Environmental Studies Program: Ongoing Study

Title	Alaska Coastal Marine Institute (AK-19-02)
Administered by	Alaska Regional Office
BOEM Contact(s)	Dr. Heather Crowley (heather.crowley@boem.gov)
Procurement Type(s)	Cooperative Agreement
Conducting Organizations(s)	CMI, UAF
Total BOEM Cost	$2,500,000 plus Joint Funding ($2,500,000) [Program total]
Performance Period	FY 2019-2024
Final Report Due	September 2024
Date Revised	September 16, 2022
PICOC Summary	
Problem	The BOEM Environmental Studies Program needs applied scientific studies to provide information for making responsible decisions for managing energy and marine mineral resources on the U.S. Outer Continental Shelf (OCS).
Intervention	Scientific information collected for leasing, exploration, and development decisions tends to be more readily accepted by the local and regional populace if the studies are conducted by well-known and scientifically respected local experts and institutions.
Comparison	Through the Coastal Marine Institute (CMI) BOEM will obtain high quality scientific research to meet the shared goals of BOEM and the State of Alaska at substantial savings due to the one-to-one cost match requirement.
Outcome	The CMI program will use the highly qualified, scientific expertise at local levels to collect and disseminate environmental information needed for OCS oil and gas and renewable energy decisions; address local and regional OCS related environmental and resource issues of mutual interest; and strengthen the BOEM-State partnership in addressing OCS oil and gas information needs.
Context	All Alaska OCS Planning Areas.

BOEM Information Need(s): This cooperative agreement supports improved leasing decisions and National Environmental Policy Act (NEPA) analyses pertinent to potential oil and gas-related actions on the Outer Continental Shelf (OCS). Final reports will be available for lease sales and post-sale decisions; interim data products and inputs will be used to address information needs. Topical areas to be addressed under the Coastal Marine Institute (CMI) have been identified through the Alaska Annual Studies Planning process and a set of identified Framework Issues. The CMI, which operates on a five-year funding cycle, also will develop information and public products for various audiences that address public concerns raised during outreach efforts.

Background: The CMI is cooperative program between BOEM and the University of Alaska, with State of Alaska participation, began in 1993 with the goals of updating and expanding our understanding of OCS environmental information and addressing future needs related to the offshore oil and gas program in Alaska. This large program of scientific research is guided by framework issues related to potential

future lease sales and other oil and gas-related actions in the Alaska Office. Beginning in 2016, the CMI instituted a program of Student Research Awards, which provide up to $25,000 in funding for up to three student-led projects each year. Through an established cost-sharing arrangement, the CMI must leverage additional scientific results and logistics capability at levels comparable to the BOEM contribution of up to $1,000,000 per year. Typically, five to seven new projects are funded each year (see individual project profiles for more information).

Objectives: The Framework Issues which guide the CMI are:

- Scientific studies for better understanding marine, coastal, or human environments affected or potentially affected by offshore oil and gas or other mineral exploration and extraction on the OCS.
- Modeling studies of environmental, social, economic, or cultural processes related to OCS oil and gas activities in order to improve scientific predictive capabilities.
- Experimental studies for better understanding of environmental processes, or the causes and effects of OCS activities.
- Projects which design or establish mechanisms or protocols for sharing data or scientific information regarding marine or coastal resources or human activities in order to support prudent management of conventional energy resources and potential development of renewable energy and marine mineral resources on the OCS offshore the State of Alaska.
- Synthesis studies of scientific environmental or socioeconomic background information relevant to the OCS oil and gas program.

Methods: A proposal process is initiated each year with a request for letters of intent to address one or more of the Framework Issues from university researchers and other scientific researchers in State agencies. The letters of intent are reviewed by BOEM scientists and a Technical Steering Committee (TSC), made up of scientific representatives of the cooperators, to identify which submissions merit submission of a full-length proposal. BOEM scientists and the TSC then evaluate the proposals' research concepts, methodology, and cost effectiveness to inform funding decisions. External peer reviews may be requested for new projects. Each CMI project produces a final report that is publicly disseminated through the BOEM website. Principal investigators also give presentations at a scheduled annual CMI Science Review, scientific conferences, and various public meetings.

The structure of the CMI not only promotes extensive input from BOEM's academic partners in Alaska, but it allows for a great deal of flexibility to rapidly address priority information needs as they arise. Furthermore, the requirement for matching funds at a one-to-one level facilitates extensive leveraging and partnership arrangements for the projects.

Current Status: Multiple research projects and administration activities are ongoing.

Publications Completed:

Konar B. 2020. Coastal Marine Institute annual report 26, calendar year 2019. Fairbanks (AK): University of Alaska Coastal Marine Institute and U.S. Department of the Interior, Bureau of Ocean Energy Management, Alaska OCS Region. 59 pp.

Konar B. 2021. Coastal Marine Institute Annual Report 27, Calendar Year 2020. Fairbanks (AK):University of Alaska Coastal Marine Institute and U.S. Department of the Interior, Bureau of Ocean Energy Management, Alaska OCS Region. 50 pp.

LarsenTempel J. 2020. Life Without Ice: Climate Change and the Subsistence Communities of St. Lawrence Island. CMI Graduate Student Projects - Volume 4. Fairbanks (AK): University of Alaska Coastal Marine Institute and U.S. Department of the Interior, Bureau of Ocean Energy Management, Alaska OCS Region. 35 pp.

Ulaski B, Hasan E, Kumar S, Stadler L. Graduate Student Studies Volume 5, OCS Study BOEM 2022-054, J. Reynolds (Ed.). Cooperative Agreement No. M19AC00008. University of Alaska Coastal Marine Institute and USDOI, BOEM Alaska OCS Region.

Affiliated WWW Sites:

http://www.boem.gov/akstudies/

https://marinecadastre.gov/espis/#/search/study/100245

https://www.uaf.edu/cfos/research/cmi/