UNITED STATES DEPARTMENT OF THE INTERIOR
MARINE MINERALS ADMINISTRATION
GULF OF AMERICA OCS REGION
NEW ORLEANS, LOUISIANA

SITE-SPECIFIC ENVIRONMENTAL ASSESSMENT

OF
EXPLORATION PLAN
NO. N-10274

FOR

WALTER OIL & GAS CORPORATION

OCTOBER 15, 2026

RELATED ENVIRONMENTAL DOCUMENTS

Gulf of Mexico Catastrophic Spill Event Analysis: High-Volume, Extended-Duration Oil Spill Resulting from Loss of Well Control on the Gulf of Mexico Outer Continental Shelf; 2nd Revision
(OCS Report BOEM 2021-007)

Programmatic Description of the Potential Effects from Gulf of Mexico OCS Oil- and Gas-Related Activities: A Supporting Information Document
(OCS Report BOEM 2023-053)

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)

Gulf of America Biological Environmental Background Report
(OCS Report 2026-031)

FINDING OF NO SIGNIFICANT IMPACT (FONSI)

The Marine Minerals Administration (MMA) has prepared a Site-Specific Environmental Assessment (SEA) for Development Operations Coordination Document (DOCD) N-10266 complying with the National Environmental Policy Act (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 Agency policy require an evaluation of proposed major Federal actions, which under the MMA jurisdiction includes plans for oil and gas exploration or development activity on the Outer Continental Shelf (OCS).

The DOI Secretarial Order 3299 established the Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE) on May 19, 2010. The DOI Secretarial Order 3451, signed on July 10, 2026, reunifies BOEM and BSEE into a single Bureau - the MMA.

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 MMA updated existing content while legacy content such as previously published reports, studies, and NEPA documents remain unchanged.

Impacts caused by similar actions to that proposed were examined at a basin-wide scale in the Gulf in the following NEPA and relevant documents:

- *Gulf of Mexico Catastrophic Spill Event Analysis: High-Volume, Extended-Duration Oil Spill Resulting from Loss of Well Control on the Gulf of Mexico Outer Continental Shelf; 2nd Revision* (Gulf of Mexico Catastrophic Spill Event Analysis) (OCS Report BOEM 2021-007)
- *Biological Environmental Background Report for the Gulf of Mexico OCS Region* (BEBR) (OCS Report BOEM 2021-015)
- *Programmatic Description of the Potential Effects from Gulf of Mexico OCS Oil- and Gas-Related Activities: A Supporting Information Document* (Oil and Gas SID)(OCS Report BOEM 2023-053)
- *Gulf of America Regional OCS Oil and Gas Lease Sales and Post-Lease Activities: Final Programmatic Environmental Impact Statement* (2025 GOA PEIS) (OCS EIS/EA BOEM 2025-042)

Proposed Activities: Walter Oil & Gas Corporation's (Walter) Initial Exploration Plan (EP) for drilling operations on the OCS proposes to explore for hydrocarbons by drilling, completing, testing, and installing a subsea tree/wellhead for one exploratory well (Proposed Action). Well A is located in Ewing Bank Block 966, Lease OCS-G 38008 in the Central Planning Area. The Proposed Action is located southwest of Venice, Louisiana, approximately 69 miles (mi) (111 kilometers [km]) from the nearest shoreline in Plaquemines Parish, Louisiana. The water depth at the

proposed well site is 1,762 feet (ft) (537 meters [m]). Walter proposes using a dynamically positioned semisubmersible, a mobile offshore drilling unit (MODU), to drill this well.

Resources and Impacts Considered: The impact analysis focused on the exploration activities and the resources that may be potentially impacted. The impact producing factors (IPF) include (1) bottom disturbances, (2) waste and discharges, (3) noise, (4) vessel traffic, (5) air emissions, (6) spill and spill response, and (7) marine trash and debris.

In the Initial EP, Walter has included all required mitigation measures, Project Criteria and regulatory guidance as part of its Proposed Action. The MMA has assessed the impacts of the Proposed Action on the following resources:

- air quality;
- offshore water quality;
- benthic communities;
- marine mammals;
- sea turtles;
- fish resources and essential fish habitat (EFH);
- marine and coastal birds;
- archaeological resources;
- human/socioecomic resources; and
- other marine uses.

Based on the site-specific analysis, the Proposed Action would result in negligible to minor impacts to marine mammals and sea turtles because those resources might be present at times or located near proposed activities and could potentially be impacted. Based on this site-specific analysis, BOEM's other environmental reviews under the Outer Continental Shelf Lands Act (OCSLA) and NEPA, and adherence to all required mitigation measures and regulatory guidance incorporated into the Proposed Action, no additional mitigation measures are required at this stage.

Walter's application provides information on the filing or approval status of the individual and/or site-specific Federal, State, and local application approvals or permits that must be obtained prior to conducting the proposed activities. The MMA has a well-established suite of commonly applied mitigation measures (see Chapters 5 and 6 of the Oil and Gas SID) that can be applied to any of the required subsequent permits or approvals to ensure compliance with Agency-specific regulations and other Federal laws. The MMA is also able to revise applicable mitigations as needed to adaptively manage mitigation compliance and effectiveness at each approval or permitting stage.

In the N-10274 EP, and in accordance with lease terms and applicable regulations and guidance, Walter has committed to employ required mitigation measures to address potential impacts to air quality, water quality, benthic communities, marine mammals, sea turtles, fish resources and EFH, and archaeological resources from the Proposed Action. Any remaining impacts would be negligible. Therefore, MMA has selected Alternative 2, the Proposed Action, and will not require additional mitigation measures as conditions of approval (COAs). Below are the required COAs:

- **Marine Debris Project Criteria:** The applicant will follow the project criteria provided under Attachment 2 (A.2): Marine Debris Project Criteria found on BOEM's internet website at https://www.boem.gov/regions/gulf-america-ocs-region/protected-species-project-criteria062026.
- **Vessel Strike Avoidance and Injured and/or Dead Aquatic Protected Species Reporting Project Criteria:** The applicant will follow the project criteria provided under Attachment 3 (A.3): Vessel Strike Avoidance and Injured and/or Dead Aquatic Protected Species Reporting Project Criteria found on BOEM's internet website at https://www.boem.gov/regions/gulf-america-ocs-region/protected-species-project-criteria062026.
- **In-Water Line Precaution Project Criteria:** The applicant will follow the project criteria provided under Attachment 5 (A.4): In-water Line Precaution Project Criteria found on BOEM's internet website at https://www.boem.gov/regions/gulf-america-ocs-region/protected-species-project-criteria062026.
- **Moon Pool Monitoring Project Criteria:** The applicant will follow the project criteria provided under Attachment 6 (A.5): Moon Pool Monitoring Project Criteria found on BOEM's internet website at https://www.boem.gov/regions/gulf-america-ocs-region/protected-species-project-criteria062026.
- **Vessel Transit Within the Rice's Whale Area as Identified in the 2020 Biological Opinion's Reasonable and Prudent Alternative (2020 RWA):** The applicant will follow the project criteria provided under Attachment 4 (A.6): Vessel Transit within the Rice's Whale Area as identified in the 2020 Biological Opinion's Reasonable and Prudent Alternative (2020 RWA) found on BOEM's internet website at https://www.boem.gov/regions/gulf-america-ocs-region/protected-species-project-criteria062026.
- **Sea Turtle Resuscitation Guidelines Project Criteria:** The applicant will follow the project criteria provided under Attachment 10 (A.7): Sea Turtle Resuscitation Guidelines Project Criteria found on BOEM's internet website at https://www.boem.gov/regions/gulf-america-ocs-region/protected-species-project-criteria062026.

Conclusion: The MMA has evaluated the potential environmental impacts of the Proposed Action and, based on our evaluation in this SEA, the MMA has selected Alternative 2. The Proposed Action would have no new significant impacts on the human environment not already disclosed in the 2025 GOA PEIS, from which the SEA tiers. Therefore, preparation of an environmental impact statement is not required. Any new information relevant to resources was updated and analyzed in the attached SEA and the other documents listed above that were reviewed and considered by the MMA.

PERRY BOUDREAUX

Digitally signed by PERRY BOUDREAUX
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Supervisor, Environmental Assessment Unit 2
Office of Environment
Gulf of America OCS Region
Marine Minerals Administration

October 16, 2026
Date

Certification of Environmental Assessment Compliance

This letter certifies the attached site-specific environmental assessment (SEA) for Exploration Plan (EP) No. N-10274 submitted by Walter Oil & Gas Corporation complies with the requirements outlined in Section 1.5 of the DOI Handbook of National Environmental Policy Act 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 Marine Minerals Administration's (MMA'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 September 23, 2026, which is when the final EP was deemed submitted as per 30 CFR § 550.231 (i.e., 'the date the applicant was notified their application was 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.

PERRY BOUDREAUX

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October 16, 2026

Supervisor, Environmental Assessment Unit 2
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Marine Minerals Administration

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Site-Specific Environmental Assessment (SEA)

WALTER OIL & GAS CORPORATION

INITIAL EXPLORATION PLAN: N-10274

1 INTRODUCTION

This Site-Specific Environmental Assessment (SEA) has been prepared to determine whether the proposed activities outlined in the Initial Exploration Plan (EP), N-10274, initially submitted by Walter Oil & Gas Corporation (Walter) on August 25, 2026, will significantly affect the quality of the human environment within the meaning of Section 102(2)(c) of the National Environmental Policy Act (NEPA) and therefore require an environmental impact statement (EIS) to be prepared. Walter's Initial EP proposes to explore for hydrocarbons by drilling, completing, testing, and installing a subsea tree/well head for one well (Proposed Action). Well A is located in Ewing Bank Block 966, Lease Number OCS-G 38008 in the Central Planning Area (CPA) of the Outer Continental Shelf (OCS).

The Department of the Interior (DOI) Secretarial Order 3299 established the Bureau of Ocean Energy Management (BOEM) and the Bureau of Safety and Environmental Enforcement (BSEE) on May 19, 2010. The DOI Secretarial Order 3451, signed on July 10, 2026, reunifies BOEM and BSEE into a single Bureau - the Marine Minerals Administration (MMA).

The DOI Handbook of NEPA Implementing Procedures (516 DM 1), dated February 2026, is designed to allow for the preparation of an SEA for an individual proposed action as long as any previously unanalyzed effects are not significant. As such, this SEA is tiered to, or incorporates by reference, the following NEPA and supporting documents, which evaluated the potential impacts resulting from exploration and development activities across the OCS.

- *Gulf of Mexico Catastrophic Spill Event Analysis: High-Volume, Extended-Duration Oil Spill Resulting from Loss of Well Control on the Gulf of Mexico Outer Continental Shelf; 2nd Revision* (Gulf of Mexico Catastrophic Spill Event Analysis) (BOEM 2021)
- *Programmatic Description of the Potential Effects from Gulf of Mexico OCS Oil- and Gas-Related Activities: A Supporting Information Document* (Oil and Gas SID) (OCS Report BOEM 2023-053) (BOEM 2023)
- *Gulf of America Regional OCS Oil and Gas Lease Sales and Post-Lease Activities: Final Programmatic Environmental Impact Statement* (2025 GOA PEIS) (OCS EIS/EA BOEM 2025-042) (BOEM 2025)
- *Gulf of America Biological Environmental Background Report (BEBR) (BOEM 2026)*

This SEA analyzes the potential impacts resulting from the proposed site-specific activities. Relevant affected environment discussions and impact analyses from the 2025 GOA PEIS are summarized and utilized for site-specific analysis through tiering. Where applicable, additional information available in the BEBR, Oil and Gas SID, and other supporting documents above was incorporated by reference, consistent with DOI's Handbook of NEPA implementing procedures. Relevant new information published after the above-referenced environmental analyses is included by citation. Lease stipulations, the Outer Continental Shelf Lands Act (OCSLA), all applicable Federal, State, and local regulations (as per 30 CFR § 550.101(a)); guidance provided in all applicable Notices to Lessees and Operators (NTLs) (as per 30 CFR § 550.103); and mitigation and monitoring measures identified in this SEA, the 2025 GOA PEIS, and applicable Project Criteria have been considered in the evaluation of the Proposed Action.

Secretarial Order 3423 directed the renaming of the Gulf of Mexico to the Gulf of America. As a result, the MMA is updating new content to refer to the Gulf of America, while legacy content such as previously published reports, studies, and NEPA documents remain unchanged.

1.1 BACKGROUND

The MMA has been delegated the authority under OCSLA to manage and oversee the exploration and development of OCS oil, gas, and mineral resources while ensuring safe operations and the protection of the human environment. The MMA manages oil and gas leases, permits, authorizations, and regulate exploration, development, production, and decommissioning. Prior to authorizing activities related to these phases, the MMA conducts resource and NEPA reviews. The Office of Leasing and Plans oversees the submittal of Exploration Plans (EPs) and DOCDs pursuant to 30 CFR part 550 subpart B.

As required by 30 CFR § 550.201, lessees and operators submit EPs and DOCDs to provide the MMA with information needed to adequately evaluate the overall potential impacts to the human environment prior to conducting activities on the lease. Submittal of an environmental impact analysis (EIA) is required in EPs under 30 CFR § 550.227 and in DOCDs under 30 CFR § 550.261, wherein the operator provides environmental information and makes impact conclusions regarding their proposed activities.

1.2 PURPOSE OF AND NEED FOR THE PROPOSED ACTION

Walter has submitted a plan to conduct exploration activities on the OCS. The purpose of the Proposed Action is to drill, complete, test, and install a subsea tree/wellhead for one well so that Walter can utilize the information to evaluate the potential for, and develop plans for, the development and production of hydrocarbon resources on the OCS, which would contribute to the Nation's energy needs.

The need for this action is established by the MMA's responsibility under OCSLA to make OCS lands available for expeditious and orderly development, subject to environmental safeguards, in a manner that is consistent with the maintenance of competition and other national needs. Section 11 of OCSLA at 43 United States Code (U.S.C.) § 1340 requires oil and gas lessees seeking

to conduct exploration activities to first obtain approval from the Secretary who has delegated the authority to grant such approval to the MMA.

In response to the Proposed Action in Walter's plan, the MMA is required by OCSLA to approve, approve with modifications, or deny the plan within 30 days (refer to 43 U.S.C. § 1340(c)(1)). The criteria that the MMA will apply in reaching a decision to approve, approve with modifications, or deny the plan within 30 days and the scope of its discretion are provided by Section 11 of OCSLA and detailed in the implementing regulations (30 CFR Part 550 Subpart B). Authorizing the Proposed Action, as outlined in the Initial EP N-10274, allows Walter to pursue its rights under the lease and to conduct exploration drilling activities.

1.3 DESCRIPTION OF PROPOSED ACTION

Walter's Initial EP for drilling operations on the OCS proposes to explore for hydrocarbons by drilling, completing, testing, and installing a subsea tree/wellhead for one exploratory well. Well A is located in Ewing Bank Block 966, Lease Number OCS-G 38008 in the CPA. The proposed activities are located southwest of Venice, Louisiana, approximately 69 miles (mi) (111 kilometers [km]) from the nearest shoreline in Plaquemines Parish, Louisiana. The water depth at the proposed well site is 1,762 feet (ft) (537 meters [m]). Walter proposes using a dynamically positioned (DP) semisubmersible, a mobile offshore drilling unit (MODU), to drill this well. The projected duration of the proposed drilling and completion of one well is 140 days, with proposed drilling activities planned to begin in October 2026.

Supply and crew boat facilities to support the proposed activities are to be located in existing facilities in Port Fourchon, Louisiana, approximately 76 mi (122 km) north northwest of the project location. Port Fourchon will be used as the debarkation point for equipment, supplies, and crews supporting the proposed activities. Helicopter support will be flown out of Houma, Louisiana, approximately 114 mi (183 km) north northwest of the project area. Walter does not expect any shore-based construction or expansion in association with these proposed activities. The types of support vessels and their potential travel frequency during exploratory drilling are included in Walter's plan (Walter, 2026). No new or unusual technology is proposed by Walter.

1.4 IMPACT-PRODUCING FACTORS

For purposes of this analysis, an impact-producing factor (IPF) is the outcome of a proposed activity that may pose a vulnerability risk or potential impact to the human environment, such as noise (acoustic source), air emissions, discharges and waste (effluent), or offshore habitat modification (physical disturbance). The impact analysis evaluates the potentially affected environment and the degree of the effects of the action consistent with Section 1.2 of DOI's Handbook of NEPA implementing procedures. Each phase of oil and gas operations typically have specific types of IPFs that may affect physical or environmental conditions and/or may affect one or more natural, cultural, or socioeconomic resource(s). The IPFs are categorized as routine activities, accidental events, and other effects that are reasonably foreseeable and have a close causal connection to the Proposed Action. Detailed descriptions of routine activities and

accidental events considered in this SEA are provided in **Appendix A**, and the vulnerability (effects or impacts) of resources to IPFs is also available in the BEBR and Oil and Gas SID.

1.4.1 Routine Activities

Routine activities are generally sequential and occur on a regular basis during the lifetime of a lease (i.e., 50 years). Examples of routine activity include geological and geophysical (G&G) surveys[1], drilling wells, installing production structures and/or subsea infrastructure (platforms, wellheads, manifolds, subsea tie-ins, pipelines), ancillary activities, and decommissioning. Specific to the activities for exploration proposed by Walter, the routine activities would result in the following:

(1) bottom disturbance or offshore habitat modification;

(2) noise;

(3) discharges and wastes;

(4) space-use conflicts; and

(5) air emissions.

1.4.2 Accidental Events

Though not planned, intended, nor anticipated, the MMA recognizes that there is potential for accidental events. The impacts and complexity of an accidental event can vary greatly dependent upon the type, interrelated factors, type and amount of material, time of year, and resources impacted. The primary IPFs from potential accidents related to the proposed activities include the following:

(1) accidental releases (oil/chemical spills and oil spill response, emergency flaring/venting, or marine trash and debris);

(2) accidental collisions resulting in a spill (vessel to vessel or vessel to structure);

(3) accidental vessel strike (vessel to organism); and

(4) accidental entanglement/entrapment (equipment or facility and organism).

1.5 ACCIDENTAL SPILL CONCERNS

Based on experience and the operations proposed in Walter's plan, the potential sources of spills from the proposed activity would include the following:

(1) a storage tank accident on the MODU or vessel(s);

[1] The G&G activities for oil and gas exploration and development are authorized on the basis of whether or not the proposed activities occur before leasing takes place (prelease) and are authorized by a permit or the G&G activity will occur on an existing lease (post-lease/ancillary). Postlease/ancillary activities are authorized by OCS plan approvals, plan revisions, requirement for notification, or a separate G&G permit if the survey will extend off the existing lease.

(2) a transfer operation mishap between the supply vessel(s) and the MODU;

(3) a leak resulting from damage to the fuel tanks or equipment on the MODU or vessel(s); and/or

(4) a loss of well control (LWC)[2].

As required by 30 CFR §§ 550.219 and 550.250, lessees or designated operators are required to provide BSEE and BOEM (now the MMA) with an oil spill response plan (OSRP), prepared in accordance with 30 CFR Part 254 Subpart B, with their proposed exploration, development, or production plan for the facilities that they will use to conduct their activities or to alternatively reference their approved Regional OSRP. In addition, lessees or designated operators are required to report incidents under 30 CFR § 250.188(a) (fatalities, blowouts, explosions, etc.) and oil spills pursuant to 30 CFR § 250.187(d) and 30 CFR § 254.46 (from a rig, production facility, or pipeline estimated to be more than 1 barrel [bbl] [42 gallons (gal)]). As required in 30 CFR § 254.46(a), immediate notification is required for spills from a facility, another offshore facility, or offshore spill of unknown origin.

Spill Response Requirements

Agency regulations require that all lessees and designated operators of oil handling, storage, or transportation facilities located seaward of the coastline submit an OSRP before they can operate a facility. BSEE has issued NTL 2012-N06, "Guidance to Owners and Operators of Offshore Facilities Seaward of the Coast Line Concerning Regional Oil Spill Response Plans," which informs operators of OSRP requirements and requires that they have adequate resources available to protect the environment from spills or releases from their facilities. The Environmental Protection and Response Plan within the OSRP outlines the availability of spill containment and cleanup equipment and trained personnel necessary to ensure that a full response can be deployed during an oil-spill emergency.

All the proposed activities and facilities in this plan will be covered by the Regional OSRP filed by Walter (Operator Number 00730) in accordance with 30 CFR Part 550 and 30 CFR Part 254 and deemed in compliance by BSEE on January 7, 2026. Walter also certifies it has the capability to respond, to the maximum extent practicable, to a worst-case discharge, or a substantial threat of such a discharge, resulting from the activities proposed in their Initial EP (Walter, 2026).

[2] The current definition for loss of well control is as follows: uncontrolled flow of formation or other fluids (the flow may be to an exposed formation [an underground blowout] or at the surface [a surface blowout]; uncontrolled flow through a diverter; and/or uncontrolled flow resulting from a failure of surface equipment or procedures. Not all loss of well control events would result in a blowout as defined above, but they are most commonly thought of as releases to the human environment. A loss of well control can occur during any phase of development, i.e., exploratory drilling, development drilling, well completion, production, or workover operations (BOEM 2021).

Potential Spills from Vessels/Transfer Operations

As indicated above, offshore spills from Walter's proposed activities are possible if an accident were to damage a storage tank onboard the drilling rig, crew boat, offshore support vessel, or fuel supply vessel. Historically, accidents of this nature have resulted from unintentional vessel collisions and transfer incidents during the offloading of diesel fuel to the drilling rig. Walter plans to use a dynamically positioned (DP) semisubmersible using a subsea blowout preventer (BOP) to conduct the proposed activities. There are several tanks onboard the MODUs that store fuel and lubricants necessary for the rig's operation. A worst-case discharge (WCD) scenario[3] from a rupture or spill from the vessels and other support are provided in **Table 1-1**.

Table 1-1. Worst-Case Discharges from Proposed Drill rigs and Vessels

Vessel	Largest Main Tank Capacity	Total Capacity
DP Semisubmersible	9,021 bbl	32,901 bbl
Crew Boat	N/A	7,500 gal (179 bbl)
Supply Boat	N/A	100,000 gal (2,381 bbl)
Diesel Oil Supply Vessel	N/A	1,500 bbl
Helicopter	N/A	440 gal (10.5 bbl)

bbl = barrel; gal = gallon; N/A = not applicable.

[3] Information provided regarding the WCD totals and calculations is not required under NEPA regulations; however, the information is included as part of the review process and compliance with 30 CFR § 254.47; BOEM NTL 2015-N01, "Information Requirements for Exploration Plans, Development and Production Plans, and Development Operations Coordination Documents on the OCS for Worst Case Discharge and Blowout Scenarios"; and Frequency Asked Questions as part of every EP and development and production plan (DPP)/DOCD. In addition, the August 16, 2010, CEQ Report prepared following the Deepwater Horizon explosion, oil spill, and response recommended that BOEM should "Ensure that NEPA document provide decisionmakers with a robust analysis of reasonably foreseeable impacts, including an analysis of reasonably foreseeable impacts associated with low-probability catastrophic spills for oil and gas activities on the OCS" (CEQ 2010). BOEM's Gulf of Mexico Catastrophic Spill Event Analysis technical report is a robust analysis of the impacts from low-probability catastrophic spills and is included in this analysis to support decisionmaking purposes (BOEM 2021).

Potential Spills from a Loss of Well Control (LWC)

BSEE (now the MMA) requires that all LWC incidents be reported immediately per 30 CFR § 250.188(a)(3). Offshore LWCs that cause large-scale, oil-spill[4] events are rare and not expected. Most LWC accidents release a relatively small amount of oil into the environment before the well is brought under control by the operator or the well is sealed by natural processes known as bridging over[5]. It is important to note that spill volume is only one factor that influences the nature and severity of an event's impacts. Each oil-spill event is unique; its outcome depends on several factors. These factors include time of year and location, atmospheric and oceanographic conditions (e.g., winds, currents, coastal type, and sensitive resources), specifics of the well (i.e., flow rates, hydrocarbon characteristics, and infrastructure damage), and response efforts (i.e., speed and effectiveness). For these reasons, the severity of impacts from an oil spill cannot be predicted based on volume alone (BOEM 2021). In the event of a LWC, an operator's first course of action is to activate the BOP to close the well. The BOP may be located on the surface of the drilling rig or subsea (on the seafloor). There are built-in redundancies in the BOP system to allow activation of selected components with the intent to seal off the well bore. If a subsea BOP cannot be operated from the drill rig, it can be operated at the seafloor using remotely operated vehicles (ROVs).

According to loss of well control data available on BSEE's website at: BSEE Offshore Incident Statistics and BSEE annual reports,[6] on average an LWC event with a surface release occurred three times or less per year from 2007 to 2023. This average is based on more than 100 exploration and development wells drilled annually. From 2015 to 2023 there were nine LWC events in water depths below 1,000 ft and 12 LWC events in water depths greater than 1,000 ft. As discussed below, the operator has an OSRP in place that addresses the WCD scenario and LWC events. Based on BSEE records from 2007 to 2023 and the safety measures in place, an LWC that results in a crude oil spill of greater than 50 bbls is unlikely to occur.

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[4] As applicable to NEPA, Eccleston (2008) describes a catastrophic event as "large-scale damage involving destruction of species, ecosystems, infrastructure, or property with long-term effects, and/or major loss of human life." For oil and gas activities on the OCS, a catastrophic event is a high-volume, extended-duration oil spill regardless of the cause. The high-volume, extended-duration oil spill, or catastrophic spill, has been further defined by the National Oil and Hazardous Substances Pollution Contingency Plans as a "spill of national significance" or "a spill which, because of its severity, size, location, actual or potential impact on the public health and welfare or the environment, or the necessary response effort, is so complex that it requires extraordinary coordination of Federal, State, and local, and responsible party resources to contain and cleanup the discharge" (40 CFR part 300, Appendix E) (BOEM 2021).

[5] In a LWC or blowout, the flow duration is dependent on the oil reservoir characteristics and the tendency for the well to fill in or bridge naturally (bridge over), and the timing of the intervention. The flow of a blowout well could, and often does, change as the blowout naturally bridges, the reservoir is depleted, or the reservoir pressure is reduced (Buchholz et al. 2016).

[6] The 2007 to 2016 BSEE annual reports can be found here: BSEE Annual Report. The 2014 Annual Report was based on a calendar year. The 2015 Annual Report and subsequent reports were based on U.S. fiscal year (FY), which runs from October 1 to September 30 (BSEE 2016). The last Annual Report is from FY 2016. Data from years 2015 to 2023 were acquired from: BSEE Offshore Incident Statistics.

Potential Site-Specific Spill Risk and Response

Walter's plan describes measures for LWC prevention, likelihood for surface intervention to stop a blowout, and early intervention in the event of a blowout. Walter has developed standards for well control, personnel safety, and an emergency response plan; these methods are stated in detail in the OSRP or emergency response plan submitted by Walter. As per the information provided in Walter's OSRP and plan, the MODU that Walter plans to use will deploy a subsea BOP while drilling the well (Walter, 2026).

The WCD from drilling or production operations of a subsea well is the daily rate of uncontrolled flow of natural gas or oil into the open wellbore. Operators must submit WCD calculated volumes and associated data according to NTL 2015-N01, "Information Requirements for Exploration Plans, Development and Production Plans, and Development Operations Coordination Documents on the OCS for Worst Case Discharge and Blowout Scenarios," as part of every EP and DOCD. Though not proposed or expected, Walter has estimated that a WCD scenario from a blowout of a well on the lease block could be 62,260 barrels of oil per day (BOPD) of 29° American Petroleum Institute (API) gravity crude. In accordance with enhanced agency oversight, the MMA verified the operator's calculations used to determine the WCD volume[7].

Walter indicated in its plan that they do not have sufficient information to anticipate that this well would likely bridge over; therefore, discussion of the likelihood of the well to bridge over is not included in the plan. Walter does not have any empirical data. Walter has developed standards for well control, personnel safety, and emergency response. These methods are stated in detail in the OSRP and plan (Walter, 2026).

In the event that a relief well is required due to a blowout, Walter indicates in its plan that there are eighteen drilling rigs currently available that have the capability to drill the relief well if needed (Walter, 2026). For this project, Walter estimates that it will take approximately 10 days to acquire a relief well rig, 10 days to mobilize to the relief well site, and 80 days of drilling time, for a total of 100 days to drill and complete a relief well. There are no existing facilities/platforms nearby from where the relief well can be drilled. Additional details related to the proposed activities can be found in Walter's Initial EP (Walter, 2026).

Oil-Spill Risk and Assessment

Spills with volumes greater than 10,000 bbl are uncommon. From 2001 to 2023, there have been only three spills greater than 10,000 bbl in the Gulf of America OCS. One was the *Deepwater Horizon* oil spill at 4.9 MMbbl (ABS Consulting Inc. 2016), which is categorized as a low-probability catastrophic spill, which is not reasonably foreseeable. In October 2017, a subsea wellhead

[7] Information provided regarding the WCD totals and calculations is not required under NEPA regulations; however, the information is included as part of the review process and compliance with 30 CFR § 254.47; NLT 2015-N01, "Information Requirements for Exploration Plans, Development and Production Plans, and Development Operations Coordination Documents on the OCS for Worst Case Discharge and Blowout Scenarios"; and Frequency Asked Questions as part of every EP and DPP/DOCD.

jumper (KAA-0120) in Mississippi Canyon Block 209, about 53 miles southeast of the Louisiana coast, failed and released an estimated 16,000 barrels of oil into the Gulf of America. The unintended release occurred after Delta House platform operations were restarted following Hurricane Nate due to a crack in the flowline discovered through remotely operated vehicle inspection. Carried southwest by ocean currents, the spill did not reach shore (BSEE 2019). There was also a pipeline spill in November 2023 near the mouth of the Mississippi River. As of December 2023, approximately 26,000 bbl were estimated to have been released. Details regarding the cause and source are not yet available, however, the use of dispersants have not been reported and there have been no reported wildlife or shoreline impacts.

In the event of a spill, there is no single method of containing and removing the oil that would be 100 percent effective. Removal and containment efforts to respond to an ongoing spill would likely require multiple technologies, including mechanical cleanup, chemical dispersant application, and less frequently, in-situ burning of the slick. Even with the potential to deploy all of these technologies, it is likely that, with the operating limitations of current spill response technology, not all of the oil could be contained and removed from the offshore environment. It is likely that larger spills in deep waters and under the right conditions would require the simultaneous use of all available cleanup methods (i.e., mechanical cleanup, dispersant application, and in-situ burning).

The approved OSRP for the proposed project addresses a range of spill sizes and sources, including the WCD, and required response strategies. However, when considering the historical/statistical data, subsea containment improvements, the MMA's enhanced oversight, and industry's heightened safety awareness since the *Deepwater Horizon* oil spill (as noted below), it is reasonable to conclude that an accidental spill event of similar magnitude is unlikely to occur. Events that are statistically unexpected to occur, but would still be possible but exceedingly unlikely, such as a catastrophic discharge event, and are not considered a part of the proposed activities and, therefore, are not discussed in detail in this document. For more information on a low-probability catastrophic event and the resulting analysis of potential effects, refer to BOEM's *Gulf of Mexico Catastrophic Spill Event Analysis* technical report (BOEM 2021), incorporated by reference herein.

Oil and Gas Production Safety Systems

On September 28, 2018, BSEE published revisions to the 2018 Oil and Gas Production Safety Systems Rule, which became effective on December 27, 2018 (83 FR 49216), and on May 2, 2019, BSEE published revisions for the 2019 Well Control and Blowout Preventer Rule, which became effective on July 15, 2019 (84 FR 21908). On August 23, 2023, BSEE published a final rule revising certain regulatory provisions published in the 2019 final well control rule for drilling, workover, completion, and decommissioning operations, which became effective on October 23, 2023 (88 FR 57334). For purposes of this site-specific analysis, the MMA has evaluated the regulatory changes and agrees with the conclusions that the rule changes do not change or increase environmental risks from what they were under the 2018 or 2019 rules. The MMA agrees because the changes to the rules carefully removed unnecessary burdens while leaving critical

safety provisions intact and did not change the overall risks related to oil and gas activities on the OCS. These updates were also accounted for in the 2025 GOA PEIS analysis, from which this SEA tiers.

2 ALTERNATIVES CONSIDERED

2.1 No Action

Alternative 1 – If selected, Walter would not be authorized to undertake the proposed activities and the application would be denied. If the proposed activities are not undertaken, they would not cause activity-specific routine or accidental impacts. Activities related to other existing leases, authorizations, and permits associated with the overall OCS activities would not increase. The No Action Alternative would not significantly change the environmental impacts of overall OCS oil and gas exploration and development activities as described in the 2025 GOA PEIS, and routine impacts would continue to occur elsewhere on the OCS, as could impacts from accidental events on other OCS leases. However, these activities on this lease block would not occur as described in N-10274. Selecting the No Action Alternative would not preclude the lessee from submitting a new application for proposed activities on the lease, which would entail a separate, independent review and site-specific NEPA analysis before a decision is made.

2.2 Proposed Action

Alternative 2 – If selected, Walter would be authorized to undertake the proposed activities as requested in N-10274. Related activities conducted in State waters or onshore would be subject to State and local regulations. The lessee/operator would conduct operations in accordance with the lease stipulations; OCSLA; and all Federal regulations (as per 30 CFR § 550.101(a)); guidance provided in all appropriate NTLs (as per 30 CFR § 550.103); and applicable Project Criteria. These conditions of approval (COAs) consist of the following:

- **Marine Debris Project Criteria:** The applicant will follow the project criteria provided under Attachment 2 (A.2): Marine Debris Project Criteria found on BOEM's internet website at https://www.boem.gov/regions/gulf-america-ocs-region/protected-species-project-criteria062026.
- **Vessel Strike Avoidance and Injured and/or Dead Aquatic Protected Species Reporting Project Criteria:** The applicant will follow the project criteria provided under Attachment 3 (A.3): Vessel Strike Avoidance and Injured and/or Dead Aquatic Protected Species Reporting Project Criteria found on BOEM's internet website at https://www.boem.gov/regions/gulf-america-ocs-region/protected-species-project-criteria062026.
- **In-Water Line Precaution Project Criteria:** The applicant will follow the project criteria provided under Attachment 5 (A.4): In-water Line Precaution Project Criteria found on BOEM's internet website at https://www.boem.gov/regions/gulf-america-ocs-region/protected-species-project-criteria062026.
- **Moon Pool Monitoring Project Criteria:** The applicant will follow the project criteria provided under Attachment 6 (A.5): Moon Pool Monitoring Project Criteria found on BOEM's internet website at https://www.boem.gov/regions/gulf-america-ocs-region/protected-species-project-criteria062026.

- **Vessel Transit Within the Rice's Whale Area as Identified in the 2020 Biological Opinion's Reasonable and Prudent Alternative (2020 RWA):** The applicant will follow the project criteria provided under Attachment 4 (A.6): Vessel Transit within the Rice's Whale Area as identified in the 2020 Biological Opinion's Reasonable and Prudent Alternative (2020 RWA) found on BOEM's internet website at https://www.boem.gov/regions/gulf-america-ocs-region/protected-species-project-criteria062026.
- **Sea Turtle Resuscitation Guidelines Project Criteria:** The applicant will follow the project criteria provided under Attachment 10 (A.7): Sea Turtle Resuscitation Guidelines Project Criteria found on BOEM's internet website at https://www.boem.gov/regions/gulf-america-ocs-region/protected-species-project-criteria062026.

2.3 Summary and Comparison of the Alternatives

If selected, Alternative 1, No Action Alternative, would result in Walter not exercising its rights under the lease and conducting the proposed activities. Alternative 1 would not result in any immediate activity-specific impacts to the human environment, and the lessee may not develop or continue to develop the oil and gas resources of its lease. Alternative 1 does not meet the underlying purpose and need as defined in **Chapter 1.2** because the potential oil and gas resources at this site would not be explored and, thus, may not be developed.

Alternative 2 would result in the lessee/designated operator being authorized to conduct proposed activities. Alternative 2 is the MMA's preferred alternative as it allows the lessee to achieve its exploration objectives and incorporates mitigation and monitoring requirements (as components of project design) to minimize or negate potential environmental impacts. **Table 2-1** provides an overall summary of impacts to resources.

Table 2-1. Summary of Alternatives and Potential Impacts to Resources

Resource	Alternative 1: No Action	Alternative 2: Proposed Action
Marine Mammals	None	Negligible to Moderate
Sea Turtles	None	Negligible to Minor
Air Quality	None	Negligible to Minor
Archaeology*	None	Negligible
Benthic Communities*	None	Negligible
Birds*	None	Negligible
Fish and EFH*	None	Negligible
Human/Socioeconomic Resources*	None	Negligible
Other Marine Uses*	None	Negligible
Water Quality*	None	Negligible

None – The action has no effects on the resource.

Negligible - Impacts may or may not cause observable changes to natural conditions; does not reduce the integrity of the resource.

Minor - Impacts cause observable and short-term changes to natural conditions but does not reduce the integrity of the resource.

Moderate - Impacts cause observable and short-term changes to natural conditions and/or reduces the integrity of the resource.

Major - Impacts cause observable and long-term changes to natural conditions and reduces the integrity of the resource.

NOTE: The descriptions above are a general summary/definition of the overall impacts. Refer to each specific resource in Chapter 3 for a more detailed impact-level definition.

* Denotes resources eliminated from detailed analysis

Based on this site-specific analysis, the MMA's other environmental reviews under OCSLA and NEPA, and adherence to all required mitigation measures and regulatory guidance incorporated into the Proposed Action, no additional alternatives were carried forward for detailed analysis.

3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL IMPACTS

3.1 INTRODUCTION

The discussion below will briefly describe/summarize the pertinent affected resources, discuss the site-specific review that was conducted, and provide the analysis of the proposed activities' potential impacts to the human environment. The description of the affected environment and impact analysis are presented together in this chapter for each resource. For the impact analysis, resource-specific significance criteria was developed for each resource category.

A detailed description of resources on the OCS, along with a detailed impact analysis of the routine and accidental impacts of the proposed activities on these resources, can be found in Chapter 4 of the 2025 PEIS, from which this SEA tiers. Additional supporting analyses and descriptions are included in the BEBR, Oil and Gas SID, and Gulf of Mexico Catastrophic Spill Event Analysis, which are incorporated by reference for all resources discussed below. Throughout this SEA, where information is incomplete or unavailable and cannot be obtained within a reasonable cost or timeframe, or the means to obtain it are unknown, the MMA makes clear that such information is lacking and where possible, makes use of reliable existing data and resources in its place. The MMA has determined that it can make an informed decision at this time with the information currently available. The MMA's subject-matter experts have applied scientifically credible information using accepted theoretical approaches and research methods, such as information on related or surrogate species, where appropriate.

3.1.1 Potentially Affected Resources

Preliminary screening for this assessment was based on a review of the relevant literature, previous SEAs, the 2025 GOA PEIS, and statistics/data pertinent to historic and projected activities. For this SEA, the MMA evaluated the site-specific impacts that may result from the operator's proposed activities and identified the following potentially affected resources:

- marine mammals (including both ESA-listed and non-listed species);
- sea turtles (all are ESA-listed species); and
- air quality

3.1.2 Resources Not Affected or Negligibly Impacted

Based on the site-specific review and impact conclusions reached, the following resources are scoped out of this SEA on the basis that the Proposed Action would not have an impact on the resource because the resource is not present within the proposed activity area and/or the proposed activities would have no impact/effect or no more than a negligible impact (**Table 3-1**).

Table 3-1. Resources Not Included for Further Analysis

Resource	Description	Reason For No Further Analysis
Water Quality	The MMA requires projected waste and discharge information for specific proposed activities to be submitted in an exploration plan, as outlined by NTL 2008-G04. The U.S. Environmental Protection Agency (USEPA) Regions 4 and 6 regulate the discharge of routine operational waste streams generated from offshore oil- and gas-related activities. Section 403 of the Clean Water Act (CWA) requires that National Pollutant Discharge Elimination System (NPDES) permits be issued for discharges to the ocean in compliance with USEPA's regulations for preventing unreasonable degradation of the receiving waters. The NPDES permits specify effluent limitations and monitoring requirements for discharges associated with offshore oil and gas extraction activities. There are two general NPDES permits that cover the OCS. Permit GMG290000, issued by USEPA Region 6, covers the Western Planning Area (WPA) and CPA; Permit GEG460000, issued by USEPA Region 4, covers the Eastern Planning Area (EPA) and a small part of the CPA. BSEE has regulatory authority through 30 CFR § 250.300 to prevent and control water pollution. BSEE's Office of Environmental Compliance performs inspections to support the USEPA.	The proposed exploration activities are located on Ewing Bank Block 966, which is located approximately 69 mi (111km) from the nearest coastline off Plaquemines Parish, Louisiana. Ewing Bank Block 966 is within USEPA Region 6 and falls under the requirements of NPDES Permit GMG290000. Discharges authorized under the NPDES permit would have no effect to negligible impact on the pH, temperature, dissolved oxygen content, salinity, oxidation-reduction potential, or turbidity of the water. Furthermore, any hydrocarbons present in discharges that meet the NPDES permit would be below concentrations that would produce physical or chemical changes to water quality. In addition to permitted discharges, unpermitted spills may occur. The MMA (as BOEM) has previously estimated that most accidental spills will be less than 50 bbl in volume, based on historical spill rates and projected OCS activity. Potential impacts on resources from these small spills would be rendered negligible by natural processes such as weathering and dispersion that would degrade the spill products. Water quality is also degraded by trash and debris. Activities proposed will comply with Federal regulations and the requirements in applicable Project Criteria for Marine Debris to reduce the potential for trash and marine debris from the proposed activities, which reduces the potential impacts to negligible.
Benthic Communities	Benthic fauna inhabit the seafloor throughout the OCS at all water depths. In shallow water (<984 ft [300 m]), naturally occurring geological or biogenic seafloor with measurable vertical relief serves as important habitat for a wide variety of sessile and mobile marine organisms. Corals in the region that are protected under the ESA include elkhorn coral, staghorn coral, boulder star coral, lobed star coral, and mountainous star coral. In deep water (>984 ft [300 m]), chemosynthetic communities form around natural hydrocarbon seepages. Deepwater coral communities can co-occur on hard substrates near hydrocarbon seeps with chemosynthetic organisms and routinely colonize other hard substrates.	Based on review of the geo-hazard survey, the MMA 3D seismic anomaly database, and N-10274, no known or mapped benthic resources were identified within the proposed activity area; therefore, with existing regulatory requirements in place, the potential impact is negligible and no additional mitigation or monitoring measures are applied. Activities proposed will comply with Federal, State, and local regulations and NTLs to reduce the risk for the potential for accidental events; therefore, potential impacts to benthic communities from accidental events are negligible.

Resource	Description	Reason For No Further Analysis
Archaeological Resources	The MMA is required under 36 CFR § 800.4(b)(1) to make a reasonable and good faith effort to carry out appropriate identification efforts, which may include background research, consultation, oral history interviews, sample field investigation, and field survey. Under regulation 30 CFR § 550.194 an operator is required to submit an archaeological report based on high-resolution geophysical survey analyzing the potential for an undertaking to adversely effect archaeological resources. To mitigate adverse impacts to these resources, the MMA requires that the operator either avoid the features identified as possible archaeological resources in the operator's archaeological report or establish to the satisfaction of the Regional Director that an archaeological resource does not exist or will not be adversely affected by operations. Mitigation of adverse impacts to archaeological resources determined to be significant under 36 CFR § 60.4 within the identified Area of Potential Effect may be determined following consultation with the Advisory Council on Historic Preservation and appropriate State Historic Preservation Offices per 36 CFR § 800.6. Under 30 CFR § 550.194(c), lessees are required to immediately halt seafloor disturbing operations within 1,000 feet of the resource and notify the MMA's Regional Director of the discovery of any potential archaeological resources.	Based on review of the archaeological survey and additional data, no potential archaeological resources were identified within the Proposed Action area. Therefore, with existing regulatory requirements in place, the potential impact is negligible to minor and no additional mitigation or monitoring measures are applied.
Fish and Invertebrate Resources and Essential Fish Habitat	Fish and invertebrate resources refers to all estuarine and marine fish and invertebrates endemic to the region, with a particular emphasis on species of ecological and economical significance. EFH refers to all waters and substrate necessary for spawning, breeding, feeding, and growth to maturity for federally managed fisheries species on the OCS (16 U.S.C. §§ 1801 *et seq.*).	The proposed activities are covered under the Programmatic Essential Fish Habitat Consultation for Oil and Gas Activities in the Gulf of America (2022) and would not trigger a project-specific EFH consultation with the National Marine Fisheries Service (NMFS) (e.g., minimum separation distances of activities from sensitive benthic habitats as described in NTL-2009-G39 and NTL-2009-G40 would be maintained). Overall, the proposed activities are expected to have negligible population-level impacts to fish and invertebrate resources on the OCS, as well as EFH due to the localized, short-term nature of the proposed activities.

Resource	Description	Reason For No Further Analysis
Marine and Coastal Birds	Several bird groups use the U.S. Gulf of America environment, because the area serves multiple habitat and life staging purposes. Birds from six distinct taxonomic and ecological groups are represented within the GOA region, including passerines (i.e., Passeriformes), raptors (i.e., Falconiformes, Accipitriformes), seabirds (i.e., Charadriiformes, Pelecaniformes, Procellariiformes, Gaviiformes, Podicipediformes), waterfowl (i.e., Anseriformes, Gaviiformes), shorebirds (i.e., Charadriiformes), and wading or marsh birds (i.e., Ciconiiformes, Gruiformes). Currently, nine federally listed protected bird species occur in the northern GOA: Cape Sable seaside sparrow; Mississippi sandhill crane; piping plover; rufa red knot; roseate tern; whooping crane; wood stork; eastern black rail; and black-capped petrel.	Overall, reasonably foreseeable impacts to birds from routine activities are expected to be not significant. Potential impacts from routine activities could include behavioral effects, exposure to or intake of OCS oil- and gas-related contaminants and discarded debris, sublethal chronic effects from air emissions, mortality and energetic costs associated with structure presence and associated lighting, disturbance-related impacts, and displacement of birds from habitats that are destroyed, altered, or fragmented, thus making these areas temporarily unavailable. Also, secondary impacts from pipeline and navigation canals to coastal habitats will occur over the long term and may temporarily displace birds to other habitats.
Human/ Socioeconomic Resources	The coastal zone of the OCS is not a physically, culturally, or economically homogenous unit. The counties and parishes along the Gulf Coast cover approximately 1,631 mi (2,625 km) and includes multiple uses for recreational activities (beaches), deepwater ports, oil and gas support industries, manufacturing, farming, ranching, and hundreds of thousands of acres of wetlands and protected habitat. Offshore oil and gas activities affect onshore areas because of the various industries involved and because of the complex supply chains for these industries. Many of these impacts occur in counties and parishes along the coastal region. Employment stability in the oil and gas industry and its support sectors correlates directly with fluctuations in OCS oil- and gas-related activity levels, which are, in turn, closely related to the changes in oil and gas commodity prices.	The potential impacts resulting from the industry's routine activities occur within the larger socioeconomic context of the region. Given the existing, extensive, and widespread support system for the OCS oil- and gas-related industry and its associated labor force, the impacts of routine activities related to a single lease sale are expected to be negligible, widely distributed, and to have little impact. Routine activities related to a single Proposed Action would be incremental in nature, not expected to change existing conditions, and positive in their contribution to the sustainability of current industry, related support services, and associated employment. No new or expansion of existing shore bases or onshore support infrastructure and facilities is planned as part of the Proposed Action; therefore, potential impacts are negligible.
Other Marine Uses	The marine environment is used for a variety of activities and overlaps or conflicts can occur with multiple uses and/or users. The region is very active with existing multiple users and designated uses, including oil and gas activities, fishing (commercial or recreational), shipping, military, SSRA blocks, and artificial reefs. Future activities may include renewable energy development, aquaculture, and other alternative uses.	The Proposed Action would have no to negligible impacts on other marine uses, and no additional mitigation or monitoring measures are applied.

3.2 MARINE MAMMALS

3.2.1 Affected Environment

Twenty-one species of cetaceans (baleen and toothed whales) and one species of Sirenia (i.e., manatee) regularly occur in the GOA region and are identified in the NMFS Marine Mammal Stock Assessment Reports (Hayes et al. 2024). A description of marine mammals can be found in Chapter 4.8 of the 2025 GOA PEIS, from which this SEA tiers, with additional information in Chapter 3.7 of the BEBR, which is incorporated by reference.

The proposed action is located in Ewing Bank Block 966, 69 mi (111 km) from the shore in water depths of 1,762 ft (537 m).

Threatened or Endangered Marine Mammal Species

Two cetacean species, the sperm whale (*Physeter macrocephalus*) and the Rice's whale (*Balaenoptera ricei*), regularly occur in the GOA region and are listed as endangered under the ESA. The Florida manatee (*Trichechus manatus latirostris*), a subspecies of the West Indian manatee (*Trichechus manatus*), has been documented all along the GOA in nearshore waters, typically less than 4 m (13 ft) deep and within 1,000 m (328 ft) of the shore (Slone et al. 2022). West Indian manatees are currently listed as threatened; the Florida manatee subspecies is proposed to be listed as threatened, and the Antillean manatee (*Trichechus manatus manatus*) subspecies as endangered, which would replace the listing of the West Indian manatee (90 FR 3131). Florida manatee critical habitat is currently designated in Florida (42 FR 47840), and critical habitat revisions are proposed (89 FR 78134). The sperm whale was listed as endangered throughout its range on December 2, 1970. The GOM Bryde's (now Rice's) whale was listed as endangered on May 15, 2019 (84 FR 15446). The Rice's whale critical habitat is currently proposed by NMFS in the northern GOA from the 100 to 400 m (328 to 1,312 ft) isobath (88 FR 47453).

The only resident baleen whale in the northern GOA is the Rice's whale. The majority of Rice's whale detections are limited to the northeastern GOA along the continental shelf between roughly 100 and 400 m (328 to 1,312 ft) depths (Garrison et al. 2024; NOAA Fisheries 2026; Rosel et al. 2021), though they have been detected less frequently in the central, western, and southern GOA (NOAA Fisheries 2024; 2026; Rappucci et al. 2023; Soldevilla et al. 2022; Soldevilla et al. 2024). Predicted densities and occurrence of Rice's whales remain highest in their northeastern Gulf habitat (Farmer et al. 2022; Garrison et al. 2024). Sperm whales in the GOA are not evenly distributed, showing greater densities in areas associated with oceanic features that provide the best foraging opportunities (Garrison et al. 2018).

Non-ESA-Listed Marine Mammal Species

Nineteen toothed cetaceans (including beaked whales and dolphins) regularly occur in the GOA region that are not ESA-listed (Hayes et al. 2024). Despite being non-listed, the Marine Mammal Protection Act of 1972 (MMPA) protects all marine mammals regardless of ESA status.

Unusual Mortality Event (UME)

Under the MMPA, an UME is defined as "a stranding that is unexpected; involves a significant die-off of any marine mammal population; and demands immediate response." There are currently no active UMEs in the Gulf region. A list of active and closed UMEs with updated information can be found at the following website: Active and Closed Unusual Mortality Events.

3.2.2 Impact Analysis

The IPFs with the proposed activities in the project area (Ewing Bank Block 966) that could affect marine mammals include (1) noise (drilling and/or production and vessel/aircraft noise), (2) vessel strike, (3) entanglement and entrapment, (4) marine trash and debris, and (5) oil/chemical spills and oil spill response. For this SEA, impacts were evaluated and assigned levels of environmental impact caused by IPFs as listed below. **Table 3-2** provides a summary of the impact analysis for marine mammals.

- **None** – The action has no effect.
- **Negligible** – An individual or group of animals would be subject to nominal to slight measurable impacts. No mortality or injury to any individual would occur, and no disruption of behavioral patterns would be expected. The disturbance would last only as long as the human-caused stimulus was perceptible to the individual or group.
- **Minor** – An individual or group of animals would be subject to a human-caused stimulus and would be disturbed, resulting in an acute behavioral change. No mortality or injury to an individual or group would occur.
- **Moderate** – An individual or group of animals would be subject to a human-caused stimulus and would be disturbed, resulting in a chronic behavioral change. Individuals may be impacted but at levels that do not affect the fitness of the population. Some impacts to individual animals may be irreversible.
- **Major** – An individual or group of animals would be subject to a human-caused stimulus, resulting in physical injury or mortality, and would include sufficient numbers that the continued viability of the population is diminished, including annual rates of recruitment or survival. Impacts would also include permanent disruption of behavioral patterns that would affect a species or stock.

Table 3-2. Summary of Impact Levels to Marine Mammals

Activity Type	Impact-Producing Factor	Magnitude of Potential Impact Alternative 1	Magnitude of Potential Impact Alternative 2
Routine Activities	Noise	None	Negligible
Accidental Events	Vessel Strike	None	Negligible to Moderate

Activity Type	Impact-Producing Factor	Magnitude of Potential Impact Alternative 1	Magnitude of Potential Impact Alternative 2
Accidental Events	Marine Trash and Debris	None	Negligible
Accidental Events	Oil/Chemical Spills	None	Negligible to Minor
Accidental Events	Response Activities	None	Negligible to Minor
Accidental Events	Entanglement and Entrapment	None	Negligible

3.2.2.1 Alternative 1

If selected, Alternative 1, No Action Alternative, would result in the operator not undertaking the proposed activities as described in the plan. Therefore, the direct or indirect activity-specific IPFs to marine mammals would not occur. Activities related to previously issued leases and permits (as well as those that may be issued in the future under a separate decision) related to OCS activities would not increase. The No Action Alternative would not contribute to the environmental impacts of overall OCS oil- and gas-related activity as described in the 2025 GOA PEIS, and routine and accidental impacts would still occur from other activities.

3.2.2.2 Alternative 2

If selected, Alternative 2, Proposed Action, would result in the operator undertaking the proposed activities as requested and conditioned in the plan. The operator will adhere to the applicable Project Criteria: A.2 Marine Debris Project Criteria, A.3 Vessel Strike Avoidance and Injured and/or Dead Aquatic Protected Species Reporting Project Criteria, A.5 Moon Pool Monitoring Project Criteria, A.6 Vessel Transit within the Rice's Whale Area as identified in the 2020 Biological Opinion's Reasonable and Prudent Alternative (2020 RWA), and A.4 In-Water line Precautions Project Criteria (Walter, 2026). Compliance with the regulations, and applicable Project Criteria are expected to negate or lessen the chance of moderate to major impacts on marine mammals under this alternative.

3.2.3 Routine Activities

Noise

Vessel noise from the Proposed Action will produce low levels of noise, generally in the 150 to 170 decibels (dB) re 1 µPa-m (dB referenced to 1 micropascal at a distance of 1 meter) at frequencies below 1,000 hertz (Hz). Vessel and equipment noises are transitory and generally do not propagate at great distances from the vessel. The intensity of noise from vessels is roughly related to ship size and speed (Erbe et al. 2019). For a given vessel, relative noise tends to increase with increasing speed. A comprehensive review of the literature on marine mammals and vessel noise (Erbe et al. 2019; Erbe et al. 2025) revealed that changes in behavior vary widely across

species and are heavily dependent on context. Vessel noise could interfere with marine mammal communication either by masking important sounds from conspecifics (a member of the same species), masking sounds from predators, or it may trigger animals to alter their vocalizations (Tyack 2008). There is the possibility of short-term disruption of movement patterns and/or behavior caused by vessel noise and disturbance. Therefore, vessel noise associated with the proposed action is not expected to significantly affect marine mammals.

According to Southall et al. (2007; 2019; 2021), for behavioral responses to non-impulsive noise sources (e.g., drill noise), data indicate considerable variability in received levels associated with behavioral responses. Further, research suggests that the sensitivity of marine mammals to drilling noise varies between and within species and is likely context-dependent (Richardson et al. 1990). The source levels from drilling (154 dB and below, as cited by Greene, 1986 in Richardson et al. 1995) are below the auditory injury onset criteria established by NMFS (NMFS 2024). While behavioral responses may result from offshore drilling, they are expected to be short-term and intermittent. Since drilling associated with the proposed action would be temporary and localized, and considering the wide range of marine mammals in the Gulf, marine mammals are not expected to be significantly affected by drilling noise. In addition to various pieces of support equipment used in construction, such as vessels and cranes, pile driving is the primary method by which fixed structures are attached to the seafloor and provide stability for other support structures. There are two primary pile driving operations on the OCS: (1) the setting of casing conductors (also known as drive pipe) for drilling operations, and (2) pile emplacement for securing oil and gas structures and facilities to the sea bed. The highest reported source levels for pile driving are 204 dB (sound exposure level (SEL)) and 232 dB (peak). Since these occurrences would be temporary, and given the applicable required mitigation measures per applicable Project Criteria, marine mammals are not expected to be significantly affected by pile driving.

Helicopter noises contain dominant tones (resulting from rotors) generally below 500 Hz (Richardson et al. 1995). Air traffic may elicit a startle response and interrupt marine mammals at the surface (depending on the activity of the animals; Richardson et al. 1995). Aircraft noise is generally short in duration and transient in nature, although it may ensonify large areas. Much of the noise from a passing aircraft is reflected and does not penetrate the air-water interface (Urick 1972). The Proposed Action is expected to have helicopter support with multiple transits between the MODU and airbase. Since these occurrences would be temporary and pass within seconds, and given the relevant guidelines and regulations, marine mammals are not expected to be adversely affected by routine helicopter traffic operating at prescribed required Federal Aviation Administration altitudes.

Marine mammals may exhibit some avoidance behaviors, but their behavioral or physiological responses (e.g., stress) to noise associated with the Proposed Action are unlikely to have population-level- impacts. Therefore, impacts to marine mammals from noise associated with the proposed activities are expected to be negligible.

3.2.4 Accidental Events

Vessel Strike

All marine mammals are vulnerable to accidental vessel strike; however, some marine mammal species may be more vulnerable than others, including primarily slow-moving species (e.g., manatees) or those that spend extended periods of time at the surface (e.g., Rice's whales), and deep-diving species (e.g., sperm whales) while on the surface (Vanderlaan and Taggart 2007). For example, Rice's whales may spend up to 88 percent of their time at night, and 70 percent of their time overall, within 15 m (39 ft) of the ocean surface (Soldevilla et al. 2017), making them vulnerable to collisions with large vessels (Stevens et al. 2024).

Accidental vessel strike on a marine mammal can result in injury, mortality, or even no apparent effects depending on the circumstances (Laist et al. 2001; Pace 2011; Van Waerebeek et al. 2007; Vanderlaan and Taggart 2007). Several factors affect the risk and severity of vessel strike to marine mammals, including species type, speed, health, and behavior of the animal; and the path, speed, size, and number of vessels (Laist et al. 2001; Martin et al. 2016; Vanderlaan and Taggart 2007). Vessel speed and vessel size are of note when assessing strike risk; larger vessels at higher speeds pose the most risk for strike on marine mammals (Garrison et al. 2025; Stevens et al. 2024). Most severe and lethal whale injuries involve large ships (>80 m [262 ft]) at higher speeds: 89 percent of ship strike records show that vessels were moving >14 kn (16 mph); most strikes occurred over or near the continental shelf; and the whales were usually not seen beforehand or seen too late to be avoided (Laist et al. 2001; Van Waerebeek et al. 2007).

The operator has not proposed any vessel transits within the Rice's Whale Area defined by NMFS. Per the Vessel Transit within the Rice's Whale Area Project Criteria, the operator is required to provide notification and concurrence to fulfill the reporting requirements prior to any vessel transit changes that propose entering the 2020 RWA. In addition, adherence to the Vessel Strike Avoidance and Injured and/or Dead Aquatic Protected Species Reporting Project Criteria would prevent or substantially reduce marine mammal interactions with vessels by requiring separation distances, speed restrictions, and the use of onboard observers for monitoring during certain activities. NMFS also provides all boat operators with whale watching guidelines, which are derived from the MMPA. These guidelines suggest safe navigational practices based on speed and distance limitations when encountering marine mammals. With these protocols in place and considering the wide geographic range and movements of marine mammals, impacts to marine mammals from vessel strike are expected to be negligible to moderate.[8]

[8] In the unlikely (i.e., not reasonably foreseeable) event of a strike on an ESA-listed whale that results in mortality, the determination could be major.

Marine Trash and Debris

Entanglement in marine debris could lead to injury, infection, reduced mobility, increased susceptibility to predation, decreased feeding ability, fitness consequences, and mortality (e.g., drowning) (Gall and Thompson 2015; Senko et al. 2020). In addition, marine debris ingestion could lead to intestinal blockage, which can affect feeding ability and lead to injury or death (Gall and Thompson 2015; Senko et al. 2020). Operators are required to follow BSEE, USCG, and USEPA regulations pertaining to marine trash and debris prevention and handling. With adherence to these regulations and the A.2 Marine Debris Project Criteria, which is designed to prevent or minimize accidental marine debris, impacts to marine mammals from marine debris are expected to be negligible.

Oil/Chemical Spills and Oil-Spill Response

Historical trends in the GOA show that the frequency of oil spills has decreased substantially over the last two decades, and most spills are categorized as small (i.e., less than 1,000 bbl; ABS Consulting Inc. 2016; Anderson and LaBelle 1990; Anderson et al. 2012). Improvements in technology, industry practice, and regulations have contributed in part to decreased spill risk. Potential impacts of an oil spill depend on a variety of factors, such as spill magnitude, frequency, timing, location, and the meteorological and oceanographic conditions at the time (National Research Council 2003). Further, the impacts of an oil spill could depend on oil characteristics; time of year; response efforts (e.g., burning, dispersant); and types of habitats, as well as the behavior and physiology of the marine mammals themselves (Johnson and Ziccardi 2006; Sullivan et al. 2019; Ziccardi et al. 2015). Marine mammals could experience decreased health, reproductive fitness, and longevity, increased vulnerability to disease, and possibly mortality. The oil from a spill can adversely affect marine mammals by causing soft-tissue irritation, fouling of baleen plates, respiratory stress from the inhalation of toxic fumes, food reduction or contamination, direct ingestion of oil and/or tar, and temporary displacement from preferred habitats. There is evidence that some species of marine mammals can metabolize hydrocarbons (Engelhardt 1983; Lee and Anderson 2005). However, the extent to which species metabolize and eliminate hydrocarbons, and the specific gene biomarker pathways used are unclear (Ruberg et al. 2021). An oil spill may physiologically stress an animal (Geraci and St. Aubin 1980), making it more vulnerable to disease, parasitism, environmental contaminants, and predation. Because the potential occurrence of a spill and contact with species is low due to applicable regulatory requirements (refer to **Chapter 1.5**) in this plan submittal, and considering the wide geographic range and movement of marine mammals in the GOA, the effects on marine mammals from oil/chemical spills are expected to be negligible to minor.

Response Activities

When deemed necessary, the removal methods used during any spill would be determined by the USCG's Federal On-Scene Coordinator (FOSC) and representatives of the Regional Response Team (RRT) or National Response Team (NRT); therefore, accidental event response activities would be conducted on a case-by-case basis, as outlined in Walter's approved regional OSRP.

Response activities could cause increased human presence in the water after an oil spill (e.g., vessels) which could contribute to changes in behavior and/or distribution, thereby potentially stressing marine mammals further and perhaps making them more vulnerable to various physiological and toxic effects of spilled oil. Response vessels could increase the risk of vessel strike. Removing oil from the surface would reduce the risk of contact and render it less likely to adhere to skin, baleen plates, or other body surfaces (Neff 1990).

One assumption concerning the use of dispersants is that the chemical dispersion of oil would considerably reduce the impacts to marine mammals, primarily by reducing their exposure to petroleum hydrocarbons (French-McCay 2004; National Research Council 2005). The acute toxicity of most oil dispersant chemicals is low relative to the constituents and fractions of crude oil and refined products. Dispersants may be irritants to tissues and sensitive membranes (National Research Council 2005). Impacts through skimmers could be through capture and/or entrainment. In-situ burns could impact some marine mammals if they were in the burning oil; however, it is expected that animals would avoid the area once it is ignited. In both skimming and controlled burning activities, the use of trained observers is common. Based on the MMA's review of the applicable scientifically credible information available, the low potential for a spill to occur and contact a species due to applicable regulatory requirements (refer to **Chapter 1.5**), and considering the wide geographic range and movement of marine mammals in the GOA, the effects on marine mammals from response activities are expected to be negligible to minor.

Entanglement and Entrapment

Entanglement, such as from lines in the water, and entrapment can result in stress, injury, or death of marine mammals (Gall and Thompson 2015; Moore et al. 2009; Senko et al. 2020). Entangled marine mammals may drown or starve due to being restricted by gear, suffer physical trauma and systemic infections, and/or be hit by vessels due to an inability to avoid them. Moon pools are too small to allow a marine mammal in the GOA to enter and are therefore highly unlikely to entrap them. The operator will adhere to A.4 In-Water Line Precaution Project Criteria and the A.5 Moon Pool Monitoring Project Criteria which appreciably reduce the likelihood of marine mammals being entangled or entrapped in gear from the proposed activity (Walter, 2026). With applicable required protocols per the Project Criteria, marine mammal entanglement in gear associated with the proposed activity is unlikely to occur since lines in the water would be taut as required to prevent looping and tangling. Thus, because the possibility of entanglement and entrapment is low and since the operator will adhere to the applicable Project Criteria, the effects on marine mammals are expected to be negligible.

Conclusion

Long-term or permanent displacement of marine mammals from preferred habitats and the destruction or adverse modification of any habitats are not expected to occur due to the scope, timing, and the short-term nature of the proposed development activities, and considering the wide-ranging movements and behaviors of marine mammals in the GOA. Furthermore, application of the applicable Project Criteria in addition to other relevant regulations, would

prevent or minimize potential effects to marine mammals from the above discussed IPFs. Based on the above analysis, the MMA finds that the potential effects from the Proposed Action are unlikely to rise to significant levels.

3.3 SEA TURTLES

3.3.1 Affected Environment

Five sea turtle species, all federally listed as threatened or endangered, are known to inhabit the waters of the Gulf of America OCS: leatherback (*Dermochelys coriacea*); green (*Chelonia mydas*); hawksbill (*Eretmochelys imbricata*); Kemp's ridley (*Lepidochelys kempii*); and loggerhead (*Carettra caretta*). These species are all highly migratory, and individual animals will migrate into nearshore waters as well as other areas of the North Atlantic Ocean, Gulf, and Caribbean Sea. The North Atlantic DPS of green turtle is ESA-listed as threatened. Hawksbill turtles, Kemp's ridley turtles, leatherback turtles, and the Northwest Atlantic Ocean Distinct Population Segment (DPS) of loggerhead turtle are ESA-listed as endangered. Floating *Sargassum* patches are federally designated under the ESA as critical habitat for loggerhead turtles (79 FR 39856) and proposed for green turtles (88 FR 46572). Garrison et al. (2020) found that spatial and seasonal variation in loggerheads in the northern Gulf represents the shift in habitats and behavioral modes across seasons, with animals moving into deeper waters and spending progressively less time at the surface during cooler months. Further, Lamont and Hart (2023) found that time at the surface was greater for loggerhead, Kemp's ridley, and green turtles in summer, though did not differ between the EPA and CPA, except for Kemp's ridleys, which spent more time at the surface in the WPA than the EPA. A complete description of sea turtles can be found in Chapter 4.9 of the 2025 PEIS, from which this SEA tiers, with additional information in Chapter 3.6 of the 2021 BEBR, which is incorporated by reference.

The proposed action is located in Ewing Bank Block 966, 69 mi (111 km) from the shore in water depths of 1,762 ft (537 m).

3.3.2 Impact Analysis

Sea turtles are susceptible to many natural and human impacts, including impacts while on land, in the benthic environment, and in the pelagic environment due to their life history. The IPFs associated with the proposed activities in Ewing Bank Block 966 that could affect sea turtles include (1) noise (drilling and/or production and vessel/aircraft noise), (2) vessel strike, (3) entanglement and entrapment, (4) marine trash and debris, and (5) oil/chemical spills and oil-spill response. For this SEA, impacts were evaluated and assigned levels of environmental impact caused by IPFs as listed below. **Table 3-3** provides a summary of impact to sea turtles.

- **None** – The action has no effect.
- **Negligible** – An individual or group of animals would be subject to nominal to slight measurable impacts. No mortality or injury to any individual would occur, and no disruption of behavioral patterns would be expected. The disturbance would last only as long as the human-caused stimulus was perceptible to the individual or group.

- **Minor** – An individual or group of animals would be subject to a human-caused stimulus and would be disturbed, resulting in an acute behavioral change. No mortality or injury to an individual or group would occur.
- **Moderate** – An individual or group of animals would be subject to a human-caused stimulus and would be disturbed, resulting in a chronic behavioral change. Individuals may be impacted but at levels that do not affect the fitness of the population. Some impacts to individual animals may be irreversible.
- **Major** – An individual or group of animals would be subject to a human-caused stimulus, resulting in physical injury or mortality, and would include sufficient numbers that the continued viability of the population is diminished, including annual rates of recruitment or survival. Impacts would also include permanent disruption of behavioral patterns that would affect a species or stock.

Table 3-3. Summary of Impact Levels to Sea Turtles

Activity Type	Impact-Producing Factor	Magnitude of Potential Impact Alternative 1	Magnitude of Potential Impact Alternative 2
Routine Activities	Noise	None	Negligible
Accidental Events	Vessel Strike	None	Negligible to Minor
Accidental Events	Marine Trash and Debris	None	Negligible
Accidental Events	Oil/Chemical Spills	None	Negligible to Minor
Accidental Events	Response Activities	None	Negligible to Minor
Accidental Events	Entanglement and Entrapment	None	Negligible

3.3.2.1 Alternative 1

If selected, Alternative 1, No Action alternative, would result in the operator not undertaking the proposed activities as described in the plan. Therefore, direct or indirect activity-specific IPFs to sea turtles would not occur. Activities related to previously issued leases and permits (as well as those that may be issued in the future under a separate decision) related to the OCS activities would not increase. The No Action Alternative would not contribute to the environmental impacts of overall OCS oil- and gas-related activity as described in the 2025 GOA PEIS, and routine and accidental impacts would still occur from other activities.

3.3.2.2 Alternative 2

If selected, Alternative 2, Proposed Action, would result in the operator undertaking the proposed activities as requested and conditioned in the plan, and applicable regulations. The operator will adhere to the A.2 Marine Debris Project Criteria, A.3 Vessel Strike Avoidance and Injured and/or Dead Aquatic Protected Species Reporting Project Criteria, A.5 Moon Pool Monitoring Project Criteria, A.7 Sea Turtle Resuscitation Guidelines Project Criteria, and A.4 In-Water Line Precautions Project Criteria (Walter, 2026). Compliance with the regulations and applicable Project Criteria should negate or lessen the chance of significant impacts on sea turtles under this alternative.

3.3.3 Routine Activities

Noise

The dominant source of noise from vessels is propeller operation, and the intensity of this noise is largely related to ship size and speed. Vessel noise from the proposed activities would produce low levels of noise, generally in the 150 to 170 dB re 1 µPa-m at frequencies below 1,000 Hz. Underwater radiated noise from vessels is transitory and generally does not propagate at great distances from the vessel. Vessel noise may impact sea turtle behavior, leading to temporary startle responses, altered submergence patterns, masking of biologically relevant sounds, and physiological stress (National Science Foundation 2011; Samuel et al. 2005). Sea turtles may exhibit a startle reaction, such as diving or swimming away, and temporary stress responses by increasing submergence time, extending dive durations, or surfacing (Lenhardt 1994; O'Hara and Wilcox 1990; Samuel 2004; Samuel et al. 2005). Hazel et al. (2007) found that sea turtles typically respond behaviorally to vessels at a distance of approximately 33 ft. (10 m) or closer. Current evidence indicates that sea turtles respond to vessel noise at very close ranges, making population-level impacts unlikely. While behavioral responses do occur, attributing them specifically to noise rather than visual or other cues remains challenging. Vessel noise generated by the Proposed Action would be localized and short-term. The most likely effects of vessel noise on sea turtles could include short-term behavioral changes and auditory masking.

There is very little information on the impacts of drilling and production noise on sea turtles. However, sea turtle hearing sensitivity is within the frequency range (100–1,000 Hz) of sound produced by low-frequency sources such as marine drilling (Popper et al. 2014). It is unlikely that sounds from drilling would reach injury thresholds, unless the sea turtle is within very close proximity to the drilling activity (Finneran et al. 2017; McCauley et al. 2000; Piniak et al. 2012), but it may cause temporary avoidance or displacement of sea turtles.

The dominant tones for aircraft noise, both airborne and underwater, are generally below 500 Hz (Richardson et al. 1995) and are within the auditory range of all sea turtles. Given the frequency range and sound levels produced, when aircraft travel at relatively low altitude, aircraft noise has the potential to elicit stress or behavioral responses in turtles (e.g., diving or swimming away or altered dive patterns) (BOEM 2016; National Science Foundation 2011). Sea turtle sensitivity to airborne noise is not well understood, and existing studies have yielded mixed results. Noise from helicopter overflights may elicit a startle response from sea turtles, and there is the possibility of short-term disruption of activity patterns and temporary sublethal stress (National Research Council 1990). Since helicopter noise would be temporary and pass within seconds, and given the relevant guidelines and regulations, sea turtles are not expected to be adversely affected by routine helicopter traffic operating at prescribed required Federal Aviation Administration altitudes.

Sea turtles may exhibit some short-term avoidance behaviors, but their behavioral or physiological responses (e.g., stress) to noise associated with the Proposed Action are unlikely to have population-level impacts. Therefore, impacts to sea turtles from noise associated with the proposed activities are expected to be negligible.

3.3.4 Accidental Events

Vessel Strike

There is limited data available concerning potential sea turtle impacts from vessel strikes due to a lack of studies and/or the challenges with detecting such impacts (Nelms et al. 2016). Nonetheless, strikes from all types of vessels are known to result in sea turtle injury and mortality in the GOA (Lutcavage et al. 1997; Nelms et al. 2016; Work et al. 2010). Sea turtles are vulnerable to vessel strikes due to the time they spend at the surface. Recent studies show that the time spent at the surface for basking, feeding, orientation, and mating is approximately 11 percent for loggerheads (Garrison et al. 2020), approximately 19 percent for greens (Roberts et al. 2022), and between 11 and 23 percent for Kemp's ridleys (Garrison et al. 2020), depending on the season. Serious injury, and/or minor, non-lethal injury can occur from vessel strike on a sea turtle, with the associated effects varying based on the size and speed of the vessel. There have been no documented sea turtle collisions with OCS oil- and gas related vessels in the GOA; however, collisions with small or submerged sea turtles may go undetected. The operator will adhere to the A.3 Vessel Strike Avoidance and Injured and/or Dead Aquatic Protected Species Reporting Project Criteria, which prevents or minimizes the potential for vessel strikes by requiring the use of a visual observer (e.g., captain), vessel speed restrictions, and separation distances. Thus, effects on sea turtles from vessel strike are expected to be negligible but might be minor for undetected sea turtles underwater (e.g., vessel displacing water inadvertently moving sea turtles in wake).

Marine Trash and Debris

Marine debris, such as plastics, primarily affects sea turtles through entanglement and/or ingestion (e.g., choking or intestinal blockage) (Gall and Thompson 2015; Senko et al. 2020). Entanglement in marine debris could lead to injury, infection, reduced mobility, increased susceptibility to predation, decreased feeding ability, fitness consequences, and/or mortality (e.g., drowning) of sea turtles (Gall and Thompson 2015; Senko et al. 2020). Marine debris ingestion could lead to intestinal blockage, which can impact feeding ability and lead to injury or death (Gall and Thompson 2015; Senko et al. 2020). The discharge of marine debris by the offshore oil and gas industry and supporting activities is subject to several laws and treaties. The operator will adhere to A.2 Marine Debris Project Criteria, which appreciably reduces the likelihood of sea turtles encountering marine debris from the proposed activity. Thus, effects on sea turtles from marine trash and debris are expected to be negligible.

Oil/Chemical Spills and Oil-Spill Response

Historical trends in the GOA show that the frequency of oil spills has decreased substantially over the last two decades, and most spills are categorized as small (i.e., less than 1,000 bbl; ABS Consulting Inc. 2016; Anderson and LaBelle 1990; Anderson et al. 2012). Improvements in technology, industry practice, and regulations have contributed in part to decreased spill risk. Potential impacts of an oil spill depend on a variety of factors, such as spill magnitude, frequency, timing, location, and the meteorological and oceanographic conditions at the time (National Research Council 2003). Studies have shown that direct exposure of sensitive tissues (e.g., eyes, nares, and other mucous membranes) and soft tissues to oil may produce irritation and inflammation, and can adhere to turtle skin or shells (Lutcavage et al. 1995; Overton et al. 1983; Van Vleet and Pauly 1987). Sea turtles surfacing within or near an oil spill would be expected to inhale petroleum vapors, potentially causing respiratory stress. Ingested oil, particularly the lighter fractions, can be acutely toxic to sea turtles. Sea turtle eggs, hatchlings, and small juveniles are particularly vulnerable if contacted with oil (Fritts and McGehee 1982; Lutz and Lutcavage 1989). Sea turtle eggs laid on sandy beaches would likely be lethally impacted by contact with spilled oil (NPS 2010). The effects of contact with spilled oil on sea turtles could include mortality; decreased health, reproductive fitness, and longevity; as well as increased vulnerability to disease and contamination of prey species. Based on the MMA's review of the applicable scientifically credible information, the low potential for an oil spill to occur and contact a species due to applicable regulatory requirements (refer to **Chapter 1.5**), and considering the wide-ranging movements of sea turtles in the GOA, the potential effects on sea turtles from oil/chemical spills are expected to be negligible to minor.

Response Activities

Response activities would be conducted on a case-by-case basis and only when deemed necessary. The removal methods used during any spill would be determined by the USCG's FOSC and representatives of the RRT or NRT. Spill response activities as outlined Walter's approved regional OSRP could cause an increase in vessel traffic, and thus, an increased possibility for vessel strikes on sea turtles. Cleanup efforts in offshore waters may result in additional injury or mortality of sea turtles, particularly to neonates and juveniles. Due to the nature of the response activities, impacts could occur by a short-term behavioral change of sea turtles in the immediate affected area. Spill response impacts could include interrupted or deterred nesting behavior, crushed nests, entanglement in booms, and increased hatchling mortality due to predation from the increased time required to reach the water, assuming no outside intervention (Lutcavage et al. 1997). Increased human presence could influence turtle behavior and distribution, thereby stressing animals and making them more vulnerable to predators, the toxicological effects of oil, or other anthropogenic sources of mortality. Based on the MMA's review of the applicable scientifically credible information available, the low potential for an oil spill to contact species due to applicable regulatory requirements (refer to **Chapter 1.5**), and considering the wide-ranging movements of sea turtles in the GOA, the potential effects on sea turtles from response activities are expected to be negligible to minor.

Entanglement and Entrapment

Entanglement, such as from lines in the water, and entrapment can result in stress, injury, or death of sea turtles (Gall and Thompson 2015; Senko et al. 2020). Sea turtles have become entrapped in dredge equipment (National Research Council 1990) and have the potential to become entrapped in any submerged structure that an individual is able to enter. Sea turtles can enter and surface within moon pools, potentially being entrapped. The operator will adhere to the A.4 In-Water Line Precaution Project Criteria (requiring lines in the water to be taut as required to prevent looping and tangling) and A.5 Moon Pool Monitoring Project Criteria, which appreciably reduce the likelihood of sea turtles being entangled or entrapped in gear from the proposed activity (Walter, 2026). With applicable Project Criteria, sea turtle entanglement in gear associated with the proposed activity, in addition to sea turtle entrapment in moon pools (though typically remains open to water if used), is unlikely to occur. Thus, because the possibility of entanglement and entrapment is low and since the operator must adhere to applicable Project Criteria, the effects on sea turtles are expected to be negligible.

Conclusion

Long-term or permanent displacement of sea turtles from preferred habitats and the destruction or adverse modification of any habitats are not expected to occur due to the scope, timing, and short-term nature of the proposed activities, and considering the wide-ranging movements and behaviors of sea turtles in the GOA. Furthermore, application of the applicable Project Criteria, in addition to other relevant regulations, are expected to prevent or minimize potential effects to sea turtles from the above discussed IPFs. Based on the above analysis, the MMA finds that the potential effects from the Proposed Action on sea turtles are unlikely to rise to a level of significance.

3.4 AIR QUALITY

"Air Quality" refers to the degree to which the ambient air is free from pollution generated from various natural and anthropogenic air emission sources. The term "air emission" describes the gases and particles released by different sources, while "ambient air" is defined in 40 CFR 50.1(e) as the portion of the atmosphere outside of buildings that is accessible to the public. Air emissions associated with OCS oil- and gas-related activities on the OCS can influence ambient air pollutant levels in nearby coastal regions. For this analysis, these onshore areas include Texas, Louisiana, Mississippi, Alabama, and Florida. This area includes Breton Wilderness Area where air quality and air quality-related values (AQRVs) are protected.

Air quality is evaluated through several pollution indicators. For criteria air pollutants, **Table 3-4** identifies the areas currently designated as nonattainment under the National Ambient Air Quality Standards (NAAQS). The term "maintenance" area refers to an area that now meets the NAAQS but is still under an approved maintenance lan to ensure continued compliance.

Table 3-4. Nonattainment and Maintenance Areas on the U.S. Gulf Coast

State	Area	8-hr O3 (1997)	8-hr O3 (2008)	SO2 (2010)	Lead (2008)
Alabama	Troy	–	–	–	NAA
Florida	Tampa	–	–	–	NAA
Florida	Hillsborough County	–	–	NAA	–
Florida	Nassau County	–	–	NAA	–
Louisiana	Baton Rouge	M	M	–	–
Louisiana	St. Bernard Parish	–	–	NAA	–
Texas	Beaumont-Port Arthur	M	–	–	–
Texas	Houston-Galveston-Brazoria	NAA	NAA	–	–
Texas	Frisco	–	–	–	NAA

M = maintenance area; NAA = nonattainment area; O3 = ozone; SO2 = sulfur dioxide; – = the area is in attainment of the NAAQS.

Source: USEPA (2021).

3.4.1 Affected Environment

The proposed activities would occur approximately 69.28 mi (111.50 km) from the nearest shoreline, with air emission related operations located within surface lease block Ewing Bank 966. Air quality over Federal OCS waters is not classified under the NAAQS. In contrast, nearby coastal states contain areas classified as nonattainment or maintenance for one or more criteria air pollutants (**Table 3-4)**. All other onshore areas are in unclassifiable/attainment status. Sensitive areas, including the Breton Wilderness Area, may also be affected by transported emissions from the proposed activities.

Air quality conditions over the OCS are influenced by a wide range of emission sources. These include existing OCS oil and gas operations and associated support vessels; commercial marine traffic; and other anthropogenic and natural contributors identified in Chapter 4.1 of the 2025 GOA PEIS. Pollutants emitted onshore can also be recirculated offshore under sea-breeze conditions and subsequently transported back to the coast.

Emissions form the Proposed Action constitute only a small fraction of total OCS-wide emissions. For the facilities in Ewing Bank 966, no prior plans have been approved. As a result, emissions associated with the Proposed Action represent 100 percent of the facility-specific emissions.

3.4.2 Impact Analysis

The IPFs associated with the proposed activities in Ewing Bank 966 that could impact the air quality include (1) air emissions emitted from routine activities (drilling and production related equipment, vessels, and flaring/venting), (2) air emissions emitted from accidental events such as oil/chemical spills, emergency flaring/venting, and response activities. An air quality analysis was conducted on the air emission estimates presented in the plan to assess potential impacts

to the air quality. For this SEA, impacts were evaluated and assigned levels of environmental impact caused by IPFs as listed below.

- **None** – The action has no effect.
- **Negligible** – No measurable impact(s). Impacts would be indistinguishable from localized existing conditions.
- **Minor** – a measurable negative impact on air quality that is likely distinguishable from localized existing conditions.
- **Moderate** – a notable and measurable negative impact on air quality that is likely distinguishable from localized existing conditions.
- **Major** – a notable and measurable negative impact on air quality, locally, with chronic effects that would not fully recover even after remedial action is taken.

Table 3-5 lists the potential IPFs and associated impact levels for each alternative. Overall, routine and accidental impacts to air quality from the proposed activities are expected to be minor.

Table 3-5. Summary of Impact Levels for Air Quality

Activity Type	Impact-Producing Factor	Magnitude of Potential Impact Alternative 1	Magnitude of Potential Impact Alternative 2
Routine Activities (drilling, production, vessel support, and routine flaring and venting)	Air emissions and pollution	None	Minor
Accidental Events	Oil/Chemical Spills	None	Minor
Accidental Events	Response Activities	None	Minor
Accidental Events	Emergency Flaring and Venting	None	Minor

A more detailed discussion of the IPFs and types of impacts to air quality that could occur from the proposed activities is included in Chapter 4.1 of the 2025 GOA PEIS, from which this SEA tiers.

3.4.2.1 Alternative 1

If selected, Alternative 1, No Action Alternative, would result in not undertaking the proposed activities as described in the plan. Therefore, the site-specific IPFs to air quality would not occur. Activities related to previously issued leases and permits, as well as those that may be issued in the future under separate decisions related to OCS oil- and gas-related activities, would continue. Under the No Action Alternative, the environmental impacts described in the 2025 GOA PEIS for OCS oil- and gas-related activities would remain unchanged; however, any previously approved activities would continue, and routine, accidental, and previously authorized activities and associated impacts could still occur.

3.4.2.2 Alternative 2

If selected, Alternative 2, Proposed Action, would result in the operator undertaking the proposed activities. As described in the analyses below, the Proposed Action would have minor impacts on air quality. However, because the Houston-Galveston-Brazoria area is the nearest area listed in Table 3-4 to the Proposed Action and is currently designated as nonattainment for ozone (O_3), even a small contribution of ozone precursors warrants consideration given the area's nonattainment status.

3.4.3 Routine Activities

The calculated emission amounts for the proposed activities did not exceed any emission exemption amount per 30 CFR § 550.303(d). The estimated peak yearly emissions are shown in Table 3-6.

Table 3-6. Estimated Annual Emission Amounts in Tons per Year (tpy)

	TSP	PM10	PM2.5	SOx	NOx	VOC	Pb	CO	NH_3
Facility Amounts	54.98	33.19	32.20	0.80	1316.37	38.02	0.00	208.04	0.38
Support Vessel Amounts	9.79	5.91	5.73	0.14	234.56	6.74	0.00	36.79	0.07

The MMA considered the cumulative impact of many plan approvals in Chapter 4.1 of the 2025 GOA PEIS, from which this document tiers.

3.4.4 Accidental Events

Emergency Flaring and Venting

If an accidental or emergency flaring or venting of gas occurs, PM, NO_x, SO_x, CO, VOCs, and/or methane (CH_4) would be released to the atmosphere. These emissions can contribute to O_3 formation. Additionally, any flared and vented gas may contain H_2S that may convert to SO_2. In general, emergency flaring and venting events are infrequent and of short duration. The emissions (PM, NO_x, SO_x, VOCs, CH_4, CO, and SO_2) are more abundant near the site and will disperse as it travels.

Oil Spills

If an oil spill occurs, VOCs from the surface oil slick will vaporize into the atmosphere. Increases in O_3 concentrations could occur because VOCs are precursors to O_3 formation. Additionally, if a fire occurs, PM and combustion product emissions will be emitted. In general, accidental oil spill and gas release events are infrequent and are usually contained within a few days. The emissions (VOCs, PM, and combustible emissions) are more likely to be abundant near the site of the

release and will disperse with distance. Given the proposed project's distance from the nearest shoreline, most air quality impacts would occur in offshore waters with minimal chance to affect onshore air quality.

Response Activities

Response activities may include scheduled burnings or dispersants to minimize potentially significant degradation to air quality from the release itself; however, response activities can also impact air quality through air emissions from equipment, vessels, aircraft, burning of gas and oil, and the application of dispersants via aircraft. The appropriateness of in-situ burn application would be determined in coordination with the FOSC and affected SOSC as outlined in the approved regional OSRP. Likewise, any proposed dispersant use must first be approved by the Region 6 response team, which includes BSEE and USEPA. In most cases, dispersant use is not approved within 3 miles of shore. See Walter's application for a detailed discussion of topics like release modeling, response technologies, and source containment, which were factored into this analysis.

Conclusion

The potential impacts of the projected emissions to the coastal areas are below all applicable thresholds; therefore, they are expected to be minor. Overall, routine activities and accidental event related impacts to air quality from the proposed activities are expected to be minor.

4 CONSULTATION AND COORDINATION

Coastal Zone Management Act

Per 15 CFR part 930 subpart D (private activities that require a Federal permit or license) and subpart E (OCS plans), proposed activities must be "fully consistent" with enforceable policies of a State's coastal management program. Consistency concurrence from the state of Louisiana must be received prior to plan approval.

Endangered Species Act

On March 31, 2026, the Endangered Species Committee held a meeting to address the Secretary of War's finding that it was necessary for reasons of national security to exempt GOA Oil and Gas Activities from the requirements of the ESA. The Committee voted to exempt those activities under Section 7(j) of ESA. Pursuant to 16 U.S.C. §1536(j), post-lease oil and gas activities are exempt from the consultation requirements and take prohibitions of the ESA pursuant to an order issued by the Endangered Species Committee on March 31, 2026. The order outlined that BOEM and BSEE, through their OCSLA approvals, are to implement mitigation and monitoring measures that are already in place as project criteria. Those measures (i.e., Project Criteria) will be imposed as COAs.

Marine Mammal Protection Act

BOEM (now the MMA) petitioned NMFS for rulemaking under the MMPA (16 U.S.C. §§ 1361 et seq.) relating to G&G surveys on the OCS in the Gulf. On January 19, 2021, NMFS published in the *Federal Register* a final Incidental Take Regulation (ITR), which became effective on April 19, 2021 (86 FR 5322). A draft revision to this regulation that corrects some calculation errors and therefore, adjusts taking allowable under the regulations was published on January 5, 2023 (88 FR 916). On April 24, 2024, NMFS published in the *Federal Register* its final rule, "Taking and Importing Marine Mammals; Taking Marine Mammals Incidental to Geophysical Surveys in the Gulf of Mexico" and the rule is effective from May 24, 2024, through April 19, 2026 (89 FR 31488). There are no changes to the specified activities or the specified geographical region in which those activities would be conducted, nor to the original 5-year period of effectiveness. A new request for MMPA authorization was prepared and submitted by industry on March 24, 2025. On September 3, 2025, NMFS' Office of Protected Resources received a request from the NMFS Office of Policy for the reimplementation of ITRs governing the incidental taking of marine mammals during G&G survey activity conducted in the GOA (90 FR 42569). The proposed rule for reimplementing the ITRs was published on February 24, 2026 (91 FR 9014). On April 17, 2026, the reimplemented ITR was published (91 FR 20784) and is now in effect.

Magnuson-Stevens Fishery Conservation and Management Act

Pursuant to Section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act, Federal agencies are required to consult with NMFS on any action that may result in adverse

effects to EFH. The NMFS published the final rule implementing the EFH provisions of the Magnuson-Stevens Fisheries Conservation and Management Act on January 17, 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 technical report that describes the OCS proposed activities, analyzes the effects of the proposed activities on EFH, and identifies proposed 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 consultation 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. This consultation covers reasonably foreseeable oil- and gas-related activities on the Gulf of America OCS. Reasonably foreseeable activities include proposed lease sales and activities related to exploration, development, production, and decommissioning, including, but not limited to, geological and geophysical activities, drilling, construction, support, removal, and site clearance operations. The agreed-upon conservation recommendations contain provisions for initiating supplemental discussions should it be determined that site-specific or activity-specific consultation is necessary.

National Marine Sanctuaries Act

Section 304(d) of the NMSA requires Federal agencies to consult with the Office of National Marine Sanctuaries (ONMS) whenever their proposed actions are likely to destroy, cause the loss of, or injure a sanctuary resource. BOEM and BSEE (the Bureaus), in discussion with the Flower Garden Banks National Marine Sanctuary (FGBNMS) and ONMS, determined that programmatic consultation is the most efficient and effective way to achieve agency obligations under Section 304(d) for a 10-year period of BOEM- and BSEE- authorized oil and gas activities expected to occur on the GOA OCS. This programmatic consultation streamlines the Bureaus' subsequent permitting and approval processes by addressing reasonably foreseeable activities for the Federal oil and gas program in the GOA that have the potential to injure FGBNMS resources. This programmatic consultation clarifies triggers for site-specific or activity-specific consultation. The programmatic consultation was completed and went into effect on September 9, 2025.

National Historic Preservation Act

In accordance with the NHPA (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 NHPA, 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), the MMA uses the NEPA substitution process and documentation to comply with Section 106 of the NHPA. Because of the extensive geographic area analyzed in the 2025 GOA PEIS, the MMA defers identification of historic properties and completion of the Section 106 review process until site-specific analysis of post lease activities can be completed prior to approving those activities. Due to the site-specific analysis described in this SEA and additional mitigation measures, if applicable,

the MMA has determined that no significant impacts to historic properties are likely to occur as a result of the Proposed Action.

Clean Air Act

The CAA Amendments of 1977 designated 156 Class I Areas, consisting of national parks and wilderness areas that are offered special protection for air quality and the AQRVs. Breton National Wildlife Refuge and Wilderness Area in Louisiana is a Class I Area. The Class I Areas, compared to the Class II Areas, have lower Prevention of Significant Deterioration (PSD) air quality increments that new sources may not exceed and are protected against excessive increases in several AQRVs, including visibility impairment, acid (sulfur and nitrogen) deposition, and nitrogen eutrophication. The Regional Haze Rule (40 CFR § 51.308) has a goal of natural visibility conditions by 2064 at Class I Areas, and States must submit Regional Haze Rule State Implementation Plans that demonstrate progress towards that goal.

The proposed activities are located 108 mi (174 km) from the Breton NWR and Wilderness Area. The site specific Air Quality review determined that coordination with FWS was not required.

Clean Water Act

The USEPA (Regions 4 and 6) regulates the discharge of routine operational waste streams generated from offshore oil- and gas-related activities. Section 403 of the CWA requires that NPDES permits be issued for discharges to State territorial waters, the contiguous zone, and the ocean in compliance with the USEPA's regulations for preventing unreasonable degradation of the receiving waters. There are two general NPDES permits that cover the oi- and gas- related discharges on the OCS. Permit GMG290000, issued by USEPA Region 6, covers the WPA and CPA; Permit GEG460000, issued by USEPA Region 4, covers the EPA and a small part of the CPA.

The final NPDES General Permit No. GMG290000 for New and Existing Sources and New Dischargers in the Offshore Subcategory of the Oil and Gas Extraction Point Source Category for the Western and Central Portion of the Outer Continental Shelf of the Gulf of Mexico was reissued by USEPA Region 6 on May 11, 2023, with an effective date of May 11, 2023, and an expiration date of May 10, 2028 (USEPA 2023).

Government-to-Government Tribal Consultation

In accordance with Executive Order 13175, "Consultation and Coordination with Indian Tribal Governments," Federal agencies are required to establish regular and meaningful consultation and collaboration with Tribal officials in the development of Federal policies that have Tribal implications to strengthen the United States' government-to-government relationships with Indian Tribes and to reduce the imposition of unfunded mandates upon Indian Tribes.

BOEM (now the MMA) has formally invited Tribal Nations with current or ancestral ties to the region to consult on the development of OCS oil- and gas-related activities, including the 2025 GOA PEIS. Tribes that BOEM has invited to consult on these activities include the Alabama-Coushatta Tribe of Texas, Caddo Nation of Oklahoma, Chitimacha Tribe of Louisiana, Choctaw

Nation of Oklahoma, Coushatta Tribe of Louisiana, Jena Band of Choctaw Indians, Miccosukee Tribe of Indians of Florida, Mississippi Band of Choctaw Indians, Muscogee (Creek) Nation, Poarch Band of Creek Indians, Seminole Tribe of Florida, Seminole Nation of Oklahoma, and Tunica-Biloxi Indian Tribe of Louisiana.

No tribes have accepted invitations for government-to-government consultation on these activities; however, tribal representatives have requested to be notified if any pre-contact archaeological resources are identified and/or adversely impacted by MMA-permitted activities. To date, no such discoveries or adverse impacts have occurred. Were they to occur during activities associated with the proposed plan, the MMA will notify and invite consultations with the above tribes as requested.

Greenhouse Gas Analysis

BOEM (now the MMA) updated its analysis of life cycle GHG emissions for a single representative GOA oil and gas lease sale with the publication of the 2025 GOA PEIS. The full analysis includes a newly developed quantitative estimate of a lease sale's impact on foreign oil production and the related upstream GHG emissions, and can be found in Appendix K of the 2025 GOA PEIS. It also estimates emissions from use of energy substitutes in the absence of leasing. BOEM's analysis of GHG life cycle
emissions resulting from a lease sale (Appendix K of the 2025 GOA PEIS and summarized in Chapter 4.0.2.1) indicates that domestic life cycle emissions from OCS oil and natural gas (including upstream, midstream, and downstream) are similar to those resulting from displaced energy substitutes given that OCS production would replace large portions of domestic energy market substitutes. However, when considering the impact of changes in foreign oil production and consumption, global emissions increase in each activity level.

The MMA acknowledges that the models used in those analyses were developed for programmatic analyses and that there may be limitations on the scalability of the models from that analysis to the site-specific review here. The programmatic analysis depends on a global price change, and individual site-specific decisions may not cause large enough changes in production to generate a market response for substitute energy sources. The site-specific analysis represents a small subset of the activities analyzed in the 2025 GOA PEIS greenhouse gas analysis. The MMA has reviewed that analysis and determined that it provides the best available information and that the reasonably foreseeable impacts of the activities proposed in Initial EP N-10274 are not likely to result in significant impacts beyond a subset of those analyzed in the 2025 GOA PEIS greenhouse gas analysis.

U.S. Government Accountability Office

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 laws,

regulations, and policies related to BSEE's restructuring and oversight activities. In the report, the GAO had nine recommendations, including that BSEE (1) complete and update its investigative policies and procedures, (2) conduct and document a risk analysis of the regional-based reporting structure, and (3) develop procedures for enforcement actions. BSEE began addressing the recommendations in 2016 and according to GAO, as of 2021, all recommendations related to BSEE's restructuring and offshore oil and gas oversight have been closed and implemented (GAO 2021). The GAO removed the segment from its High Risk Series in 2021. After independently reviewing the GAO reports and the updates on the GAO website closing out the recommendations on oversight and restructuring, BOEM (now the MMA) has determined that the GAO report and the recommendations that have now been implemented by BSEE (now the MMA) do not change the reasonably foreseeable environmental impacts that may result from an oil and gas lease sale. BOEM has also determined the GAO report or implementation of the recommendations does not affect the MMA's conclusions regarding impacts reasonably foreseeable from the proposed activities (i.e., will not result in significant impacts) as related to this site-specific review.

5 PUBLIC COMMENT

Walter's N-10274 EP was deemed submitted (as per 30 CFR § 550.231) on September 23, 2026, and it was placed on regulations.gov for a 10-day public review. At the end of the comment period on October 4, 2026, no public comments were received.

6 APPENDICES

A. IMPACT-PRODUCING FACTOR DESCRIPTIONS

Descriptions of the impact-producing factors (IPFs) are provided below. The information provided below are summaries of the information included in the main text of this SEA. Additional detailed information can also be found in the 2025 GOA PEIS.

Routine Activities

(1) **Bottom disturbance** from well and anchor emplacement and drilling activities – Physical disturbance to the seabed, benthic habitats, and/or communities. Typically, wells drilled in shallow water (0–300 m [0–984 ft]) create a splay of drilling muds and cuttings that spread 250 m (820 ft) from the well, and the coverage area would be approximately 500 m (1,640 ft) from the well in deepwater (300 to 1,524 m [984 to 5,000 ft]) and ultra deepwater (greater than 1,524 m [5,000 ft]) water depths.

(2) **Noise** from drilling activities and vessel and helicopter transportation – A subjective term reflective of societal values regarding what constitutes unwanted or undesirable intrusions of sound. Noise generated from these activities can be transmitted through both air and water, and may be of long or short duration, distance, and sound level. The intensity level and frequency of the noise emissions are highly variable, both between and among the various types of sound sources, along with the received sound levels to the resources. The primary sources of vessel noise are propeller cavitation, propeller singing, and rotating machinery; other sources include auxiliaries, flow noise from water dragging along the hull, and bubbles breaking in the wake (Richardson et al., 1995)[9]. Drilling operations (these can include pile driving, generators, pumps, etc.) often produce noise that includes strong tonal components at low frequencies, including infrasonic frequencies in at least some cases[10].

(3) **Discharges and Wastes** from vessel operations and exploration activities – Releases into the environment resulting from multiple sources. The primary operational wastes and discharges generated during offshore oil and gas exploration and development are drilling fluids, drill cuttings, various waters

[9] The intensity of noise from service vessels is roughly related to ship size, laden or not, and speed. Large ships tend to be noisier than small ones, and ships underway with a full load (or towing or pushing a load) produce more noise than empty vessels. For example, a 16-m (52-ft) crewboat may have a 90-hertz (Hz) tone with a source level of 156 dB re: 1µPa, and a small ship may have a broadband source level of 170-180 dB re: 1µPa (Richardson et al., 1995). Helicopter sounds contain dominant tones (resulting from rotors) generally below 500 Hz (Richardson et al., 1995).

[10] Dynamically positioned MODUs (drillships and semisubmersibles) are noisier than anchored MODUs (Richardson et al., 1995). Sound and vibration paths to the water are through either the air or the risers, in contrast to the direct paths through the hull of a drillship. Sound from drilling activities has been measured from the 20- to 1,000-Hz band levels at a range of 1.8 km (1.1 mi) at levels of 113–126 dB re: 1µPa.

(e.g., bilge, ballast, fire, and cooling), deck drainage, sanitary wastes, and domestic wastes. During production activities, additional waste streams include produced water, produced sand, and well-treatment, workover, and completion fluids. Minor additional discharges occur from numerous sources. These discharges may include desalination unit discharges, blowout preventer fluids, boiler blowdown discharges, excess cement slurry, several fluids used in subsea production, and uncontaminated freshwater and saltwater.

(4) **Space Use Conflicts** – Wells, platforms, pipelines, subsea infrastructure, and other structures create obstructions to the recovery of marine minerals and other existing or future users (commercial and recreational fishing, aquaculture, renewable, artificial reefs, etc.) of the OCS. The MMA is required to consider the impact of the proposed activities on other users of the OCS. For marine minerals, no-dredging zones are 500 ft (152 m) from any structure and 1,000 ft (305 m) from a pipeline. The well and platforms would be permanent obstructions, even if removed to 15 ft (5 m) below the substrate, as dredging cannot be performed within 500 ft (152 m) due to the risk to the dredge and infrastructure. The pipeline obstruction could be temporary in that pipelines can be removed upon abandonment. All military activities on the OCS occur within military warning areas designated by the Federal Aviation Administration in coordination with the U.S. Department of Defense. Lessees and permittees conducting oil and gas operations within these warning areas are required to coordinate with the appropriate military command.

(5) **Air Emissions** from equipment and vessels – Emissions associated with drilling from OCS oil- and gas-related activities are attributed to gasoline, diesel, and natural gas fuel usage in engines such as propulsion engines, prime engines, mud pumps, draw works, and emergency power. Emissions associated with production from OCS oil- and gas-related activities are attributed to boilers, diesel engines, combustion flares, fugitives, glycol dehydrators, natural gas engines, turbines, pneumatic pumps, pressure/level controllers, storage tanks, cold vents, and others. Pollutants emitted during drilling activities include combustion gases (i.e., CO, NO_x, PM, SO_2, CO_2, CH_4, and N_2O), as well as non-combustion sources (i.e., VOCs, PM, and CH_4)[11].

[11] CO – carbon monoxide; NO_x – nitrogen oxide; PM – particulate matter; SO_2 – sulfur dioxide; CO_2 – carbon dioxide; CH_4 – methane; N_2O – nitrous oxide; and VOC – volatile organic compound.

Accidental events

(1) **Oil/Chemical Spills** (loss of well control and chemical/drilling fluid) **and Oil-Spill Response** – The MMA requires operators to report any spill greater than 1 barrel (bbl) (42 gallons [gal]) occurring on the OCS and maintains a database for all reported incidents[12]. All losses of well control are required to be reported to the MMA.

Loss of Well Control

The current definition for loss of well control is as follows:

- uncontrolled flow of formation or other fluids (the flow may be to an exposed formation [an underground blowout] or at the surface [a surface blowout]);
- uncontrolled flow through a diverter; and/or
- uncontrolled flow resulting from a failure of surface equipment or procedures.

Not all loss of well control events would result in a blowout as defined above, but they are most commonly thought of as releases to the human environment. A loss of well control can occur during any phase of development, i.e., exploratory drilling, development drilling, well completion, production, or workover operations. A loss of well control can occur when improperly balanced well pressure results in sudden, uncontrolled releases of fluids from a wellhead or wellbore (Neal Adams Firefighters Inc. 1991; PCCI Marine and Environmental Engineering 1999).

The physical and chemical properties of oil greatly affect its transport and fate in the environment. Following a spill, the composition of the released oil can change substantially due to weathering processes such as evaporation, emulsification, dissolution, and oxidation. The ultimate fate of oil in the environment and its impacts are influenced not only by the magnitude, spatial extent, and duration of the event but also by the response methods that may be employed. Horizontal transport of oil is accomplished through spreading, advection, dispersion, and entrainment. Vertical transport involves dispersion, entrainment, Langmuir circulation (a series of shallow, slow, counter-rotating vortices at the ocean's surface aligned with the wind

[12] Not included in BSEE's data records are spills less than 1 bbl. Spills of any size and composition are required to be reported to the U.S. Coast Guard's (USCG) National Response Center and are further documented in the USCG's Marine Information for Safety and Law Enforcement (2001-present) database and its predecessors. Also not included in BSEE's database are spills that have occurred in Federal waters from OCS barging operations and from other service vessels that support the OCS oil and gas industry. These data are included in the USCG's record of all spills; however, the USCG's database does not include the source of oil (OCS versus non-OCS) or in the case of spills from vessels, the type of vessel operations; such information is needed to determine if a particular spill occurred as a result of OCS operations. Spills from vessels are provided for tankers in worldwide waters and tankers and barges in U.S. coastal and offshore waters.

developed when wind blows steadily over the sea surface), sinking, overwashing, partitioning, and sedimentation.

Chemical and Drilling Fluid Spills

Chemicals and synthetic-based drilling fluids are considered because they may be persistent (nondegradable) and are comparatively toxic. A study of chemical spills from OCS oil and gas activities determined that only two chemicals could potentially impact the marine environment – zinc bromide and ammonium chloride (Boehm et al. 2001). Other common chemicals spilled include methanol and ethylene glycol, which are used in deepwater and ultra deepwater operations where gas hydrates tend to form due to cold temperatures. These alcohol-based chemicals are nonpersistent (degradable) and exhibit comparatively low toxicity.

(1) **Air emissions** from emergency flaring/venting and/or oil spills – Activities that produce emissions include drilling operations, platform construction and emplacement, platform operations, flaring, fugitive emissions, evaporation of volatile organic compounds during transfers and spills, and support vessel emissions. Various onshore facility activities supporting offshore oil and gas operations, or receiving oil or gas from them, emit air pollutants. This includes emissions from helicopters, vessels, stationary engines (e.g., generators), and equipment leaks (i.e., fugitive emissions). The USEPA defined criteria pollutants released by OCS sources include CO, NO_2, PM_{10}, $PM_{2.5}$ and SO_2.

(2) **Vessel Strike (Vessel to Marine Species or Habitat) and Collisions (Vessel to Vessel; Vessel to Structure)** – BOEM's data show that, from 2007 through 2019, there were 181 OCS oil- and gas-related vessel collisions (BSEE 2021). Most collision mishaps are the result of service vessels colliding with platforms or vessel collisions with pipeline risers. Fires resulted from hydrocarbon releases in several of the collision incidents. Diesel fuel is the product most frequently spilled, while oil, natural gas, corrosion inhibitor, hydraulic fluid, and lube oil have also been released as the result of a vessel collision. Approximately 10 percent of vessel collisions with platforms in the OCS caused diesel spills.

    Vessels could strike marine mammals, sea turtles, and other marine animals during transit. To limit or prevent such strikes, the National Marine Fisheries Service (NMFS) provides all boat operators with whale-watching guidelines, which is derived from the Marine Mammal Protection Act (MMPA). These guidelines suggest safe navigational practices based on speed and distance limitations when encountering marine mammals. Requirements in the Vessel Strike Avoidance and Injured and/or Dead Aquatic Protected Species Reporting Project Criteria address vessel strike prevention.

(3) **Marine Trash and Debris** – During construction or operation activities, equipment may be dropped to the seafloor. If this happens within the

planned construction site, the bottom disturbance impacts are conservatively considered as part of the routine impacts; however, accidental drops may occur during transport. The discharge of marine debris by the offshore oil and gas industry and supporting activities is subject to a number of laws and treaties. These include the Marine Debris Research, Prevention, and Reduction Act; the Marine Plastic Pollution Research and Control Act; and the International Convention for the Prevention of Pollution from Ships (MARPOL) Annex V Prevention of Pollution by Garbage from Ships. Regulation and enforcement of these laws is conducted by a number of agencies such as the U.S. Environmental Protection Agency (USEPA), National Oceanic and Atmospheric Administration (NOAA), and U.S. Coast Guard (USCG). Requirements in the Marine Debris Project Criteria address marine debris prevention.

(4) **Entanglement/Entrapment** – Marine animals may become entangled or entraped in facility (platform) or vessel moon pool, flexible lines, equipment, or gear used during construction, drilling, production/operation, and decommissioning activities. Lines in the water, moon pools, or accidental marine debris may pose an entanglement/entrapment risk. Entanglement and entrapment can lead to injury, infection, reduced mobility, increased susceptibility to predations, decreased feeding ability, fitness consequences (increased potential for vessel strike due to an inability to avoid), and/or mortality of marine wildlife. Requirements in the In-Water Line Precaution Project Criteria and the Moon Pool Monitoring Project Criteria address entanglement/entrapment prevention.

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C. REFERENCES

42 FR 47840. U.S. Department of the Interior, Fish and Wildlife Service. 50 CFR part 17. Endangered and threatened wildlife and plants: final rule; correction and augmentation of published rulemaking. September 22, 1977. *Federal Register* 42 FR 47840.

79 FR 39856. U.S. Department of Commerce, National Oceanic and Atmospheric Administration. 50 CFR part 226. Endangered and threatened species: critical habitat for the Northwest Atlantic Ocean loggerhead sea turtle distinct population segment (DPS) and determination regarding critical habitat for the North Pacific Ocean loggerhead DPS. Final rule. July 10, 2014. *Federal Register* 79 FR 39856.

83 FR 49216. U.S. Department of the Interior, Bureau of Safety and Environmental Enforcement. 30 CFR part 250. Oil and gas and sulfur operations in the Outer Continental Shelf—oil and gas production safety systems. Final rule. September 28, 2018. *Federal Register* 83 FR 49216.

84 FR 15446. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. 50 CFR part 224. Endangered and threatened wildlife and plants; endangered status of the Gulf of Mexico Bryde's whale. Final Rule. April 15, 2019. *Federal Register* 84 FR 15446.

84 FR 21908. U.S. Department of the Interior, Bureau of Safety and Environmental Enforcement. 30 CFR part 250. Oil and gas and sulfur operations in the outer continental shelf—blowout preventer systems and well control revisions. Final rule. May 15, 2019. *Federal Register* 84 FR 21908.

86 FR 5322. U.S. Department of Commerce, National Oceanic Atmospheric Administration, National Marine Fisheries Service. 50 CFR part 217. Taking and importing marine mammals; taking marine mammals incidental to geophysical surveys related to oil and gas activities in the Gulf of Mexico. Final rule. January 19, 2021. *Federal Register* 86 FR 5322.

88 FR 916. U.S. Department of Commerce, National Oceanic Atmospheric Administration, National Marine Fisheries Service. 50 CFR part 217. Taking and importing marine mammals; taking marine mammals incidental to geophysical surveys in the Gulf of Mexico. Proposed rule; request for comments. January 5, 2023. *Federal Register* 88 FR 916.

88 FR 46572. U.S. Department of Commerce, National Oceanic and Atmospheric Administration. 50 CFR parts 223, 224, and 226. Endangered and threatened wildlife and plants: proposed rule to designate marine critical habitat for six distinct population segments of green sea turtles. Proposed rule; request for comments. July 19, 2023. *Federal Register* 88 FR 46572.

88 FR 47453. U.S. Department of Commerce, National Oceanic and Atmospheric Administration. 50 CFR parts 224 and 226. Endangered and threatened species; designation of critical habitat for the Rice's whale. Proposed rule; request for comments and notice of public hearing. July 24, 2023. *Federal Register* 88 FR 47453.

88 FR 57334. U.S. Department of the Interior, Bureau of Safety and Environmental Enforcement. 30 CFR part 250. Oil and gas and sulfur operations in the Outer Continental Shelf-blowout preventer systems and well control revisions. August 23, 2023. *Federal Register* 88 FR 57334.

89 FR 31488. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. 50 CFR part 217. Taking and importing mammals; taking marine mammals incidental to geophysical surveys in the Gulf of Mexico. Final rule. April 24, 2024. *Federal Register* 89 FR 31488.

89 FR 78134. U.S. Department of the Interior, Fish and Wildlife Service. 50 CFR part 17. Endangered and threatened wildlife and plants; critical habitat designations for Florida manatee and Antillean manatee. Proposed rule. September 24, 2024. *Federal Register* 89 FR 78134.

90 FR 3131. U.S. Department of the Interior, Fish and Wildlife Service. 50 CFR part 17. Endangered and threatened wildlife and plants; threatened status for the Florida manatee and endangered status for the Antillean manatee. Proposed rule. January 14, 2025. *Federal Register* 90 FR 3131.

90 FR 42569. U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. Taking and importing marine mammals; taking marine mammals incidental to geophysical surveys in the Gulf of America. Notice; receipt of request for reimplementation of incidental take regulations (ITRs); request for comments and information. September 3, 2025. *Federal Register* 90 FR 42569.

91 FR 9014. U.S. Department of Commerce, National Oceanic and Atmospheric Administration. 50 CFR part 217. Taking and importing marine mammals; taking marine mammals incidental to geophysical surveys in the Gulf of America. Proposed rule; request for comments. February 24, 2026. *Federal Register* 91 FR 9014.

ABS Consulting Inc. 2016. 2016 update of occurrence rates for offshore oil spills. Sterling (VA): U.S. Department of the Interior, Bureau of Ocean Energy Management, Bureau of Safety and Environmental Enforcement. 95 p.

Anderson CM, LaBelle RP. 1990. Estimated occurrence rates for analysis of accidental oil spills on the US Outer Continental Shelf. Oil & Chemical Pollution. 6:21–35. doi:10.1016/S0269-8579(05)80037-1.

Anderson CM, Mayes M, Labelle R. 2012. Update of occurrence rates for offshore oil spills. Herndon (VA): U.S. Department of the Interior, Bureau of Ocean Energy Management, Bureau of Safety and Environmental Enforcement. 87 p. Report No.: OCS Study BOEM 2012-069, BSEE 2012-069.

Boehm P, Turton D, Raval A, Caudle D, French D, Rabalais N, Spies R, Johnson J. 2001. Deepwater program: literature review, environmental risks of chemical products used in Gulf of Mexico deepwater oil and gas operations. Volume I: technical report. New Orleans (LA): U.S. Department of the Interior, Minerals Management Service, Gulf of Mexico OCS Region. 359 p. Report No.: OCS Study MMS 2001-011.

BOEM. 2016. Essential fish habitat assessment for the Gulf of Mexico. New Orleans (LA): U.S. Department of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region. 62 p. Report No.: OCS Report BOEM 2016-016.

BOEM. 2021. Gulf of Mexico catastrophic spill event analysis. High-volume, extended-duration oil spill resulting from loss of well control on the Gulf of Mexico Outer Continental Shelf: 2nd revision. New Orleans (LA): U.S. Department of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region. 364 p. Report No.: OCS Report BOEM 2021-007.

BOEM. 2022. Essential Fish Habitat Assessment for Oil and Gas Activities in the Gulf of Mexico. U.S. Department of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region, New Orleans, LA. OCS Report BOEM 2022-032. 107 pp.

BOEM. 2023. Programmatic description of the potential effects from Gulf of Mexico OCS oil- and gas-related activities: a supporting information document. New Orleans (LA): U.S. Department of the Interior, Bureau of Ocean Energy Management, New Orleans Office. 1030 p. Report No.: OCS Report BOEM 2023-053.

BOEM. 2025. Gulf of America regional OCS oil and gas lease sales and post-lease activities final programmatic environmental impact statement. New Orleans (LA): U.S. Department of the Interior, Bureau of Ocean Energy Management, Gulf of America OCS Region, New Orleans Office. 917 p. Report No.: OCS EIS/EA BOEM 2025-042.

BOEM. 2026. Gulf of America Biological Environmental Background Report (2026 BEBR). BOEM, Gulf of America OCS Region, New Orleans, LA. OCS Report 2026-031.

BSEE. 2016. Bureau of Safety and Environmental Enforcement: annual report 2016. Washington (DC): U.S. Department of the Interior, Bureau of Safety and Environmental Enforcement. 46 p.

BSEE. 2019. Investigation of October 11, 2017 flowline jumper failure. Lease OCS-G 24055 Mississippi Canyon block 209, Gulf of Mexico region, New Orleans district. December 30, 2019. New Orleans (LA): U.S. Department of the Interior, Bureau of Safety and Environmental Enforcement. 20 p. Report No.: BSEE Panel Report 2019-002.

BSEE. 2021. Offshore incident statistics. Washington (DC): U.S. Department of the Interior, Bureau of Safety and Environmental Enforcement; [accessed 2021 Jul 25]. https://www.bsee.gov/stats-facts/offshore-incident-statistics.

Buchholz K, Krieger A, Rowe J, Etkin DS, McCay DF, Gearon MS, Grennan M, Turner J. 2016. Worst case discharge analysis (volume I). Washington (DC): U.S. Department of the Interior, Bureau of Safety and Environmental Enforcement. 180 p.

CEQ. 2010. Report regarding the Minerals Management Service's National Environmental Policy Act policies, practices, and procedures as they relate to Outer Continental Shelf oil and gas exploration and development. Washington (DC): Executive Office of the President of the United States, Council on Environmental Quality. 41 p.

Eccleston C. 2008. NEPA and environmental planning: tools, techniques, and approaches for practitioners. 1st ed. Boca Raton (FL): CRC Press.

Engelhardt FR. 1983. Petroleum effects on marine mammals. Aquatic Toxicology. 4(3):199–217. doi:10.1016/0166-445X(83)90018-8.

Erbe C, Marley SA, Schoeman RP, Smith JN, Trigg LE, Embling CB. 2019. The effects of ship noise on marine mammals – a review. Frontiers in Marine Science. 6:606. doi:10.3389/fmars.2019.00606.

Erbe C, Houser D, Bowles A, Porter MB, editors. 2025. Marine mammal acoustics in a noisy ocean. Cham (CH): Springer.

Farmer NA, Powell JR, Morris Jr. JA, Soldevilla MS, Wickliffe LC, Jossart JA, MacKay JK, Randall AL, Bath GE, Ruvelas P, et al. 2022. Modeling protected species distributions and habitats to inform siting and management of pioneering ocean industries: a case study for Gulf of Mexico aquaculture. PLoS ONE. 17(9):e0267333. doi:10.1371/journal.pone.0267333.

Finneran J, Henderson E, Houser D, Jenkins K, Kotecki S, Mulsow J. 2017. Technical report: criteria and thresholds for U.S. Navy acoustic and explosive effects analysis (phase III). San Diego (CA): U.S. Department of the Navy, Space and Naval Warfare Systems Center Pacific. 194 p.

French-McCay DP. 2004. Oil spill impact modeling: development and validation. Environmental Toxicology and Chemistry. 23(10):2441–2456. doi:10.1897/03-382.

Fritts TH, McGehee MA. 1982. Effects of petroleum on the development and survival of marine turtle embryos. Washington (DC): U.S. Department of the Interior, Fish and Wildlife Service. 65 p. Report No.: FWS/OBS-82/37.

Gall SC, Thompson RC. 2015. The impact of debris on marine life. Marine Pollution Bulletin. 92(1-2):170–179. doi:10.1016/j.marpolbul.2014.12.041.

GAO. 2016. Oil and gas management: Interior's Bureau of Safety and Environmental Enforcement restructuring has not addressed long-standing oversight deficiencies. Washington (DC): U.S. Government Accountability Office. 45 p. Report No.: GAO-16-245.

GAO. 2021. Offshore oil and gas: updated regulations needed to improve pipeline oversight and decommissioning. Washington (DC): U.S. Government Accountability Office. 34 p. Report No.: GAO-21-293.

Garrison LP, Glenn III DW, Karrigan H. 2018. Sperm whale acoustic prey study in the Northern Gulf of Mexico. New Orleans (LA): U.S. Department of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region. 95 p. Report No.: OCS Study BOEM 2018-035.

Garrison LP, Glenn III DW, Karrigan H. 2020. The movement and habitat associations of sea turtles in the Northern Gulf of Mexico. New Orleans (LA): U.S. Department of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region. 69 p. Report No.: OCS Study BOEM 2020-010.

Garrison LP, Soldevilla MS, Martinez A, Mullin KD. 2024. A density surface model describing the habitat of the critically endangered Rice's whale *Balaenoptera ricei* in the Gulf of Mexico. Endangered Species Research. 54:41–57. doi:10.3354/esr01324.

Garrison LP, Lisi NE, Gahm M, Patterson EM, Blondin H, Good CP. 2025. The effects of vessel speed and size on the lethality of strikes of large whales in U.S. waters. Frontiers in Marine Science. 11:1467387. doi:10.3389/fmars.2024.1467387.

Geraci JR, St. Aubin DJ. 1980. Offshore petroleum resource development and marine mammals: a review and research recommendations. Marine Fisheries Review. 42(11):1–12.

Hayes SA, Josephson E, Maze-Foley K, Rosel PE, McCordic J, Brossard A, Chavez-Rosales S, Cole TVN, Garrison LP, Hatch J, et al. 2024. U.S. Atlantic and Gulf of Mexico marine mammal stock assessments 2023. Woods Hole (MA): U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Northeast Fisheries Science Center. 375 p. Report No.: NOAA Technical Memorandum NMFS-NE-321.

Hazel J, Lawler IR, Marsh H, Robson S. 2007. Vessel speed increases collision risk for the green turtle *Chelonia mydas*. Endangered Species Research. 3(2):105–113. doi:10.3354/esr003105.

Johnson S, Ziccardi M. 2006. Appendix L: marine mammal oil spill response guidelines. Silver Spring (MD): U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Office of Protected Resources, Marine Mammal Health and Stranding Response Program. 58 p.

Laist DW, Knowlton AR, Mead JG, Collet AS, Podesta M. 2001. Collisions between ships and whales. Marine Mammal Science. 17(1):35–75. doi:10.1111/j.1748-7692.2001.tb00980.x.

Lamont MM, Hart KM. 2023. Gulf of Mexico marine assessment project for protected species: sea turtles. New Orleans (LA): U.S. Department of the Interior, Bureau of Ocean Energy Management. 40 p. Report No.: OCS Study BOEM 2023-064.

Lee RF, Anderson JW. 2005. Significance of cytochrome P450 system responses and levels of bile fluorescent aromatic compounds in marine wildlife following oil spills. Marine Pollution Bulletin. 50(7):705–723. doi:10.1016/j.marpolbul.2005.04.036.

Lenhardt ML. 1994. Seismic and very low frequency sound induced behaviors in captive loggerhead marine turtles (*Caretta caretta*). In: Fourteenth Annual Symposium on Sea Turtle Biology and Conservation; 1994 Mar 1–5; Hilton Head (SC). p 238–241.

Lutcavage ME, Lutz PL, Bossart GD, Hudson DM. 1995. Physiologic and clinicopathologic effects of crude oil on loggerhead sea turtles. Archives of Environmental Contamination and Toxicology. 28(4):417–422. doi:10.1007/BF00211622.

Lutcavage ME, Plotkin P, Witherington B, Lutz PL. 1997. Human impacts on sea turtle survival. In: Lutz PL, Musick JA, editors. The biology of sea turtles. Boca Raton (FL): CRC Press Inc. Chapter 15; p. 387–409.

Lutz PL, Lutcavage M. 1989. The effects of petroleum on sea turtles: applicability to Kemp's ridley. In: First International Symposium on Kemp's Ridley Sea Turtle Biology, Conservation and Management; 1985 Oct 1–4; Galveston (TX). p 52–54.

Martin J, Sabatier Q, Gowan TA, Giraud C, Gurarie E, Calleson CS, Ortega-Ortiz JG, Deutsch CJ, Rycyk A, Koslovsky SM. 2016. A quantitative framework for investigating risk of deadly collisions between marine wildlife and boats. Methods in Ecology and Evolution. 7(1):42–50. doi:10.1111/2041-210x.12447.

McCauley RD, Fewtrell J, Duncan AJ, Jenner C, Jenner M-N, Penrose JD, Prince RIT, Adhitya A, Murdoch J, McCabe K. 2000. Marine seismic surveys: a study of environmental implications. APPEA Journal. 40(1):692–708. doi:10.1071/AJ99048.

Moore E, Lyday S, Roletto J, Litle K, Parrish JK, Nevins H, Harvey J, Mortenson J, Greig D, Piazza M, et al. 2009. Entanglements of marine mammals and seabirds in central California and the north-west coast of the United States 2001–2005. Marine Pollution Bulletin. 58(7):1045–1051. doi:10.1016/j.marpolbul.2009.02.006.

National Research Council. 1990. Decline of the sea turtles: causes and prevention. Washington (DC): The National Academies Press. 275 p.

National Research Council. 2003. Oil in the sea III: inputs, fates, and effects. Washington (DC): The National Academies Press. 277 p.

National Research Council. 2005. Oil spill dispersants: efficacy and effects. Washington (DC): The National Academies Press. 396 p.

National Science Foundation. 2011. Final programmatic environmental impact statement/overseas environmental impact statement for marine seismic research funded by the National Science Foundation conducted by the U.S. Geological Survey. Arlington (VA): National Science Foundation, U.S. Geological Survey. 514 p.

Neal Adams Firefighters Inc. 1991. Joint industry program for floating vessel blowout control: final report. Herndon (VA): U.S. Department of the Interior, Minerals Management Service. 476 p. Report No.: DEA-63.

Neff JM. 1990. Composition and fate of petroleum and spill-treating agents in the marine environment. In: Geraci JR, St. Aubin DJ, editors. Sea mammals and oil: confronting the risks. Washington (DC): Academic Press. Chapter 1; p. 1–33.

Nelms SE, Piniak WED, Weir CR, Godley BJ. 2016. Seismic surveys and marine turtles: an underestimated global threat? Biological Conservation. 193:49–65. doi:10.1016/j.biocon.2015.10.020.

NMFS. 2024. 2024 update to: technical guidance for assessing the effects of anthropogenic sound on marine mammal hearing (Version 3.0). Underwater and in-air criteria for onset of auditory injury and temporary

threshold shifts. Silver Spring (MD): U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Office of Protected Resources. 193 p. Report No.: NOAA Technical Memorandum NMFS-OPR-71.

NOAA Fisheries. 2024. Rice's whales spotted in the western Gulf of Mexico. Silver Spring (MD): U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service; [updated 2024 Apr 30; accessed 2024 Dec 5]. https://www.fisheries.noaa.gov/feature-story/rices-whales-spotted-western-gulf-mexico.

NOAA Fisheries. 2026. Rice's whale. Silver Spring (MD): U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service; [updated 2026 Feb 12; accessed 2026 Mar 4]. https://www.fisheries.noaa.gov/species/rices-whale.

NPS. 2010. Managing sea turtles during the oil spill response. Washington (DC): U.S. Department of the Interior, National Park Service. 2 p.

O'Hara J, Wilcox JR. 1990. Avoidance responses of loggerhead turtles, *Caretta caretta*, to low frequency sound. Copeia. 1990(2):564–567. doi:10.2307/1446362.

Overton EB, Byrne CJ, McFall JA, Antoine SR, Laseter JL. 1983. Results from the chemical analysis of oily residue samples taken from stranded juvenile sea turtles collected from Padre and Mustang Islands, Texas. New Orleans (LA): U.S. Department of the Interior, Minerals Management Service, Gulf of Mexico OCS Region. 31 p. Report No.: 1983-32.

Pace RM. 2011. Frequency of whale and vessel collisions on the US eastern seaboard: ten years prior and two years post ship strike rule. Woods Hole (MA): U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service, Northeast Fisheries Science Center. 18 p. Report No.: Northeast Fisheries Science Center Reference Document 11-15.

PCCI Marine and Environmental Engineering. 1999. Oil spill containment, remote sensing and tracking for deepwater blowouts: status of existing and emerging technologies, final report. Sterling (VA): U.S. Department of the Interior, Minerals Management Service. 121 p.

Piniak WED, Eckert SA, Harms CA, Stringer EM. 2012. Underwater hearing sensitivity of the leatherback sea turtle (*Dermochelys coriacea*): assessing the potential effect of anthropogenic noise. Herndon (VA): U.S. Department of the Interior, Bureau of Ocean Energy Management. 35 p. Report No.: OCS Study BOEM 2012-01156.

Popper AN, Hawkins AD, Fay RR, Mann DA, Bartol S, Carlson TJ, Coombs S, Ellison WT, Gentry RL, Halvorsen MB, et al. 2014. Sound exposure guidelines. In: Sound exposure guidelines for fishes and sea turtles: a technical report prepared by ANSI-Accredited Standards Committee S3/SC1 and registered with ANSI. Cham (CH): Acoustical Society of America. Chapter 7; p. 33–51.

Rappucci G, Garrison LP, Soldevilla M, Ortega-Ortiz J, J. R, Aichinger-Dias L, Mullin K, Litz J. 2023. Gulf of Mexico marine assessment program for protected species (GoMMAPPS): marine mammals. Volume 1: report. New Orleans (LA): U.S. Department of the Interior, Bureau of Ocean Energy Management. 104 p. Report No.: OCS Study BOEM 2023-042.

Richardson WJ, Würsig B, Greene Jr. CR. 1990. Reactions of bowhead whales, *Balaena mysticetus*, to drilling and dredging noise in the Canadian Beaufort Sea. Marine Environmental Research. 29(2):135–160. doi:10.1016/0141-1136(90)90032-J.

Richardson WJ, Greene Jr. CR, Malme CI, Thomson DH. 1995. Marine mammals and noise. San Diego (CA): Academic Press Inc. 576 p.

Roberts KE, Garrison LP, Ortega-Ortiz J, Hu C, Zhang Y, Sasso CP, Lamont M, Hart KM. 2022. The influence of satellite-derived environmental and oceanographic parameters on marine turtle time at surface in the Gulf of Mexico. Remote Sensing. 14:4534. doi:10.3390/rs14184534.

Rosel PE, Wilcox LA, Yamada TK, Mullin KD. 2021. A new species of baleen whale (*Balaenoptera*) from the Gulf of Mexico, with a review of its geographic distribution. Marine Mammal Science. 37(2):577–610. doi:10.1111/mms.12776.

Ruberg EJ, Elliott JE, Williams TD. 2021. Review of petroleum toxicity and identifying common endpoints for future research on diluted bitumen toxicity in marine mammals. Ecotoxicology. 30(4):537–551. doi:10.1007/s10646-021-02373-x.

Samuel Y. 2004. Underwater low-frequency noise and anthropogenic disturbance in a critical sea turtle habitat [thesis]. Ithaca (NY): Cornell University.

Samuel Y, Morreale SJ, Clark CW, Greene CH, Richmond ME. 2005. Underwater, low-frequency noise in a coastal sea turtle habitat. The Journal of the Acoustical Society of America. 117(3):1465–1472. doi:10.1121/1.1847993.

Senko JF, Nelms SE, Reavis JL, Witherington B, Wallace BP. 2020. Understanding individual and population-level effects of plastic pollution on marine megafauna. Endangered Species Research. 43:234–252. doi:10.3354/esr01064.

Slone DH, Butler SM, Reid JP, Beck CA, Bonde RK. 2022. Movements and habitat use of the Florida manatee (*Trichechus manatus latirostris*) in the northern Gulf of Mexico. New Orleans (LA): U.S. Department of the Interior, Bureau of Ocean Energy Management. 284 p. Report No.: OCS Study BOEM 2022-075.

Soldevilla MS, Hildebrand JA, Fraser KE, Aichienger Dias L, Martinez A, Mullin KD, Rosel PE, Garrison LP. 2017. Spatial distribution and dive behavior of Gulf of Mexico Bryde's whales: potential risk of vessel strikes and fisheries interactions. Endangered Species Research. 32:533–550. doi:10.3354/esr00834.

Soldevilla MS, Debich AJ, Garrison LP, Hildebrand JA, Wiggins SM. 2022. Rice's whales in the northwestern Gulf of Mexico: call variation and occurrence beyond the known core habitat. Endangered Species Research. 48:155–174. doi:10.3354/esr01196.

Soldevilla MS, Debich AJ, Pérez-Carballo I, Jarriel S, Frasier KE, Garrison LP, Gracia A, Hildebrand JA, Rosel PE, Serrano A. 2024. Rice's whale occurrence in the western Gulf of Mexico from passive acoustic recordings. Marine Mammal Science. 40(30):1–8. doi:10.1111/mms.13109.

Southall BL, Bowles AE, Ellison WT, Finneran JJ, Gentry RL, Greene Jr. CR, Kastak D, Ketten DR, Miller JH, Nachtigall PE, et al. 2007. Marine mammal noise exposure criteria: initial scientific recommendations. Aquatic Mammals. 33(4):411–522. doi:10.1578/AM.33.4.2007.411.

Southall BL, Finneran JJ, Reichmuth C, Nachtigall PE, Ketten DR, Bowles AE, Ellison WT, Nowacek DP, Tyack PL. 2019. Marine mammal noise exposure criteria: updated scientific recommendations for residual hearing effects. Aquatic Mammals. 45(2):125–232. doi:10.1578/AM.45.2.2019.125.

Southall BL, Nowacek DP, Bowles AE, Senigaglia V, Bejder L, Tyack PL. 2021. Marine mammal noise exposure criteria: assessing the severity of marine mammal behavioral responses to human noise. Aquatic Mammals. 47(5):421–464. doi:10.1578/am.47.5.2021.421.

Stevens TS, Fonseca M, Barkaszi MJ. 2024. Vessel strike risk to Rice's whale in the Gulf of Mexico: review of previous methodologies, information gaps, and recommendations for future efforts to predict strike risks. New Orleans (LA): U.S. Department of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico Regional Office, Biological Sciences Unit. 58 p. Report No.: OCS Study BOEM 2024-053.

Sullivan L, Brosnan T, Rowles T, Schwacke L, Simeone C, Collier TK. 2019. Guidelines for assessing exposure and impacts of oil spills on marine mammals. Silver Spring (MD): U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. 92 p. Report No.: NOAA Technical Memorandum NMFS-OPR-62.

Tyack PL. 2008. Implications for marine mammals of large-scale changes in the marine acoustic environment. Journal of Mammalogy. 89(3):549–558. doi:10.1644/07-MAMM-S-307R.1.

Urick RJ. 1972. Noise signature of an aircraft in level flight over a hydrophone in the sea. The Journal of the Acoustical Society of America. 52(1A):172. doi:10.1121/1.1982074.

USEPA. 2017. Region 4, final National Pollutant Discharge Elimination System (NPDES) general permit No. GEG460000 for offshore oil and gas activities in the eastern Gulf of Mexico. Atlanta (GA): U.S. Environmental Protection Agency, Region 4. 610 p.

USEPA. 2021. Nonattainment areas for criteria pollutants (Green Book). Washington (DC): U.S. Environmental Protection Agency; [updated 2021 Jun 30; accessed 2022 Jan 25]. https://web.archive.org/web/20210730012621/https://www.epa.gov/green-book.

USEPA. 2023. The NPDES general permit for new and existing sources and new dischargers in the offshore subcategory of the oil and gas extraction point source category for the western portion of the Outer Continental Shelf of the Gulf of Mexico (GMG290000). Washington (DC): U.S. Environmental Protection Agency, Region 6. 151 p.

USFS, NPS, FWS. 2010. Federal land managers' air quality related values work group (FLAG): phase I report – revised (2010). Denver (CO): U.S. Department of Agriculture, Forest Service; U.S. Department of the Interior, National Park Service, Fish and Wildlife Service. 118 p. Report No.: NPS/NRPC/NRR–2010/2322010/232.

Van Vleet ES, Pauly GG. 1987. Characterization of oil residues scraped from stranded sea turtles from the Gulf of Mexico. Caribbean Journal of Science. 23(1):77–83.

Van Waerebeek K, Baker AN, Félix F, Gedamke J, Iñiguez M, Sanino GP, Secchi E, Sutaria D, van Helden A, Wang Y. 2007. Vessel collisions with small cetaceans worldwide and with large whales in the Southern Hemisphere, an initial assessment. Latin American Journal of Aquatic Mammals. 6(1):43–69. doi:10.5597/lajam00109.

Vanderlaan ASM, Taggart CT. 2007. Vessel collisions with whales: the probability of lethal injury based on vessel speed. Marine Mammal Science. 23(1):144–156. doi:10.1111/j.1748-7692.2006.00098.x.

Walter Oil & Gas Corporation (Walter). 2026. Initial Exploration Plan, N-10274. Ewing Bank Block 966, Lease OCS-G 38008. Offshore Louisiana.

Work PA, Sapp AL, Scott DW, Dodd MG. 2010. Influence of small vessel operation and propulsion system on loggerhead sea turtle injuries. Journal of Experimental Marine Biology and Ecology. 393(1-2):168–175. doi:10.1016/j.jembe.2010.07.019.

Ziccardi MH, Wilkin SM, Rowles TK, Johnson S. 2015. Pinniped and cetacean oil spill response guidelines. Silver Spring (MD): U.S. Department of Commerce, National Oceanic and Atmospheric Administration, National Marine Fisheries Service. 150 p. Report No.: NOAA Technical Memorandum NMFS-OPR-52.