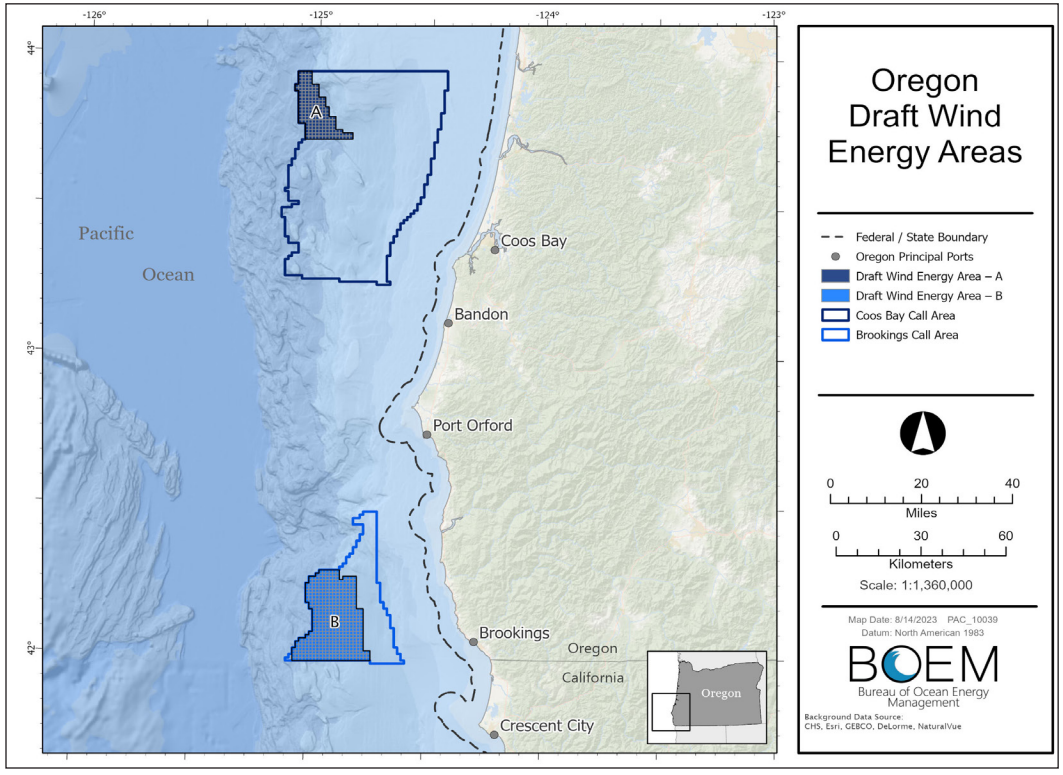
# How were the Draft Wind Energy Areas for Oregon identified?




The Oregon coastline holds great potential for wind energy development, as almost the entire area has sustained ideal wind speeds (7-10 m/s).

Finding suitable locations and understanding the costs and benefits can be overwhelming as ocean regions support many industries and contain sensitive natural and cultural resources. NOAA's National Centers for Coastal Ocean Science (NCCOS) partnered with the Bureau of Ocean Energy Management (BOEM) to use spatial science and best available data to develop a spatial model to inform siting of Oregon's draft wind energy areas. Data were gathered from academia, government, industry, Tribal Nations, and local knowledge sources to better understand the ocean ecosystem.

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## Spatial Planning Process

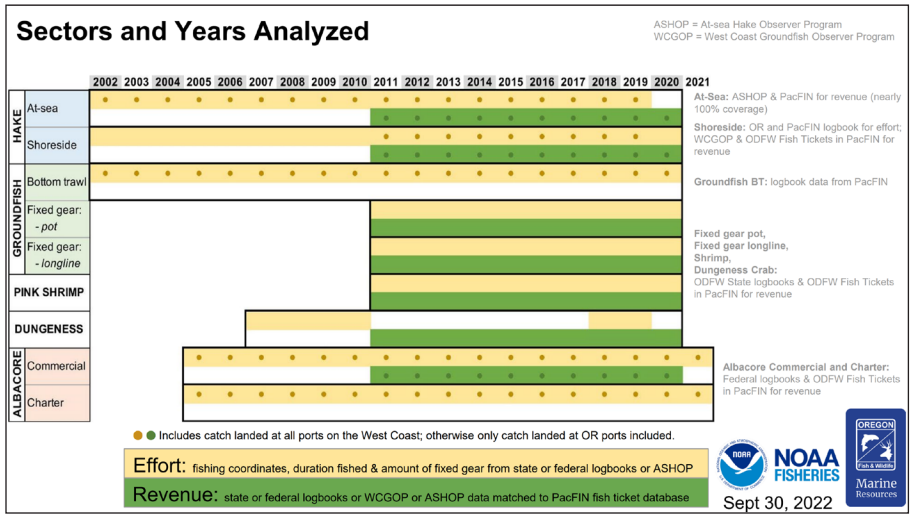
1. A 10-acre grid was used to subdivide the Call Area for spatial modeling.
2. Many stakeholders and experts were engaged to identify and collect data. Data were then selected to go into the spatial model and compatibility scores (between 0-1) were assigned.
3. A spatial suitability model was developed to calculate suitability scores for each 10-acre grid cell.
4. A cluster analysis was used to identify groups of cells with the highest suitability.
5. BOEM used these spatial modeling results to inform identification of draft WEAs for public review.

# Fisheries Layers in the Submodel

Considering the importance of fishing in Oregon, NOAA Fisheries' Northwest & Southwest Fisheries Science Centers and the Oregon Department of Fish and Wildlife (ODFW) teamed up to develop a novel combined data layer for select commercial and recreational fisheries. Overall, nine fisheries data layers were combined into a single composite data layer to create the Submodel.

## Data Layer Development

A full description and methods for fisheries data can be found in the fisheries data appendix of the NCCOS report. Data layers were created by combining fishing effort and revenue data into a single "ranked importance" value for grid cells in the Call Areas. Both effort and revenue data were included in each, except for charter albacore and groundfish bottom trawl, which only used effort data. The geometric mean across all nine fisheries was calculat-ed and used as the initial suitability score for each grid cell, which weights each fishery equally.




Additional considerations were made for the four trawl fisheries that operate within the Call Areas. To represent the space that trawl fisheries need to reasonably operate, NOAA Fisheries and ODFW identified three areas that contained 75%, 60% and 50% of trawl fishing effort and revenue. BOEM chose to use the most conservative 75% area in the model, assigning it a relative suitability score of 0.001. Areas outside of this 75% area retained their rank importance values. This approach was selected because it was the most conservative that did not contain constraints.