

ENVIRONMENTAL STUDIES PROGRAM

Science for Informed Decisions

The Bureau of Ocean Energy Management (BOEM) promotes energy independence, environmental protection and economic development through responsible management of offshore resources on the Outer Continental Shelf (OCS) based on the best available science. BOEM's **Environmental Studies Program (ESP)** develops, funds and manages rigorous scientific research to inform policy decisions regarding OCS resource development.



The long-term vision for the ESP is to be first in class, the best research program possible in the context of BOEM's mission and constraints. A **National Academies BOEM Committee on Offshore Science and Assessment (COSA)** provides additional program peer review and advice on achieving this vision, including input on the criteria used in developing and approving studies and the process leading to approval. To this end, the ESP asks three key questions: *what does BOEM need to know, what strategic questions should be posed, and what criteria should be used to*

prioritize studies for addressing these questions? These questions will help guide the ESP over the next five to 10 years.

BOEM's environmental studies cover a broad range of disciplines, including physical oceanography, atmospheric sciences, biology, protected species, social sciences (including economics and cultural resources), and the environmental impacts of energy development. BOEM incorporates findings from the studies program into its consultation process, environmental reviews and National Environmental Policy Act (NEPA) documents, which are used to determine steps to mitigate and/or monitor the impact of offshore conventional energy, renewable energy and mineral resource development on the OCS.

Through the ESP, BOEM is a leading contributor to the growing body of scientific knowledge about the marine and coastal environment, funding more than \$1 billion in research since ESP's beginning in 1973. Technical summaries of more than 1,800 BOEM-sponsored environmental research projects and more than 3,600 research reports are publicly available online through the Environmental Studies Program Information System (**ESPIS**). The system provides unprecedented access to and discovery of ESP data and information with text, map-based queries, and other tools for use by the ocean science community. Quarterly Reports disseminate the findings.

BOEM oversees scientific research conducted through contracts, cooperative agreements with state institutions or public colleges and universities in affected coastal states, and inter- and intra-agency agreements. Such arrangements and partnerships enable BOEM to leverage resources, meet national priorities and satisfy common needs for robust scientific information. ESP's expertise is often sought for intergovernmental and international forums. The **Studies Development Plan** for Fiscal Years 2019-2021 summarizes research priorities and potential new studies for the next three years, subject to the availability of funds.

The Department of the Interior established a **Scientific Integrity Policy** in 2011 to ensure and maintain the integrity of scientific and scholarly activities used in Departmental decision making. BOEM has fully adopted the policy and is committed to securing independent environmental research, which is peer-reviewed and considered during every stage of the decision-making process. The proposal, selection, research, review, environmental studies and reports follow the DOI Code of Scientific and Scholarly Conduct in support of a culture of scientific and professional integrity, as set out in the DOI Departmental Manual (305 DM 3). The policy is available **online**.

Environmental Studies by Region & Program

Alaska Studies

Environmental studies in Alaska integrate information across multiple disciplines, including: protected and endangered species; physical oceanography; wildlife biology; subsistence and traditional knowledge; and air quality. Current regional studies focus on monitoring and understanding the changing environment in the Beaufort Sea, Chukchi Sea, and Cook Inlet Planning Areas, but studies may also be initiated in other OCS areas as guided by the **National OCS Oil and Gas Leasing Program**. The ESP actively collaborates with other U.S. and international Arctic science programs, such as the **U.S. Arctic Research Commission (USARC)**, the **U.S. Interagency Arctic Research Policy Committee (IARPC)**, and working groups of the **Arctic Council**. The ESP promotes regional stakeholder participation in BOEM research through the **BOEM/University of Alaska Coastal Marine Institute**, established in 1993.



Gulf of Mexico Studies

Ongoing studies in the Gulf of Mexico range from the Gulf of Mexico Marine Assessment Program for Protected Species (**GOMMAPPs**), to other biological research including chemosynthetic communities and deepwater corals and coral acidification, and archaeological and physical studies of the Loop Current and air quality. The ESP pioneered social and economic research on the complex network of interrelationships among the energy industry and the GOM region. Research informs the sustainable use of OCS marine minerals for coastal restoration projects and nascent interest in renewable energy. In 2017, BOEM and the Louisiana State University celebrated the **Coastal Marine Institute's** 25th anniversary.



Pacific Studies

The ESP pioneered ocean research along the entire Pacific Coast of the United States. The current program includes platform biology studies, a long-standing highly acclaimed **multi-agency intertidal monitoring program**, research on protected species (such as **PacMAPPs**) and studies to support renewable energy development along the West Coast and offshore Hawaii.



Atlantic Studies

In support of the Energy Policy Act of 2005, ESP collects information to inform decisions on renewable energy development. This includes a suite of studies to address the distribution and movements of birds, marine mammals, and sea turtles on the OCS, notably the Atlantic Marine Assessment Program of Protected Species (**AMAPPs**). Other studies evaluate the socioeconomic consequences of offshore wind development, for example, on fishing, tourism, shipwrecks and paleolandscapes. Atlantic research also informs the Marine Minerals Program for coastal restoration, shore protection, and resilience planning pre- and post storms such as hurricanes, and decisions on potential oil and gas development in the Mid- and South Atlantic.



National Studies

ESP headquarters-developed and managed studies have bureau-wide applicability. They include genetics research and archiving of OCS invertebrates by the **Smithsonian**, renewable energy, space-use conflicts, marine mammal research, acoustics, and support of the Oil Spill Modeling Program.

About the Bureau of Ocean Energy Management

The Bureau of Ocean Energy Management (BOEM) promotes economic development, energy independence, and environmental protection through responsible, science-based management of offshore conventional and renewable energy, and marine mineral resources.



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