

Environmental Studies Program

Science for Informed Decisions

The Bureau of Ocean Energy Management (BOEM) manages the responsible exploration and development of energy and mineral resources on the Outer Continental Shelf (OCS). The bureau promotes energy independence, environmental protection and economic development through responsible management of these resources 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.

BOEM's environmental studies cover a broad range of disciplines, including physical oceanography, atmospheric sciences, biology, protected species, social sciences, economics, submerged 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. A **National Academies BOEM Committee** on Offshore Science and Assessment (COSA) provides additional program peer review.

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 the studies program began in 1973. Technical summaries of more than 1,700 BOEM-sponsored environmental research projects and more than 3,500 research reports are publicly available online through the recently redesigned Environmental Studies Program Information System (ESPIS). The new system provides unprecedented access and discovery of ESP data and information for use by the ocean science community.

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 enable BOEM to leverage resources, meet national priorities and satisfy common needs for robust scientific information. The ESP regularly conducts research with partners under the umbrella of the **National Oceanographic Partnership Program**, including several award-winning studies. ESP's expertise is often sought for intergovernmental and international forums. The <u>Studies Development Plan</u> for Fiscal Years 2017-2019 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, peer-reviewed environmental research, which is considered during every stage of the decision-making process. The Department of the Interior Scientific Integrity Policy is available at: http://www.doi.gov/scientificintegrity/index.cfm.

Ongoing Environmental Studies by Region & Program

Alaska Studies

Ongoing studies in Alaska focus on protected and endangered species; physical oceanography; wildlife biology; subsistence and traditional knowledge; and economic modeling. Some take place through the BOEM/University of Alaska Coastal Marine Institute, established in 1993, to promote regional stakeholder participation. Most studies are focused on understanding and monitoring Arctic resources in the Chukchi and Beaufort Seas, but also include other Alaska OCS areas. The ESP actively collaborates with other federally and privately funded and international Arctic science programs, such as U.S. Arctic Research Commission (USARC) and the U.S. Interagency Arctic Research Policy Committee (IARPC).





Gulf of Mexico Studies

Ongoing studies in the Gulf of Mexico focus on impacts of the Deepwater Horizon oil spill, archeological and biological research, chemosynthetic communities, deepwater corals and the Loop Current. The ESP has pioneered social and economic research on the complex network of interrelationships among the energy industry and the GOM region. Recent research also informs the sustainable use of OCS marine minerals for coastal restoration projects. In 2012, BOEM and the Louisiana State University celebrated the Coastal Marine Institute's 20th anniversary.

Pacific Studies

The ESP has 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 and in recent years, and studies to support renewable energy development. In many cases, ESP studies' results represent the only research of that type ever conducted in the ocean along the coast.





Atlantic Studies

In support of the Energy Policy Act of 2005, ESP collects information to assess the environment in support of renewable energy development. This includes a suite of studies to address the distribution and movements of birds, marine mammals, and sea turtles on the Outer Continental Shelf. The socioeconomic consequences of offshore wind development are also being evaluated,

with studies covering port modifications, fishing, shipwrecks and paleolandscapes. Atlantic research also informs the Marine Minerals Program for coastal restoration and shore protection following storms like Hurricanes Sandy and Matthew, and decisions on potential oil and gas development in the Mid- and South Atlantic.

National Studies

At the headquarters level, the ESP develops and manages studies with bureau-wide applicability, and disseminates the findings. Studies include genetics research and archiving of OCS invertebrates by the <u>Smithsonian</u>, renewable energy space-use conflicts, marine mammal research, acoustics, and support of the Oil Spill Modeling Program.



