

Environmental Studies Program: Studies Development Plan | FY 2019–2021

Title	Synthesis of Current Environmental Literature for OCS Planning Areas in the Northern Gulf of Alaska
Administered by	Alaska OCS Region
BOEM Contact(s)	Carol Fairfield, carol.fairfield@boem.gov
Procurement Type(s)	Contract
Approx. Cost	\$150 (in thousands)
Performance Period	FY 2019–2021
Date Revised	November 13, 2018
PICOC Summary	
<i><u>Problem</u></i>	The 2019–2024 National Outer Continental Shelf (OCS) Oil and Gas Leasing Draft Proposed Program identifies lease sales in 11 OCS Planning Areas that have not been considered for leasing in decades. Collation of available environmental information is needed to support analyses under the National Environmental Policy Act (NEPA), Endangered Species Act (ESA), etc. for these lease sales and other activities regulated by BOEM.
<i><u>Intervention</u></i>	This study will complete a regionally-based literature search and synthesis of environmental information for the OCS Planning Areas in the northern Gulf of Alaska.
<i><u>Comparison</u></i>	Results from this award will provide a resource to help guide BOEM NEPA analysts in locating the reference information they will need.
<i><u>Outcome</u></i>	The project would produce an annotated bibliography of relevant literature and a summary report documenting the current environment for various resources.
<i><u>Context</u></i>	Gulf of Alaska, Kodiak, and Shumagin OCS Planning Areas

BOEM Information Need(s): The 2019–2024 National OCS Oil and Gas Leasing Draft Proposed Program identifies lease sales in 14 Alaska OCS planning areas. These lease sales will require NEPA analyses of the existing environment and potential impacts from possible future oil and gas exploration and development activities. The last lease sale in the Gulf of Alaska Planning Area occurred in 1981, and no lease sales have occurred in the Kodiak and Shumagin Planning Areas. BOEM requires updated information to support NEPA analysis and documentation for the proposed lease sales in these areas.

Research in the northern Gulf of Alaska by a broad array of organizations—including the National Oceanic & Atmospheric Administration (NOAA), Alaska Department of Fish & Game, Exxon Valdez Oil Spill Trustee Council (Gulf Watch) and academia—has produced an extensive body of literature that can be synthesized to support NEPA analysis for potential future lease sales in the Shumagin, Kodiak, and Gulf of Alaska OCS Planning Areas.

Background: The northern Gulf of Alaska exhibits a productive ecosystem supported by a dynamic ocean circulation that disperses marine life and nutrients from deeper waters across the continental shelf. The diverse biological communities support some of the most productive fisheries in the United States. Bays and estuaries represent important nursery habitats for young fishes, and feeding grounds for seabirds and marine mammals.

This region is rapidly changing due to climate warming. Sea temperatures have been anomalously warm, and process studies have provided data that illustrates sustained periods of warming can change the trophic structure of the ecosystem, reducing energy to upper trophic level juvenile fishes, leading to increased winter mortality. Recent and ongoing field work and modeling by NOAA and others suggests that the manifestations of warming in the Gulf of Alaska (“The Blob”, El Niño, toxic algal blooms, small-copepod-dominated community, cetacean die-offs, and temperate and tropical fish species collected off Alaska’s coasts) will continue highlighting the need for continued research and monitoring of conditions and emergent events.

Objectives: Describe the current environmental understanding of the northern Gulf of Alaska.

Methods: Researchers will conduct a careful literature search and compilation of all relevant information on the environment and resources of the Gulf of Alaska, Kodiak, and Shumagin Planning Areas in the northern Gulf of Alaska.

Specific Research Question(s): What is the current status of physical, biological, social, and economic resources in the northern Gulf of Alaska?