Offshore Energy Development

Dr. William Y. Brown
Chief Environmental Officer
Bureau of Ocean Energy Management

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Oil and gas, wind, and marine mineral mining all have environmental impacts.
Environmental Evaluation Oil and Gas

5 Year Program National EIS

Lease Sales EIS
(Muti and Single)

Exploration Plans

Development Plans

Operations
Mitigation includes:

- Avoiding impacts
- Minimizing impacts
- Rectifying impacts through restoration
- Compensating for the impact
Renewable Energy Program

- Wind Float Pacific Project offshore of Coos Bay, Oregon
- Pacific Marine Energy Center South Energy Test Site offshore of Newport, Oregon

No pending mineral resource projects in the Pacific Region

Five-Year Oil and Gas Lease Program for 2012 to 2017

- No lease sales proposed
- The Pacific OCS Region presently has 43 active leases in production from 23 platforms.
- Most recent lease sale: 1984
Western GOM: 5 lease sales beginning in 2012

Central GOM: 5 lease sales beginning in 2013

Eastern GOM: 2 lease sales in 2014 and 2016

OCS Areas with Significant Sediment Resources Highlighted in Red

No pending Renewable Energy Projects in the GOM
Atlantic Coast: Renewable Energy Program

BOEM held its first two offshore wind lease sales in 2013:

- Rhode Island/Massachusetts - 2 leases issued to Deepwater Wind
- Virginia - 1 lease issued to Dominion Virginia Power

BOEM is currently deciding whether to permit seismic surveys for O&G in the mid- and south Atlantic planning areas

BOEM permits mineral resource use in the OCS, primarily dredging for coastal restoration
Selected Studies: Protected Species and Noise

- Sperm Whale Acoustic Prey Study (SWAPS)
- Improving Cetacean Electronic Data Loggers
- Opportunistic Study of Hearing in Sea Otters
- Sperm Whales and their Response to seismic exploration in the GOM (SWSS)
- Characterization and Potential Impacts of Noise Producing Construction and Operation Activities on the OCS (Parts I and II)
- Evaluating Acoustic Technologies to Monitor Aquatic Organisms at Renewable sites
- Pressure Wave and Acoustic Properties Generated by the Explosive Removal of Offshore Structures
• Marine Mammal and Seabird Surveys of Potential Alternative Energy Sites Offshore Northern California, Oregon, and Washington

• Describing Biologically Significant Marine Mammal Behavior (NOPP)

• COMIDA: Factors Affecting the Distribution and Relative Abundance of Endangered Whales

• Demography and Behavior of Polar Bears Summering onshore in Alaska

• A Marine Biogeographic Assessment of the Main Hawaiian Islands

• Sperm Whales and Bottlenose Dolphins in the GOM

• Pacific Regional Ocean Uses Atlas
Recent Workshops and Partnerships

• Workshop: Marine Mammals and Sound, 2010 (BOEM, NOAA and Navy)

• Workshop - Science Foundations for Ocean Planning in Hawaii: Human Use and Habitat Characterization, 2012

• Workshop - Quieting Technologies for Reducing Noise during Seismic Surveying and Pile Driving Workshop, 2013


• BOEM/FERC MOU on Renewable Energy Hydrokinetic Installations Pacific Region

• OCS Renewable Energy Task Forces: Hawaii, Oregon, and Atlantic
Phase I Study Summary: 2010 – 2015

• Conducted broad scale surveys

• Developed spatially explicit models

• Tagged loggerhead sea turtles

Phase II Study Objectives: 2015 - 2019

• Continue core survey work

• Integrate and cross-validate fine-scale and broad-scale survey results

• Tag seabirds, cetaceans and seals

• Incorporate passive acoustic survey and large whale monitoring efforts

• Analytical and modeling results from the first phase of AMAPPS will inform which topics to prioritize during the next 5 year phase
• Address integrated **ecosystem dynamics & monitoring** through coordinated **observational & modeling** efforts

• Focus on the **Beaufort Sea**

• Facilitate the incorporation of **technological innovations** through **TFORT**

• Aligns with the National Ocean Policy, the Interagency Arctic Research Policy Committee’s 5-year research priorities and USGS report recommendations
Thank You!

Source: Photographer: Raymond VanBuskirk, NOAA NMFS ASF/EMMML, NMFS Permit No. 14245 Funded by BOEM