

Appendix B – Nearshore Data Modeling, Analysis, and Synthesis

Background

Ecosystem models can help inform ecosystem-based management by considering the interactions and dependencies among species and the relationships between species and habitats – both of which will inform our understanding of the nearshore ecosystem function. Trophic models can document changes in the trophic functioning of ecosystems, can incorporate direct and indirect effects, and document shifts in the distribution and abundance of coastal marine species. In addition, understanding of trophic and community structure and dynamics in nearshore habitats can inform resiliency of biotic life under changing environmental conditions.

The prioritized projects below highlight Oregon nearshore data modeling, analysis, and synthesis. Projects considered under this RFP section (as applicable to specific project descriptions) will develop or contribute to trophic models that inform understanding of Oregon’s nearshore and estuarine ecosystems, or improve understanding of nearshore estuarine ecosystems relative to carbon cycling, storage, and sequestration potential.

Note: *Proposers should refer to the Key Research Questions portion of the RFP to demonstrate the linkage(s) between the proposed research and OOST nearshore research priorities as well as the intent of Section 419 of House Bill 5202.*

\$200,000 for 1–3 awards ranging from \$50,000–\$200,000 each:

1. Develop or contribute to trophic models of Oregon’s nearshore and estuarine ecosystems.
2. Develop or contribute to models that improve the understanding of nearshore and estuarine ecosystems relative to carbon cycling, storage, and sequestration potential.

Purpose:

Integrating and analyzing nearshore species and habitat data will inform understanding of the interactions and dependencies among species and the relationships between species and habitats – both of which will inform our understanding of the status, condition, and functioning of Oregon’s nearshore ecosystem.

Deliverables:

The trophic dynamic model produced by the funded project resulting from this RFP should incorporate existing and new datasets and leverage the nearshore modeling work conducted in neighboring coastal states. The model should be scalable to localized phenomena up to regional scales, and should address research questions related to the interactions among the biological components of the ecosystem and the interactions between biological components and physical drivers.