

# **Recommended Long-Term Funding and Coordination Strategy for Implementing Nearshore Priorities of Oregon**

**Submitted by:**

**Oregon Task Force on Nearshore Research**

**1 August, 2010**

## Executive Summary

As required by HB 3106, the Oregon Task Force on Nearshore Research is recommending a long-term funding and coordination strategy for implementing the nearshore priorities of the state. The strategy builds upon Oregon's existing ocean management and research programs and adds new or modified mechanisms to strengthen the state's ability to obtain scientific advice and set research, monitoring, education, outreach and data coordination and input mechanisms to aid science-informed decision-making to carry out long-term management of ocean resources. After considerable deliberation and evaluation, the Task Force is making four interrelated recommendations:

- 1) ***develop a multi-year Nearshore Strategic Plan and a biennial Nearshore Research and Monitoring Action Plan***
- 2) establish a small, high-level Nearshore Marine Committee to aid in the development of the Nearshore Strategic Plan and in long-term coordination of state activities.
- 3) ***establish the existing Scientific and Technical Advisory Committee (STAC) as an independent science advisory body***
- 4) create a Oregon Nearshore Science Trust as a stand-alone ***non-profit 501c3 entity*** with the overall mission to provide a funding mechanism ***to support the implementation of the state's Nearshore Strategic Plan and Research and Monitoring Action Plan.***

The Task Force has included a number of essential elements within each of these recommendations as well as an estimated cost of implementation. In addition, the Task Force has made several additional recommendations with respect to 1) Engagement of Community Groups and Individuals in the process, 2) Outreach and Education and 3) Data Management and Coordination.

## **Introduction and Rationale**

The Oregon Task Force on Nearshore Research (Task Force) was developed by the state legislature with the passage of House Bill 3106 in June, 2009. The Task Force is charged with recommending “a long-term funding and coordination strategy for implementing the nearshore priorities of the state.” The overall purpose of this strategy is to “ensure the protection and utilization of Oregon’s nearshore resources.” HB 3106 instructs the Task Force to consider key documents that outline existing nearshore priorities in the development of a funding and coordination strategy. The strategy recommended by the Task Force must:

1. Review, consolidate and anticipate nearshore priorities for purposes relating to:
  - a. Researching and monitoring nearshore resources;
  - b. Management of nearshore resources and policy formation; and
  - c. Education and outreach.
2. Identify the funding needs of current and anticipated nearshore programs.
3. Determine transparent procedures and oversight mechanisms for pursuing, securing and administering public and private funds.
4. Identify mechanisms for data sharing to coordinate, collaborate, and reevaluate priorities and programs among state agencies, universities and other stakeholders with an interest in nearshore resources.

The suggested guiding documents for the Task Force recommendations were: 1) Oregon’s Territorial Sea Plan, 2) Oregon Nearshore Marine Resources Management Strategy, 3) the West Coast Regional Marine Research and Information Plan developed by Sea Grant and 4) the West Coast Governor’s Agreement on Ocean Health Action Plan. In addition, the Task Force contracted a study to assess the major, ongoing, research activities in the state.

The Task Force, in accordance with HB3106, believes that it is important to have unbiased, science informed policy and management of Oregon’s Nearshore environment. To achieve this, the scientific approach needs to be prioritized, coordinated, targeted at key issues and be funded at higher levels through unbiased processes that ensure that the science is trusted and free of conflict of interest. This is a key, overarching recommendation of the Task Force.

Currently there is insufficient state funding to meet the information needs demanded by current use conflict over the Territorial Sea. In addition, there is no coordinated approach to identify specific research or monitoring needed to acquire data and information to support critical management decisions. Also, there are fundamental needs for better coordination and collaboration between institutions and stakeholder communities. In the short term, key issues will continually challenge our scientific understanding but will also provide significant opportunities to develop and implement agency coordination, stakeholder involvement in process, and critical research and monitoring efforts. The guiding documents illustrate the breadth and complexity of the nearshore issues facing the state of Oregon and the region that will continually challenge our scientific understanding but will also provide significant opportunities to develop and implement coordination, stakeholder involvement in process and critical research and monitoring efforts. The Task Force recommendations address how to meet the needs that are not already being met by existing funding for agencies and institutions, as well as, how to improve the coordination and stakeholder engagement processes to leverage efforts across the

state to attract funding for these additional needs without compromising Oregon's agenda for how to manage its nearshore territorial sea.

The Task Force recognizes that investment in a knowledge-based approach to nearshore issues is vital. Put simply, an investment strategy for performing nearshore research will allow us to make better-informed management decisions about utilizing and protecting nearshore resources, which will create better long-term economic and ecological stability for citizens of Oregon. This report presents a strategy that builds upon Oregon's existing ocean management and research programs. It adds new and modified mechanisms to strengthen the state's ability to obtain unbiased scientific advice, set relevant priorities for research and monitoring, engage communities, enhance education and outreach, and provide data coordination.

### **Task Force Process**

The Task Force met 8 times since December 2009 (Appendix A, Table 1), exploring strategy components to meet the directive from HB3106. The Task Force worked entirely through consensus. At the first meeting, the Task Force elected a Chairperson (Brandt) as required by the legislation and also elected a Vice-Chairperson (Ackerman) and an Operations Team (Brandt, Ackerman, Silvia, Braby) that provided the continuity between full Task Force Meetings. The Task Force also created a number of working subcommittees, and brought in expert speakers and panelists as well as hired contractor services through a competitive process to evaluate institutional frameworks used in other states and countries. With a team of committee members from multiple stakeholder groups and management institutions (Appendix A, Table 2), we have developed recommendations using guiding principles including:

- Authentic collaboration (HB3106, SECTION 1. (5)(d))
- Sharing of data and information (HB 3106, SECTION 1. (5)(d))
- Transparency of funding process (HB3106, SECTION 1. (5)(c))
- Scientific rigor and peer-review (social and natural sciences)
- Innovation and creativity in problem-solving
- Use of existing bodies and processes where available to expedite the process and for enhanced efficiency and fiscal conservation.
- Meaningful Community engagement, outreach, and education

### **Nearshore Strategic Plan and Nearshore Research and Monitoring Action Plan**

***The Task Force recommends that the State of Oregon should develop a multi-year Nearshore Strategic Plan and a biennial Nearshore Research and Monitoring Action Plan.***

Central to the successful cooperation and coordination of the recommendations put forth by the Task Force would be the development of a multi-year Nearshore Strategic Plan (NSP) and a biennial Nearshore Research and Monitoring Action Plan (NRMAP). The development of an institutionalized, Oregon Nearshore Strategic Plan through an inclusive and transparent process

is vital. The development of this plan would be initiated and led by a high-level Marine Committee (described below). This Strategic Plan ***would cover a 6 year period and would be evaluated and updated every two years.*** The NSP would describe the state's nearshore includes broad-based goals and issue priorities and guide the State's nearshore research, monitoring, community engagement, education and outreach, and data management activities. The Task Force recommends that the NSP and biennial updates be reviewed and approved by ***1) the Land Conservation and Development Commission; 2) the Oregon Department of Fish and Wildlife Commission, and 3) the Oregon State Lands Board.***

The NSP would be the basis for the development of a Nearshore Research and Monitoring Action Plan (NRMAP). The NRMAP would describe the specific scientific research and monitoring priorities required to achieve the goals set out in the NSP. ***The NRMAP would be developed by the STAC (see below).***

Overall, these two plans would provide direct guidance to the funding entity (described below) in acquiring and allocating funds for research, monitoring and other activities to meet the state's science information needs relative to nearshore policy and management objectives.

The Task Force specifically recommends that the NSP and NRMAP include:

- Community engagement mechanisms to involve Oregon community-based marine stewardship groups and the broader citizenry in nearshore research and monitoring
- Education and Outreach enhancement strategies
- Data management and coordination strategies

### **Nearshore Marine Committee**

***The Task Force recommends that a Nearshore Marine Committee be established to aid in the development of the Nearshore Strategic Plan and in long-term coordination of state activities.***

The Marine Committee should be comprised of the members listed below which include key state agencies responsible for nearshore management, stakeholder advice, science advice, and access for the public at large.

- ***Representative of the Oregon Department of Land Conservation and Development***
- ***Representative of the Oregon Department of Fish and Wildlife***
- ***Representative of the Oregon Department of State Lands***
- ***Representative of the Oregon Ocean Policy Advisory Council***
- ***Representative of the Scientific and Technical Advisory Committee***
- ***An appointed Oregon "citizen at large"***

The Nearshore Marine Committee would be responsible to:

- A. Develop, regularly evaluate, and update a NSP through an open and transparent public process that includes the public, and local, state and federal entities***
- B. Provide continual coordination of statewide efforts in nearshore research, monitoring, community engagement, education and outreach, and data management.***

## Marine Science Advice

**The Task Force recommends that the Legislature establish the existing Scientific and Technical Advisory Committee (STAC) as an independent science advisory body.**

At present, Oregon has no formal independent and trusted scientific advisory body to directly advise the Executive branch, including state agencies, or Legislature on scientific issues related to nearshore ocean management and policy or on priorities for scientific data, research and monitoring, outreach or educational needs. The Scientific and Technical Advisory Committee (STAC) required in ORS 196.451 currently advises the Ocean Policy Advisory Council “in the performance of its functions”. The 2009 Legislature directed the STAC to advise the Oregon Department of Fish and Wildlife (ODFW) on implementation of marine reserves during the 2009-2011 biennium pursuant to HB 3013. This expanded role has proven valuable in the scientific review of the marine reserves designation and monitoring processes. Neither responsibility covers the scientific advice needed for the much broader nearshore issues. The Task Force agrees that an independent scientific advisory body is necessary for the development of the state’s NRMAP and to provide scientific evaluation and review of scientific issues relative to state nearshore priorities. Such a body is needed to ensure that the state’s goals and objectives are science-informed.

***The Task Force further suggests that the STAC membership be expanded to include a wider range of scientific disciplines*** to better serve the more comprehensive needs of the state. The Task Force proposes that expansion of the STAC membership proceed as follows: ***Current STAC members recommend new disciplines that need to be represented and members to serve those roles. New members would be approved by STAC members according to the National Academy of Sciences model.*** Acceptance of new members would be based on individual expertise, lack of conflict of interest, and availability of time to serve.

The STAC would serve four primary functions:

- A. ***Prepare the Nearshore Research and Monitoring Action Plan (NRMAP) every two years in accordance with revisions and updates put forth by the Marine Committee’s Nearshore Strategic Plan.*** The NRMAP would describe ***research and monitoring priorities*** that need to be completed to address the priorities and goals set forth in the NSP. The NRMAP would additionally provide an estimated budget required to complete the recommended projects.
- B. ***Provide science advice to the Marine Committee, OPAC, Governor, Legislative Branch and state agencies related to the goals and priorities in the NSP and the NRMAP.*** In this role the STAC ***could convene sub committees***, sponsor symposia, panels of experts, technical reports, or conduct special studies as needed to address emerging scientific and data needs. ***STAC may also respond to other requests by private or public entities.*** Such requests will be accepted on ***a case-by-case basis and dependent on relevance to the NSP*** and available funding to complete the request. ***STAC may also initiate inquiry on its own.***

- C. ***Advise the funding entity*** (the Trust), by developing standards or procedures to help ensure that the results of scientific research or monitoring are high-quality science and consistent with the NRMAP.
- D. ***Aid the Marine Committee in preparing the NSP.*** All suggestions offered by STAC will be through the STAC representative who sits on the Committee.

The Task Force recommends that the following principles frame the STAC composition and mission:

- Seek and utilize expertise based upon topic, without regard to the geographic location of the expertise;
- Provide balance and breadth among disciplines to cover strategic needs avoid conflicts of interest in the scientific review process; and
- Ensure the integrity of the scientific process (i.e. rigorous; repeatable).

## **Oregon Nearshore Science Trust**

**Decision Point: Who ultimately makes the decision on which proposals will be funded?**

**Decision Point: Did we agree not to specify who is on the board as described below?**

**Decision Point: What do we call the Trust?**

**Decision Point: Do we agree with the second paragraph below as background?**

***The Task Force recommends that an Oregon Nearshore Science Trust be created as a stand-alone non-profit 501c3 entity with the overall mission to provide a funding mechanism to support the implementation of the state's Nearshore Strategic Plan and Research and Monitoring Action Plan.***

The Task Force recognizes that 1) The demand for nearshore research, monitoring, data management, education, and outreach outstrip available funding , 2) The state does not or cannot take advantage of all potential funding sources, especially from non-governmental sources, 3) Coordinated use of available funds could stretch scarce resources and leverage projects that otherwise could not be completed and 4) The state is in need of a trusted and transparent mechanism to pursue, receive and allocate funding from a wide range of sources to address nearshore research, monitoring, monitoring, education, outreach, and data management.

The Task Force recommends that an Oregon Nearshore Science Trust be created as a stand-alone ***non-profit 501c3 entity*** with an Executive Director ***and a very small Board of Directors of diverse membership to oversee its functions and set general policies.*** The Board of Directors should be independent of members of the Marine Committee, OPAC, and STAC. This Trust would be safeguarded with clear, strong procedures and standards to seek and receive funds only from sources interested in funding priorities as described in the NSP and the NRMAP. The overall mission of the Trust would be ***“to support the implementation of the state's Nearshore Strategic Plan and Research and Monitoring Action Plan”***. Such a nonprofit body is the mechanism frequently used in analogous situations in other states, such as in Washington and California, to enable diverse private and public sources to contribute to an entity whose

objectives and purposes are coincident with those of the state while retaining high standards for accountability and a transparent process of decision-making.

The Task Force suggests that the Trust could be chartered (i.e. incorporated) in one of several ways: by another party at the specific direction of the legislature, by the legislature itself, or by action of the Governor. Regardless of the actual method of chartering, it would be beneficial for the Oregon Legislature to confer official approval of the formation of such an entity

The Task Force recommends the following basic functions for the Trust:

- ***Pursue, receive, and hold funds from many sources including state, federal, and other public funds, private foundations, businesses, individuals, and other organizations.*** The Trust would accept funds only for purposes consistent with the Trust's mission to support the implementation of the NSP and the NRMAP.
- Allocate funds through a competitive peer-review process and relevant to the priorities set within the NSP and NRMAP pursuant to by-laws and procedural guidance documents adopted by the Board. The Trust should consider using existing structures and processes to maximize efficiencies and minimize costs. The Task Force recommends that the Trust employ a competitive, peer-review process (See Appendix C for definitions) for all funding allocations to support the priorities of the NSP and NRMAP, such as research, monitoring, data management, outreach and engagement. As specified by the goals and objectives in the NSP, the Trust will also directly allocate funds (not using a competitive peer-review process) to Oregon state agencies consistent with legislatively approved spending limitation.
- Manage grants and funded projects. This includes ensuring that grantees are performing work as proposed, measuring impacts of funded projects, collecting complete reports on funded work, ***ensuring results are evaluated by technical experts, and*** making all results of funded work available to the public in a timely manner.

For proposal-driven processes, the Trust, in collaboration with the STAC, would develop standards and procedures based on the following principles to ensure the scientific integrity of the use of these funds using existing processes when available.

- Scientific integrity: provide a firewall between funder and research methods and results
- Transparency: be open, neutral, transparent through a trusted process
- Consistent with the current NSP and NRMAP
- Value-added: augment research systems that currently exist and leverage funding success such as through matching funds
- Fiscal conservatism: be administered with low overhead
- Accountability through annual reports to public/legislature on research results

**NOTE: NEXT FOUR**  
**SECTIONS (pages 10**  
**-14) HAVE NOT**  
**BEEN DISCUSSED**

## Further Recommendations of the Task Force

### Engagement of Community Groups and Individuals

Oregon's Statewide Planning Goal #1 established the charge **“To develop a citizen involvement program that insures the opportunity for citizens to be involved in all phases of the planning process.”** Communities, as well as individuals, possess a wealth of knowledge and expertise on our nearshore resources. This knowledge is extremely valuable to help inform decision making, yet it is often hard to capture without formal mechanisms for community involvement<sup>1</sup>. Active participation of communities is essential to secure and maintain support for coastal and ocean management (Hoffman Report #6). A robust public process to engage community groups must be transparent, include broad and balanced representation of stakeholders, and provide multiple pathways for participation.

The Task Force recognizes that enhancing community capacity will strengthen the knowledge base of our citizenry and enhance our state's ability to address nearshore research needs in the long-term.

The Task Force additionally recognizes that many existing groups in Oregon actively participate and collaborate with the state adding both experiential and technical knowledge to state processes. These groups include: a broad array of non-profit mission-based organizations; academic and community-based collaborative research groups; and community teams or interest-based groups established around specific issues. Existing community groups employ a variety of mechanisms to participate and collaborate in state efforts. Each has a unique breadth of expertise specific to their own interest, the issues they focus on, and often reflective of the size and characteristics of their community.

New community groups are developing all the time. These groups generally emerge when a new nearshore issue poses challenges that can best be addressed through involvement of a community group. Some community groups exist even though the issue they are formed around is resolved or becomes irrelevant. Others will adapt and expand their own expertise in order to make a valuable contribution on emerging issues.

The Task Force recommends that the nearshore strategic planning process and the NSP address the following issues:

- formalize the role for all types of new and existing community groups to actively participate in the development and implementation of the NSP and the NRMAP.
- create multiple and transparent formal mechanisms so that all stakeholders (groups and individuals) are represented and encouraged to provide input and advice to the NSP planning process and to the Marine Committee over the long-term.

The Task Force additionally recommends that all types of new and existing community groups be:

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<sup>1</sup> In the context of this report, communities can be defined by their connection to a specific location, their interest in a specific issue, or both. Discussion of communities or community groups does not exclude individual citizens.

- invited as collaborators (and compensated for their contribution) on state research and monitoring and education and outreach efforts when their expertise and capabilities will enhance outcomes
- provided with technical support and partnership from state agencies and universities to build their skills and capacity to succeed over time
- eligible and invited to compete for funding of research projects, education and outreach efforts , and coordination at the local level through the Oregon Neashore Science Trust (or other funding mechanism)

Finally the Task Force recommends establishing either 1.0 FTE or hiring a consultant through an RFP process to serve as a community group liaison. The liaison's role would be to ensure two-way communication between the community groups and the Marine Committee during development and implementation of the NSP.

### **Community Education and Outreach**

An important factor in securing the success of the ideas put forth by the Task Force on Nearshore Research is ensuring public support to science initiatives. In order to effectively manage our marine resources, we need a citizenry who understands the value of our nearshore environment and its underlying scientific processes. The Task force believes that this can be achieved through education and outreach.

The Task force recommends that education and outreach should be a component of the NSP. The NSP can serve as an important tool to identifying areas for educational and outreach improvement. Oregon Statewide Planning Goal #19 states that public involvement, particularly through “public awareness, education, and interpretive programs,” should be incorporated into Oregon’s marine management plan. Based upon prior recommendations outlined by the Task Force on Nearshore Research guiding documents, the Task Force proposes that five areas to improve community education and outreach be incorporated to the NSP:

- K-12 education, providing guidance for ocean science curricula, and budget for out of classroom experiential learning
- Informal public learning, identifying information gaps and funding needs to further interpretive and hands-on education
- Professional development, targeting continuing education needs related to the nearshore environment
- Educating through media, evaluating success of current media educational strategies, as well as, outlining funding and guidance for further use of 21<sup>st</sup> technology in public education
- Coordinating educational material, determining strategies for enhancing collaboration and communication between educating entities to ensure information is consistent

### **Data Management and Coordination**

Effective data management and data sharing to support state ocean management programs are principal issues of concern to the Legislature. At present, the state has no overarching structure, policies, or processes for ensuring or facilitating data integration into marine management

programs or decisions. Current ocean management process within the state, principally to plan for ocean alternative energy and marine reserves, require a wide variety of data and information to be used by community and stakeholder groups. Efforts to find, share, and manage needed data to support these processes have exposed the need for Oregon to improve current data management and data sharing practices and capabilities. The emerging policies of the federal government to utilize marine spatial planning to address marine management and policy at the regional and state levels reinforce the need for Oregon to better structure its marine data and information sharing practices.

Conditions are ripe to develop excellent processes and standards for managing and sharing data to support marine management policies and programs. These conditions result from several factors:

- the near-universal reliance on digital data;
- the data delivery and sharing protocols of the Internet;
- relatively inexpensive high-powered software and hardware;
- a growing professional capacity among state agencies; and
- the fact that Oregon has an existing framework to address similar needs related to the terrestrial environment.

Oregon's small size and limited number of participants in the marine management arena mean that participants are generally known to one another and have interests in supporting each other. However, a major challenge will be to institutionalize aspects of what has been an informal and *ad hoc* system for sharing and managing data, not only between public agencies but between those agencies and the academic research community.

### The Vision for Data Management

The Task Force agrees that a strategically conceived and executed program of data management is necessary to ensure that data and information from a variety of sources are available to state agencies, community groups, stakeholders, and the public. This program should be flexible to account for the constant addition of new data and scientific information, evolving needs among potential users, and the continuing advances in data technologies.

### *Data Management Coordination*

The Task Force recommends that the Oregon Coastal Management Program (OCMP) be the lead entity for developing a marine data management network with supporting standards and protocols. The OCMP has broad statutory responsibilities for coordinating ocean and coastal planning and management and has direct coastal management liaison duties with NOAA and other federal agencies.

### *Data Management Standards*

The OCMP, in conjunction with the Oregon Geographic Information Council under the auspices of the state Geospatial Enterprise Office, should convene a Marine Data Committee of state and federal agencies, academic programs, non-profit, and others to develop and maintain protocols

and standards for data sharing and management. The Data Committee should address issues of on-going oversight, coordination, cataloging, and technical advice, particularly as new data sets are planned and become available.

The Data Committee should provide the Ocean Science Trust and the Scientific and Technical Advisory Committee with data standards that should be required of all data developed by projects funded by the Trust.

### *Marine Data Network*

The Task Force agrees that a robust Marine Data Network should:

- Establish a framework community of data stewards for key marine data sets
- Specify metadata standards consistent with federal standards for all data acquired or used by Oregon's Nearshore Ocean Enterprise;
- Maintain a data catalogue to track new datasets that are developed and clarify when datasets become obsolete;
- Facilitate data interoperability by the adoption of cross-platform open standards (such as W3C – World Wide Web Consortium and OGC - Open Geospatial Consortium standards) to enable:
  - integration of disparate and diverse data sources
  - simplified procedures for sharing of data by network participants
  - expedient discovery of and access to new data and information
  - access to data sets, data feeds and network services with a diverse range of tools (e.g. from simple web browsers to visualization tools such as Google Earth and traditional GIS software such as ArcMap):
  - incorporation of new data sets from other networks (such as ocean observing systems) without architecture or client application changes;

### Kinds of Data:

The Task Force agrees that a data network should accommodate a variety of information including:

- Traditional geospatial (GIS) data (i.e. points, lines, areas) of coastal and ocean features, resources, and ocean uses, served in a variety of formats;
- Gridded data from ocean and coastal observing data from satellites, radar, and models (use a standard suite of web services or data protocols for interoperability and integration);
- Point observation data from sensors such as current meters and wave buoys or gliders (integrated with federal efforts to integrate similar regional and national data).
- Non-geographic informational data such as PDFs, reports, images, websites, and spreadsheets, all of which can be “geotagged” through metadata information and can provide supporting data for decision makers.

## Estimated Budget

Our guiding principal was to use existing institutional resources and bodies to bring together stakeholder, scientific and agency expertise to join in the process. It is expected that the brunt of the workload to implement the recommendations here would fall on state agencies, which have statutory authority to produce the proposed planning documents. Funds would be required to ensure that the STAC have sufficient funds to do their work and to ensure community engagement. Estimated funding levels are provided as a first step guidance.

<b>Budget Item</b>	<b>Estimated Cost</b>
Development of a NSP (Marine Committee)	
Development of the NRMAP	
Operating Budget for STAC	
Community Engagement	
Public Education and Outreach	
Data Management	

## Appendix A

Table 1. TASK FORCE meeting schedule

<b>Date</b>	<b>Meeting location</b>
December 2-3, 2009	Newport
January 21-22, 2010	Newport
February 18, 2010	Newport
March 29, 2010	Charleston
May 4, 2010	Astoria
June 3-4, 2010	Corvallis
June 28-29, 2010	Newport
July 22-23, 2010	Portland

Table 2. Membership of the Nearshore Research Task Force.

<b>Seat</b>	<b>Name</b>	<b>Institution/Representing</b>
A	Gil Sylvia Operations Team	Superintendent, Coastal Oregon Marine Experiment Station, Oregon State University
B	Craig Young	Director, Oregon Institute of Marine Biology, University of Oregon
C	Stephen Brandt <i>Chairperson</i>	Director, Oregon Sea Grant
D	Caren Braby Operations Team	Manager, Marine Resources Program, Oregon Department of Fish and Wildlife
E	Bob Bailey	Manager, Ocean Coastal Services Division, Department of Land Conservation and Development
F	Onno Husing	Executive Director, Oregon Coastal Zone Management Association

G	Jeff Kroft	Director (designee), Department of State Lands
H(i)	Terry Thompson	Local government: Commissioner, Lincoln County
H(ii)	Sybil Ackerman <i>Vice-chairperson</i>	Conservation
H(iii)	Mike Lane	Commercial fishing: Dungeness crab
H(iv)	Frank Warrens	Sport fishing: Charter
H(v)	Leesa Cobb	Community-based fishing: Port Orford Ocean Resource Team
H(vi)	Laura Anderson	Nearshore industry (non-fishing): Local Ocean Restaurateur
H(vii)	Gus Gates	Nearshore recreation (non-fishing): Surfrider
b	Cathy Tortorici	Federal (non-voting): NOAA
b	Roy Lowe	Federal (non-voting): USFWS

## **Appendix B – Characterization of Oregon’s Nearshore Research Monitoring Enterprise: Executive Summary of a Report to the Task Force.**

### **Objective**

The purpose of this report is to characterize Oregon’s research and monitoring enterprise, including effort, areas of focus, general funding sources and dollars spent on nearshore research and monitoring in the context of four guiding documents. The goal is to provide a general picture of the state’s current nearshore research and monitoring activities, with a focus on state and federal agencies. This is a broad-brush approach to provide a magnitude of money being spent and the areas of research and monitoring being funded.

### **Disclaimer**

State, Federal and other groups involved in nearshore research and monitoring in Oregon were contacted to report on budget information and their involvement in nearshore research and monitoring. Due to the condensed timeline of this project, however, several agencies and groups were unable to provide information. Therefore, the results presented in this document do not represent a comprehensive picture of Oregon nearshore research and monitoring activities. The results should primarily be used to illustrate the magnitude of funding potential for nearshore research and monitoring work in Oregon and to provide a general picture of how funds move throughout the state and amongst agencies and groups.

### **Executive Summary**

Oregon’s nearshore relevant research and monitoring enterprise was characterized to provide a general picture of the state’s current activities. Eighteen categories of nearshore research and monitoring priorities were identified using four guiding documents. State and federal agencies and other research and non-profit groups were asked to report their total nearshore research and monitoring budget for 2009, funding sources and amount of total budget allotted to these eighteen nearshore relevant research and monitoring priority areas. The information collected from agencies and groups varied from what was requested (for detailed notes on specific information collected from each agency or group, see Appendix C), but presents a general snapshot of the state’s nearshore relevant research and monitoring enterprise.

Of the agencies and groups that were able to respond within the timeline for this project, the total funding attributed to research and monitoring relevant to the nearshore was \$38,640,245 (Table 2 and Figure 2). Of this total, 78%, or \$30,368,895, of total funding reported is attributed to Federal sources (Table 5 and Figure 4), 14%, or \$5,341,879 to State sources (Table 3 and Figure 3) and the remainder to Private, 6% or \$2,191,971 (Table 6 and Figure 5), and Other, 2% or \$712,000 (Table 7), sources. Figure 1 of this document illustrates a general map of the flow of funding for nearshore relevant research and monitoring throughout the state of Oregon. This map is limited to those agencies and groups that responded to the budget request, but likely provides an example of the distribution of money from funding sources, to agencies and groups and among agencies and groups.

Each of the 18 categories of research and monitoring received some amount of funding, but the response of agencies or groups with budget information categorized into areas of research and monitoring was even more limited than the overall funding information. Figure 6 illustrates the total reported funding that was dedicated to categories of research and monitoring and efforts of nearshore relevant research and monitoring are seemingly well distributed amongst agencies and groups, as seen in Figure 7. Of the agencies and groups that responded with categorized budget information, the category of Mapping receives the most funds, followed by Education and Outreach/Engagement. Though Mapping has the highest dollar amount associated with it, this dollar amount, or any other, should not be considered a proxy for effort. The cost of mapping, versus other forms of research and monitoring reflected in these categories, should be taken into consideration.

Tables 8-28 outline each agency or group's response to the budget request, with total budget, funding sources and areas of research and monitoring, if identified, with money devoted to each area of research and monitoring, if identified.

Federal agencies were most challenged in identifying nearshore and Oregon specific research and monitoring activities as Federal work almost always extends through all West Coast Federal waters, much exceeding the nearshore area. For this reason, the number identified for Federal funding should be considered in context with the notes in

The State agencies had an easier time limiting their budgets to nearshore specific research and monitoring, though the reported \$5,341,879 of funding should still not be considered a comprehensive picture of nearshore relevant research and monitoring activities. The number is, however, likely representative of the magnitude of funding and potential for one-time influxes, such as the New Carissa funding, and most of the big players in research and monitoring are included in this assessment.

## **Appendix C: Quality Science – Trusted Information**

The Task Force agrees that information acquired and used for ocean resources management must be scientifically sound and unbiased. In order to ensure this, information generated from research, monitoring, and other activities supported by the Ocean Science Trust must be produced through credible and accepted processes. Such processes include peer-review, scientific conferences or panels, and technical advisors during a project. The Task Force believes that it is important to clarify these processes with respect to definitions accepted by members.

Peer Review: The peer review process the Task Force refers to is an accepted method within professional communities, whereby the work, research, or ideas of an individual are evaluated by other experts in the same field. The Task Force expects that the competitive proposal process and majority of new data and information acquired through projects funded by the Ocean Science Trust will be subjected to rigorous peer review. Such review can be an anonymous process (known as blind review), which is typically used to select proposals for funding or review of articles prior to publication in scientific or professional journals. Peer review can also be an open process in which the reviewers are known and their reviews published. The purposes of peer review are to maintain professional or scientific standards, improve performance, and ensure credible results. (See \*website goes here\* for extensive discussions of peer review.)

Technical or scientific reports, conferences and panels: The Task Force envisions situations where it will be desirable to convene a special conference or panel of experts to address emerging issues that require specialized information or synthesized assessments. It is expected that this will largely be done through STAC. For example, the National Academy of Sciences utilizes committees to convene experts in specific fields to synthesize specialized reports. Such venues provide the opportunity for experts in one or more fields of interest to discuss, evaluate, and compile new information. These panels or conferences can also include professionals who represent expertise not currently present within the academic community to provide additional expertise on a given subject.

Technical advisory committees: It is common practice by scientific bodies to use a technical advisory panel to review projects or programs. The Task Force anticipates that this practice will be employed as appropriate in carrying out projects funded by the Ocean Science Trust.