Action

Talos proposes to remove Platform A in Vermilion Block 279, Lease OCS-G 11881, Complex ID 32030-1, using explosive severance methods. Abrasive or mechanical cutting will be used as back up. The structure is located at a water depth of 180 ft (55 m) and lie approximately 81 miles (130 kilometers (km)) from the nearest Louisiana shoreline. Operations will be conducted from an onshore support base in Port Fourchon, Louisiana. The operator will remove all casing wellhead equipment and piles 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 derrick barge will be 5,000 ft (1,524 m). Talos proposes to reef the jacket of the structure in the LDWF East Cameron 272 Reef; the decks and equipment will be transported to shore for disposal. According to the operator, the structure will be removed because there is no further production (Talos, 2026). Talos 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. Talos's decommissioning permit application includes additional information about the proposed activities and is incorporated herein by reference.

2. ALTERNATIVES CONSIDERED

2.1. 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 2023 SID, 2025 NMFS BiOp, 2025 PEIS, and this SEA.

2.2. 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, OCSLA and all applicable regulations (as per 30 CFR § 550.101(a)), and guidance provided in all appropriate Notice to Lessees (NTLs) (as per 30 CFR § 550.103). However, no additional, site-specific COAs would be required by BOEM.

2.3. 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 COAs and Project Criteria (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 COAs or monitoring measures beyond what was stated in the application. However,

BOEM has determined that additional COAs 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 COAs 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:

- **PROJECT CRITERIA:** The applicant will adhere to the following Project Criteria, as described in the Appendix to this SEA.
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- **ARCHAEOLOGICAL RESOURCE REPORTING DURING SITE-CLEARANCE:** Per 30 CFR § 250.194(c) and reiterated in 30 CFR § 550.195, 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 (OEC) at Env-Compliance-Arc@bsee.gov, contact the BSEE Marine Archaeologists at 504-736-2947, and send a confirmation email to archaeology@boem.gov. 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.

- **NON-RECURRING MITIGATION (HARD BOTTOMS/PINNACLES/PSBFs):** Review of the application indicates there are Potentially Sensitive Benthic Features (PSBFs - labeled as possible outcrops on your anchor plat) located in the vicinity of proposed bottom-disturbing activities at the proposed reef site. These features likely provide habitat for sensitive biological communities. Any bottom-disturbing activities, including anchoring and jacket placement, must avoid PSBFs depicted on your anchor plat by at least 100 feet (ft).

All bottom disturbing activities **must** avoid contact with any hard bottoms by a minimum of 100 ft. Include in your Post-removal Report as-built plats, at a scale of 1 inch = 1,000 ft with DGPS accuracy, depicting the as-placed location of all anchors, anchor chains, and wire ropes deployed on the seafloor during the decommissioning activities. BOEM also **requires** that efforts be made (e.g., mid-line buoys) to provide a minimum clearance of anchor lines from the seafloor in the event that they cross hard bottom. Please indicate the locations of mid-line buoys (if used) and the minimum clearance from the hard bottom in the as-placed anchor plat maps.

Because of the density of PSBFs in the proposed anchoring area, BOEM suggests the following additional **optional mitigation** that before anchors are placed, the operator perform a side-scan/sector-scan of the seabed in the anchoring areas. The scans should be of sufficient resolution to determine the presence and outline of hard bottom habitat on a scale of roughly 1m x 1m and cover the entirety of the anchoring locations. The operator may use the survey results to inform anchor placement.

- **NON-RECURRING MITIGATION (HARD BOTTOMS/PINNACLES/PSBFs - PAS):** Prior to the removal operation, the Operator shall conduct a tow route survey and submit it with their post-activity completion report to BSEE with a scale of 1 inch = 1,000 ft. The survey should be of sufficient resolution to identify seafloor features 0.5 m (1.64 ft) in length at maximum range as well determine changes in vertical relief at a resolution of 0.5 m (1.64 ft). A side scan sonar mosaic is strongly preferred. Should the survey indicate any hard bottom present, the tow route is to be adjusted to avoid any hard bottom areas by a distance of at least 100 ft. Additionally, when the jacket is lifted and towed to the reefing site, the lowest point of the jacket is to be maintained a minimum of 15 ft above the shallowest contour (i.e., 15-ft clearance) during the transit.

2.5. Alternatives Considered but Not Analyzed in Detail

Other alternatives considered but not analyzed in detail include:

- “In-situ” abandonment only (no decommissioning permitted).
- Decommissioning with “unlimited” severance options (no limit on explosive charge).
- Decommissioning 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 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. Talos'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 Gulf; 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 Talos's proposed activities will significantly impact the human, coastal, or marine environments of the Gulf. For the impact analysis, resource-specific criteria were developed for each category of the affected environment and are described in the 2025 PEIS. The impacts to environmental resources are described in the 2025 PEIS and are classified into one of the following impact levels:

- Negligible,
- Minor,
- Moderate, or
- Major

Preliminary screening for this assessment was based on a review of previous SEAs, the 2023 SID, 2025 NMFS BiOp, 2025 PEIS, and relevant literature pertinent to historic and projected activities. BOEM initially considered the following resources for impact analysis:

- air quality,
- water quality, including 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, including 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 2025 PEIS, 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 as having negligible impacts from decommissioning activities under the Multisale EIS. 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, including coastal and marine waters,
- fish resources, commercial and recreational fishing, and EFH,
- benthic resources including live-bottom Pinnacle Trend communities and topographic features,
- 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 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, including potentially sensitive topographic/benthic features, 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 the 2023 SID and 2025 PEIS and is incorporated by reference. The marine mammal community is diverse and distributed throughout the Gulf, 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 and are identified in the NMFS Gulf of Mexico Stock Assessment Reports (Hayes et al., 2024). The 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 Rice'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 structure removal were discussed in the 2023 SID and 2025 PEIS. Potential effects of explosive severance during platform decommissioning on marine mammals include mortality, injury, hearing effects, and behavioral effects (Richardson et al., 1995). The extent of injury largely depends on the intensity of the shock wave and the size and depth of the animal (Craig, 2001; Yelverton et al., 1973).

Marine mammal injury or mortality is not expected from explosive structure-removal operations, provided that existing guidelines and COA requirements are followed, including the Explosive-Severance Scenario Mitigation Project Criteria. Protocols require 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 prevents or minimizes adverse effects on marine mammals from these activities.

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 prevent or minimize the potential for vessel strikes, operators must implement the Vessel Transit through the Rice's Whale Area Project Criteria and the Vessel Strike Avoidance and Injured and/or Dead Aquatic Protected Species Reporting Project Criteria for marine mammals and other protected species. In addition, the accidental discharge of marine trash and debris generated during oil and gas activities has the potential to impact marine mammals and operators must implement the

Marine Debris Project Criteria, which are designed to prevent or substantially reduce marine trash and debris. There is a potential for lines in the water during the proposed activities; however, operators must implement the In-water Line Precaution Project Criteria, which are designed to prevent marine mammal and other protected species interactions with lines in the water by requiring lines to remain taut. Adherence to the project criteria is expected to prevent or decrease the potential of marine mammal interaction with IPFs.

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. For example, no associated vessel traffic related to the operations eliminates the 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 COAs required by BOEM. Examples of potential impacts to marine mammals without applying COAs and monitoring measures include, but are not limited to, mortality or injury from pressure waves from use of explosives underwater, behavioral changes, and/or hearing 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 COAs allows the applicant to conduct the proposed activity with COAs and monitoring measures applied, which would prevent or minimize the possible impacts of the proposed action on marine mammals.

Conclusion: Although there could be impacts to marine mammals from the proposed action, proper adherence to the COAs 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 COAs 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 the 2023 SID and 2025 PEIS and is incorporated by reference into this SEA. Five ESA-listed sea turtle species are present throughout the northern Gulf 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 on the Gulf coast during the nesting season. All five species are highly migratory with individuals migrating into nearshore waters as well as other areas of the Gulf, 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 2023 SID and 2025 PEIS. 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), accidental collisions with OCS service vessels associated with the proposed activities, and potential capture in site-clearance trawls.

Shock and pressure waves generated from explosive severance may cause impacts to sea turtles, including behavioral disturbances, hearing impacts, injury, and death (DOI, MMS, 2005). Sea turtles have been documented as being severely injured and, in a few cases, killed as a result of explosive severance (Gitschlag et al., 1997; Klima et al., 1988; Zawawi et al., 2023), though other studies suggest that sea turtle ears may be relatively resistant to damage from explosives

(Ketten et al., 2005). Impacts from any sound source are relative to the type, frequency, intensity, and duration of the source and the distance to the animal (BOEM, 2021). Sea turtle injury or mortality is not expected from explosive structure-removal operations, provided that existing guidelines and COA requirements are followed, including the Explosive-Severance Scenario Mitigation Project Criteria. Protocols describe requirements that trained observers watch for protected species in the vicinity of the structures to be removed prior to detonations to ensure animals are clear of the area, preventing or minimizing adverse effects on 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 prevent or minimize the potential for vessel strikes, operators must implement the Vessel Strike Avoidance and Injured and/or Dead Aquatic Protected Species Reporting Project Criteria for sea turtles and other protected species. 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 Marine Debris Project Criteria is expected to prevent or decrease the potential of sea turtle interaction with marine trash and debris. There is a potential for lines in the water during the proposed activities; however, operators must implement the In-water Line Precaution Project Criteria, which are designed to prevent sea turtle and other protected species interactions with lines in the water by requiring lines to remain taut.

Under the guidelines provided in NTL 2019-G05 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 of 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) abiding by maximum trawl times of 30 minutes, allowing for the removal of any captured sea turtles
- 3) immediately contacting BSEE's Environmental Compliance Division (ECD) at protectedspecies@bsee.gov and NMFS Southeast Regional Office (SERO) at takereport.nmfsser@noaa.gov in the event that a trawling contractor captures a sea turtle.

Additional measures would include adherence to the Sea Turtle Resuscitation Guidelines Project Criteria and the Site-Clearance Trawling Project Criteria. 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 at the addresses above.

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 are expected. Adherence to the project criteria is expected to prevent or decrease the potential of sea turtle interaction with IPFs.

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, for example.

Alternative 2: Approval of the proposed action would allow the applicant to conduct the proposed activity with no additional COAs 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), accidental 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 COAs allows the applicant to conduct the proposed activity with COAs and monitoring measures applied, which would prevent or minimize the possible impacts of the proposed action on sea turtles. Mitigative measures will be applied by BSEE in accordance with OCSLA and applicable consultation requirements.

Conclusion: Although there could be impacts to sea turtles from the proposed action, proper adherence to the COAs 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 recovery of any sea turtle species are expected.

3.4. Fish Resources

The distribution of fish resources and fish habitat can be found in the 2023 SID and 2025 PEIS and is incorporated by reference into this SEA.

The 2025 NMFS BiOp identified the following Federally listed fish species in the Gulf that may be found in the action area: The Gulf sturgeon, the oceanic whitetip shark, and the giant manta ray. The Gulf sturgeon (*Acipenser oxyrinchus*) was listed as threatened, effective October 30, 1991, under the ESA in the *Federal Register* (FR) at 56 FR 49653. The oceanic whitetip shark (*Carcharhinus longimanus*) was listed as threatened, effective March 1, 2018, under the ESA at 83 FR 4153. The giant manta ray (*Manta birostris*) was listed as threatened, effective February 21, 2018, under the ESA at 83 FR 2916. A detailed description of the Gulf sturgeon and critical habitat, oceanic white tip shark, and giant manta ray may be found in the 2025 NMFS BiOp.

In this region, the Gulf sturgeon is predominantly distributed in the rivers and nearshore waters of the northeastern Gulf, 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 Gulf and Florida Keys. Although no EFH or critical habitat has been designated, the giant manta rays are widespread in the region. 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 and Klimovich, 2016).

The distribution of fish 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 structure 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 the 2023 SID and 2025 PEIS.

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 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.

3.4.1.1. Alternatives

Alternative 1: Non-approval of the proposed action would prevent applicants from conducting the proposed activities. Impacts to fish or essential fish habitat because of a proposed activity would not occur, but habitat modification that resulted from previous installation activities would persist.

Alternative 2: Approval of the proposed action would allow the applicant to conduct the proposed activities with no additional COAs 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 COAs would allow the applicant to undertake the proposed activities with COAs and monitoring measures applied. 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 the 2023 SID and 2025 PEIS. These descriptions are incorporated by reference into this SEA. The vast majority of the Gulf has a soft, muddy bottom in which burrowing infauna are the most abundant invertebrates; so-called soft-bottom communities. A small area of the 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 structure removal were discussed in the 2023 SID. The effects of oil and gas activity on benthic resources, especially potentially sensitive live/hard bottom communities, were discussed in the 2023 SID and 2025 PEIS. 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 proposed 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 activities with no additional COAs 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 COAs, 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 with additional COAs would allow the applicant to undertake the proposed activities with COAs and monitoring measures as identified by BOEM. Alternative 3 differs from Alternative 2 because COAs 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 expected to be negligible.

3.6. Archaeological Resources

Archaeological resources are defined in 30 CFR § 550.105 as, "...the material remains of human life or activities that are at least 50 years of age and that are of archaeological interest, including any historic property described by the National Historic Preservation Act, as defined in 36 CFR § 800.16(l)." Archaeological interest means that it is capable of providing scientific or humanistic understanding of past human behavior, cultural adaptation, and related topics through the application of scientific or scholarly techniques, such as controlled observation, contextual measurement, controlled collection, analysis, interpretation, and explanation.

Archaeological sites on the OCS are most likely to be either historic shipwrecks or pre-contact Native American sites dating from the time at the end of the last Ice Age (~20,000 to 22,000 years ago), when sea levels were about 427 feet (130 meters) lower than they are today. Based on our current understanding of archaeological and geological evidence, BOEM has adjusted, over time, its understanding of when and where people may have lived on the OCS when it was a terrestrial landform. Based on this new evidence, consultations with Native American Tribes, advances in remote sensing technology, and new coring methodologies to locate submerged ancient landforms, BOEM has updated the depth within the Gulf where remote sensing surveys for ancient landforms are required (from the previous depth of 60 to 130 m [200 to 427 ft]). Submerged historic archaeological resources in the OCS and along the Gulf Coast consist mostly of historic shipwrecks and historic aircraft. A historic shipwreck is defined as a submerged or

buried vessel or its associated components, at least 50 years old, that has foundered, stranded, or wrecked, and that is currently lying on or embedded in the seafloor.

A proprietary database of shipwrecks maintained by BOEM currently lists over 1,300 named shipwrecks in the Gulf. Many of these reported shipwrecks may qualify for listing on the National Register of Historic Places. Although a number of shipwrecks have been identified based on historical documents, there are many others that have yet to be located and many more still for which no record of their loss survives and whose identity and location remains unknown.

3.6.1. Impact Analyses

The IPFs on archaeological resources from proposed activities were discussed in the 2023 SID and 2025 PEIS. 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 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 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 COAs and monitoring measures required by BOEM. An example of potential impacts to archaeological resources and the following analysis includes, but is 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 COAs are described in the 2023 SID. The operator proposes decommissioning activities at sites that may be located near potential archaeological resources which, without additional COAs, 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 with additional COAs would allow the applicant to undertake the proposed activities with additional COAs 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 COAs and existing requirements negates or minimizes the potential for significant impacts to these resources. The impacts of the proposed action are expected to be negligible.

3.7. Cumulative Impacts

Cumulative impacts from the proposed action were discussed in the 2023 SID for resources not directly considered in this SEA for marine mammals, sea turtles, protected and non-protected species of fish and EFH, archaeological resources, and benthic resources. Based on the OCS cumulative impact scenarios and assessments presented in the 2023 SID and 2025 PEIS and the potential effectiveness of assigned COAs, Project Criteria, and lease stipulations, BOEM expects that potential cumulative impacts from OCS-related 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

On March 31, 2026, the Endangered Species Committee convened in Washington, D.C. to consider the Secretary of Defense's determination that an exemption from the ESA was necessary for national security purposes in relation to Gulf oil- and gas-activities. The Committee voted to grant the exemption pursuant to Section 7(j) of the ESA. In accordance with 16 U.S.C. § 1536(j), post-lease oil- and gas-activities are therefore exempt from the ESA's consultation requirements and take prohibitions under the Committee's March 31, 2026, order. The order further directs BOEM and BSEE to implement all existing mitigation and monitoring measures, identified as project criteria, through their OCSLA approval processes, and these measures will continue to be imposed as COAs.

NMFS published the final rule implementing EFH provisions of the Magnuson-Stevens Fisheries Conservation and Management Act on January 17, 2002 (NMFS 2002); certain OCS oil- and gas- related activities authorized by BOEM may result in adverse effects to EFH and therefore require EFH consultation. BOEM prepared an EFH Assessment that described the proposed OCS activities, analyzed the effects on EFH, and identified mitigating measures (BOEM 2022). The EFH Assessment was sent to NMFS on May 25, 2022, with a letter requesting formal consultation. NMFS responded to BOEM's request with conservation recommendations on July 29, 2022. The regional programmatic EFH consultation concluded on September 27, 2022, when BOEM and BSEE responded via letter to NMFS' conservation recommendations. The programmatic EFH consultation covers reasonably foreseeable oil- and gas- related activities on the OCS. The conservation recommendations contain provisions for initiating supplemental discussions for site-specific or activity-specific consultations, if warranted (BOEM, 2025).

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 Part 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/Record of Decision or an Environmental Assessment/Finding of No Significant Impact to comply with Section 106 of the National Historic Preservation Act in lieu of 36 CFR §§ 800.3-800.6.

In February 2016, the U.S. Government Accountability Office (GAO) prepared a report entitled "Oil and Gas Management: Interior's Bureau of Safety and Environmental Enforcement Restructuring Has Not Addressed Long-Standing Oversight Deficiencies" (GAO 2016). This report examined the extent to which BSEE's restructuring at the time had an effect on its capabilities for (1) investigations, (2) environmental compliance, and (3) enforcement. The GAO reviewed BSEE's management of oil and gas pipelines (GAO 2021) and oversight of decommissioning deadlines (GAO 2024). In the 2024 report, GAO found that DOI could better enforce decommissioning deadlines and mitigate the safety, environmental, and financial risks that unmet decommissioning obligations pose by ensuring BSEE and BOEM prioritize completing planned actions. As a result, the GAO made four recommendations to strengthen BSEE's and BOEM's decommissioning oversight and enforcement (GAO 2024):

- 1) strengthen BSEE's approach to proactively overseeing and enforcing decommissioning deadlines
- 2) complete planned actions to identify, propose, finalize, and fully implement changes to decommissioning regulations and guidance
- 3) completed planned actions to further develop, finalize, and fully implement changes to financial assurance regulations and procedures that reduce financial risks
- 4) complete planned actions to assess and revise qualification procedures to address decommissioning capacity and compliance history

DOI agreed with these recommendations and is currently working towards their implementation.

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APPENDIX
PROJECT CRITERIA

A. MARINE DEBRIS PROJECT CRITERIA

Marine debris poses a threat to fish, marine mammals, sea turtles, and potentially other marine animals; causes costly delays and repairs for commercial and recreational boating interests; detracts from the aesthetic quality of recreational shore fronts; and increases the cost of beach and park maintenance. The discharge of garbage and debris has been the subject of strict laws, such as MARPOL-Annex V and the Marine Debris Act, 33 U.S.C. 1951 et seq., and regulations imposed by various agencies including the United States Coast Guard (USCG) and the U.S. Environmental Protection Agency (USEPA).

These protocols will be implemented by BOEM, BSEE, and lessees in complying with OCSLA (43 U.S.C. §§ 1331 et seq), ESA (16 U.S.C. §§ 1531-1544) and/or MMPA (16 U.S.C. §§1361- 1423h). The BOEM/BSEE proposed action under the 2025 NMFS BiOp includes robust avoidance or minimization measures (i.e., protocols), and those measures will continue to be implemented in the Gulf as project criteria under the 2026 Endangered Species Committee Order, as well as pursuant to the Bureaus' authority under OCSLA (43 U.S.C. §§ 1331 et seq.).

A.1. DEFINITIONS

Marine debris means as any object or fragment of wood, metal, glass, rubber, plastic, cloth, paper or any other solid, human-made item or material that is lost or discarded in the marine environment by the Lessee while conducting oil and gas activities on the OCS in connection with a lease, grant, or approval issued by BOEM and BSEE.

A.2. PROTOCOL

A.2.1. Marine Debris Placards

The permit holders must post placards that include each of the information text boxes in Attachment 1 of this Project Criteria in prominent places on all vessels, offshore training or orientation areas engaged in oil and gas operations in the Gulf OCS or where activity occurs. Each of the placards depicted, with the language specified, must be displayed on a 5x8 inch format or larger. One or more areas may be omitted if there is insufficient space. These notices must be referenced, and their contents explained, during any initial orientation given on the vessel. Placards must be sturdy enough to withstand the local environment and must be replaced when damage or wear compromises readability.

A.2.2. Marine Debris Training and Certification Process

All vessel operators, employees, and contractors performing OCS activities on behalf of the lessee must complete marine debris awareness training annually. The training consists of two parts:

1. viewing a marine debris training video or slide show (described below), and
2. receiving an explanation from management personnel that emphasizes their commitment to the requirements.

The marine debris training videos, training slide packs, and other marine debris related educational materials may be found at <https://www.bsee.gov/debris> and <https://www.octraining.org/>. The training videos, slides, and related material may be downloaded directly from the website.

Lessees engaged in oil and gas activities must continue to develop and use a marine debris awareness training and certification process that reasonably assures that they, and their respective employees, contractors, and subcontractors are, in fact, trained.

The training process must include the following elements:

1. A viewing of either the video or the slide show by the personnel specified above.

2. An explanation from the management that conveys the commitment of the company to achieve the objectives of the debris containment requirement.
3. Attendance measures (initial and annual).
4. Recordkeeping and availability of records for inspection by BSEE.

Training Report: By January 31st of each year, the lessee must provide BSEE with an annual report (1–2 pages) signed by a company official that describes your marine debris awareness training process, number of people trained, estimated related costs, and certifies that the training process has been followed for the previous calendar year. You should send the report and any questions concerning compliance by email to marinedebris@bsee.gov. In lieu of emailing the report, you may send a printed copy to:

Bureau of Safety and Environmental Enforcement
Environmental Compliance Division - Gulf of America Section
1201 Elmwood Park Blvd.
New Orleans, Louisiana 70123

A.3. MARINE DEBRIS MARKING AND SECURING

Marking: Materials, equipment, tools, containers, and other items used in OCS activities which could be lost or discarded overboard must be clearly marked with the vessel or facility identification. All markings must clearly identify the owner and must be durable enough to resist the effects of the environmental conditions to which they may be exposed.

Securing: Materials, equipment, tools, containers, and other items used in OCS activities which could be lost or discarded overboard must be properly secured to prevent loss overboard.

Marine Debris Incidents

Recovery: Lessees must recover marine debris that is lost or discarded in the marine environment while performing OCS activities. If the marine debris is located within the boundaries of a potential archaeological resource and/or avoidance area, or a sensitive ecological and/or benthic resource area, the Lessee must contact BSEE for approval prior to conducting any recovery efforts that could impact the seafloor. The Lessee must enact steps throughout its OCS program to prevent similar incidents and must submit a description of these actions to BSEE in the Recovery Report below.

48-Hour Report: Lessees must submit a report to BSEE within 48 hours of a marine debris incident via marinedebris@bsee.gov. The “48-Hour Report” must describe recovery efforts or explain in detail if the Lessee determined that debris recovery is not warranted because (a) conditions are unsafe, (b) debris is insignificant and unrecoverable because it has floated away or sunk to the seafloor, or (c) debris is insignificant and immediate recovery is cost prohibitive. If conditions are unsafe, recovery must be attempted when conditions become safe. The Lessee must recover the marine debris lost or discarded if BSEE does not agree with the reasons provided by the Lessee to be relieved from the obligation to recover the marine debris. The 48- Hour Report must also include the following:

- a) project identification and contact information for the lessee, operator, and/or contractor
- b) the date and time of the incident
- c) the lease number, OCS area and block, and coordinates of the object’s location (latitude and longitude in decimal degrees)
- d) a detailed description of the dropped object to include dimensions (approximate length, width, height, and weight), composition (e.g., plastic, aluminum, steel, wood, paper, hazardous substances, or defined pollutants), and whether it floats or sinks in seawater

- e) pictures, data imagery, data streams, and/or a schematic/illustration of the object, if available
- f) indication of whether the lost or discarded item could be a magnetic anomaly of greater than 50 nanotesla (nT), a seafloor target of greater than 0.5 m, or a sub-bottom anomaly of greater than 0.5m when operating a magnetometer or gradiometer, side scan sonar, or sub-bottom profiler in accordance with BOEM's and BSEE's applicable guidance
- g) an explanation of how the object was lost; and a description of immediate recovery efforts and results, including photos.

Recovery Plan: The Lessee must submit a "Recovery Plan" to BSEE via marinedebris@bsee.gov if marine debris is not recovered in 48 hours and BSEE determines that recovery is warranted. If BSEE does not object to an assertion in the 48-Hour Report that recovery is not warranted, then a Recovery Plan is not needed. The Recovery Plan must be submitted no later than 10 calendar days from the date in which the incident occurred and must detail a plan to recover the debris within 30 days from the date in which the incident occurred. Unless otherwise objected to by BSEE within 48 hours of the filing of the Recovery Plan, the Lessee can proceed with the activities described in the Recovery Plan. The Lessee must request and obtain approval of a time extension if recovery activities cannot be completed within 30 days from the date in which the incident occurred.

Recovery Report: The Lessee must submit a "Recovery Report" to BSEE via marinedebris@bsee.gov within 10 calendar days from the date in which the recovery activities are completed. The Recovery Report must inform BSEE whether the debris has been recovered, a description of the recovery activities, and any substantial deviation from recovery activities as proposed in the Recovery Plan. The Lessee must describe steps enacted throughout all the Lessee's OCS leases to prevent similar incidents. If recovery was performed within 48 hours and described in the 48-Hour Report, or recovery is unwarranted, a Recovery Report is not required.

Decommissioning Application: Information on unrecovered marine debris must be included and addressed in the description of the site clearance activities provided in the decommissioning application required under 30 CFR § 285.906.

Attachment 1. Marine Debris Placards

WHAT IS MARINE DEBRIS?

Marine debris is any object or fragment of wood, metal, glass, rubber, plastic, cloth, paper or any other man-made item or material that is lost or discarded in the marine environment. Marine debris may be intentionally dumped, accidentally dropped, or indirectly deposited.

Whatever the source, marine debris is a direct result of human activities on land and at sea. Depending upon its composition, marine debris may sink to the seafloor, drift in the water column, or float on the surface of the sea.

Certain debris, such as plastics, can persist for hundreds of years in the marine environment without decomposing.

WARNING!

YOUR ACTIONS MAY SUBJECT YOU TO SEVERE LEGAL CONSEQUENCES!

The disposal and/or discharge of any solid waste anywhere in the marine environment (other than ground-up food particles) is strictly prohibited by U.S. Coast Guard and Environmental Protection Agency regulations. **THIS INCLUDES MATERIALS OR DEBRIS ACCIDENTALLY LOST OVERBOARD.**

The disposal of equipment, cables, chains, containers, or other materials into offshore waters is prohibited by the Bureau of Safety and Environmental Enforcement (30 CFR 250.300(b)(6)). **THIS INCLUDES MATERIALS OR DEBRIS ACCIDENTALLY LOST OVERBOARD.**

ATTENTION!

MARINE DEBRIS MAY CAUSE SEVERE ECOLOGICAL DAMAGE!

Marine debris discarded or lost from offshore and coastal sources may injure or kill fish, marine mammals, sea turtles, seabirds, and other wildlife.

Thousands of marine animals, including marine mammals, sea turtles and seabirds, die every year from being entangled in fishing line, strapping bands, discarded ropes and nets and plastic six-pack rings. Additionally, unknown numbers of marine animals die each year from internal injury, intestinal blockage, and starvation as a result of ingesting marine debris.

Marine debris fouls boat propellers and clogs water intake ports on engines thereby endangering the safety of fishermen and boaters and resulting in heavy loss of time and money.

Marine debris detracts from the aesthetic quality of recreational beaches and shorelines and increases the cost of park and beach maintenance.

ATTENTION!

SECURE ALL LOOSE ARTICLES!

NMFS now expects petroleum industry personnel to pick up and recover any articles lost overboard from boats and offshore structures as safety conditions permit. Additionally, 30 CFR 250.300(d) requires recording and reporting items lost overboard to the District Manager through facility daily operations reports.

Protect marine animals, as well as your valuable time and money, by doing the following to prevent accidental loss of these items:

Properly securing all materials, equipment, and personal belongings. Articles such as hardhats, life vests, sunglasses, cigarette lighters, parts bags, buckets, shrink wrap, strip lumber, and pipe thread protectors become marine debris when lost overboard.

Making sure that all trash receptacles have tight fitting lids and that the lids are used.

Providing and using secure cigarette butt containers. Cigarette butts are one of the most common forms of marine debris. Many cigarette butts contain some form of plastic and do not decompose in the ocean. Cigarette butts pose a major threat to marine wildlife as they resemble food and cause gut blockages and starvation when ingested.

Do our part to eliminate marine debris. Encourage others to be responsible about marine debris by making suggestions to secure potential marine debris on your boat or structure or by participating in a beach cleanup.

B. VESSEL STRIKE AVOIDANCE AND INJURED AND/OR DEAD AQUATIC PROTECTED SPECIES REPORTING PROJECT CRITERIA

These protocols (that are also considered project criteria because they were implemented as part of NMFS 2025 BiOp proposed action) will be required by BOEM, BSEE, and provide guidelines to operators in complying with OCSLA (43 U.S.C. §§ 1331 et seq.), ESA (16 U.S.C. §§ 1531-1544) and MMPA (16 U.S.C. §§1361- 1423h). The BOEM/BSEE proposed action under the 2025 NMFS BiOp includes robust avoidance or minimization measures (i.e., protocols), and those measures will continue to be implemented in the Gulf as project criteria under the 2026 Endangered Species Committee Order, as well as pursuant to the Bureau's authority under OCSLA (43 U.S.C. §§ 1331 et seq.). The measures contained herein apply to all vessels associated with the federally regulated oil and gas program in the Gulf.

B.1. AQUATIC PROTECTED SPECIES IDENTIFICATION

Crew and supply vessel personnel should use a Gulf reference guide that includes identifying information on marine mammals, sea turtles, and other marine protected species (i.e., species that are not marine mammals and ESA-listed such as Gulf sturgeon, giant manta ray, or oceanic whitetip shark; hereafter collectively termed "other aquatic protected species") that may be encountered on the OCS or anywhere activity occurs. Vessel operators must comply with the below measures except under extraordinary circumstances when the safety of the vessel or crew is in doubt or the safety of life at sea is in question.

B.1.1. Vessel Strike Avoidance

1. Vessel operators and crews must maintain a vigilant watch for all aquatic protected species and slow down, stop their vessel, or alter course, as appropriate and regardless of vessel size, to avoid striking any protected species. A single aquatic protected species at the surface may indicate the presence of submerged animals in the vicinity of the vessel; therefore, precautionary measures should always be exercised. A visual observer aboard the vessel must monitor a vessel strike avoidance zone (species-specific distances detailed below) around the vessel according to the parameters stated below, to ensure the potential for strike is minimized. Visual observers monitoring the vessel strike avoidance zone can be either third-party observers or crew members (e.g., captain), but crew members responsible for these duties must be provided sufficient training to distinguish aquatic protected species to broad taxonomic groups, as well as those specific species detailed further below.
2. Vessel speeds must also be reduced to 10 knots or less when mother-calf pairs, pods, or large assemblages (greater than three) of any marine mammal are observed near a vessel.
3. All vessels must maintain a minimum separation distance of 100 m from sperm whales, and 500 m from any baleen whale to specifically protect the Rice's whale. If the species is indistinguishable, then operators should assume it is a Rice's whale and act accordingly.
4. All vessels must, to the maximum extent practicable, attempt to maintain a minimum separation distance of 50 m from all "other aquatic protected species" including sea turtles and manatees, with an exception made for those animals that approach the vessel.
5. When aquatic protected species are sighted while a vessel is underway, the vessel should take action as necessary to avoid violating the relevant separation distance (e.g., attempt to remain parallel to the animal's course, avoid excessive speed or abrupt changes in direction until the animal has left the area). If aquatic protected species are sighted within the relevant separation distance, the vessel should reduce speed and shift the engine to neutral, not engaging the engines until animals are clear of the area. This does not apply to any vessel towing gear (e.g., source towed array and site clearance trawling).

6. All vessels 20 m (65 ft) or greater in support of oil and gas activities must have a functioning AIS onboard and operating at all times as required by the USCG. Even if the USCG does not require AIS for the vessel, it is strongly encouraged. At minimum, the reporting (as specified) must be followed and include trackline (e.g., time, location, and speed) data with Automatic Identification System (AIS) Maritime Mobile Service Identity (MMSI) numbers, if available.

The above requirements do not apply in any case where compliance would create an imminent and serious threat to a person or vessel or to the extent that a vessel is restricted in its ability to maneuver and, because of that restriction, is unable to comply.

B.1.2. Injured and/or Dead Protected Species Reporting

At all times, vessel operators must report sightings of any injured or dead aquatic protected species as soon as possible but no greater than 24 hours, regardless of whether the injury or death was caused by the operator's vessel. If the injury or death was caused by a collision with the operator's vessel, the operator must immediately report the incident to the appropriate NMFS contact below for 24-hour response. The operator must further notify BOEM, BSEE, and NMFS immediately of the strike by email to protectedspecies@boem.gov, protectedspecies@bsee.gov and takereport.nmfs@noaa.gov. The report must include the following information:

1. Name, telephone number, and email of company providing the report.
2. The vessel name at time of activity.
3. The lease number.
4. Time, date, and location (latitude and longitude [lat/long]) of the incident.
5. Species identification (if known) or description of the animal(s) involved.
6. Vessel's speed during and leading up to the incident.
7. Vessel's course/heading and what operations were being conducted (if applicable).
8. Status of all sound sources in use.
9. Description of avoidance measures/requirements that were in place at the time of the strike and what additional measures were taken, if any, to avoid strike.
10. Environmental conditions (e.g., wind speed and direction, Beaufort Sea State, cloud cover, visibility) immediately preceding the strike.
11. Estimated size and length of animal that was struck.
12. Description of the behavior of the marine mammal immediately preceding and following the strike.
13. If available, description of the presence and behavior of any other marine mammals immediately preceding the strike.
14. Estimated fate of the animal (e.g., dead, injured but alive, injured and moving, blood or tissue observed in the water, status unknown, disappeared).
15. To the extent practicable, photographs or video footage of the animal(s).

B.1.3. Incidents Requiring Immediate Reporting

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 ESA and/or MMPA) that could be present during operations. In case of entrapment, procedures and measures for reporting are dependent upon the situation at hand.

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 and/or entrapment is observed).

As soon as personnel and/or diver safety is ensured, any of the incidents listed above must be reported to NMFS by contacting the appropriate expert for 24-hour response. If an immediate response is not received, the operator must keep trying until contact is made. Any failed attempts should be documented. Contact information for reporting is as follows:

- Marine mammals: contact WHALE HELPLINE at 877-942-5343.
- Sea turtles: contact NMFS Veterinary Medical Officer at 352-283-3370. If no answer, contact 301-310-3061. This includes the immediate reporting of any observation of a leatherback sea turtle within a moon pool.
- 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.

The report must include the following information:

1. Time, date, water depth and location (latitude/longitude) of the first discovery (and updated location information if known and applicable).
2. Name, type, and call sign of the vessel in which the event occurred.
3. Equipment being used at time of observation.
4. Species identification (if known) or description of the animal(s) involved.
5. Approximate size of animal.
6. Condition of the animal(s) during the event and any observed injury and/or behavior.
7. Photographs or video footage of the animal(s), if able.
8. General narrative and timeline describing events that took place.

After the appropriate contact(s) have been made for guidance and/or assistance as described above, the operator 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. The operator may also contact this number if a timely response from the appropriate contact(s) listed above were not received. Minimum post-incident reporting includes all information described above in addition to the following:

1. NMFS liaison or stranding hotline that was contacted for assistance.
2. For moon pool observations or interactions:
 - a) Size and location of moon pool within vessel (e.g., hull door or no hull door).
 - b) Whether activities in the moon pool were halted or changed upon observation of the animal.
 - c) Whether the animal remains in the pool at the time of the report, or if not, the time and date the animal was last observed.

Post-incident reporting should be made to BOEM/BSEE and NMFS at protectedspecies@boem.gov, protectedspecies@bsee.gov and takereport.nmfs@noaa.gov.

C. VESSEL TRANSIT WITHIN THE RICE'S WHALE AREA

AS IDENTIFIED IN THE 2020 BIOLOGICAL OPINION'S REASONABLE AND PRUDENT ALTERNATIVE

Operators or their recognized representative must follow requirements below as appropriate when transiting through the Rice's Whale Area as identified in the 2020 Biological Opinion's Reasonable and Prudent Alternative (2020 RWA) when this transit is associated with either an initial plan/application or as part of a change to an existing plan/application when either vessel route and/or support base changes. The BOEM/BSEE proposed action under the 2025 NMFS BiOp includes robust avoidance or minimization measures (i.e., protocols), and those measures will continue to be implemented in the Gulf as project criteria under the 2026 Endangered Species Committee Order, as well as pursuant to the Bureaus' authority under OCSLA (43 U.S.C. §§ 1331 et seq.).

If transiting through any portion of the 2020 RWA, the BOEM Permit/Plan holder must submit a Post Transit Report upon completion to fulfil the reporting requirements as stated below to BOEM and BSEE (protectedspecies@boem.gov and protectedspecies@bsee.gov). Please be advised that changes to the use of a support base may trigger a revised plan (e.g., 30 CFR § 550.283), revised application, or modified permit (for geological and geophysical [G&G] activities). In the revised plan, application or permit, operators are required to follow the requirements defined in the NMFS 2025 BiOp proposed action, as required by the 2026 ESA Committee Order and the Bureaus' authority under OCSLA.

1. In the 2020 RWA, vessel operators and crews must maintain a vigilant watch for Rice's whales at all times and slow down, stop their vessel, or alter course, as appropriate and regardless of vessel size, to avoid striking any Rice's whale. Visual observers monitoring the 500 m vessel strike avoidance zone for Rice's whales can be either third-party observers or crew members (e.g., captain), but crew members responsible for these duties must be provided sufficient training to distinguish aquatic protected species to broad taxonomic groups, as well as those specific species detailed further below. If the species is indistinguishable, then operators should assume it is a Rice's whale and act accordingly (see below).

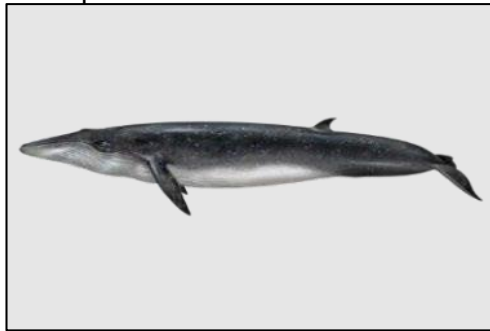


Figure depicting a Rice's whale

2. After completing transit through the 2020 RWA, you must prepare within seven (7) days a Post Transit Report describing the time the vessel entered and departed the 2020 RWA, any Rice's whale sightings or interactions (e.g., vessel avoidance) that occurred during transit, and any other marine mammal sightings or interactions. Post Transit Reports must be submitted to protectedspecies@boem.gov and protectedspecies@bsee.gov. The subject line of the email should include "Post Transit Report through 2020 RWA". Minimum reporting information is described below:
 - a) The plan, permit or other BOEM or BSEE number used to identify the activity.
 - b) Port used for mobilization and demobilization.
 - c) Automatic Identification System (AIS) including Maritime Mobile Service Identity (MMSI) numbers, if available.

- d) Time and date vessel entered and exited the 2020 RWA.
 - e) Time, date, water depth, and location (latitude/longitude) of the first sighting of the animal.
 - f) Name, type, and call sign of the vessel in which the sighting occurred.
 - g) Species identification (if known) or description of the animal involved.
 - h) Approximate size of animal (if known).
 - i) Condition of the animal during the event and any observed injury / behavior (if known).
 - j) Photographs or video footage of the animal, if available.
 - k) General narrative and timeline describing the events that took place.
 - l) Time and date vessel departed 2020 RWA.
 - m) Trackline (e.g., time, location, and speed) of vessel while within 2020 RWA.
 - n) Environmental conditions, including Beaufort Sea State (BSS) and any other relevant weather conditions including cloud cover, fog, sun glare, and overall visibility to the horizon.
3. All vessels, regardless of size, must observe a 10-knot, year-round speed restriction in the 2020 RWA. The only exception to the 10-knot vessel speed restriction would be when observing the speed restriction would cause the safety of the vessel or crew to be in doubt or the safety of life at sea to be in question.
 4. No transit is permissible through the 2020 RWA at nighttime or during low visibility conditions (e.g., BSS 4 or greater) except for emergencies (i.e., when the safety of the vessel or crew would otherwise be in doubt or the safety of life at sea is in question).
 5. All vessels must maintain a minimum separation distance of 500 m from Rice's whales. If a whale is observed but cannot be confirmed as a species other than a Rice's whale, the vessel operator must assume that it is a Rice's whale and take appropriate action.
 6. All vessels 65 feet (ft) or greater associated with oil and gas activity (e.g., source vessels, chase vessels, supply vessels) must have a functioning Automatic Identification System (AIS) onboard and operating at all times as required by the USCG. If the USCG does not require AIS for the vessel, it is strongly encouraged. At minimum, the reporting (as specified herein) must be followed and include trackline (e.g., time, location, and speed) data, with Automatic Identification System (AIS) Maritime Mobile Service Identity (MMSI) numbers, if available.
 7. If an operator, while operating within the 2020 RWA
 - a) exceeds the 10-knot vessel speed,
 - b) does not maintain a 500 m minimum separation distance from a Rice's whale, and/or
 - c) conducts transit in the 2020 RWA during nighttime or during low visibility conditions (e.g., BSS 4 or greater),
 the operator must notify BSEE and BOEM by emailing protectedspecies@bsee.gov and protectedspecies@boem.gov within 24 hours. The notification must be reported as a separate and distinct notification to the Post Transit Report with the title "Transit Deviation through 2020 RWA" in the subject line. The notification must provide a detailed explanation as to why the transit deviation occurred.
 8. This Protocol does not remove or alter the need to comply with any other applicable regulatory or legal requirements with respect to vessel operations, including as outlined in the *Vessel Strike Avoidance and Injured and/or Dead Aquatic Protected Species Reporting Project Criteria*.

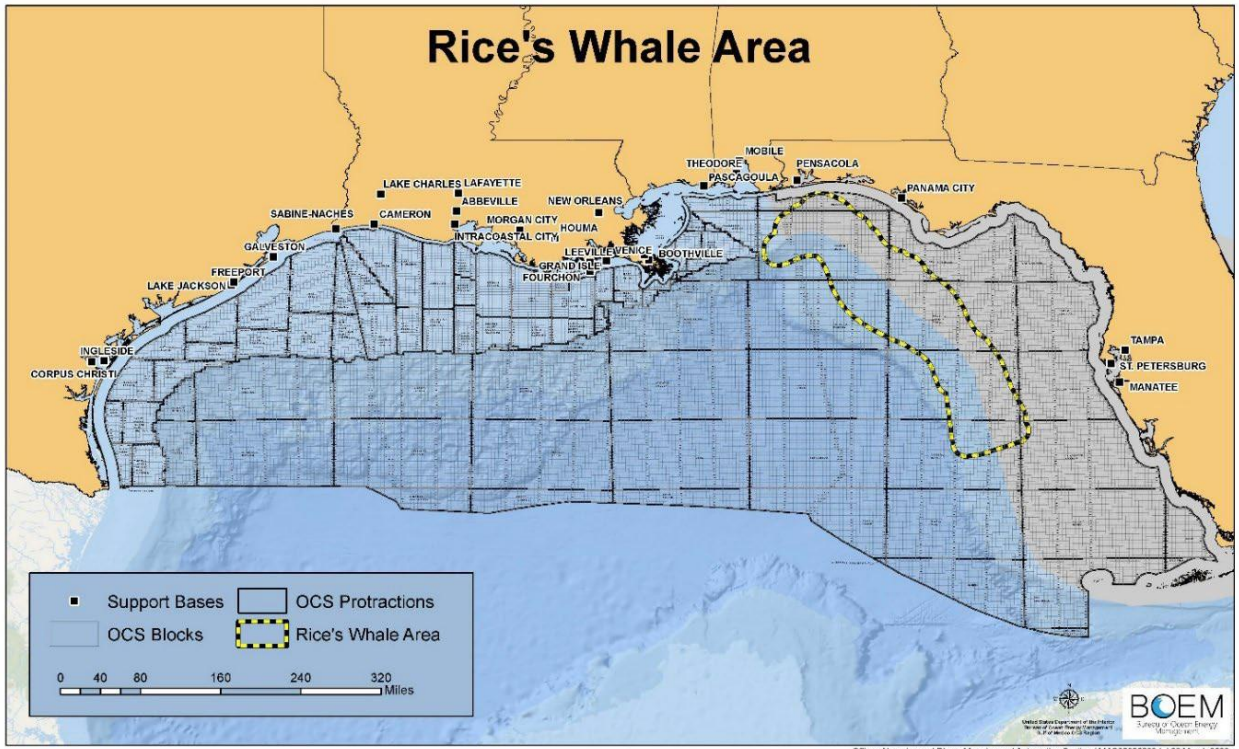


Figure depicting the 2020 RWA.

D. IN-WATER LINE PRECAUTION PROJECT CRITERIA

The BOEM/BSEE proposed action under the 2025 NMFS BiOp includes robust avoidance or minimization measures (i.e., protocols), and those measures will continue to be implemented in the Gulf as project criteria under the 2026 Endangered Species Committee Order, as well as pursuant to the Bureaus' authority under OCSLA (43 U.S.C. §§ 1331 et seq.). If operations require the use of flexible, small diameter lines to support operations (with or without divers), operators and/or 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 ESA and/or 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 use 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.
- Should the line tender and/or diver become aware of an entanglement of an individual protected species, the reporting requirements described above must be followed as soon as safety permits.

E. EXPLOSIVE SEVERANCE SCENARIO PROJECT CRITERIA

The BOEM/BSEE proposed action under the 2025 NMFS BiOp includes robust avoidance or minimization measures (i.e., protocols), and those measures will continue to be implemented as project criteria under the 2026 Endangered Species Committee Order as well as pursuant to the Bureaus' authority under OCSLA (43 U.S.C. §§ 1331 et seq.).

E.1. SARGASSUM HABITAT MONITORING

“Sargassum habitat” is defined as the presence of Sargassum in sufficient amounts that serve as developmental habitat in which small juvenile sea turtles are likely to be found. Small juvenile turtles are extremely difficult to detect and Sargassum habitat will be used as the primary indicator of their presence in an impact zone. Typically, the occasional presence of a few, small Sargassum “clumps” are not considered developmental habitat. Sargassum habitat for sea turtles is visually described as mats, continuous lines, broken windrows (short lines or non-linear clumps), or scattered patches (Table E-1). NMFS PSOs will be required to monitor local conditions to determine if Sargassum habitat is present based on the hourly conditions at a decommissioning site and implement the appropriate measures in Tables E-3 and E-4.

Table E-1. Description of Sea Turtle Sargassum Habitat Types

Sargassum Habitat Type	Description
Mat	One or more consolidated areas of Sargassum forming a mat large enough to provide shelter and/or food for a small sea turtle.
Continuous Line	One or more contiguous meandering lines or scattered patches along a linear path. Lines may be narrow or wide. These lines are often associated with convergence zones.
Broken Windrows	Many parallel, short lines or clumps that may or may not be distributed linearly.
Scattered Patches	Numerous patches scattered over an area.

Witherington et al., 2012

E.2. REQUIREMENTS FOR ESTABLISHING IMPACT ZONES

1. Impact zones in both shallow and deep water are determined by the net explosive weights used during a decommissioning event. The impact distance(s) must be based on the largest charge size proposed to be used during a removal event when multiple charges are used. The measures herein apply to any charge size up to 500 pounds (lb). The charge weight establishes the specific mitigation scenario that must be adhered to as a permit condition.
2. Impact zones for each scenario must be calculated using the most recent version of the Underwater Calculator (UWC) that has been reviewed and approved by NMFS. The current required impact zones (Table E-2) are based on UWC version 1.5.3 that is the latest approved version at the time of this opinion. Review and approval of UWC revisions will be completed according to the second-tier consultation procedures.

Table E-2. Impact zones for net explosive weights based on underwater calculator version 1.5.3

Net Explosive Weight (lb)	Impact Zone Distance BLM	Impact Zone Distance AML
1–10	261 m (856 ft)	293 m (961 ft)
>10–20	373 m (1,224 ft)	522 m (1,714 ft)
>20–80	631 m (2,069 ft)	829 m (2,721 ft)
>80–200	941 m (3,086 ft)	1,126 m (3,693 ft)
>200–500	1,500 m (4,916 ft)	1,528 m (5,012 ft)

3. NMFS understands all decisions on explosive composition, configuration, and usage need to be made by the qualified explosive contractors in accordance with the applicable explosive-related laws and regulations. BSEE or their permittee must provide a written blasting plan to the PROP Program Manager prior to the anticipated blasting date. The blasting plan must include the number of and type of structures, number of decommissioning events, type of explosives, and weight of explosives. Any changes to the net explosive weights detailed in the blasting plan must be submitted in writing to the Platform Removal Observer Program (PROP) program manager or lead PSO on site. The PROP Program Manager or lead PSO will determine the appropriate scenario measure (described below) and impact zone required based on the final net explosive weights used for the removal.
4. PSOs may use binoculars and the naked eye to monitor the zones. The sighting distance of all listed species and Sargassum habitat that result in delays must be recorded.
5. Buoys or some visible markers will be necessary for visual reference of the impact zone when only surface monitoring is required. The perimeter of impact zones should be demarcated (e.g., brightly colored buoys, vessels, or other markers) for visual reference.
6. If any ESA-listed species, or Sargassum habitat indicative of small juvenile sea turtles are present in the impact zone, a detonation must not proceed. Steps for tracking animals, inspecting Sargassum habitat, delay periods, and additional monitoring are detailed below.

E.3. REQUIREMENTS FOR DIFFERING SCENARIO MITIGATIONS

1. Permittees must fully comply with the relevant measures according to impact zones in Table E-2 and the mitigation scenarios in Tables E-3a and b. Table E-2 provides the impact zone distances required based on the net explosive weight used. Tables E-3a and b summarize the required mitigation and monitoring surveys, and duration of monitoring required. Sea turtles can remain submerged on a single dive for well over 30 minutes, hence the reason for increasing the pre-detonation aerial survey to 45 minutes (Byles, 1989; Renaud, 1995; Gitschlag, 1996).

Table E-3a. Mitigation overview for net explosive weights used in any configuration in shallow water (SW; less than 200 m)

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
SW-1	1–10	60	N/A	N/A	30	Until visually inspected <u>or</u> Sargassum floats out of Impact Zone	30	N/A	No
SW-2	>10–20	90	45	N/A	30	Until visually inspected <u>or</u> Sargassum floats out of Impact Zone	N/A	45	No
SW-3	>20–80	90	45	N/A	30	Until visually inspected <u>or</u> Sargassum floats out of Impact Zone	N/A	45	No
SW-4	>80–200	120	60	N/A	30	Until visually inspected <u>or</u> Sargassum floats out of Impact Zone	N/A	45	No

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
SW-5	>200–500	150	90	N/A	45	Until visually inspected <u>or</u> Sargassum floats out of Impact Zone	N/A	45	No

Table E-3b. Mitigation overview for net explosive weights used in any configuration in deep water (DW; greater than 200 m)

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
DW-1	1–10	90	N/A	N/A	45	Until visually inspected <u>or</u> Sargassum floats out of Impact Zone	30	N/A	No
DW-2	>10–20	90	45	N/A	45	Until visually inspected <u>or</u> Sargassum floats out of Impact Zone	N/A	45	No
DW-3	>20–80	90	60	150	45	Until visually inspected <u>or</u> Sargassum floats out of Impact Zone	N/A	45	Yes
DW-4	>80–200	150	60	180	45	Until visually inspected <u>or</u> Sargassum floats out of Impact Zone	N/A	45	Yes
DW-5	>200–500	180	90	270	45	Until visually inspected <u>or</u> Sargassum floats out of Impact Zone	N/A	45	Yes

2. Permittees must stagger the detonation of multiple charges in a series by an interval of at least 0.9 sec (900 msec) between blasts. Otherwise, the combined charge sizes (or net explosive weight) will be used to determine the impact zone.
3. Detonations must only occur during daylight and during a time that would allow for post-detonation surveys. Monitoring will cease if the lead PSO determines that weather or marine conditions are not adequate for visual observations.
4. Scare charges must not be used to clear impact zones of sea turtles or ESA-listed whales (i.e., sperm whale).
5. Images/pictures taken during any surveys are the property of the U.S. Government and should not be sold, duplicated or used in any way other than for which the project it was intended.
6. Unusual Circumstances: Occasionally, sea turtle(s) remain within the impact zone or are present in high numbers. On rare occasions, very small turtles may be seen in absence of Sargassum habitat near vessels from which monitoring is occurring. During these

unusual circumstances, the on-site NMFS PSO must exercise discretion in the implementation of measures or modification of the mitigation procedures that serve to avoid or minimize impacts to sea turtle(s). Typically, modifications of mitigations include increasing the duration of monitoring periods, increasing the number of PSOs, delaying blasting, or a combination of measures. The lead PSO will coordinate with the PROP Manager, appropriate BSEE personnel, and NMFS ESA section 7 consulting biologist when circumstances necessitate additional monitoring.

E.4. REQUIREMENTS FOR SURFACE MONITORING SURVEYS

1. A surface monitoring survey is required for all blasting scenarios and must be conducted for the length of time indicated for the net explosive weights in Tables E-3a and E-3b.
2. Surface monitoring is generally conducted by at least two PSOs. Surface monitoring surveys are to be conducted from the highest vantage point(s) and/or other location(s) that provide the best, clear view of the entire impact zone. These vantage points may be on the structure being removed or proximal surface vessels such as crew boats and derrick barges. Additional PSOs will be positioned around the decommissioning site, as determined by the PROP manager/coordinator in consultation with the lead PSO for additional structures, large net explosive weights, or other circumstances as needed.
3. Surface monitoring must be conducted in adequate light during daylight hours (sunrise to sunset) and with an adequate line of sight including meteorological conditions free of rain or fog, and free of other visual obstructions such as other work vessels.
4. For mitigation scenarios requiring only surface monitoring and no aerial monitoring, surface monitoring must be conducted under good environmental conditions that are conducive for monitoring for sea turtles and marine mammals. Surface-only monitoring must be delayed if:
 - a) Sea conditions exceed Beaufort Wind Force Scale 4.5 (see Table E-4), or
 - b) inadequate line of sight including poor light conditions, meteorological conditions (e.g., rain or fog) and other visual obstructions such as other work vessels.

Table E-4. Beaufort Sea State Scale

Beaufort State	Wind (mph)	Wind (knots)	Wave Height (ft)	Description
0 (calm)	0–1	0–1	0	Sea surface like a mirror
1 (light air)	1–3	1–3	0.33–0.65	Ripples with the appearance of scales, but no foam crests
2 (light breeze)	4–7	4–6	0.66–1.9	Small wavelets, more pronounced. Crests have glassy appearance, but do not break
3 (gentle breeze)	8–12	7–10	2–3.2	Large wavelets. Crests begin to break. Foam of glassy appearance. Perhaps scattered white horses
4 (moderate breeze)	13–18	11–16	3.3–6.5	Small waves, becoming larger; fairly frequent white horses
4.5 (moderate-fresh breeze)	≤15.5	≤13.5	≤4.9	Small waves, crests break, scattered but regular white horses
5 (fresh breeze)	19–24	17–21	6.6–9.8	Moderate waves, more pronounced long form, many white horses, some spray possible

5. For charge sizes between 0-10 lb, the detonation may proceed if ESA-listed species or Sargassum habitat is not sighted.
6. If a listed species is sighted, or sighted heading inbound toward the impact zone, a waiting period is required (see Waiting Periods in “F” below), or

7. If Sargassum habitat is sighted in the impact zone, a waiting period is required until the Sargassum habitat drifts out of the impact zone (see Waiting Periods in “F” below). Alternatively, a vessel-based PSO could inspect the Sargassum for juvenile sea turtles. This must be done from a small vessel or inflatable boat so that an observer will be close to the water surface and can see small turtles. If no sea turtles are sighted, the waiting period ends and the survey can continue for the remaining period required under the mitigation. If a sea turtle(s) is sighted, the waiting period must continue until the Sargassum drifts out of the impact zone.

E.5. REQUIREMENTS FOR PRE-DET AERIAL SURVEYS

1. Aerial monitoring surveys are to be conducted from helicopters running standard low-altitude search patterns over the extent of the decommissioning area, including the impact zone that corresponds to the appropriate mitigation scenario.
2. Aerial surveys will be restricted to daylight hours only and cannot begin until the requisite surface monitoring survey has been completed.
3. Aerial surveys will cease if the lead PSO determines that weather or marine conditions are not adequate for visual observations, or when the pilot/removal supervisor determines that helicopter operations must be suspended.
4. When two or more PSOs are on site, NMFS may decide two PSOs conduct the aerial survey or have one or more PSOs continue surface monitoring while the other observer flies the survey. The helicopter will traverse the impact zone at low speed/altitude in the specified survey pattern.
5. Flight patterns during pre-detonation and post-detonation surveys must follow the procedures listed in Table E-5. At any time during the survey period, the flight path may be altered to investigate sightings and confirm their location in reference to the impact zone.

Table E-5. Flight Patterns During Pre-detonation Surveys

Flight Path	30-minute	45-minute	60-minute	90-minute
Follow a spiraling or corkscrewing flight path out from the center of the impact zone to the perimeter of the impact zone. This should be followed by a gradually contracting spiral flight path until the aircraft returns to the center of the impact zone. Repeat the pattern for the specified time period.	10 minutes	20 minutes	25 minutes	40 minutes
Unless higher priority targets (ex. turtles, dolphins, Sargassum) are present, the aircraft should survey outside of the impact zone to a distance approximately equal to the radius of the impact zone to determine if any protected species (sea turtles or marine mammals) might be moving into the area. Expanding and contracting spirals should again be used for the flight path.	5 minutes	5 minutes	5 minutes	5 minutes
The aircraft should survey inside the impact zone and follow the same procedures as during the first part of the survey. However, near the end of the survey period the flight path should usually be concentrated near the center of the impact zone since this is where animals will have the highest risk of severe impact.	15 minutes	20 minutes	30 minutes	45 minutes

6. All surveys should begin at the center of the impact zone. At any time during the entire survey period it may be necessary to alter the flight path to investigate sightings and confirm their location in reference to the impact zone.
7. For charge sizes greater than 10-500 lb, the detonation may proceed if listed species are not sighted.
8. If listed species are sighted, or sighted heading inbound toward the impact zone, a waiting period is required (see Waiting Periods below).
9. If Sargassum habitat is sighted, a waiting period is required until either a) a vessel-based PSO inspects the Sargassum from a small vessel or inflatable boat for juvenile sea turtles to determine if a Sargassum waiting period is required, or b) no vessel-based inspection occurs and a waiting period is triggered until the Sargassum has drifted out of the impact zone. If no sea turtles are sighted during a PSO inspection, the surface monitoring can continue for the remainder of the required monitoring period.

E.6. REQUIREMENTS FOR PASSIVE ACOUSTIC MONITORING (PAM)

1. BOEM and BSEE must require operators to provide for review a plan for the use of passive acoustic monitoring for marine mammal detection in the relevant deepwater mitigation scenarios (DW-3, DW-4, and DW-5). The plan must include on-site monitoring protocols, description of the passive acoustic system, software used, recording and storage of data, and other aspects of acoustic monitoring.
2. Persons conducting acoustic surveys will be required to comply with NMFS-approved passive acoustic monitoring protocols and use approved devices and technicians.
3. Acoustic surveys will be run concurrent with requisite pre-detonation surveys, beginning with the surface observations and concluding at the finish of the aerial surveys when the detonation(s) is allowed to proceed. Operators must also report on an assessment of the usefulness, effectiveness, and problems encountered with the use of the method. PAM operators must notify NMFS PSOs immediately when any acoustic targets are detected.
4. For mitigation Scenarios DW-3, DW-4, and DW-5, the detonation may proceed if ESA-listed whales (i.e., sperm whale) are not detected with PAM and the other pre-det surveys do not detect listed species or Sargassum habitat. If ESA-listed whales are detected with PAM (or listed species or Sargassum habitat are otherwise sighted), a waiting period is required (see Waiting Periods below).

E.7. REQUIREMENTS FOR WAITING PERIODS FOR SURFACE, AERIAL, AND PAM SURVEYS

1. For pre-det surveys. If sea turtle, Sargassum habitat or ESA-listed whales (i.e., sperm whale) are observed within (or about to enter, heading inbound) the impact zone of any pre-detonation survey, detonations must be delayed until no protected species are inside the impact zone or the Sargassum has drifted out of the impact zone. The waiting period must be completed before the monitoring protocol for the requisite mitigation, and following measures can continue. The purpose of a waiting period is to allow any inbound animal(s) within the impact zone to exit the impact zone under their own volition. For small juvenile sea turtles, the purpose of the waiting period is to allow floating Sargassum habitat to drift out of the area or to confirm no turtles are present in the Sargassum.
2. For surface, aerial, PAM surveys. When listed species are inside the impact zone or inbound toward the impact zone during a surface, aerial or PAM survey:
 - a) Halt the detonation countdown and implement the waiting period.
 - b) Continue opportunistic monitoring during the required waiting period after the last sighting.

- c) If additional sightings occur inside the impact zone or animals sighted heading inbound during the waiting period, then continue surface surveys and start a new waiting period after the occurrence of the last sighting.
- d) Except for waiting periods triggered by *Sargassum* habitat, anytime a waiting period for an aerial survey or for a surface survey for blast scenarios with surface only surveys (when no aerial survey is required) is triggered by a sea turtle or marine mammal sighting, the interrupted survey must be completed over in its entirety. For blast scenarios that include both survey types, only the aerial survey would need to be repeated.
- e) Anytime a surface survey waiting period is due only for *Sargassum* habitat, a waiting period is required until either a) a vessel-based PSO inspects the *Sargassum* and determines no turtles are present, or b) no vessel-based inspection occurs and a waiting period is triggered until the *Sargassum* has drifted out of the impact zone. If no sea turtles are sighted during a PSO inspection of *Sargassum* habitat, the surface monitoring can continue for the remainder of the required monitoring period.
- f) Anytime an aerial survey waiting period is triggered only due to *Sargassum* habitat (no marine mammals or large juvenile or adult sea turtles sighted), only the aerial survey needs to be repeated.
- g) Other than in the case of waiting periods described above, any interrupted surface or aerial surveys must be repeated in their entirety. Also, the post-detonation aerial survey must begin immediately following completion of the pre-detonation surface survey.

E.8. REQUIREMENTS FOR POST-DETONATION AND POST-POST DETONATION MONITORING SURVEYS

The primary purpose of post-det and post-post-det surveys is to detect any listed species that may have been impacted (stunned, injured or killed) by the detonation and monitor the effectiveness of the pre-det mitigation requirements. Post-det and post-post-det surveys must follow the following measures.

1. A 45-minute post-detonation aerial survey must be conducted by the PSO(s) for all explosive use greater than 10 lb. The aerial survey must be conducted immediately upon conclusion of the detonation.
2. For deepwater, mitigation scenarios DW-3, DW-4 and DW-5, post-post-detonation aerial monitoring surveys must be conducted within 2-7 days after detonation activities conclude, by either helicopter or fixed-wing aircraft. Any distressed, stunned, injured, or dead marine mammals will be noted in the survey report, and if possible, tracked and collected after notifying the National Marine Fisheries Service.
3. Detonations must not occur if the post-detonation survey cannot be concluded prior to sunset.
4. For post-detonation surveys, follow a spiraling or corkscrewing flight path out from the center of the impact zone to the perimeter of the impact zone. This should be followed by gradually contracting spiral flight path until the aircraft returns to the center of the impact zone. If strong currents are present, the down current area should be surveyed outside the impact zone to an appropriate distance. Repeat the pattern for the specified time period.
5. For post-post-detonation surveys, survey a 7x7 nautical mile (nmi) grid centered over the removal site. This grid includes eight, parallel transect lines each measuring 7 nmi long and spaced approximately 1 nmi apart. If strong currents are determined to be present, the grid may be shifted in the down current direction to an appropriate distance. Any injured or dead sea turtle or marine mammal must be recorded in the survey report and

reported to the appropriate stranding network. The stranding network may request that the carcass be tracked and collected if possible.

E.9. REQUIREMENTS FOR THE RECOVERY OF SEA TURTLES

1. BOEM and BSEE must allow an option for trained diver(s) to attempt capture of sea turtles known to be present around a structure slated for removal by explosive severance. NMFS SERO must be notified prior to any capture attempts and the capture, handling, holding, and release of sea turtles must be under the guidance and supervision of NMFS PSOs
2. Sea turtles that are observed to be stunned, injured, or killed during post-det surveys or follow-up aerial surveys must be recovered by PSOs when it is possible to do so. The company and offshore service contractors on site must make assets available, such as vessels, divers, so PSOs can capture or recover stunned, injured, or dead turtles and transport them to shore.
3. Impacted sea turtles that are recovered alive or dead must be immediately transported to shore in coordination with NMFS. Turtles must be transported to an authorized rehabilitation facility for veterinary treatment or properly stored for necropsy to document the injuries and cause of death.
4. If a sperm whale is unintentionally exposed to a blast, the incident must immediately be reported to the Marine Mammal Stranding Network at 1-877-WHALE-HELP (1- 877-942-5343).

E.10. PSO REQUIREMENTS

1. NMFS PSOs are required to perform surface and aerial surveys. These PSOs are qualified NMFS employees or contractors delegated under the PROP of NMFS' Galveston Laboratory. Explosive-severance contractors or operators enter into agreements with the NMFS Galveston Laboratory to provide PSO monitoring. Under the agreements, NMFS achieves full cost recovery for the goods and services provided. Generally, at least 2 or 3 NMFS PSOs are required to conduct surveys for the mitigation scenarios. When simultaneous surface, aerial, or PAM surveys are required, teams of PSOs may be required. The PROP Manager will determine the required number of teams and PSOs depending on the complexity of severance activities, structure configurations, adequacy of structures and vessels to conduct effective monitoring, and other environmental monitoring conditions.
2. PSOs must brief affected crew and severance contractors of the monitoring efforts and notify topsides personnel to report any sighted animals or Sargassum habitat to the lead PSO immediately.
3. PSOs must establish an active line of communication (such as 2-way radio) with company and blasting personnel.
4. PSOs must devote the entire, uninterrupted survey time to listed species monitoring; and,
5. For aerial surveys, a PSO should sit in one of the seats in the front of the cockpit. This is typically on the port side of the aircraft next to the pilot. Whenever possible, a second PSO should sit on the opposite side of the aircraft so that both sides of the aircraft are surveyed. If additional PSOs are available, seating should be adjacent to a window. Communications equipment should be provided which allows the pilot and PSOs to talk to each other and which provides clear communications.

E.11. REQUIREMENTS FOR REPORTING

1. Any take of listed species should be reported to NMFS at takereport.nmfs@noaa.gov and nmfs.psoreview@noaa.gov. If the taking involves a whale, the lead PSO must also

report it immediately to the Marine Mammal Stranding Network at 1-877-WHALE-HELP (1-877-942-5343).

2. Final monitoring reports (also referred to as the trip report) will be prepared for each explosive removal. The monitoring report responsibilities will be assumed by NMFS's lead PSO and completed following completion of the severance activities.
3. In addition to basic operational data (e.g., area and block, water depth, company/platform information), the trip reports must contain all of the applicable information:
 - a) Target: Type/Composition (pile, caisson, concrete piling, nylon mooring, etc.) and Diameter and Thickness.
 - b) Charge: Type (bulk, configured-bulk, linear-shaped, etc.), Charge weight/material (RDX, C4, HMX, etc.), Configuration (internal/external, cut depth [below mud line], water depth [above mud line], etc.), Deployment method (diver, ROV, from surface, etc.).
 - c) Monitoring: Survey Type: (pre-det and post-det; surface, aerial, etc.), Time(s) initiated/terminated, Marine Conditions.
 - d) Observed/Detected summary: Type/number (basic description or species identification, if possible, during all survey types – i.e., surface, aerial, and acoustic and both during pre- and post-detonation periods), Location/orientation – inside/outside impact zone, inbound/outbound, etc., Any “halted-detonation” details – i.e., waiting periods, re- surveys, etc., Any “Take-Event” details – actual MPS injury/mortality.
4. BOEM must provide an annual report to the NMFS consulting biologist describing the total annual structures removed, sea turtle and sperm whale sightings during pre- detonation surveys, sea turtle and sperm whale sightings during post- detonation surveys, visibility during the surveys, details of sea turtles (including loggerhead, green, Kemp's ridley, hawksbill and leatherback sea turtles) and ESA-listed whales (i.e., sperm whale) that were observed injured, killed or otherwise affected and the measures taken for each sea turtle and sperm whale. These annual reports should be combined with any MMPA reporting requirements, as appropriate.
5. The annual reports must be sent electronically by email to nmfs.psoreview@noaa.gov with “Decommissioning Protected Species Annual Report” in the subject header.

E.12. REFERENCES

- Byles RA. 1989. Satellite telemetry of Kemp's ridley sea turtle, *Lepidochelys kempi*, in the Gulf of Mexico. In: Eckert SA, Eckert KL, Richardson L, compilers. Proceedings of the Ninth Annual Workshop on Sea Turtle Conservation and Biology, 7–11 February 1989, Jekyll Island, Georgia. Miami (FL): NOAA NMFS, Southeast Fisheries Science Center. NOAA Tech. Memo. NMFS-SEFC-232. p. 25–26.
- Gitschlag GR. 1996. Migration and diving behavior of Kemp's ridley (Garman) sea turtles along the U.S. southeastern Atlantic coast. *J Exp Mar Biol Ecol.* 205:115–135.
- Renaud ML. 1995. Movements and submergence patterns of Kemp's ridley turtles (*Lepidochelys kempii*). *J Herpetol.* 29:370–374.
- Witherington B, Hiram S, Hardy R. 2012. Young sea turtles of the pelagic Sargassum-dominated drift community: habitat use, population density, and threats. *Mar Ecol Prog Ser.* 463:1–22.

F. SITE CLEARANCE TRAWLING PROJECT CRITERIA

The BOEM/BSEE proposed action under the 2025 NMFS BiOp includes robust avoidance or minimization measures (i.e., protocols), and those measures will continue to be implemented in the Gulf as project criteria under the 2026 Endangered Species Committee Order, as well as pursuant to the Bureaus' authority under OCSLA (43 U.S.C. §§ 1331 et seq.). If trawling is used to comply with the site clearance verification requirements under 30 CFR §§ 250.1740-1743 and NTL 2019-G05, which mandates that turtle excluder devices (TEDs) 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. Resuscitate and release any captured sea turtles per NMFS' guidelines found in the Sea Turtle Resuscitation Guidelines Project Criteria.
2. Contact BSEE's Environmental Compliance Division at protectedspecies@bsee.gov, NMFS Southeast Turtle Stranding and Salvage Network Hotline at (844-732-8785), and closest state coordinator (contact information available at <http://www.fisheries.noaa.gov/marine-life-distress/state-coordinators-and-state-liaisons-sea-turtle-stranding-and-salvage-network>), and NMFS' Southeast Regional Office (SERO) at takereport.mmfsser@noaa.gov immediately.
3. Photograph the turtle and prepare a complete the turtle stranding reporting form. Submit report to NMFS and BSEE (to the email addresses noted above).

In addition to the items specified in NTL 2019-G05, your site clearance verification report must also include:

- Start and stop times for each survey line, based on when trawl net enters and leaves the water.
- Average speed maintained during each survey line.

G. SEA TURTLE RESUSCITATION GUIDELINES PROJECT CRITERIA

The BOEM/BSEE proposed action under the 2025 NMFS BiOp includes robust avoidance or minimization measures (i.e., protocols), and those measures will continue to be implemented in the Gulf as project criteria under the 2026 Endangered Species Committee Order, as well as pursuant to the Bureaus' authority under OCSLA (43 U.S.C. §§ 1331 et seq.). Any sea turtles taken incidentally during the course of oil and gas activities must be handled with due care to prevent injury to live specimens, observed for activity, and returned to the water according to the following procedures:

1. Sea turtles that are actively moving or determined to be dead (as described in paragraph (2)(iv) below) must be released over the stern of the boat. In addition, they must be released only when fishing or scientific collection gear is not in use, when the engine gears are in neutral position, and in areas where they are unlikely to be recaptured or injured by vessels.
2. Resuscitation must be attempted on sea turtles that are comatose or inactive by:
 - a) placing the turtle on its bottom shell (plastron) so that the turtle is right side up and elevating its hindquarters at least 6 inches (15.2 cm) for a period of 4 to 24 hours. The amount of elevation depends on the size of the turtle; greater elevations are needed for larger turtles. Periodically, rock the turtle gently left to right and right to left by holding the outer edge of the shell (carapace) and lifting one side about 3 inches (7.6 cm) then alternate to the other side. Gently touch the eye and pinch the tail (reflex test) periodically to see if there is a response.
 - b) Sea turtles being resuscitated must be shaded and kept damp or moist but under no circumstance be placed into a container holding water. A water-soaked towel placed over the head, carapace, and flippers is the most effective method in keeping a turtle moist.
 - c) Sea turtles that revive and become active must be released over the stern of the boat only when fishing or scientific collection gear is not in use, when the engine gears are in neutral position, and in areas where they are unlikely to be recaptured or injured by vessels. Sea turtles that fail to respond to the reflex test or fail to move within 4 hours (up to 24, if possible) must be returned to the water in the same manner as that for actively moving turtles.
 - d) A turtle is determined to be dead if the muscles are stiff (rigor mortis) and/or the flesh has begun to rot; otherwise, the turtle is determined to be comatose or inactive and resuscitation attempts are necessary.

Any sea turtle so taken must not be consumed, sold, landed, offloaded, transshipped, or kept below deck.

Reporting requirements

Incident reporting should be made to BOEM/BSEE and NMFS at protectedspecies@boem.gov, protectedspecies@bsee.gov and takereport.nmfsser@noaa.gov.