

EXECUTIVE SUMMARY

DRAFT ENVIRONMENTAL IMPACT STATEMENT

LEASE SALE 258, COOK INLET, ALASKA

INTRODUCTION

The U.S. Department of the Interior (USDOI), Bureau of Ocean Energy Management (BOEM), is proposing to conduct an oil and gas lease sale on the Alaska Outer Continental Shelf (OCS) in the northern portion of the Cook Inlet Planning Area (Proposed Lease Sale Area). The entire planning area encompasses approximately 2.1 million hectares (ha) (~5.3 million acres (ac)). The Proposed Lease Sale Area includes 224 OCS blocks that encompass approximately 442,537 ha (1.09 million ac).

PURPOSE AND NEED FOR THE PROPOSED ACTION

The purpose of the Proposed Action is to offer for lease certain OCS blocks located within the federally owned portion of Cook Inlet that may contain economically recoverable oil and gas resources. The need for the Proposed Action is to further the orderly development of OCS resources in accordance with the Outer Continental Shelf Lands Act of 1953 (OCSLA), as amended (43 United States Code (USC) 1331 *et seq.*). Lease Sale 258 may lead to oil and gas exploration, development, and production. Oil and gas from the Cook Inlet Program Area could help meet regional and national energy needs and lessen the need for imports.

REGULATORY AND ADMINISTRATIVE FRAMEWORK

The OCS Oil and Gas Leasing Program is established by OCSLA and the implementing regulations promulgated by BOEM pursuant to its OCSLA authority. Oil and gas activities on the OCS must also comply with other federal, state, and local laws and regulations. Compliance with all applicable laws and regulations is assumed for all action alternatives considered.

SCOPING

The Notice of Intent (NOI) to prepare an Environmental Impact Statement (EIS) was published in the Federal Register on September 10, 2020 (85 FR 55861)¹. Publication of the NOI opened a scoping period that extended through October 13, 2020. Opportunity for public input was provided throughout the scoping period via a BOEM Virtual Meeting Room (<https://www.boem.gov/ak258-scoping>), four live virtual meetings (held September 29, October 1, and two on October 8, 2020), and through submittal of comments via <https://www.regulations.gov>.

PROPOSED ACTION AND ALTERNATIVES

The following alternatives were identified for detailed analysis:

- Alternative 1 – Proposed Action. The Proposed Action would offer for lease all available OCS blocks in the northern portion of the Cook Inlet Planning Area. The Proposed Lease Sale Area covers approximately 442,537 ha (1.09 million ac), representing 224 OCS blocks which is approximately 20 percent of the total Cook Inlet Planning Area.

¹ BOEM has prepared this EIS under NEPA (1970) (P.L. 91–190, 42 USC 4321 *et seq.*), and Council on Environmental Quality (CEQ) regulations at 40 CFR Parts 1500–1508 (1978, as amended in 1986 and 2005). Because the NEPA process for this action began prior to September 14, 2020, this EIS does not apply updated CEQ regulations published in the Federal Register Notice of Final Rule (85 FR 15179) on July 16, 2020, effective September 14, 2020 (see 40 CFR 1506.13).

- Alternative 2 – No Action. The “No Action” alternative is equivalent to cancellation of the Proposed Action. Under this alternative, Lease Sale 258 would not occur.
- Alternative 3A – Beluga Whale Critical Habitat Exclusion. Under this alternative, the 10 OCS blocks that overlap with beluga whale critical habitat at the northern tip of the Proposed Lease Sale Area would be excluded from the lease sale.
- Alternative 3B – Beluga Whale Critical Habitat Mitigation. Under this alternative, all available blocks in the Proposed Lease Sale Area would be offered for lease. The 10 OCS blocks that overlap beluga whale critical habitat would be included in the lease sale; however, on-lease seismic surveys or exploration drilling would be prohibited between November 1 and April 1.
- Alternative 3C – Beluga Whale Nearshore Feeding Areas Mitigation. Under this alternative, all available blocks would be offered for lease with seasonal mitigation to protect beluga whales. On all blocks offered for lease, no on-lease seismic surveys would be conducted between November 1 and April 1; on blocks within 10 miles of major anadromous streams, no on-lease seismic surveys would be conducted between July 1 and September 30.
- Alternative 4A – Northern Sea Otter Critical Habitat Exclusion. Under this alternative, the 7 OCS blocks that overlap with critical habitat of the southwest Alaska Distinct Population Segment of the northern sea otter would be excluded from the lease sale.
- Alternative 4B – Northern Sea Otter Critical Habitat Mitigation. Under this alternative, all available OCS blocks would be offered for lease. On the 14 OCS blocks located within 1,000 meters of northern sea otter critical habitat, the discharge of drilling fluids and cuttings and seafloor-disturbing activities would be prohibited.
- Alternative 5 – Gillnet Fishery Mitigation. Under this alternative, all available OCS blocks in the Proposed Lease Sale Area would be offered for lease. On the 117 whole or partial blocks north of Anchor Point no on-lease seismic surveys would be conducted during the drift gillnetting season as designated by the Alaska Department of Fish and Game (ADF&G) (approximately mid-June to mid-August); and, United Cook Inlet Drift Association must be notified of any temporary or permanent structures planned during the drift gillnetting season.

AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES

The Affected Environment describes the physical environment, biological environment, socioeconomic, and sociocultural systems that could be affected by the Proposed Action. The following resources are included: air quality; water quality; coastal and estuarine habitats; fish and invertebrates; birds; marine mammals; terrestrial mammals; recreation, tourism and sport fishing; communities and subsistence; economy; commercial fishing; archaeological and historic resources; and environmental justice.

A detailed hypothetical Exploration and Development (E&D) Scenario was prepared to provide the framework and assumptions for an impact analysis. The results of the impact analysis for the Proposed Action are summarized in Table ES-1. Impacts on each resource category were rated as negligible, minor, moderate, or major using impact scale definitions based on the context and intensity of the impact. Impacts of post-lease activities ranged from negligible to moderate for all resources, with most resources experiencing minor impacts.

Over the life of the hypothetical exploration, development, and production that could follow a lease sale, other effects are possible from unlikely events such as a large, accidental oil spill or natural gas release. One large spill of crude, condensate, or refined oil is assumed to occur during development and production activities. This assumption is based on considerable historical data that indicate large OCS spills $\geq 1,000$ bbl could occur during these activities (ABS Consulting, 2016). This assumption is also based on statistical estimates of the mean number of large spills (0.21) from platforms and pipelines, the number and size of large spills on the OCS, and project-specific information in the

E&D Scenario. Additionally, although unlikely, BOEM assumes a gas release will occur. For purposes of this environmental document, one loss of well control or one pipeline rupture (offshore or onshore) is assumed over the 32 years of gas production releasing 20–30 million cubic feet of natural gas over one day. The impact conclusions, when a large spill is considered, would range from minor to major (Table ES-1). Impacts from a large gas release would range from negligible to moderate, with minor impacts for most resources and moderate impacts for air quality.

Table ES-1: Summary of Potential Impacts of Alternative 1 (Proposed Action)

| Resource | Impacts of Alternative 1 (Proposed Action) | Post-Lease Activities ¹ | Large Spill ² |
|--|--|------------------------------------|--------------------------|
| Air quality | Impacts from emissions during surveys, exploration, and production operations. | Minor ³ | Minor to Moderate |
| Water quality | Increase in total suspended solids (TSS) from construction activities; discharge of exploration and delineation well rock cuttings and fluids, and other operational discharges; petroleum hydrocarbon contamination could persist in sediments or ice and be reintroduced into the water column. | Minor | Moderate |
| Coastal and estuarine habitats | Impacts from seafloor-disturbance activities, discharges, pipeline landfalls, and onshore construction. | Minor | Major |
| Fish and invertebrates | Impacts from noise, habitat alteration and disturbance due to platforms and vessels. | Minor | Moderate |
| Birds | Vessel operations or marine habitat alterations could displace birds or interfere with foraging, and some waterbird populations could experience impacts lasting beyond a single season. Bright artificial lighting or gas flaring from vessels and platforms could cause collisions of migrating birds. | Minor to Moderate | Minor to Major |
| Marine mammals | Impacts could result from noise associated with seismic airguns and pile-driving, habitat alteration, and vessel strikes. | Negligible to Minor | Minor to Moderate |
| Terrestrial mammals | Most impacts would be localized to the site of the project infrastructure offshore, geographically distant from terrestrial habitats. | Minor | Minor |
| Recreation, tourism, and sport fishing | Impacts would primarily arise from disturbance in the form of space-use conflicts. Access to some sport fishing areas may be temporarily limited and some short-term displacement of populations of sport species such as salmon and halibut may result. | Minor | Moderate |
| Communities and subsistence | Short-term and localized impacts would include changes in availability of subsistence resources and space-use conflicts. | Minor | Major |
| Economy | Economic impacts related to employment, wages, and revenues would be closely tied to the size of a resource discovery – the larger the discovery the greater the impact. | Negligible to Moderate | Minor |
| Commercial fishing | Impacts could include displacement of targeted fish species and localized disturbance of fishing activities. For some fisheries, such as salmon gillnetting, impacts could be moderate due to space-use conflicts. | Minor to Moderate | Major |
| Archaeological and historic resources | Impacts include potential damage or destruction of resources from seafloor and ground disturbance, or offshore discharges. | Negligible to Minor | Moderate |
| Environmental justice | No major impacts for subsistence activities and harvest patterns, air quality, water quality, or the biological resources harvested for subsistence. | No Disproportionate Effects | Disproportionate Effects |

Notes: TSS = total suspended solids

¹ Post Lease Sale 258 activities described in the E&D Scenario (DEIS Section 4.1) and small spills (DEIS Section 3.1.1).

² Large spill described in DEIS Section 3.1.2.

³ Impact Scale described in DEIS Section 4.2.

Table ES-2 compares the impacts of the No Action Alternative and Alternatives 3 through 5 relative to the Proposed Action. The overall impact ratings (i.e., negligible, minor, moderate, major) did not differ among action alternatives for any resource, with the exception of commercial fishing.

Table ES2-2: Comparison of Impacts Relative to Alternative 1 (Proposed Action)

| Alternative | Positive Impacts | Negative Impacts |
|--|--|--|
| 2 – No Action | <ul style="list-style-type: none"> Avoids all negative environmental impacts of the Proposed Action. | <ul style="list-style-type: none"> Environmental impacts may occur from the likely substitutes for the lost oil and gas production, though not necessarily in the Proposed Lease Sale Area. Economic benefits from the Proposed Action would be precluded or delayed. |
| 3A – Beluga Whale Critical Habitat Exclusion | <ul style="list-style-type: none"> Avoids most impacts on beluga whales and beluga whale critical habitat in 10 OCS blocks. May slightly reduce interactions with drift gillnet fishers at northern edge of Proposed Lease Sale Area (exclusion would eliminate 8.5% of the blocks north of Anchor Point). Reduction in impacts from seismic sounds would benefit anadromous fish, including salmon species and commercial salmon fisheries. Impact level for commercial fishing would be slightly reduced from minor-to-moderate to minor. Eliminates impacts to birds while they are present in the exclusion area. | <ul style="list-style-type: none"> The 10 OCS blocks that overlap with beluga whale critical habitat would be excluded from the lease sale. Potential for resource development would be lost on 10 OCS blocks along with associated economic benefits. |
| 3B – Beluga Whale Critical Habitat Mitigation | <ul style="list-style-type: none"> Reduces impacts on beluga whales and beluga whale critical habitat in 10 OCS blocks. Eliminates impacts from on-lease seismic surveys and exploration drilling between November 1 and April 1 when beluga whales are most likely to be present. Reduction in impacts from seismic sounds would benefit anadromous fish, including salmon species and commercial salmon fisheries. Impact level for commercial fishing would be slightly reduced from minor-to-moderate to minor. A few impacts would be eliminated for wintering birds. | <ul style="list-style-type: none"> The 10 OCS blocks that overlap with beluga whale critical habitat would restrict on-lease seismic surveys or exploration drilling between November 1 and April 1 potentially having negative economic impacts to lessees. |
| 3C – Beluga Whale Nearshore Feeding Areas Mitigation | <ul style="list-style-type: none"> Reduces impacts from on-lease marine seismic surveys on all blocks between Nov. 1 and April 1 when beluga whales are most likely to be present and distributed across lower Cook Inlet. Reduces impacts on beluga whale nearshore feeding areas in 146 OCS blocks located wholly or partially within 10 miles of major anadromous streams. Eliminates or reduces impacts of noise between July 1 to September 30 when beluga whales are migrating to and from their summer feeding areas. Reduction in impacts from seismic sounds would benefit anadromous fish, including salmon species and commercial salmon fisheries. Impact level for commercial fishing would be slightly reduced from minor-to-moderate to minor. Provides some additional protections from underwater noise, vessel disturbance, and collision risk for some wintering marine birds. | <ul style="list-style-type: none"> No on-lease seismic surveys would be permitted between November 1 and April 1 on all 224 OCS blocks. Additionally, for the 146 OCS blocks located wholly or partially within 10 miles of major anadromous streams, lessees would be prohibited from conducting on-lease seismic surveys between July 1 and September 30. These restrictions could result in a negative economic impact to lessees. |

Table ES2-2: Comparison of Impacts Relative to Alternative 1 (Proposed Action)

| Alternative | Positive Impacts | Negative Impacts |
|---|--|---|
| 4A – Northern Sea Otter Critical Habitat Exclusion | <ul style="list-style-type: none"> • Avoids most impacts on sea otters and sea otter critical habitat in 7 OCS blocks. • Would eliminate impacts for marine birds while they are foraging in the 7 OCS blocks. | <ul style="list-style-type: none"> • The 7 OCS blocks that overlap with northern sea otter critical habitat would be excluded from the lease sale. Potential for resource development and associated economic benefits would be lost on these 7 OCS blocks. |
| 4B – Northern Sea Otter Critical Habitat Mitigation | <ul style="list-style-type: none"> • Reduces impacts on sea otters and sea otter critical habitat in 14 OCS blocks located within 1,000 m of sea otter critical habitat. • Would benefit benthic habitat and reduce impacts to benthic-foraging birds. | <ul style="list-style-type: none"> • On the 14 OCS blocks located within 1,000 meters of northern sea otter critical habitat, discharge of drilling fluids and cuttings and seafloor-disturbing activities (including anchoring and placement of bottom-founded structures) would be prohibited. These restrictions could result in a negative economic impact to lessees. |
| 5 – Gillnet Fishery Mitigation | <ul style="list-style-type: none"> • Reduces risk of interactions with drift gillnet fishers by prohibiting on-lease seismic surveys on 117 whole or partial OCS blocks during the drift gillnet season and by requiring notification of and coordination with gillnet fishers. • Reduces impacts on beluga whales during important summer feeding and rearing times. • Decrease of impacts to commercial drift gillnet fishery because no space-use conflicts or impacts to the targeted fishery would occur from seismic surveys. Overall impact level for commercial fishing would be slightly reduced to minor. | <ul style="list-style-type: none"> • No on-lease seismic surveys would be permitted during the drift gillnetting season as designated by the ADF&G (approximately mid-June to mid-August) on the 117 whole or partial OCS blocks north of Anchor Point. This alternative could result in a negative economic impact on lessees. |

CUMULATIVE EFFECTS

Cumulative effects were analyzed in the Draft EIS by considering the incremental environmental impacts of the Proposed Action added to environmental impacts from past, present, and reasonably foreseeable future actions. The cumulative effects analysis considered impacts of other oil and gas activities, mining projects, harvest activities, residential and community development, scientific research and survey activities, military and homeland security activities, and climate change. In general, impact conclusions ranged from negligible to moderate. With the addition of a large spill, negligible to major impacts would be expected.

VERY LARGE OIL SPILL: ≥120,000 BBL

Although very unlikely and not part of the Proposed Action or any alternatives, the potential effects of a Very Large Oil Spill (VLOS) were also analyzed in this Draft EIS as a low-probability, high-impact event. BOEM relied on the analyses completed for the LS 244 Final Environmental Impact Statement (BOEM, 2016). The scenario examined a hypothetical release of 120,000 bbl of oil resulting from a loss of well control over 80 days. Should a VLOS occur in the proposed Lease Sale Area, all of the resources analyzed in the Draft EIS could be affected and impacts could range from minor to moderate for a few resources and to major for most resources.

CONSULTATION AND COORDINATION

BOEM has engaged, or will engage, in a number of consultation and coordination processes with federal agencies, Tribes, and Alaska Native Claims Settlement Act (ANCSA) Corporations regarding proposed activities under Lease Sale 258. Below is a brief summary of how BOEM has satisfied, or will satisfy, its consultation obligations under the applicable statutory requirements.

TRIBAL AND ANCSA CORPORATION CONSULTATIONS

To fulfill its consultation obligations, BOEM has initiated and remains available for consultation with Tribes or ANCSA Corporations. BOEM reached out to 10 Tribes and 11 ANCSA Corporations to provide an opportunity for consultation during the development of the Draft EIS. To date, BOEM has received input from the Seldovia Tribe regarding sensitive areas that were considered during the development of this Draft EIS. Opportunities for further discussion and information sharing are ongoing and welcomed by BOEM.

SECTION 7, ENDANGERED SPECIES ACT CONSULTATION

BOEM has begun coordinating with the National Marine Fisheries Service (NMFS) and the U.S. Fish and Wildlife Service (USFWS) about listed species and critical habitat under each Service's jurisdiction. BOEM consults with the Services to ensure that activities under any leases issued will not result in jeopardy to a listed species or cause adverse modification of designated critical habitat.

ESSENTIAL FISH HABITAT CONSULTATION

BOEM is currently preparing an Essential Fish Habitat (EFH) assessment that will identify any adverse effects to designated EFH from potential oil and gas exploration activities in the Proposed Lease Sale 258 Area. This assessment will be provided to NMFS prior to releasing a Final EIS.

SECTION 106, NATIONAL HISTORIC PRESERVATION ACT CONSULTATION

BOEM recognizes that a lease sale constitutes an undertaking under Section 106 of the National Historic Preservation Act (NHPA) (Title 54, USC 306108) and the implementing regulations at 30 CFR 800 *et seq.* but is not the type of activity that has the potential to cause effects on historic properties, and thus would not require formal consultation. BOEM will consult with the Alaska State Historic Preservation Officer (SHPO) and other interested parties on subsequent project- and site-specific activities if they are a type of activity that has the potential to cause effects on historic properties. BOEM has provided notification to the Alaska SHPO regarding the publication of the Draft EIS and will continue to keep them informed of progress on this EIS.

APPENDICES

Appendix A – Oil Spills and Gas Release Analysis. This appendix discusses the technical information used to estimate numbers and volumes of spills assumed to occur over the life of the E&D Scenario. It provides an analysis of the impacts of small spills, a large spill or gas release, spill drills, and response activities on each physical, biological, sociocultural, and economic resource.

LITERATURE CITED

BOEM. 2016. Cook Inlet Planning Area Oil and Gas Lease Sale 244, Final Environmental Impact Statement. 2 Volumes. OCS EIS/EA BOEM 2016-069. Anchorage, AK: USDO, BOEM, Alaska OCS Region.