Environmental Studies Program: Studies Development Plan | FY 2021–2022

Title	Protected Species Application and Information Management
Administered by	Office of Renewable Energy Programs
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Conducting Organization(s)	TBD
Total BOEM Cost	TBD
Performance Period	FY 2021–2022
Final Report Due	TBD
Date Revised	April 14, 2020
PICOC Summary	
Problem	Protected species observer data collected across BOEM programs are not consistently collected, reported, and managed.
Intervention	Develop a common platform that data can be recorded and reported to BOEM. Develop an application that is freely available to industry protected species observers and other organizations to record and report data in a standardized way.
Comparison	Conduct an assessment of data requirements, develop common reporting fields for similar activities, and identify differences across common BOEM and BSEE program areas.
Outcome	Develop an application and data management system to record, report, and query information.
Context	National

BOEM Information Need(s): BOEM compiles protected species data through reporting requirements for geological and geophysical surveys conducted on leases and through other approved plans. Often, these requirements also satisfy reporting requirements under the Endangered Species Act (ESA) and Marine Mammal Protection Act. Survey vessels are often present for weeks, months, or over multiple years conducting survey activities depending on the purpose of the survey (e.g., sand resource characterization or oil and gas surveys). Both mandatory and voluntary reporting from a consistent platform to collect data on protected species and other information such as fishing vessel activity on the Outer Continental Shelf (OCS) would provide a valuable tool to the offshore community and to BOEM. Other federal agencies and non-governmental organizations have expressed interest in the value and analysis of such data. In the Gulf of Mexico, these data have been analyzed and applied adaptively in assessments under the National Environmental Policy Act and the ESA (Barkaszi et al. 2012; Barkaszi and Kelly 2019). Additionally, the National Marine Fisheries Service proposed the

creation of standardized forms for seismic surveys within a year of the implementation of the Biological Opinion as part of their non-discretionary terms and conditions during the ongoing Section 7 ESA consultation process for the Gulf of Mexico

Background: The protected species application will be designed for field data collection and will capture visual and passive acoustic observation data that will later be used to assess the occurrence and prevalence of offshore species, habitat, and anthropogenic activities. A goal is to more seamlessly integrate data collected across BOEM program areas into a standard format. The standardization of data collection will reduce errors and improve post-processing time by BOEM. Standardized data will be integrated into a cloud-based database and used for a decision and compliance tool for BOEM.

Objectives: The objective of the project is to create a software application and cloud storage solution for field captured data and photographs collected during offshore activities. A long-term application maintenance plan and data management strategy must be included.

Methods: The application should be developed through the best available information from peer reviewed literature, gray literature, and expert elicitation of federal users, PSO providers, and industry. Existing platforms may be available to add on to or develop a separate application such as SeaScribe maintained through an existing BOEM contract, or through private software developed independently by Industry or PSO Providers.

Specific Research Question(s):

- What are the data fields required for each BOEM program area?
- What standardized data formats are required for visual and passive acoustic data?
- What are the operating and maintenance requirements for the software?
- What field tests are required for the application?
- What are data storage and access requirements for BOEM, industry, and other partners?

References:

Barkaszi MJ, Butler M, Compton R, Unietis A, Bennet B. 2012. Seismic survey mitigation measures and marine mammal observer reports. New Orleans, Louisiana: U.S. Dept. of the Interior, Bureau of Ocean Energy Management, Gulf of Mexico OCS Region.

Barkaszi MJ, Kelly CJ. 2019. Seismic survey mitigation measures and protected species observer reports: Synthesis report. U.S. Dept. of the Interior, Bureau of Ocean Energy Management.