

ENVIRONMENTAL STUDIES PROGRAM: Studies Development Plan FY 2011-2013

Region: National

Planning Area(s): All

Title: Evaluation of the Relative Environmental Sensitivity and Marine Productivity of the Outer Continental Shelf (OCS)

BOEM Information Need(s) to be Addressed: BOEM is required by the Outer Continental Shelf Lands Act (OSCLA) to conduct environmental analyses for each five-year oil and gas program. One required analysis is to evaluate the relative environmental sensitivity and marine productivity of different areas of the Outer Continental Shelf (OCS). This study will develop the analysis for the upcoming 2012-2017 Five-Year Program. The analysis compares and ranks the environmental sensitivity and marine productivity of the 26 OCS planning areas. The successful completion of this study is essential for the implementation of the 2012-2017 Five-Year Oil and Gas Program.

Cost Range: (in thousands) \$400-\$600 **Period of Performance:** FY 2011-2012

Description:

Background: The OSCLA mandates that BOEM conduct leasing on the OCS through five-year programs. The OSCLA also requires BOEM to conduct several analyses to evaluate the economic and environmental costs and benefits of OCS leasing. One requirement is to evaluate the relative environmental sensitivity and marine productivity of the 26 OCS planning areas. BOEM has traditionally performed a separate analysis of relative environmental sensitivity and another for marine productivity. A separate BOEM study is currently underway to update and prepare the marine productivity analysis. The relative environmental sensitivity analysis prepared for the 2007-2012 Program was successfully litigated on the basis that its use of a single indicator of coastal oil spill sensitivity did not address the sensitivity of the marine environment. The remanded analysis used an approach that calculated planning area sensitivity by summing the individual sensitivity scores for the marine habitat, marine fauna, marine productivity, and coastal habitat components within and near the planning area. The remanded analysis also analyzed climate change effects on sensitivity.

Objectives: The objectives of this study are to develop and recommend options for replacing or supplementing previous BOEM methodologies, evaluate approaches and information sources, and conduct the environmental sensitivity and marine productivity analyses of the 26 OCS Planning Areas. This study also will evaluate how information developed in the marine productivity analysis should be incorporated into the environmental sensitivity scoring and explore other issues that may need to be considered (e.g. ecological resilience or potential seasonal variation in productivity or marine species abundance).

Methods: A review and assessment of previous analyses, other methodologies and

relevant information sources will be conducted to inform the recommendations and analyses. Methods used in the analysis will be constrained by the following considerations.

1. Data - Data and information used to depict locations, abundance, and other characteristics of environmental features used to calculate environmental sensitivity and marine productivity will optimally have the following characteristics:
 - National coverage
 - Available in digital format
 - Authoritative information source
2. Scale - The resolution of data and analytic methods used in the analysis should be appropriate for depicting broad differences in environmental sensitivity and marine productivity among planning areas. Fine scale data is not required but can be used if generalized to a broader scale.
3. Documentation - All assumptions and parameters used to calculate environmental sensitivity and marine productivity must be based on current authoritative information. Full citations must be provided.
4. Modeling - BOEM does not intend to develop complex models or custom software for the analysis. Models will be either conceptual to assist in guiding and standardizing the analyses, or computer-based models developed in standard PC software such as MS Excel or Access. Custom programming will be limited to the use of scripting languages provided with the software.

A report will be prepared that describes the methodologies and information that were used to develop the scorings of the relative environmental sensitivity and marine productivity of the 26 OCS Planning Areas. This report will document other possible methods that were not used, reasons for the selection of the approach that was used, and any weaknesses of the selected approach.

Revised Date: August 28, 2010