

Environmental Studies Program: Ongoing Study

Title	Comprehensive Synthesis of Impacts to Marine Mammals from Oil and Gas Activities on the Alaska Outer Continental Shelf (OCS), 2000–2020 (AK-20-08)
Administered by	Alaska Regional Office
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Conducting Organizations(s)	ECS Federal, LLC
Total BOEM Cost	\$239,973
Performance Period	FY 2020–2022
Final Report Due	July 2022
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PICOC Summary	
<i><u>Problem</u></i>	A large amount of information exists related to the potential effects of oil and gas exploration and development and production activities on marine mammals in Alaska. However, this information is dispersed throughout the body of scientific literature, or held by government agencies and other entities.
<i><u>Intervention</u></i>	This study will synthesize the relevant environmental analyses and reports to develop a summary document that is readily accessible to BOEM’s analysts and the public.
<i><u>Comparison</u></i>	The synthesis will provide an enhanced understanding of how effects of oil and gas development relate to the overall impact of anthropogenic activities in Alaska.
<i><u>Outcome</u></i>	A synthesis of potential direct, indirect, and cumulative effects on marine mammals from oil and gas activities.
<i><u>Context</u></i>	Beaufort Sea, Chukchi Sea, Cook Inlet

BOEM Information Need(s): This study will provide BOEM, other Federal agencies, and industry analysts with a synthesis of potential direct, indirect, and cumulative effects on marine mammals from oil and gas activities. This will include a retrospective summary of mitigation measures that have been implemented to avoid or minimize adverse impacts to marine mammals based on federal and state agency documents, as well as reports provided to BOEM, the National Marine Fisheries Service (NMFS), or the U.S. Fish & Wildlife Service (USFWS) by industry. Information on the integration of local and traditional knowledge into mitigation measures (if available) from Alaska Natives and Alaska Native Organizations into the development of mitigation measures will also be summarized. Results from this study will support cumulative effects analysis under the National Environmental Policy Act (NEPA), the Marine Mammal Protection Act (MMPA), and the Endangered Species Act (ESA) for future lease sales, exploration plans, and development and production plans in the Beaufort Sea, Chukchi Sea, and Cook Inlet planning areas.

Background: BOEM, as well as other federal and state agencies (*e.g.*, USFWS, NMFS, and the Alaska Department of Fish & Game) are required to understand the impacts of their actions on the natural environment as well as the human environment. BOEM, specifically, is required by Section 20 of the Outer Continental Shelf Lands Act (OCSLA), to “provide the information needed to predict, assess, and manage impacts from offshore energy and marine mineral exploration, development, and production activities on human, marine, and coastal environments.” Since 1973 BOEM has accumulated and archived much of the information needed in Alaska through the Environmental Studies Program (ESP).

However, all agencies are required to review the effects of their actions under several environmental statutes including NEPA, MMPA, and ESA. The studies produced by USFWS and NMFS as a result of these requirements are often not part of the ESP. This information sits in peer reviewed literature and in scores of other reports and impact analyses that are required for each permitted, funded, or authorized project by the above environmental statutes, and reside in agency files that are not readily accessible in many cases.

Objectives: This study will synthesize information from various environmental analyses about the direct, indirect, and cumulative impacts of oil and gas resource development in the Arctic and Cook Inlet on marine mammals and put these impacts in a context relative to overall impacts of human activities in OCS areas.

Methods: Researchers will work with BOEM Subject Matter Experts (SMEs), and staff from other federal agencies, to obtain and review pertinent literature (*e.g.*, reports to federal agencies, MMPA authorizations, NEPA environmental impact analyses, biological opinions, produced by the Alaska regional offices of BOEM, USFWS and NMFS, and the NMFS Office of Protected Resources, Silver Spring, Maryland). These studies have been in large part the result of federal actions permitted, funded, and authorized since 2000 and have addressed impacts of oil and gas activities in the Alaska OCS. Researchers will also coordinate with staff from the State of Alaska to obtain similar information related to oil and gas activities in state waters. Information that addresses the aforementioned objectives in peer-reviewed literature, reports, and summary documents will be synthesized into concise statements that can be easily and readily used in future environmental analyses to describe the effects of oil and gas infrastructure and activities in context with other anthropogenic activities to support future planning and decision-making.

Specific Research Question(s):

1. What are the direct, indirect, and cumulative effects on marine mammals of increased levels of anthropogenic noise from exploration and construction activities in Alaska from 2000–2020?
2. What are the direct, indirect, and cumulative effects on marine mammals of increased levels of other sources of disturbance including, but not limited to, construction and maintenance of ice roads, increased levels of traffic including vehicle, air support, and vessel traffic?

Current Status: Ongoing, data analysis underway.

Publications Completed: None

Affiliated WWW Sites: <http://www.boem.gov/akstudies/>