Assessing Potential Impacts of Offshore Wind Energy Development and Operation on Near- and Inshore Marine Mammals

What's the issue?

Offshore Wind Energy (OWE) production may lessen the impacts of global climate change on marine mammal populations in the long-term by reducing our reliance on fossil fuels. However, the potential immediate impacts of the development and operation of OWE on marine mammal populations and individual health, habitat use, abundance, and sensitivity to disturbance are not well understood. This is particularly true for near and inshore populations because much of the management focus has been on understanding and mitigating the potential impacts of OWE (wind turbines) on marine mammals in the operational phase, not on the nearshore exploratory and infrastructure development phases. The One Health approach is particularly well suited to construct a multifaceted baseline understanding of near and inshore marine mammal health and ecology to provide the foundation from which to assess and mitigate potential impacts to the nearshore ecosystem. A consortium of Federal, State, Tribal, and academic institutions have proposed a study of harbor seals in Humboldt Bay - a proposed site of infrastructure development - to support informed local and coastwide OWE development. Now is the time to build a baseline understanding of this relatively undisturbed population of seals before OWE development and operation begin. In addition to documenting baseline conditions in Humboldt Bay, the goal of this proposed project is to bring marine mammal and cultural experts together to develop and implement standardized protocols to assess harbor seal baseline health and ecology that can be used before the development of new OWE projects along the entire coastline.

Project Lead: Dr. Dawn Goley, California Poly Humboldt

References:

Offshore Wind Energy and Marine Mammals - NOAA
Bureau of Ocean Energy Management - Offshore Renewable Activities
California Marine Sanctuary Foundation- Offshore Wind Environmental Monitoring Guidance
Offshore wind energy - Schatz Energy Research Center
Humboldt Bay Offshore Wind Heave Lift Marine Terminal Project - Humboldt Bay Harbor District
North Coast Offshore Wind - Environmental Protection Information Center (EPIC)
Regional Wildlife Science Collaborative for Offshore Wind - Atlantic