REQUEST FOR PROPOSAL (RFP): Oregon Nearshore Science and Monitoring Research

**Background**

**House Bill 5202**

Section 419 of [House Bill 5202](https://olis.oregonlegislature.gov/liz/2022R1/Downloads/MeasureDocument/HB5202/Enrolled) was passed by the Oregon legislature and signed by the Governor in 2022. A key provision of the bill states:

“Notwithstanding any other provision of law, the General Fund appropriation made to the Department of State Lands by section 1, chapter 545, Oregon Laws 2021, for the biennium ending June 30, 2023, for deposit into the Oregon Ocean Science Fund established under ORS 196.567, to be expended by the Oregon Ocean Science Trust, is increased by $1,000,000, for **science and monitoring on nearshore keystone species including sea otters, nearshore marine ecosystems, kelp and eelgrass habitat and sequestration of blue carbon**.”

The Oregon Ocean Science Trust (OOST) requests proposals for nearshore research science and monitoring to achieve the nearshore science and monitoring goals described in Section 419 of HB 5202 as well as OOST nearshore research priorities.

**Guiding Documents**

Oregon’s coastal communities and economies depend on a thriving marine ecosystem, including healthy and productive nearshore species and habitats. Nearshore species and habitats have the potential to experience impacts as the human population grows in and around nearshore environments. Numerous guiding documents have been developed to address the risks and vulnerabilities to Oregon’s nearshore ecosystems and habitats, including [Oregon’s Nearshore Strategy](https://oregonconservationstrategy.org/oregon-nearshore-strategy/), [Oregon’s Draft Rocky Habitat Management Strategy](https://www.oregonocean.info/index.php/opac-documents/workinggroups/tspwg-p3/rocky-shores-update-text-editing/2628-draft-rocky-habitat-management-strategy-opac-november-2021-cleancopy-1/file) (Part III of Oregon’s Territorial Sea Plan), [2016 Oregon Ocean Science Summit Report](https://www.oregon.gov/dsl/OOST/Documents/OOST_summitreport2016EDITED.pdf), and [Oregon Climate Adaptation Framework](https://www.oregon.gov/lcd/CL/Documents/2021_CLIMATE_CHANGE_ADAPTATION_FRAMEWORKandBlueprint.pdf). Better understanding Oregon’s nearshore species and habitats can guide actions that sustainably conserve the ecological functions of nearshore marine resources as these resources experience the effects of climate change stressors.

**Oregon Ocean Science Trust**

The [Oregon Ocean Science Trust](https://www.oregonoceanscience.com/) is an independent nonprofit dedicated to promoting and supporting peer-reviewed, competitive research and monitoring that leads to increased knowledge and understanding of Oregon’s ocean and coastal resources and blue carbon systems. The Trust seeks to promote peer-reviewed science, encourage collaboration, and connect ocean and coastal research and monitoring with funding.

The priorities of the Oregon Ocean Science Trust are:

* Distribution and abundance of nearshore species and habitats.
* Species and habitat associations and interactions that can inform ocean health (ecosystem function).
* The effects people have on nearshore resources and the effects of nearshore resources on people and coastal communities.
* The effects of climate change and ocean acidification on species and their habitats and how these key stressors influence ecological function and species in nearshore habitats now and in the future.

# SCHEDULE

The following is the RFP schedule. Dates listed are subject to change.

***RFP Announcement:*** *October 1, 2022*

***Informational Webinar(s):*** *October 15, 2022* ***Proposal Due Date:*** *~~December 1, 2022~~ December 15, 2022*

***Issue of Notice to Intent to Award:*** *January 15, 2023*

***Project Start Date:*** *March 2023*

***Project Final Report:*** *March 2025*

# FOCUS AREAS

The OOST announces this opportunity as a one-time investment using state funds as allocated through HB 5202. Total project award amounts were adjusted to support the implementation of competitive grant opportunities. The list of research and monitoring questions for both focus areas was developed by the OOST in consultation with a subcommittee with expertise in Oregon’s nearshore resources. Each project is described in more detail in separate appendices, as noted below.

**The two focus areas[[1]](#footnote-2) for projects supported by this RFP are:**

1. **Nearshore Data Collection**
2. **Nearshore Data Modeling, Analysis, and Synthesis**

**A separate Request for Quotation to develop a nearshore data portal that includes all of Oregon’s publicly-available nearshore data, is simultaneously being announced to achieve the goals of HB 5202.**

This RFP includes a total of $900,000 in competitive grants that will be awarded in compliance with the requirements and based on the intent of research focus articulated in [HB5202](https://olis.oregonlegislature.gov/liz/2022R1/Downloads/MeasureDocument/HB5202/Enrolled) (section 419). OOST has retained 10% of the overall funding available for this RFP to support administration of the grant process and award tracking through the tenure of the grant cycle. Therefore, a total of $810,000 in grant funding will be awarded.

Applicants (e.g., Lead PIs, co-PIs, and others) may apply for multiple projects within each focus area. However, a separate proposal is required for each project (see Proposal Format and Submission). If multiple proposals are submitted, each separate proposal must describe how the multiple projects are complementary, but not reliant, on one another. The Review Panel will evaluate each proposal independently. The submission of proposals for multiple projects can be used as one of many ways for the project teams to demonstrate leveraging resources.

Many of Oregon’s nearshore resources remain poorly understood. Although nearshore research and monitoring have accelerated, significant data gaps exist (e.g., species, habitats, oceanographic, ecosystems, human dimensions, and environmental and social impact). Filling these and other data gaps will provide information about the abundance, distribution, status and trends, and response to environmental stressors of Oregon’s nearshore resources. In addition, filling these data gaps will inform a diversity of synthesis, predictive, and other models to enhance our understanding of the health and function as well as management of Oregon’s nearshore ecosystems. This RFP helps to meet the need of providing sources of funding to topics that have traditionally been underfunded.

## Nearshore Data Collection

***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.***

## $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:

	* 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 helianthodies*)
	* 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.

## Nearshore Data Modeling, Analysis, and Synthesis

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.

## The prioritized focus areas below address the priorities of Section 419 of House Bill 5202 and highlight key areas in which the State needs more information, including Oregon nearshore data modeling, analysis, and synthesis (See RFP Appendix B for additional requirements and sub-topics). 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 or estuarine ecosystems, or that improve understanding of nearshore carbon cycling, storage, and sequestration potential in estuarine and nearshore ecosystems.

## $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 carbon cycling, storage, and sequestration potential (i.e., current stocks and future rates of accumulation or loss) in estuarine and nearshore ecosystems.

**Key Research Questions**

## Focus Area A and B proposers must demonstrate the linkage(s) between the proposed research and the intent of Section 419 of House Bill 5202 (to support “…science and monitoring on nearshore keystone species including sea otters, nearshore marine ecosystems, kelp and eelgrass habitat and sequestration of blue carbon.”) and the applicable key research questions that follow. The OOST encourages applicants to consider proposing work that will address more than one of these questions (where feasible).

* Where are Oregon’s rocky reefs? (Multibeam sonar mapping of rocky reefs to cover gaps in Oregon’s state-waters mapping data (e.g., Rogue Reef))
* What is the character of the benthic habitat of the white zone (the unmapped or poorly mapped areas generally between MLLW and -10 m water depth)?
* Why has Rogue Reef maintained a heathy kelp (*Nereocystis* *luetkeanna*) and red sea urchin (*Strongylocentrotus franciscanus*) population in the face of disruptions on other reefs in the same bioregion (compare biological and physical characteristics of Rogue Reef to similar reefs, such as Orford)?
* What is the distribution, abundance, biomass, cover, and/or density of canopy-forming kelp (*Nereocystis* *luetkeanna*) and other kelp species (*Laminariales* spp.) along the Oregon coast?
* Where are the subtidal algae and seagrasses on Oregon’s reefs?
* How does the presence of kelp (*Nereocystis* *luetkeanna*) and other marine and estuarine aquatic vegetation (or marine macrophytes) affect the trophic structure of the nearshore ecosystem?
* How does the distribution and abundance of kelp (*Nereocystis* *luetkeanna*) species affect the distribution and abundance of fish species of commercial and recreational importance, across life stages?
* How consistently do marine and estuarine aquatic vegetation habitats provide nursery habitat and refuge during the early life stages of key fished species (e.g., rockfish, salmon)?
* What are the effects of seagrass and kelp revitalization/restoration efforts (e.g., structural metrics – seagrass and kelp extent, functional metrics – biodiversity, carbon stock, and genetic monitoring – genetically viable and self-sustaining populations)?
* What indicators can be used to identify suitable restoration areas, approaches, and methods?
* How does marine macrophyte derived biomass (e.g., sloughed fronds, plants ripped out by waves, marine and estuarine-derived biomass, eelgrass) disperse from the point of origin and affect trophic structure or deposit into deep sea habitats where it may be effectively sequestered from the nearshore atmosphere?
* Where are there strongholds of endangered rocky reef species in Oregon, such as *Pycnopodia* and abalone (*Haliotis* spp.)?
* How do nearshore settlement patterns of juvenile fish vary seasonally, by year, by region and by site?
* What is the value of designated marine reserve habitats for protecting fishes during their early life stages?
* How do nearshore settlement patterns vary with changes in oceanographic variables?
* What is the population baseline for abalone (*Haliotis* spp.) in Oregon?
* How far do the effects of urchin (*Mesocentrotus franciscanus*, *Strongylocentrotus purpuratus*) barrens extend beyond the edge of the barren?
* What are the differences in fish, invertebrate, and marine macrophyte communities in areas of high purple urchin (*Strongylocentrotus purpuratus*) concentration vs. areas of low purple urchin concentration?
* What are responses of urchin (*Mesocentrotus franciscanus*, *Strongylocentrotus purpuratus*) culling to local communities?
* In a trophic model,
	+ How do dynamics change with the decline in *Pycnopodia* and other sea stars, and how do dynamics change if *Pycnopodia* are reintroduced?
	+ How do dynamics change if urchins (*Mesocentrotus franciscanus*, *Strongylocentrotus purpuratus*) are culled?
	+ How would various levels of kelp (*Nereosystis luetkeana*) loss/restoration in the future change food availability for commercially important species such as abalone (*Haliotis* spp.) or urchins (*Mesocentrotus franciscanus*, *Strongylocentrotus purpuratus*)?
* Does suitable habitat and sufficient prey exist to support reestablishment of a population of sea otters (*Enhydra lutris*) on the Oregon coast? Can we validate and build on previous research regarding and habitat suitability for sea otters on Oregon coast? Can we model impacts on site specific re-introduction scenarios?
* What is the community composition and relative abundances of keystone species, habitats, and sea otter (*Enhydra lutris*) prey species at potential sea otter introduction sites?
* What trophic effects can be predicted from modeling the presence of sea otters (*Enhydra lutris*)?
* Could seagrass or kelp forest restoration contribute substantially to carbon sequestration in Oregon?
* What are the amounts of carbon captured, cycled, and sequestered in a defined area (e.g., one acre) of kelp forest or eelgrass bed in Oregon? How does this vary among locations and over time?
* What is the carbon sequestration potential of protecting Oregon’s sandy seafloor and rocky habitats from disturbance (i.e., ocean areas managed with no bottom contact)?
* What is the relationship between upwelling events, El Niño Southern Oscillation cycle and carbon cycling and sequestration in Oregon’s ocean?
* What are available climate mitigation strategies for ocean acidification and hypoxia in estuarine habitats in Oregon (e.g., seagrass restoration, adding discarded calcium carbonate shells to areas of high importance, seaweed aquaculture)?
* How can the amount of carbon captured, cycled, or sequestered by increasing the area and density of kelp, other marine and estuarine macrophytes, and eelgrass beds be translated into economic value to help support long term maintenance and protection of these features?

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# EXPECTATIONS

Proposal applicants should carefully consider and directly address how the proposed research represents a strategic investment of this state funding. Proposals should clearly describe how the proposed project deliverables and work products will address the intent of Section 419 of House Bill 5202 and the needs identified by OOST as research priorities as they relate to meeting the goals and objectives of Oregon’s Draft Rocky Habitat Management Strategy, [The Oregon Nearshore Strategy](https://oregonconservationstrategy.org/oregon-nearshore-strategy/), the 2016 Oregon Ocean Science Summit Report, and [Oregon Climate Adaptation Framework](https://www.oregon.gov/lcd/CL/Documents/2021_CLIMATE_CHANGE_ADAPTATION_FRAMEWORKandBlueprint.pdf). Applicants also need to clearly demonstrate how the proposed work implements, complements, and/or amplifies local, regional, and national nearshore science and monitoring efforts.

Applicants are expected to use Best Available Science, including, but not limited to, Traditional Ecological Knowledge, in the development of proposals and implementation of projects if awarded and as applicable. [Traditional Ecological Knowledge is a cumulative body of knowledge, practice, and belief evolving by adaptive processes and handed down through generations by cultural transmission, about the relationship of living beings (including humans) with one another and with their environment](https://www.noaa.gov/sites/default/files/2021-11/19-065933-Traditional-Knowledge-in-Decision-Making-Document-Signed.pdf). Best Available Science should incorporate accuracy, reliability, and relevancy of methodology, approaches, and interpretation of data and other information throughout the process of conducting. It is expected that the proposed research concepts of “Cause No Harm” and “Free, Prior, and Informed Consent” responsibilities are adopted and adhered to when consulting with any Tribe, indigenous community, or Tribal member.

Priority will be given to locations and/or data not previously obtained, or data that can be directly compared to historical data, to evaluate change through time and initiate a longer-term monitoring effort at that site(s). Applicants are required to clearly document metadata, methodologies, and other relevant materials.

Awardees shall submit resulting data and work products to a public database and to the appropriate state agency in a timely manner (described in contractual agreement with successful proposers), to allow use by regional resource managers and community planners. Applicants should describe a timeline for when data and other work products will be available as well as the mechanism of delivery to the public or other users. Appropriate national and state data archives and agencies include, but are not limited to, the following:

* West Coast Ocean Data Portal – Ocean Health Scorecard Project
* National Oceanographic and Atmospheric Administration
* Oregon Department of Fish and Wildlife – Shellfish Assessment Team; Oregon Marine Reserves Team
* Oregon Department of Land Conservation and Development – Oregon Coastal Management Program
* Oregon Department of Environmental Quality - Oregon Water Quality Assessment Reports and the Oregon Triennial Water Quality Methodology Review calls for data and associated data portals

Short, biannual reporting updates are required for all successful applicants using an online template provided by the OOST. Additionally, a written project summary report to the OOST and presentation to the OOST board and the public is required at the completion of each project. Requirements include public dissemination of information and work products gathered from this funding call.

Project outreach is expected. Applicants should identify the kind(s) of activities proposed (e.g., outreach meetings, publications, infographics) and the target audience for outreach. Please include information about the scale of proposed outreach activities (e.g., number of participants, events, materials, locations) and any proposed partners. The OOST strongly encourages engaging with interdisciplinary partners with expertise and experience in public outreach.

Applicants should also consider how project outcomes may be used for future nearshore communications and public engagement. Project deliverables should include summaries of key outcomes and audience appropriate messaging that can be used by the OOST to educate and build support for future calls to action.

# LEVERAGING

Applicants should clearly state how/if their proposed work will be leveraged with additional resources brought to the funding opportunity. Examples include providing specialized sampling equipment, providing education/outreach support, and/or augmenting existing studies. Leveraging to maximize the impact of limited state resources is encouraged, but not required.

# ELIGIBILITY

The OOST encourages the submission of project proposals from a diversity of entities, including, but not limited to, nonprofit community organizations, resource consultants, local governments, tribal governments, Oregon State agencies, universities and community colleges, and other educational entities. Collaborative proposals with a diversity of partner entities are encouraged. Proposals from entities with demonstrated experience working in Oregon will be prioritized. Federal agencies are not eligible to receive project funds, however, federal agencies can be listed as project collaborators for the purpose of leveraging resources and regional expertise.

Eligible applicant(s) must possess the following attributes and/or demonstrated experience to be considered for funding. Applicants should provide specific examples of work in their 1-page Curriculum Vitae (see Proposal Format and Submission) that demonstrate:

* Specialized scientific knowledge relevant to nearshore ecosystems, species, and processes;
* Experience conducting research and monitoring in West Coast nearshore ecosystems;
* In-depth understanding of Oregon’s nearshore ecosystems, species, and habitats on coastal communities; and
* Ability to place project findings in the context of regional resource management, planning, and governance.

# ALLOWABLE EXPENDITURES

Applicants may include up to 15% of the total project cost for indirect project costs. Indirect costs are overhead, or administrative costs, that cannot be readily identified to a specific project or function, but are actually incurred by an organization. Indirect costs include expenses, such as facilities fees/services and administrative time.

# BUDGET

Generalized allowable budget categories that may be included on the budget form and must be justified within the budget narrative.

Salaries, Wages, and Benefits: For each request, provide a position title and estimated budget.

Contracted Services: For services provided by a separate entity performing work, costs should be line itemed and should match the scope of work described in the application. Materials and supplies purchased and provided by the contractor, as well as contractor travel, should be documented here. Do not combine contract costs if more than one contractor is used. Funds cannot be used to pay a federal agency or State Agencies other than Oregon.

Materials and Supplies: Consumable, or non-consumable, items purchased and used during the project are documented here. Include small equipment with costs less than $5,000.

Travel: Document funding needed to support field travel (based on current State of Oregon rates). Funds may also be used to pay for the travel of invited speakers or presenters to workshops or seminars (including PIs and affiliated researchers for presenting results at scientific meetings/conferences or public engagement activities and events).

Equipment: Includes nonexpendable items with a per unit cost of $5,000 or more. Equipment purchased must be retained by Grantee after the grant closes, or request approval from the OOST to transfer the equipment to another entity.

Other Direct Costs: Items that do not fit in the other budget categories, including but not limited to permit fees, registration costs, outreach costs, etc.

Total Indirect Cost: Percentage of total direct costs. Note: Total indirect costs cannot exceed 15% of total direct costs. For example, if total direct project costs are $100,000, total indirect costs cannot exceed $15,000 for a total project cost of $115,000.

# PROPOSAL FORMAT AND SUBMISSION

Applicants may submit an application for more than one project, but each must be submitted as an independent proposal. Applicants must clearly articulate that they will obtain all needed research, collection, or other permits and approvals necessary from State, federal agencies, and other entities that may have regulatory authority over collecting samples, placing equipment, or performing other actions at a given location.

The main narrative for proposals should not exceed a maximum of six pages and must include the following sections: (1) Project Description and Scope; (2) Methods; (3) Data Dissemination and Management; (4) Outreach; (5) Relevance to the Oregon’s Nearshore Strategy, Oregon’s Rocky Habitat Management Strategy, Oregon Climate Adaptation Framework, OOST nearshore priorities, and Section 419 of House Bill 5202; and (6) Milestone Schedule.

Project abstracts should consist of no more than 350 words, be written for a non-technical/specialist audience, and included on a separate title page that also includes project partner names, affiliations, contact information, total timeframe for project, and total cost.

Not included in the six-page limit:

* Figures, tables, and/or maps can be provided separate from the main text of the proposal and should not exceed a total of two pages.
* A 1-page “Literature Cited / References” document can be provided.
* A 1-page “Proposal Articulation” document if a lead PI is submitting proposals to both focus areas.

Project budget narratives should not exceed a maximum of 1-page and must include the following budget categories: (1) Salaries, Wages, and Benefits; (2) Contracted Services; (3) Materials and Supplies; (4) Travel; (5) Equipment; and (6) Other. A separate budget form, which the OOST includes in the RFP application package, is also required to be submitted, and does not count toward the 1-page budget narrative.

Applicants must also include a 1-page Curriculum Vitae for the Principal Investigator (PI), as well as each of the listed project partners (co-PIs or other lead personnel) receiving funds or identified as contributing leverage funding.

Conflict of Interest form(s) (included in the RFP package) are required to be submitted (one per member of the project team). You are NOT eligible if you have a current appointment to the OOST. You MAY have a conflict of interest if you have a past appointment to the OOST.

**Applicants should email a single PDF file version of the proposal with all materials by the RFP deadline of December 1, 2022.**

# REVIEW PROCESS

The OOST will prioritize projects that engage Oregonians in nearshore science and monitoring. The OOST has a broad mandate to advance ocean conservation issues and other statewide ocean planning documents, for the benefit of all Oregonians. Embedded within these mandates are commitments to reach out and engage underserved and under-resourced people and communities who have not traditionally participated in ocean change issues in the past due to various barriers and perceptions, including, but not limited to, ethnicity, race, language, gender, gender identity, sexual orientation, disabilities, or other cultural, religious, or economic status, and other considerations as listed in the 2021 Oregon Climate Equity Blueprint.

Proposals will be evaluated by a Proposal Review Team consisting of members of the OOST advisory board as well as other regional ocean science and community experts. Proposals will be evaluated using a scoring rubric based on the following general guidelines (note: see proposal scoring criteria on next page):

* Quality and rationale of the submitted project to management, research, and educational goals and other components of Oregon’s Draft Rocky Habitat Management Plan, Oregon’s Nearshore Strategy, OOST priorities, and Section 419 of House Bill 5202;
* Geographical area of study focusing on filling regional spatial data gaps;
* Potential for leveraging past, current, and future work;
* Application considerations for local and regional management and other planning needs, including those of tribes, local governments, and state agencies;
* Engagement with underserved or under-resourced people and communities who have not traditionally participated in ocean change issues in the past due to various barriers and perceptions;
* Feasibility, or likelihood, of successfully achieving project goals; and
* Demonstrated commitment to communicate the outcomes of the research.

During the proposal review process, review panel members may seek expert review of proposals, or a portion of proposals. However, only review panel members will be responsible for scoring each proposal based on criteria established prior to the announcement of the RFP.

# RFP STAFF CONTACT

For further information about suitability of potential proposals, the proposal process and eligibility, please contact:

Lisa DeBruyckere, Contractor to the Oregon Ocean Science Trust
Creative Resource Strategies, LLC, OOSTGrants@dsl.oregon.gov

**PROPOSAL SCORING CRITERIA**

**Specific Project Criteria** (as stated in each appendix) (50 Points)

* Project is responsive to the specific criteria stated within the RFP Appendices.
* Project is designed such that the goals and objectives can be met within the timeframe of the proposal.
* Project advances the state of the science through use of robust methods that are clear and understandable in the proposal.
* Project deliverables are clearly defined in the proposal and are in a useful and appropriate format for intended users/stakeholders.
* Project has technically sound management, research, or educational rationale and benefits, which are explained in detail in the proposal.

**Project Team Qualifications** (15 points)

* Principal applicants have specialized knowledge relevant to nearshore research and monitoring.
* Principal applicants have research, or appropriate experience, relevant to the proposed work.
* Principal applicants have a demonstrated understanding of the effects (+ and –) people have on nearshore environments and the suite of ecosystem benefits healthy nearshore resources provide to people and coastal communities.
* Preference will be given to principal applicants that have experience working with species and habitats in Oregon marine ecosystems.
* Preference will be given to projects that include collaborations with local, Tribal, state, and regional partners, even if not receiving project funds for time/and or materials.
* Preference will be given to proposals that incorporate interdisciplinary research teams.

**Project Budget** (15 points)

* Overall project budget is justified and aligned with project goals, outcomes, and timelines.
* Project supplies and materials as well as personnel costs (if any requested) are reasonable to accomplish goals and outcomes and are clearly described in the budget narrative.
* Preference will be given to projects that have potential for leveraging other work (including past funded projects, current funded projects.

**Oregon Community Impacts and Focus** (10 points)

* Project must fill identified data gaps that are specific to Oregon, although may be regional in scope, through alignment with State-wide resource management, planning, and governance initiatives (e.g., [Oregon Climate Adaptation Framework](https://www.oregon.gov/lcd/CL/Documents/2021_CLIMATE_CHANGE_ADAPTATION_FRAMEWORKandBlueprint.pdf), [Oregon Nearshore Conservation Strategy](https://www.oregonconservationstrategy.org/oregon-nearshore-strategy/#:~:text=The%20mission%20of%20Oregon's%20Nearshore,and%20future%20generations%20of%20Oregonians.), [Oregon Territorial Sea Planning](https://www.oregonocean.info/index.php/territorial-sea-planning)).
* Preference will be given to projects that incorporate elements that advance our understanding of human/wildlife interactions in nearshore environments.
* Project must support Oregon community (human and/or ecosystem) adaptation and resiliency by complementing Oregon Action Plans (e.g., [OAH Council](https://www.oregonocean.info/index.php/oah-reports), [Oregon Global Warming Commission](https://www.keeporegoncool.org/reports), [Oregon Climate Research Institute](https://blogs.oregonstate.edu/occri/oregon-climate-assessments/), [Oregon Sustainability Board](https://www.oregon.gov/das/Facilities/Pages/Sustainability-board.aspx), Local Climate Adaptation Plans).

Preference will be given to projects that partner with, engage, inform, and or explore the role of underserved people such as BIPOC communities, rights-holders including tribes, and other members of local communities who have not historically participated in ocean change issues due to various barriers and perceptions, including in co-development of research design, engagement in work, or as beneficiaries of deliverables (see [Oregon Climate Equity Blueprint](https://www.oregon.gov/lcd/CL/Documents/2021_Jan_Climate-Equity-Blueprint.pdf)).

**Information Sharing and Public Engagement** (10 points)

* Project must clearly state what work products will be developed by the project and how access to work products will be considered throughout the project timeline (e.g., use of multiple languages in final products, use of both written and oral presentations at multiple locations around Oregon, considerations of internet access in rural communities, etc.).
* Project must clearly state what data formats will be generated by the project and how data will be disseminated to public databases and to appropriate state agencies in a timely manner.
* Project must clearly define and justify the timeline for data and work product information sharing.
* Project must describe all strategies that advance public engagement.
* Project budget should account for funding needs for outreach.

***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 management[[2]](#footnote-3) 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 Strategy[[3]](#footnote-4) 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:

	* 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 helianthodies*)
	* 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](https://oregonconservationstrategy.org/oregon-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](https://www.oregon.gov/lcd/CL/Documents/2021_CLIMATE_CHANGE_ADAPTATION_FRAMEWORKandBlueprint.pdf).

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

***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.

1. A third focus area, *Nearshore Data Management, Portals, and Hubs*, will be addressed through a separate process. [↑](#footnote-ref-2)
2. Oregon Nearshore Strategy. 2006. Oregon Department of Fish and Wildlife. 109pp. [↑](#footnote-ref-3)
3. Ibid. [↑](#footnote-ref-4)