

Environmental Studies Program: Studies Development Plan | FY 2025–2026

Field	Study Information
Title	University of Alaska Coastal Marine Institute (AK-25-01)
Administered by	Alaska Regional Office
BOEM Contact(s)	Sean Burrell (sean.burrell@boem.gov)
Procurement Type(s)	Cooperative Agreement
Performance Period	FY 2025–2026
Final Report Due	TBD
Date Revised	February 9, 2024
Problem	The BOEM Environmental Studies Program needs applied scientific research to manage conventional and renewable energy and marine mineral activities on the Alaska Outer Continental Shelf (OCS).
Intervention	Scientific data are required to ensure potential impacts associated with leasing, exploration, and development decisions are avoided or mitigated to the extent practicable.
Comparison	The Coastal Marine Institute (CMI) facilitates collaborative research between BOEM, University of Alaska (UA) faculty and the State of Alaska.
Outcome	The CMI provides BOEM direct access to faculty and research scientists to assist in identifying, designing, and implementing relevant and critical research to allow responsible energy and marine mineral exploration, development and production on the Alaska OCS.
Context	Alaska OCS Planning Areas

BOEM Information Need(s): The BOEM-University of Alaska CMI research partnership enables the assessment and management of potential effects from OCS energy and marine mineral leasing, development, and production activities to ensure compliance with National Environmental Policy Act and other federal laws and statutes. BOEM requires current research that addresses physical, chemical, and biological oceanography; fisheries and wildlife ecology; and sociocultural and economic resources. Specifically, BOEM seeks to have an improved understanding of properties, movement, degradation and effects of potential oil spills into water and ice environments; distribution, abundance, foraging ecology, and behavior of marine mammals and migratory birds; effects of a warming climate on nearshore and offshore ecosystems; properties and changes in nearshore, landfast, and offshore ice; and perspectives of Alaska Native peoples on cultural, traditional and nutritional resources dependent on the Alaska OCS.

Background: The University of Alaska (UA) CMI was established by a Memorandum of Agreement between BOEM and UA. BOEM oversees the exploration and development of the nation's offshore energy resources and supports scientific studies to inform responsible resource management on the U.S. OCS. The partnership strengthens BOEM-State relationships in addressing common information needs. Principal Investigators for CMI-funded projects are faculty and other research scientists within the University of Alaska system.

Objective(s):

- Collect and disseminate environmental information needed for OCS conventional and renewable energy, and marine minerals decisions.
- Address local and regional OCS-related environmental and resource issues of mutual interest.
- Strengthen the partnership between BOEM and the State of Alaska by addressing OCS oil and gas and marine minerals information needs.
- Fund projects that inform across disciplines, including fisheries, biomonitoring, chemical and physical oceanography, and oil biodegradation.

Framework Issues:

- Scientific studies for a better understanding of marine, coastal, or human environments potentially affected by the exploration and development of OCS energy and marine mineral resources.
- Modeling studies of environmental, social, economic, or cultural processes related to OCS oil and gas or renewable energy activities to improve scientific predictive capabilities.
- Experimental studies for better understanding of environmental processes or the effects of OCS activities.
- Projects that improve collection or sharing of data or scientific information about marine or coastal resources or human activities, to support prudent management of energy and marine mineral resources.
- Synthesis studies of scientific environmental or socio-economic information relevant to the OCS oil and gas, renewable energy, and marine mineral programs, including workshops and literature syntheses.

Methods: UA, in concert with BOEM, develops and disseminates an annual Call for Letters of Intent (LOI) to identify studies designed to collect information necessary to evaluate how BOEM's decision-making impacts the environment. LOI are evaluated for relevance, timeliness, and scientific merit. They will be reviewed by the CMI Technical Steering Committee, which includes representatives from UA, BOEM, the Alaska Department of Fish and Game, and the Alaska Department of Natural Resources. CMI is supported for up to \$250,000 through a subsequent Notice of Funding Opportunity. CMI project awards require 1:1 non-federal cost-share and LOI must identify non-federal sources of cost-share and in-kind contributions. CMI awards are limited to a minimum of \$10,000 and a maximum of \$100,000 (not including required 1:1 cost-share) and must start by the end of September of the award year. LOI involving graduate students may be submitted with the Graduate Advisor acting as the Principal Investigator. Topic areas of interest include:

- Carbonate chemistry conditions and the response of marine organisms, to assess the potential for coastal and ocean acidification and impacts on biological resources.
- Fate and weathering of oil spills from renewable and conventional energy projects in open water and ice conditions, including refinements to modeling algorithms.
- Characterization and structural properties (e.g., extent, thickness, velocity, seasonality, frequency of occurrence) of sea ice, including frazil and submerged ice.
- Effects of climate change on marine ecosystem functions.

- Immigration and emigration pathways for adult and juvenile salmon.
- Seasonal presence and spatial distribution of baleen whales in lower Cook Inlet and Shelikof Strait.
- Impacts of vessel traffic in Cook Inlet on Cook Inlet belugas, ESA listed stocks of humpback whales, Northeast population of fin whales, North Pacific right whale, and the Southwest sea otter population, including collision risk and potential to disturb foraging, breeding, and calving and/or pupping activity.

Specific Research Question(s): N/A

Current Status: N/A

Publications Completed: N/A

Affiliated WWW Sites: <https://www.uaf.edu/cfos/research/cmi/>

References: None