

Appendix A – Nearshore Data Collection

Background

Oregon’s nearshore ecosystems provide a suite of valuable ecosystem services that benefit people and coastal communities, including recreation, harvest, education, and research, to name a few. Understanding the distribution and abundance of species that occupy Oregon’s nearshore is critical to informing ecosystem-based management² and developing strategies to ameliorate the effects of ocean acidification and other climate change stressors.

Oregon’s nearshore resources remain poorly understood, despite the increases in nearshore research and monitoring that have occurred during the past decade. Oregon’s Nearshore Strategy³ identified numerous limiting factors to sustainably managing nearshore resources, including inadequate data and analysis on key species (e.g., insufficient data collection and analysis, lack of life history information, and a prolonged lag time for making use of data), inadequate data on Oregon’s nearshore habitats, and inadequate monitoring. Significant data gaps exist in species, habitat, oceanographic, ecosystem, human dimensions, and human development and impact data sets. Filling these data gaps will provide information about the abundance, distribution, and status of Oregon’s nearshore resources to support effective stewardship and management. This RFP helps to meet the need of providing sources of funding to topics that have traditionally been underfunded.

The Strategy outlined research and monitoring actions needed to manage Oregon’s nearshore in a sustainable fashion.

- **Species Data** – Gathering information for all key nearshore species.
- **Habitat Data** – Gathering information on Oregon’s nearshore bathymetry, substrate, and habitats, including the effects of human interactions.
- **Monitoring Data** – Monitoring species and habitat changes to evaluate the status of resources and trends and guide future management actions associated with Oregon’s nearshore ecosystem.

The prioritized focus areas below address the priorities of Section 419 of House Bill 5202 and highlight three key areas in which the State needs more information. Data generated by proposed nearshore research and monitoring projects should be able to stand alone (i.e., generate useful data that address the key research questions identified in this RFP as well as the intent of Section 419 of House Bill 5202 with one-time funding), and/or contribute substantially toward development of monitoring methods as well as a site(s) for long-term monitoring (see RFP Appendix A for additional requirements). Applicants are encouraged to consider how/if collected data could also inform understanding of shorter-term status and trends, such as the impact of a single environmental impact (heat wave or hypoxic event) or variation in species abundance over a single year.

Nearshore Data Collection

\$600,000 for 4–6 awards ranging from \$50,000–\$200,000 each:

1. Contribute data on the distribution, abundance, and status and trends of nearshore species and habitats. Species and species assemblages of interest include, but are not limited to:

² Oregon Nearshore Strategy. 2006. Oregon Department of Fish and Wildlife. 109pp.

³ Ibid.

- Abalone (*Haliotis* spp.)
 - Commercially and recreationally important juvenile fishes
 - Kelp, eelgrass, and marine and estuarine aquatic vegetation (*Nereosystis luetkeana*, *Zostera* spp., *Phyllospadix* spp., *Macrocystis* spp., and other subtidal and intertidal seaweeds and marine macrophytes)
 - Sea Urchins (especially *Mesocentrotus franciscanus*, *Strongylocentrotus purpuratus*)
 - Seastars (especially *Pycnopodia helianthoides*)
 - Sea otters (*Enhydra lutris*)
 - Native Olympia oysters (*Ostrea lurida*)
2. Contribute data and analyses to complete the state’s inventory and mapping of kelp and marine and estuarine aquatic vegetation in estuaries and nearshore habitats.
 3. Contribute data on ecologically important inter-species and species-habitat associations.

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.

Purpose:

Oregon desires nearshore marine resources that are thriving, healthy, and functional. Realizing this vision requires adequate data and information on key nearshore species, the status and trends of nearshore habitats, and the relationships and interactions among species and habitats.

Geographic Scope:

Eligible sampling locations include Oregon’s nearshore, which is defined for the purposes of this RFP as the “area from the outer boundary of Oregon’s Territorial Sea at three nautical miles to the supratidal zone affected by wave spray and overwash at extreme high tides on the ocean shoreline, and into the portions of estuaries where species depend on the saltwater that comes in from the ocean.” Nearshore habitats, as defined by Oregon’s Nearshore Strategy, include neritic (open water), subtidal soft bottom, rocky subtidal, sandy beaches, rocky intertidal, and estuaries. Sample locations must be justified in project descriptions as to their relevance to Oregon’s Nearshore Strategy and Oregon’s Territorial Sea Plan – Rocky Habitat Management Plan.

Deliverables:

Data collected by funded projects resulting from this RFP should contribute substantially to our understanding of the distribution and abundance of nearshore species and habitat, inventory and mapping of kelp (*Nereosystis luetkeana*) and marine and estuarine aquatic vegetation in the nearshore, and/or nearshore interspecific and species-habitat associations. Proposals should clearly identify which research questions

Applicants must identify which of the research questions identified above will be addressed via this project. Applicants are also encouraged to consider the data needs described in [Oregon’s Nearshore Strategy](#), [Oregon’s Draft Rocky Habitat Management Strategy](#) (Part III of Oregon’s Territorial Sea Plan), [2016 Oregon Ocean Science Summit Report](#), and the [Oregon Climate Adaptation Framework](#).

Projects can leverage other regional ongoing projects or historical datasets from Oregon's nearshore.