

**OPAC Meeting Materials**  
June 8, 2009

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**Oregon Ocean Policy Advisory Council**  
**Draft Meeting Agenda\***  
Monday, June 8, 2009, Regular Meeting  
Department of State Lands, 775 Summer St NE, Salem, OR 97301

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\*Please note that this agenda is an attempt to give notice of the intended sequence of events at the meeting. Time or topics may change up to the last minute, but the Chair will try to make sure that public comment opportunities are related to discussion of major issues or decisions as indicated below. The most recently updated draft agenda will be posted at [www.oregon.gov/LCD/OPAC](http://www.oregon.gov/LCD/OPAC).

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**Monday – Regular OPAC Meeting**  
State Land Board Room, Department of State Lands

- 10:00 am Welcome and Introductions – *Scott McMullen* (OPAC Chair), *Council Members*
- 10:05 am Review and Approval of Minutes of *last* OPAC Meeting (10 minutes) – *Scott McMullen* (OPAC Chair), *Council Members*  
Scott will **review** the minutes and ask for amendments and council **adoption**, as amended.
- 10:15 am STAC Update (30 minutes) – *Jay Rasmussen* (STAC Chair)  
Jay will give an update on recent work by the Science and Technical Advisory Committee (STAC). *Susan Hanna* (STAC Member) will brief OPAC on the results of the “Economic Data and Analysis of Marine Reserves Workshop” held last October.
- 10:45 am Territorial Sea Plan – Process Overview (25 minutes) – *Paul Klarin* (TSPWG Co-Chair)  
Paul will **present** an overview of the efforts of the Territorial Sea Plan Working Group (TSPWG) over the past several months as they have developed a draft of the new Part 5 of the Territorial Sea Plan relating to Renewable Energy Facilities. Paul will also **provide** information about related state and federal legislative and program initiatives, rules or programs related to ocean renewable energy development.
- 11:10 am Territorial Sea Plan – Fishing Effort Mapping (25 minutes) – *Onno Husing* (OPAC Member)  
Onno will **describe** the current state of the work to map fishing effort in Oregon’s Territorial Sea, including state and private sources of funding, progress to date, and the projected schedule.
- 11:35 am Territorial Sea Plan – OWET (20 minutes) – *TBD* (TBD)  
Informational update from the Oregon Wave Energy Trust.
- 11:55 am Territorial Sea Plan – Advisory Groups (20 minutes) – *Onno Husing* (OPAC Member)  
Onno Husing will **update** OPAC on the work of community advisory groups to the seafloor mapping work.
- 12:15 pm Working Lunch (45 minutes) – *Scott McMullen* (OPAC Chair)  
Scott will lead OPAC in a process to **select** a new Vice-Chair for a one-year term beginning July 1, 2009. Following the election, *Len Bergstein* (OPT) will **present** an MOU in development between the state and Ocean Power Technologies (OPT).

There are several dining options available to the public near the DSL office.

- 1:00 pm Public Comment (30 minutes) – *Scott McMullen* (OPAC Chair)  
Members of the public who wish to provide comments to OPAC are asked to sign in on a comment sheet prior to the public comment period. **The total time will be divided evenly among those signed up to speak. Members of the public with written comments are advised to submit them in written form, as time limits will be strictly observed.**
- 1:15 pm Legislative Update (30 Minutes) – *Senator Betsy Johnson* (Oregon Senate)  
Senator Johnson will **update** OPAC on the progress of the Marine Reserves issue, including House Bill 3013, through the legislature, and **respond** to questions from OPAC members.
- 1:45 pm Public Comment (30 minutes) – *Scott McMullen* (OPAC Chair)  
**Continuation** of the public comment period.
- 2:00 pm Territorial Sea Plan – Text of Part 5 (120 minutes) – *Paul Klarin & David Allen* (TSPWG Co-Chairs)  
Paul will **present** the current draft of the Part 5 amendment of the Territorial Sea Plan to OPAC members. The draft contains policies and implementation requirements for siting and developing renewable energy facilities in the state’s territorial sea, and instructs state and federal agencies on how to conduct reviews for new energy facility proposals. OPAC will **discuss** and **comment** upon the draft.
- 3:00 pm Break (15 minutes)
- 3:15 pm Territorial Sea Plan – Text of Part 5 (120 minutes) – *Paul Klarin & David Allen* (TSPWG Co-Chairs)  
**Continuation** of the discussion of Part 5 of the Territorial Sea Plan.
- 4:15 pm Cape Arago/Seven Devils Update (15 minutes) – *Kathy Wall* (Ore. Int’l Port of Coos Bay)  
Kathy Wall will update OPAC on the progress by the Oregon International Port of Coos Bay in developing a marine reserve proposal for the Cape Arago/Seven Devils area.
- 4:30 pm Other Business, Future Meetings (15 minutes) – *Scott McMullen* (OPAC Chair)  
Agenda items and new issues for future OPAC meetings will be solicited. OPAC will schedule its next meeting, tentatively planned for the week of July 13-17, 2009.
- 4:45 pm Adjourn

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**Scientific and Technical Advisory Committee**

Ocean Policy Advisory Council

March 17, 2009

1:00 pm - 4:30 pm

Nash 104J\*

Oregon State University

Corvallis Oregon

TENTATIVE AGENDA

- 1:00 pm Welcome; introductions; review of agenda--Jay Rasmussen
- 1:10 Review and approval of marine reserves economics workshop--Susan Hanna and David Sampson
- 2:10 Review of 2008-2009 marine reserves process--Dave Fox and Cristen Don, Oregon Department of Fish and Wildlife
- 3:00 Break
- 3:10 Review of OPAC status--Jim Good, OPAC vice-chair and Jay Charland, OPAC staff
- 3:40 Review of OPAC's Territorial Sea Planning group--co-chairs David Allen and Paul Klarin
- 4:10 Other matters
- 4:30 Adjourn

\* Richard Hildreth will be joining by polycom until 2:30 pm

**Ocean Policy Advisory Council's Scientific and Technical Advisory Committee  
Technical Workshop on Economic Data and Analysis of Marine Reserves**

**Oct 21-22 2008**

**Library Seminar Room**

**Hatfield Marine Science Center Newport, OR\***

**Authors**

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David Sampson

**Workshop Participants\*\***

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\* Report submitted to OPAC March 24, 2009. Report adopted by the Scientific and Technical Advisory Committee on 17 March 2009. It has not yet been adopted by the Ocean Policy Advisory Council.

\*\* Workshop participants reviewed and commented on the first draft of the report, but did not review the final report. Hanna and Sampson developed the draft and final text, and are responsible for report contents.

**Acknowledgements:** The workshop participants acknowledge the critical support provided by Julie Howard in making meeting arrangements and by Juna Hickner and Chris Cusak in note taking.

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## EXECUTIVE SUMMARY

In its January 2008 meeting, the Ocean Policy Advisory Council (OPAC) requested that the Scientific and Technical Advisory Committee (STAC) provide information on the social and economic impacts of marine reserve implementation. A workshop addressing economic issues was held in October 2008. The objective of the economics workshop was to assess the status of economic data and analysis useful to decision makers regarding economic aspects of the siting and management of marine reserves in Oregon waters. This report summarizes available economic information and details workshop discussions, findings, and recommendations.

The objectives developed by the OPAC for marine reserves in Oregon are primarily protective in intent. They include protecting biodiversity and abundance of marine organisms and their key habitats as well as protecting coastal communities from the adverse impacts of prohibiting extractive activities in the reserves. The objectives also involve research, monitoring, and support of nearshore management.

There are a number of general economic questions relevant to Oregon's marine reserve objectives. These pertain to existing ocean uses, marine reserve costs and benefits, community impacts, behavioral response to spatial exclusion, adaptive management, and the appropriate time frame for analysis.

One criterion for evaluating proposed marine reserve sites is the minimization of significant adverse impacts to ocean users and coastal communities. The workshop identified a number of gaps in the economics data that need to be addressed if economic impacts are to be analyzed.

Workshop participants worked sequentially through a series of topics related to the economic analysis of Oregon marine reserves: OPAC objectives for marine reserves, economic elements of marine reserves, economic analytical methods, examples of models and software, economic data needs, existing economic data, and gaps in these data. A number of findings and recommendations emerged from these discussions.

### General Findings

**Finding 1:** OPAC's marine reserves objectives require the assessment of economic impacts on ocean users and coastal communities.

**Finding 2:** The assessment of economic impacts (both positive and negative) of marine reserves has several dimensions: documenting existing ocean uses and their economic contribution to people and communities, predicting human behavioral responses, and identifying benefits and costs. Marine reserves may be complementary to fishery regulations already in effect in Oregon's Territorial Sea.

**Finding 3:** Executive Order 07-08 lists ocean users and coastal communities as the focus of impact assessment for marine reserves; however, depending on their scale and placement, marine reserves may also have impacts beyond coastal areas.

**Finding 4:** Several methods and models are appropriate for analyzing economic impacts of marine reserves.

## **Specific Findings and Recommendations**

**Finding 5:** Existing economic data are limited in their geographic specificity and are therefore inadequate to analyze the impacts (both positive and negative) of Oregon marine reserves on ocean users and coastal communities. There are fundamental gaps in baseline data, spatially explicit data, recreational fishery data, coastal community economics, public valuation of marine reserves, and public valuation of other marine activities in the Territorial Sea.

**Finding 6:** There is no coherent, comprehensive documentation of the spatial uses of the Territorial Sea, the value they produce, or their economic contribution to coastal communities. The absence of a pre-reserve baseline severely restricts the ability to quantify post-reserve implementation effects. Most of the existing data are on fishery uses, but these data have limited information about exact harvesting locations, ports where the catch is delivered, or residency of fishing industry workers. Spatially explicit economic data are needed for effective marine reserve implementation and for management to ameliorate adverse effects.

**Recommendation 6.1:** OPAC should highlight the inadequacy of economics data needed to support its marine reserve objective for avoiding significant adverse economic impacts on ocean users and coastal communities and for estimating the potential of positive, long-term economic impacts.

**Recommendation 6.2:** In the short term, OPAC should recommend the collection of spatially explicit economic data for specific marine reserve sites through expert opinion methods that involve ocean users and managers. The collected data should be cross-checked with available data and judged verifiable before being incorporated into the decision-making process.

**Recommendation 6.3:** In the short term, OPAC should recommend the collection of information about likely user group and community response to spatial exclusion through surveys of affected groups. The collected data should be cross-checked with available data and judged verifiable before being incorporated into the decision-making process.

**Recommendation 6.4:** As the lead agency for marine reserves, ODFW should create a Web space to host the economic information they fund, with links to other pertinent marine economic information, to enhance its circulation and application.

**Finding 7:** State-level marine economics data are collected. However, the process of data collection is *ad hoc*, incomplete, and uncoordinated.

**Recommendation 7.1.** For the long-term economic assessment of marine reserves and other uses of the Territorial Sea, OPAC should recommend the formation of an Oregon Marine Economics Data Work Group charged with defining an ongoing core economic data collection program.

**Recommendation 7.2.** The Oregon Marine Economics Data Work Group should consider methods to involve ocean users and coastal communities in data collection, including incentive-based programs.

**Recommendation 7.3.** OPAC should recommend state funding of the core data program developed by the Oregon Marine Economics Data Work Group.

**Finding 8:** Economic impacts are one element of marine reserve performance. There are opportunities to learn about economic impacts of marine reserves by investing in economic data and research.

**Recommendation 8.1:** OPAC should ensure that economic performance indicators are a component of the monitoring and periodic performance review of marine reserves. Economic and ecological monitoring should be coordinated and complementary.

**Recommendation 8.2:** OPAC should recommend that cooperative research be funded to learn from existing and ongoing studies of marine reserves on the U.S. West Coast and elsewhere, and to enhance the ability to understand and interpret economic impacts of reserve creation and operation.

**Finding 9:** Economic data are also needed for the planning and analysis of other uses of Oregon's Territorial Sea, such as wave and wind energy.

**Recommendation 9.1:** OPAC should recommend that the economic data collection program to be designed by the Oregon Marine Economics Data Work Group include the full range of uses of the Oregon Territorial Sea.

## 1.0 Introduction

The state of Oregon is considering the establishment of a system of fewer than 10 marine reserves as part of an overall strategy to manage marine waters and submerged lands. The Oregon Ocean Policy Advisory Council (OPAC) has been charged with recommending up to nine marine reserve areas for the Territorial Sea, which extends three nautical miles from shore and from offshore islands (OPAC 2008a).

At its January 2008 meeting, the OPAC approved a request to its Scientific and Technical Advisory Committee (STAC) for information on (1) the preferred size and spacing of marine reserves and (2) the social and economic impacts of marine reserve implementation (OPAC 2008a).

In response to this request, the STAC has sponsored two workshops to date. The first workshop, held in April 2008, addressed biological, ecological, and physical issues surrounding size and spacing of marine reserves (Heppell and Reiff 2008). The second workshop, addressing economic issues of marine reserves, is the subject of this report. A third workshop on social issues may follow.

The objective of the economics workshop was to assess the status of economic data and analysis useful to decision makers regarding economic aspects of the siting and management of marine reserves in Oregon waters. This report details workshop discussions, findings, and recommendations on a range of topics related to this objective. It also summarizes information extracted from the published literature and the Internet. For each major topic, the report first presents information from the published literature and Internet sources, then summarizes the workshop discussions related to that topic.

The format of the workshop was a sequential consideration of the following topics:

- economic elements of marine reserves;
- economic analytical methods relevant to marine reserves in Oregon;
- data needed to support economic analyses of Oregon marine reserves;
- computer models and systems for the analysis or collection of economic data;
- inventory of existing economic data;
- economic data gaps for Oregon marine reserves; and
- findings and recommendations.

The workshop was open to the public, but discussions were limited to invited participants. A list of workshop participants is provided in Appendix A. Public comment periods were held at the end of each morning and afternoon session. A list of members of the public attending the workshop is provided in Appendix B. A summary of public comments is contained in Appendix C. The workshop agenda is provided in Appendix D.

## **2.0 Definition, Goal, Objectives, Principles, and Guidelines for Oregon's Marine Reserves**

Dave Fox (Oregon Department of Fish and Wildlife) described the Oregon process and timelines for marine reserves to the workshop.

### **2.1 Definition**

The OPAC adopted a working definition of marine reserves in August 2008. "A marine reserve is an area within Oregon's Territorial Sea or adjacent rocky intertidal area that is protected from all extractive activities, including the removal or disturbance of living and non-living marine resources, except as necessary for monitoring or research to evaluate reserve condition, effectiveness, or impact of stressors." (OPAC 2008c)

### **2.2 Goal and Objectives**

The goal for marine reserves adopted by OPAC is to "protect and sustain a system of fewer than ten marine reserves in Oregon's Territorial Sea to conserve marine habitats and biodiversity;

provide a framework for scientific research and effectiveness monitoring; and avoid significant adverse social and economic impacts on ocean users and coastal communities.”

A system is defined as a collection of individual sites that are representative of marine habitats and that are ecologically significant when taken as a whole (OPAC 2008c).

The OPAC developed a set of objectives for the proposal, selection, implementation, and management of marine reserves (2008c). These objectives address biodiversity, habitat, system properties, research, and management (Fox 2008).

- *Biodiversity*: Protect areas important to the natural diversity and abundance of marine organisms.
- *Habitat*: Protect key types of marine habitat in multiple locations to enhance resilience of nearshore ecosystems.
- *System properties*: Site fewer than 10 marine reserves and design the system in ways that are compatible with the needs of ocean users and coastal communities.
  - Reserves should be large enough to allow scientific evaluation of ecological effects.
  - Reserves should be small enough to avoid significant adverse social and economic impacts on ocean users and coastal communities.
- *Research*: Use marine reserves as reference areas for conducting research and monitoring.
- *Management*: Use the research and monitoring information in support of nearshore resource management and adaptive management of marine reserves. Monitor and reevaluate at least every five years.

### 2.3 Principles and Guidelines

The OPAC also developed a set of principles and guidelines for the proposal, selection, implementation, and management of marine reserves (OPAC 2008c).

- Involve the public in the proposal, selection, regulation, monitoring, compliance, and enforcement of marine reserves.
- Conduct outreach and public engagement as an ongoing part of planning and implementation.
- Use science and local knowledge in planning.
- Encourage coordinated and collaborative proposals from communities of place or interest.
- Give priority consideration to proposals developed by coastal and ocean groups.
- Account for existing regulatory regimes and existing and emerging ocean uses in design and siting.

- Use size and spacing guidelines developed by the STAC.
- Avoid significant adverse social and economic impacts.
- Seek positive social and economic effects.
- Develop management plans for individual sites.
- Ensure adequate enforcement.
- Collect baseline data prior to excluding extractive activities.
- Conduct monitoring and evaluation.

#### 2.4 Workshop Discussion of Definition, Goal, Objectives, Principles, and Guidelines

The workshop discussed definitional issues. The first was with the definition of a marine reserve (MR) as an area protected from all extractive activities and whether OPAC will also be considering less-restrictive versions of marine protected areas (MPAs). OPAC has established sideboards for considering MPAs (1) if they are in conjunction with a proposed marine reserves site and (2) if the marine reserve site by itself is inadequate to meet the competing goals of ecological significance and economic impact minimization. Of the proposals received by OPAC, three included MPAs that met these sideboards (Fox 2009).

Discussion also clarified the definition of “marine” as restricted to the Territorial Sea (shoreline out to three miles), including the intertidal zone in rocky areas but not in sandy areas, where the regulatory limit is extreme low tide. Estuaries are not included.

A question was raised as to the interpretation of “significant” related to adverse social and economic impacts of marine reserves on ocean users and coastal communities. Significance has not been specifically defined. To date, significance has been determined through community and user-group collaborations in MR design. If agreement can be reached that the impacts are acceptable, then the standard of avoiding significant adverse social and economic impacts is deemed to have been met (Fox 2009). However, as the process of marine reserve development moves forward, the absence of a more quantitative definition will pose a problem for the analysis of adverse economic impacts, and is likely to be a source of contention.

The Governor’s Executive Order 08-07 (State of Oregon 2008) specifically lists “ocean users and coastal communities” as the focus of impact assessment for marine reserves. The word “community” is defined to include both communities of place and communities of interest. This means that “ocean users” may include fishermen who do not live in a particular coastal community but are part of a community of interest affected by a particular marine reserve site.

### 3.0 Economic Elements of Marine Reserves

Economic elements permeate all stages of marine reserve development from design to site selection, implementation, monitoring, and enforcement. The economic analysis of marine reserves stems from three general concepts: 1. effectiveness—how well a MR meets its goals; 2. efficiency—the economic surplus (benefits less costs) produced by the MR; and 3. equity—the distribution of costs and benefits among different groups. Effectiveness, efficiency, and equity

are the fundamental considerations faced by marine resource managers. At the basis of each is the concept of economic value.

### 3.1 Economic Value

Marine ecosystems provide a range of values to people, whether they are exploited or not (National Research Council 2001). Economic value is measured by the amount people are willing to pay for a good or service, or the amount they are willing to accept as compensation for not using the good or service. The concept of total economic value (TEV) includes an array of different values generated by marine resources. These values fall into two main categories: “use” and “nonuse.” Use values typically involve some human interaction with the resource and include value produced through both direct and indirect use. Nonuse values are current or future potential values that rely on the continued existence of a resource, and do not rely on human use. Nonuse values are further divided into “existence” and “bequest” values (Figure 1) (FAO 2003; Dziegielewska 2007).

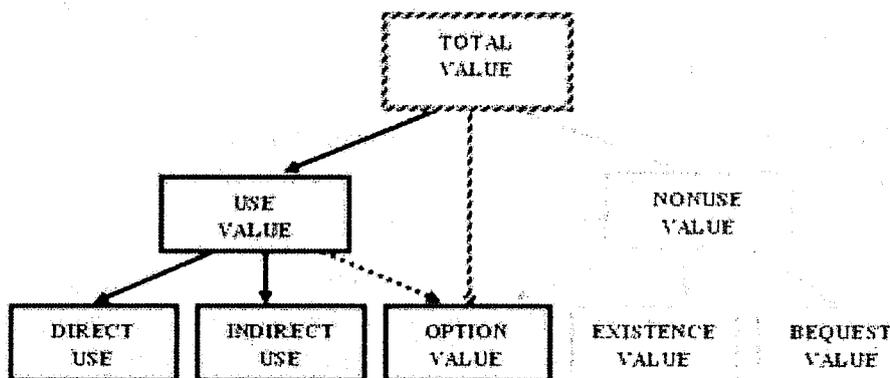


Figure 1. Components of Total Economic Value.

Source: Dziegielewska 2007

Use value can be generated through direct use, indirect use, or option for future use (Figure 1).

- Direct use: value from actual use of a good or service, such as catching fish or kayaking.
- Indirect use: value related to special functions, such as the habitat utilized by fish in the marine ecosystem or the knowledge generated through using a MR as a research site.
- Option: value of the option to have ecosystem goods or services available in the future. Option value is considered by different economists as both a use and nonuse component, depending on the context. For example, option value could represent the future production of fish (use) or of marine biodiversity (nonuse).

Nonuse values, sometimes called “passive use” values, include option, existence, and bequest values.

- Option: as described above.
- Existence value: value from knowing that a certain good or service exists, for example, the protection of endangered species against extinction, regardless of whether they are ever seen.
- Bequest value: value from ensuring that certain goods will be preserved for future generations.

For goods and services exchanged on a market, value is revealed through market transactions. The market is best at revealing direct-use value through consumers’ and producers’ willingness to pay for a benefit or accept compensation for a cost. Indirect-use values are difficult to quantify and are often ignored in resource-management decisions. However, markets are now emerging based on nonuse values such as water temperature, endangered species habitat, and carbon sequestration.

The division of economic value into “use” and “nonuse” categories is one way of characterizing the tradeoffs associated with marine reserves, but economic issues also extend beyond valuation. Economic choices are about tradeoffs among different mixes of ecosystem services that combine ecological, economic, and social dimensions of marine reserve design and implementation. The empirical assessment of these tradeoffs is an emerging area of analysis to support decision making (Fisher et al. 2009; Whitmarsh and Palmieri in press).

The 2001 National Research Council study of marine reserves notes that several elements of marine reserves have both costs and benefits associated with them: fishery yield, fishing industry displacement, enforcement, management, economic activity, and nonmarket values. Attaching monetary value to these costs and benefits requires significant data collection and research (National Research Council 2001).

### 3.2 Economic Literature

Looking at marine reserves – or, more broadly, marine protected areas – in place worldwide, it is clear that they are intended to serve one or a combination of three general policy goals: biodiversity protection, sustainable fisheries management, and support of non-extractive uses. The three general policy goals for marine protected areas vary in the extent to which they have received analytical attention in the economics literature (Ablan et al. 2006).

Biodiversity protection is analyzed by a limited economics literature. Existing analyses focus on the benefits of goods and services produced by marine protected areas or marine reserves. These goods and services provide value in nonuse as “option values,” which are the benefits people derive from ensuring that a natural resource is available for future use, even if there are no present plans to use it.

Sustainable fisheries management accounts for the bulk of the economics literature. This area of analysis focuses on the benefits of restoring overfished stocks and the application of

precautionary tools against management uncertainty. It is characterized by the application of bioeconomic models that consider both single and multiple species. Some assume homogeneous distributions of fish and fishermen; others are spatially explicit, assuming patchy distributions of fish and fishermen. Other models focus on the behavioral responses of fishermen and are based on an understanding of the costs and revenues of fishing.

Support of non-extractive uses such as recreation and ecotourism is the subject of a growing literature. Economic analysis of the market value of recreation and tourism focuses on the economic impacts of the industries that support these activities. Analysis of the nonmarket values that derive from direct and indirect use of a marine protected area focus on development of monetary proxies such as "willingness to pay" or "willingness to be compensated" for these uses.

In sum, the policy support provided by economic analysis in the assessment of marine protected areas takes many forms. The application of economic analysis to the question of marine reserves can help Oregon managers identify several pieces of information key to their decision making:

- economic profiles of ocean user groups and coastal communities;
- spatial use patterns of the Territorial Sea and their economic linkages;
- use values of Territorial Sea spaces;
- nonuse values of Territorial Sea spaces;
- direct and indirect economic impacts of marine reserves over time;
- distributional impacts of specific marine reserve sites' design, size, and placement;
- balance of benefits and costs of specific marine reserve sites;
- description of tradeoffs among the multiple goals involved in multi-use management; and
- description, analysis, and prediction of human dynamics of decision making and response to regulation.

### 3.3 Workshop Discussion on Economic Elements of Marine Reserves

The objectives developed by OPAC for marine reserves are primarily protective in intent. They include protecting biodiversity and abundance of marine organisms and their key habitats and at the same time protecting coastal communities from adverse impacts of these protections. The objectives also involve research, monitoring, and support for management of the nearshore marine ecosystem. Sustainable fisheries management and support of non-extractive uses are not among the Oregon marine reserve objectives.

The workshop discussion identified a number of general economic questions relevant to Oregon's marine reserve objectives.

Existing uses: What are the existing uses of the proposed marine reserve area? What economic benefits are generated for current user groups and coastal communities by the proposed area? What types of displacement are likely to occur with the implementation of the marine reserve?

Identification of costs: What are the costs of marine reserve implementation? How do costs relate to size and location? What are the displacement effects on commercial and recreational fishing? Are there other ocean-user displacement effects? What are the direct and indirect costs incurred by coastal communities? A related question is the relative cost effectiveness of marine reserve sites. Do we assume that marine reserves meeting the ecological criteria and of similar size will have comparable ecological benefits? If so, what are the least-cost options to siting marine reserves?

Identification of benefits: Marine reserves provide economic benefits as well as costs. These benefits include the insurance value (use or nonuse) of ecosystem services (e.g., species sanctuary, nutrients, water quality) provided by the marine reserve as well as the non-extractive existence values of increased biodiversity, protected habitat, and protected species. What are the major ecosystem services and other nonmarket values of Oregon marine reserves? How do these vary by size and location? What are the key areas of uncertainty about the effect of Oregon's marine reserves? What is the improvement in knowledge generated by research and monitoring of ecological function and economic response to marine reserves? What is the value of this information? What is the cost to acquire it? What is the public willing to pay for the additional insurance benefits, ecosystem services, and ecological knowledge that might be provided by marine reserves?

Disproportionate community impacts: Are there changes in coastal income that result from marine reserves, and are these changes distributed proportionately across income levels and demographic categories? Are income impacts disproportionate to certain geographic areas or social groups?

Appropriate time frame for analysis: How will the costs and benefits of marine reserves be distributed over time? They are likely to be distributed differently, with costs more concentrated in the short term and benefits more concentrated in the long term. Should the expected future benefits and costs of marine reserves be discounted to their present value? If so, what discount rate should be applied?

Human behavioral responses: The stochastic (unpredictable) nature of marine ecosystems and economic systems creates uncertainty that affects human behavior. What will be the behavioral response of fishery users and coastal communities to the impacts of marine reserves over time and space? For example, what are the effects of marine reserves on redistributing fishing effort? What are the costs and benefits of effort displacement? Are there cumulative effects? How do we determine which behavioral responses are specifically in response to marine reserves in contrast to more general economic change?

Accounting stance of economic analyses: Executive Order 07-08 lists ocean users and coastal communities as the focus of impact assessment for marine reserves. Depending on their scale and placement, marine reserves may also have impacts beyond coastal areas or beyond the state. This is illustrated by the likely case of existence values that people throughout Oregon would hold for the knowledge that marine reserve protections are in place. From what perspective should marine reserves be analyzed?

Adaptive management: OPAC defines adaptive management as “a systematic process for continually improving management policies and practices by learning from the outcomes of operational programs.” Adaptive management of marine reserves will happen during the implementation stage, related to the specified five-year performance review. How would adaptive management be structured? What are the costs and benefits of the adaptive management approach? Will some sites have a higher “value” because they provide a greater opportunity to gain insights?

## **4.0 Economic Analytical Methods Relevant to Marine Reserves**

### **4.1 Contribution of Economic Research to Marine Reserve Policy**

The NOAA Web site “Social Science for Marine Protected Areas” identifies five avenues through which social science can contribute to the assessment and management of marine protected areas (marine reserves, in the Oregon case): assessment, feedback, prediction, mitigation, and acceptance (NOAA 2005). These avenues apply equally to the economic analysis of Oregon marine reserves.

**Assessment:** Baseline information provides information on pre-implementation. Incorporating economics into assessments can identify affected groups and potential areas of conflict. Early economic assessment can help predict potentially avoidable problems.

**Feedback:** Ongoing economic monitoring can help in evaluating the effectiveness of management over time. Research can identify the economic components of effectiveness and provide the public an opportunity to suggest management changes.

**Prediction:** A range of economics methods can be used to predict the outcomes of management actions, thereby helping to identify potential problems before they develop.

**Mitigation:** Understanding the economic positions and motivations of user groups and coastal communities may help reduce, or even avoid, conflicts associated with marine reserve implementation.

**Acceptance:** Economic analysis can be used to understand public concerns, particularly with regard to the distribution of impacts. Concerns can be addressed through targeted outreach and education programs, which may in turn lead to better design of marine reserves and increased public support.

### **4.2 Methods of Economic Analysis of Marine Reserves**

The same NOAA Web site (NOAA 2005) identifies a range of social science research approaches appropriate to the analysis of marine protected areas, several of which are used in economic analysis. Methods of economic modeling of marine protected areas are also illustrated by a special issue of the journal *Natural Resource Modeling* edited by Sumaila and Charles (2002). These methods can be grouped into categories reflecting their primary, but not exclusive, application. The categories are to enhance understanding of economic context, human interactions, costs and benefits, and economic impacts. Some or all of these methods could be

used to evaluate the status of proposed marine reserve sites in Oregon. Formal survey work could provide the needed economic data to support the application of these methods.

#### 4.2.1 Understanding the Economic Context

**Case Study Research:** An in-depth investigation of economic attributes and impacts associated with specific issues and locations.

**Content Analysis:** A review of information sources such as newspapers, books, manuscripts, Web sites, etc. to identify key words or phrases that help identify patterns and trends in discussions about marine reserves. Content analysis is used more frequently in non-economics social sciences than in economics, but it can be used to understand the context for economic impacts and values.

**Demographic Analysis:** A study of the characteristics of human populations, such as size, growth, density, and distribution in coastal communities.

**Rapid Rural Appraisal:** A broad-level evaluation, usually through consultation with experts and stakeholders, that provides a general overview of the economic relationship between people and marine resources and identifies areas of concern about marine reserves as a precursor to planning.

#### 4.2.2 Understanding Human Interactions

**Focus Groups:** A group interview about a specific topic, for example fishery operating costs. Focus groups can also be used to identify economic motivations, styles of interaction, or perceptions of risk.

**Observation:** Personal observation and recording of patterns of resource use, interaction, and behavioral response.

**Surveys:** Primary economic data collection (by telephone, mail, or in person) through scientific sampling methods.

**Predictive Modeling:** Simulation of real-world situations to predict future conditions; for example, the long-term impacts of marine reserve size and spacing.

- *Bioeconomic modeling:* The integration of biophysical information and ecological processes with economic decision behavior to analyze the possible effects of policies such as marine reserves on economic and resource welfare (cf Anderson 2002).
- *Spatially explicit bioeconomic modeling:* addresses questions of economic and biological interactive effects of marine reserves, with spatial effects explicitly taken into account, for example a spatial bioeconomic model to examine how various marine reserve options affect fishermen participating in limited-entry fisheries (Sanchirico and Wilen 2002).

- *Game theory*: modeling of strategic interactions among agents based on economic motivations, for example, a model of distributional and efficiency effects of marine protected areas to understand the effect of cooperative behavior in MPA management (Sumaila and Armstrong 2006).

**Econometric Analysis:** The application of statistical methods and empirical data to the testing of economic theories, for example, the testing of hypotheses about the economic response of fishermen to marine reserve implementation.

**Secondary Data Analysis:** Use of existing data and information (e.g., census data, fishery data, survey data) to identify characteristics of a group or analyze a particular issue.

#### 4.2.3 Understanding Costs and Benefits of Marine Reserve Sites

**Cost-Benefit Analysis:** A tool for comparing the benefits of proposed projects (e.g., alternative marine reserve sizes or sites) with the costs to identify the alternative with the maximum net benefit (benefits minus costs).

**Nonmarket Valuation:** Methods to estimate indirectly an economic value that is not usually quantified in the typical markets where goods and services are exchanged for money, such as the value of recreation or other ecosystem services (National Ocean Economics Program 2008). Various methods have been used for conducting nonmarket valuations.

- *Contingent valuation*: Determining willingness to pay (or to be compensated for loss) of a specified environmental resource, for example, a marine reserve or marine reserve enforcement, through analysis of responses to structured questionnaires.
- *Travel cost*: Estimating the value of a marine reserve site or ecotourism services by analyzing the relationship between participation and costs of travel to the reserve sites.
- *Avoided cost*: Estimating the economic value of benefits that a marine reserve provides via the cost of providing those benefits through some other action, for example, rebuilding overexploited fish stocks through reduced fish catch or through artificial propagation.
- *Benefits transfer*: Estimating economic values by transferring existing benefit estimates from another location. The advantage is the avoided cost of a new study, but the disadvantage is the limited extent to which marine reserves in two locations are alike in the benefits they produce.
- *Choice experiments*: Estimating economic values for ecosystem services by asking people to make tradeoffs among sets of ecosystem or environmental services or characteristics. Willingness to pay is inferred from tradeoffs people are willing to make among costly alternatives.
- *Hedonic pricing*: Assessing the value of an environmental feature by examining actual markets where the feature contributes to the price of a marketed good, for example, the monetary contribution of ocean views to home prices.

#### 4.2.4 Understanding Marine Reserve Impacts

**Economic impact assessment:** The identification of how user groups and coastal people and communities could react to a marine reserve, and the prediction of its probable impacts on regional income and employment and distributional effects among segments of the community.

**Input-output analysis:** A representation of a regional economy through a description of linkages among industries. Changes on one economic component are traced throughout the economy, for example, a decline in fishery revenue or an increase in tourism revenue in a coastal community.

**Comparative research:** A comparison of different analyses over attributes, characteristics, or particular treatments across two or more marine reserve sites or within a single reserve site over time to learn what contributes to different outcomes.

**Multi-attribute utility analysis:** A tool for addressing a decision that has multiple criteria, e.g., quantifying tradeoffs among the many ecological, economic, and social criteria accompanying marine reserve decisions. Proposed reserve sites can be compared and scored using both quantitative and qualitative criteria (cf. Kiker et al. 2005).

**Institutional analysis:** The analysis of how organizations and people make economic and managerial decisions, for example, the structure and process of stakeholder involvement in decision making.

#### 4.3 Workshop Discussion of Economic Analytical Methods Relevant to Marine Reserves

During the workshop, a question was raised as to whether economics will be part of the ongoing process of marine reserve evaluation or whether it will be reactive to OPAC's decision. Given the time constraints OPAC faces to immediately choose sites for consideration, basic economics research on the full array of potential sites is not possible; economics will have a more restricted role. Priority will be placed on estimating the economic impacts of specific proposed sites as part of the site selection process, except for the Otter Rock Reserve near Depoe Bay and the Redfish Rock Reserve near Port Orford. In the longer term, economic performance indicators should be used in the evaluation of all selected reserves as part of the ongoing process of marine reserve evaluation.

The "community collaboration" component identified in Executive Order 08-07 is being put forward as a proxy for economic assessment for the first selection of potential sites.

The workshop participants identified long-term impacts that include adjustments to displacement effects of marine reserves as an important consideration.

The appropriate level of consideration for the economic analysis of marine reserves was discussed. Is it the individual site and its associated coastal community(ies)? The state? The region? Oregon policy makers ordinarily look at the state level because ocean resources are owned by the state of Oregon. However the Executive Order focuses on coastal communities and users. This is a narrower focus than for other marine resource management issues.

The choice of appropriate discount rate to apply to future benefits and costs of marine reserves was also a point of discussion. The economic analysis of public actions employs an array of different discount rates. The discount rate appropriate to state-level rulemaking is a policy choice that will need clarification. At present, the only requirement is to identify impacts on affected businesses. These impacts are primarily short term, so no discounting is applied. State rulemaking does not follow the federal National Environmental Policy Act (NEPA) process, which requires preparation of a formal Environmental Impact Analysis (EIA). An EIA must include descriptions of the environmental impacts of the proposed action, any unavoidable adverse environmental impacts, alternatives, including no action, the relationship between short-term uses of the environment and maintenance of long-term ecological productivity irreversible and irretrievable commitments of resources, and secondary/cumulative effects of implementing the proposed action.

The economic analysis of marine reserves will need to address the question of what is assumed to be held constant in estimating marine reserve impacts. Many sources of change in ecosystems and coastal economies make it difficult to assign causation between marine reserve implementation and subsequent impacts. It is also the case that the analysis of marine reserve impacts is in comparison to the status quo – how do the benefits and costs generated by marine reserves compare to those of present Territorial Sea management?

One value of a marine reserve is insurance against areas of uncertainty and against the loss of biodiversity or habitat. What is the public willing to pay for this insurance? Any answer to this question relies on understanding the likelihood of losses under specific circumstances. Part of the answer to this question lies in the evaluation of the cost of implementing marine reserves versus the long-term cost of uncertainty. The opportunity cost (the cost of foregone alternative uses) of implementing marine reserves may be low or it may be high, depending on the site. The long-term costs of uncertainty may also be high in terms of the risk of irreversible actions that endanger biodiversity or habitats.

Marine reserves can also generate research knowledge that has value in long-term marine stewardship. The specific requirement to monitor marine reserves to answer key questions should facilitate long-term monitoring, for which funding is often difficult to maintain.

The stated intent of OPAC is to apply adaptive management to marine reserves, but no sideboards have been specified for how this process will be conducted. Monitoring will be conducted and changes made on the basis of what is learned through periodic reviews during the implementation phase. The periodic reviews provide an opportunity to identify economic performance indicators. This “review and adjustment” perspective is different from the commonly accepted concept of adaptive management, which involves deliberate experimentation for the purpose of addressing areas of uncertainty, then adjusting on the basis of what is learned.

A final topic of discussion was the cost effectiveness of marine reserves. Cost-effectiveness analysis assesses the least-cost approach to a given outcome. The appropriateness of this analytical method to marine reserves and whether marine reserves produce given outcomes (known benefits) is an open question. Marine reserves of similar size would have to be assumed

to justify the assumption of similar outcomes. This approach might also forego an opportunity to learn about the properties of marine reserves of different sizes.

## 5.0 Models

As the previous section makes clear, there is a wide array of economic analytical methods available to analyze questions of marine reserves. The choice of a particular method depends on the specific questions being asked and the availability of data to support analysis of those questions.

The workshop heard presentations of two models that are examples of alternate approaches currently used to assess some of the economic impacts of marine reserves and other ocean policy actions. The first presentation, made by Hans Radtke, was on the Fisheries Economic Assessment Model (FEAM), an input-output based model for estimating economic impacts of the commercial fishing industry. The second presentation, by Charles Steinbeck and Sarah Kruse, was on Ecotrust's Ocean Tools software.

### 5.1 Fishery Economic Assessment Model (FEAM)

The FEAM is a fishery-specific input-output (I-O) model based on the IMPLAN model (<http://en.wikipedia.org/wiki/IMPLAN>), developed by the USDA Forest Service and modified for coastal counties. FEAM defines the structure of the fishery industry and analyzes the effect of an economic change on fishing and other coastal industries. FEAM is based on employment data which, in the case of the fishing and tourism industries, must be estimated and added to the IMPLAN model.

Inputs into FEAM include definitions of harvesters and processors, species-specific prices and price margins, harvester and processor budgets, and total revenues. The industry-level budgets can be employed to show changes in profitability from different harvesting scenarios.

Outputs from FEAM include the total personal income generated by the fishing industry: directly (crew shares, salaries, profits); indirectly (salaries and profits from supporting industries); and induced (salaries and profits from the general economy). Outputs also include the direct total personal income generated by each species included in the model, the economic status of harvester or processor, and an estimate of employment associated with a change in the fishing industry.

The model is currently used to estimate the share of total personal income in Oregon's coastal counties accounted for by various economic sectors, such as commercial fishing.

More specifically, the model also estimates the share of the fishing industry total personal income accounted for by individual species of fish (OCZMA 2006). The model could be used to identify the personal income impacts of commercial fishing in the Oregon Territorial Sea, which comprise only a small proportion of the total Oregon commercial fisheries. FEAM is appropriate for estimating aggregate as well as individual coastal county impacts.

The FEAM model could be adapted to the recreational fishery (and formerly was, in a version called RECFISH) and could evaluate the specific impact of a marine reserve on that sector. As long as the model can track changes in revenue or cost associated with a marine reserve (e.g., travel costs), it can trace its distributional impacts. FEAM does not have a spatial component for the source of fishery income, however, so a vessel receiving all of its income from a certain reserve area would not be revealed by the model. Nor will the FEAM model reveal “tipping points” for coastal communities affected by marine reserves. A key action prior to modeling is to talk with those who are likely to be affected to gain a deeper understanding of potential impacts and substitution options.

I-O models are static in that they take the existing structure of the economy as given and do not capture changes in technology or dynamic adjustments. The model allows researchers to assess immediate, short-term impacts, but not the longer-term adjustment effects. There are opportunities to sequentially update FEAM with changes in prices, technology, markets, and other variables to estimate impacts over time. An improved approach for large-scale changes in the economy over time would require the application of a computable general equilibrium (CGE) model, which incorporates changes in supply and demand for all economic sectors triggered by movements in market prices.

## 5.2 OCEAN Tools Software

Ecotrust’s “OCEAN Tools” software is a stakeholder-driven decision-support tool that combines fisheries mapping and economic valuation. The fisheries mapping is based on local knowledge of areas used for fishing and their comparative values as well as state agency landing receipts that represent ex-vessel revenues earned from landed catch. The idea is to collect economic data on commercial and recreational fishing (use and values) that is then used by the stakeholders to inform their design processes and to evaluate the economic (gross and net) impacts of any proposal. The software has been applied in California in the siting of marine sanctuaries, but the results can be used for multiple evaluations: wave energy, offshore aquaculture, marine reserves, etc.

The application of this software involves the collection of economic data and the evaluation of impacts. The collection of economic data is supported by outreach, surveys, and quality assurance and control. Outreach on the purpose of data collection and the data collection itself are conducted through meetings with port liaisons and members of the fishing community. The survey design process involves identifying key fisheries with their component fishing strategies (practices or gear configurations), the stratification of the study area into port complexes, and the representation of  $\geq 50$  percent of total landings and at least five fishermen for each fishery for a given time period.

Data collection is done through both desktop computer (commercial and charter fisheries) and online (recreational fisheries) applications. All interviews follow a shared protocol for each fishery in which the interviewee participates. Fishermen are asked to identify all fishing areas/locations that are of economic importance over their cumulative fishing experience, and to rank these using an imaginary “bag of 100 pennies” that they distribute spatially over the fishing grounds. Non-spatial information pertaining to demographics and basic operations (costs) is also collected.

Quality assurance and control are conducted by checking locations with corresponding nautical charts and by providing fishermen the opportunity to review and “ground truth” the mapping results of their individual fishing locations.

The fishing grounds are then analyzed by creating a weighted surface that represents the stated importance of different areas for each fishery. The values are multiplied by the proportion of in-study region landings and ex-vessel revenue per fisherman, specific to each fishery and port, to produce a crude, revenue-based measure. Maps of these values are produced for each fishery at the port and regional level.

Results are used to evaluate the economic (gross and net) impacts of the proposals designed by stakeholders. The results can be used for various spatial policy considerations, including marine reserves, wave energy, and offshore aquaculture. Based on the fishing grounds and cost estimates derived from the data collection effort, decision makers can distinguish between total fishing grounds and fishing grounds in state waters, determine the percentage of area and value that will be affected, identify fishermen likely to experience disproportional impacts, and get an overall picture of the effect of fishery area closures on fishing grounds, both immediately and cumulatively.

The software also enables the identification of the relative gross impacts of proposed marine reserve sites. Marine reserve sites vary across fisheries in terms of the percentage of the total fishing area and value affected and the percentage of the study area fishing grounds and value affected. Net economic impacts can be estimated by adjusting gross revenues by costs (crew and fuel) specific to the fisheries in the region.

The information produced through the application of OCEAN Tools has provided a baseline in the California process. The goal has been to have this type of fishery mapping information provided to inform the iterative process of proposing marine protected area sites. The results have not been verified with fishery logbook data; Wilen and Abbott (2006) attempted to verify the model using logbook data, with only partially successful results. However, the incentives for “gaming” (deliberately misrepresenting the importance of a location to fishery revenues) may be few once aggregate maps are shown to the fishing community for validation, unless the “gamers” are the majority of the fishing community, in which case gaming may not be transparent (Wilen and Abbot 2006; McCay et al. 2006).

This situation contrasts with Oregon where there are opportunities to “game” the mapping process because specific sites are already proposed and where mapping of fishery locations will be done in reference to those sites. In Oregon, the interview challenge will be to convince fishermen that it is in their interest to have as accurate as possible a set of maps showing the valuable fishery locations. Gaming opens the possibility that marine reserves will be placed in some other potentially productive site.

The online data entry for recreational fisheries does present the potential for sampling bias through omission of the recreational or subsistence fishing demographic that is not computer

literate. However, group reviews of aggregate maps help ensure that all fishing grounds are represented.

The mapping of fishing grounds is constrained by the detail of the nautical charts in that region. The fishery can be stratified in whatever way makes sense for the particular analysis, as long as information is available for the chosen strata. The model does not have a behavioral component to understand adjustments to an area closure, but it would be possible to apply the model in multiple rounds to estimate where the next valuable areas are. This capability is currently under development.

## **6.0 Economic Data Needs for the Analysis of Marine Reserves**

Collection of economics data is an area of chronic underinvestment in both state and federal fisheries, as well as in other marine economic sectors.

Economic data are needed for both short-term and long-term analyses. In the short term, minimizing adverse economic impacts of marine reserves on ocean users and coastal communities depends on having an analysis that lays out these impacts in a systematic way. The analysis, in turn, depends on data. In the longer term, Oregon faces many economic issues in Territorial Sea planning associated with an array of existing uses such as fisheries, recreation, and ecotourism, and emerging uses such as marine reserves, wave energy, and wind energy. The assessment of these competing uses and the tradeoffs among them will depend on economic analysis supported by data.

For the immediate future, the focal economic issues will be the economic impacts of marine reserves on ocean users and coastal communities. Many factors determine the type of economic effects a marine reserve will have. A wide range of economic data can be considered in the analysis of impacts. The data types can be grouped into seven categories: (1) community baseline conditions, (2) trends in existing uses, (3) trends outside the reserve area, (4) likely displacement effects, (5) nonmarket values, (6) reserve-related effects, and (7) new data collection. These data categories were described in a handout prepared for the Oregon marine reserve outreach process to help communities identify economic data needed for the analysis of economic impacts (Hanna 2008). The categories are summarized below, with additional notes for elements that were discussed during the workshop. A detailed outline of the economic data elements is included as Appendix E to this report.

### **6.1 Community Baseline Conditions**

Objective information is needed on current conditions, including an accounting of ocean users and shoreside economic activities, to evaluate the potential adverse economic effects on local communities.

Workshop Discussion:

The Territorial Sea Plan requires an inventory of use data, but this has not as yet been conducted.

### **6.2 Trends in Existing Uses in Proposed Reserve Areas**

Revenue and cost information will be required on commercial and recreational fishers and other ocean users.

Workshop Discussion:

Data on commercial fishing revenues in Oregon are routinely collected by agents from the Oregon Department of Fisheries and Wildlife and are readily available from the Pacific Fishery Information Network (PacFIN). Commercial fishery cost data ideally should be acquired by a comparable routine long-term data-collection process. Absent such a data-collection system, the best short-term alternative may be to conduct interviews with individual fishermen or fishery focus groups. Data currently available on the revenues and costs of marine recreational fishing in Oregon are based on limited sampling programs and have very poor spatial resolution.

Although fisheries are often the focus of impact analysis of marine reserves, other marine-based economic activities also contribute to coastal communities and fall within the category of ocean users. The range of non-fishery sectors affected depends to some extent on the interpretation of prohibited extractive uses and disturbances: do these include tide-pooling and marine cables?

With regard to tourism, a critical need is information on why people come to the coast as tourists. What are the components of value in tourism (both positive and negative), from the perspectives of tourists and coastal residents? A related question is, what motivates people to move to the coast? What is their willingness to pay to live in a coastal community? How would marine reserves factor into their location decision?

Data on waterfront infrastructure are needed for analysis of coastal community economic impacts. A related need is to determine critical thresholds that determine the sustainability of fishery-related port infrastructure.

### 6.3 Trends Outside the Reserve Areas

Factors from outside the reserve area, such as proximity to Rockfish Conservation Area boundaries or other actions by the Pacific Fishery Management Council, are likely to have dissimilar effects on different communities and marine reserve sites.

Workshop Discussion:

The distribution of vessel sizes in a given area is an important consideration, particularly with regard to safety. For example, if a large area of combined marine reserve/marine protected area were closed to trawl gear, in combination with areas closed for black rockfish protection, it could effectively shut off from the fishery small trawl vessels that cannot safely go out into deep water. These vessels may currently earn all their revenues from one small area.

### 6.4 Likely Displacement Effects

If marine reserves are sited on active fishing grounds, displaced fishers will likely move their fishing operations to other fishing grounds.

Workshop Discussion:

It will be important to understand whether changes in resource use, such as changes in the quantity of fish harvested, will lead to changes in resource value, as expressed in ex-vessel price. What is the level of consumer willingness to pay for seafood caught in Oregon's Territorial Sea?

What are the regional impacts of changes in the quantity or location of fishery landings? For species managed with Total Allowable Catches (TACs), it is reasonable to assume that the same amount of fish may be caught after marine reserve implementation, although in somewhat different locations. For species not managed with TACs, such as Dungeness crab, the quantity of total landings could change.

#### 6.5 Nonmarket Values

There could be appreciable nonmarket values associated with nearshore recreational fisheries, nearshore surfing, nearshore diving, and possible eco-tourism from visits to marine reserve sites.

##### Workshop Discussion:

Currently, we have no estimates of the willingness to pay or willingness to accept compensation for particular marine reserve sites, nor do we know the values placed by ocean users or the public on nearshore recreational fisheries, surfing, diving, or other recreational uses.

#### 6.6 Reserve-related Effects

Planning for marine reserves will need to give due consideration to the incentives that will be needed for compliance with marine reserve restrictions and the cost of enforcement.

##### Workshop Discussion:

An important information need is how the size and shape of a marine reserve affects the cost of enforcing its boundaries and conditions. Also relevant is information on effective compliance incentives. For example, it is well known that the size of the fine for a violation affects compliance, so that to some extent a schedule of large fines can substitute for low levels of enforcement monitoring. However, although large fines have a deterrent effect, they can also be so large that courts will be reluctant to enforce them. Other positive enforcement incentives, such as the Bering Sea's "dirty-dozen" list of vessels in violation, are worth investigation.

#### 6.7 New Data Collection

##### Workshop Discussion:

Logbooks are currently the only medium by which commercial fisheries in state waters are spatially documented. The groundfish, crab, and developmental fisheries provide logbook data; others (e.g., salmon and sport charter) do not.

Electronic methods of fishery data collection offer potential benefits for spatially explicit economic data that will support predictive modeling. However, developing these data-collection systems is a long-term effort that does not address the need for short-term analysis of proposed Oregon marine reserve sites. Electronic logbooks are uploaded automatically by equipment on a

vessel. Vessel monitoring systems (VMS) track fishing vessel location, although to date, vessels fishing solely within state waters are not required to carry VMS.

In the short term, the most likely means to collect spatially explicit economic data would be interviews, focus groups, and dockside surveys.

## **7.0 Existing Economic Data for Oregon Marine Reserves**

The quantity of economic data to support analysis of Oregon marine reserves is limited.

The workshop heard five presentations regarding the fishery, economic, and GIS data that presently exist for the Oregon Territorial Sea. The first presentation, on spatial economics data, was given by David Colpo (Pacific States Marine Fisheries Commission). The second presentation, on state data, was given by David Fox (ODFW). The third presentation, on GIS data, was given by Arlene Merems (ODFW). The fourth presentation, on commercial fishery data, was given by Carla Sowell (ODFW). The fifth presentation, on recreational fishery data, was given by Linda ZumBrunnen (ODFW).

### **7.1 Spatial Economics Data**

Spatial economics data are data that can be associated with a specific geographic place. There is presently no routine collection of economics data with a fine-scale spatial resolution. What are available are some port-specific data collected in the Pacific Coast Fishery Information Network (PacFIN) system, and non-spatial economics data held in the Economic Fisheries Information Network (EFIN) system. Both systems are managed by the Pacific States Marine Fisheries Commission.

The spatial data in PacFIN include fish ticket data (landings by trip) and trawl logbook data (landed catch by tow). Oregon law requires that all commercial fish landed in the state be sold to a wholesale fish dealer and reported on an Oregon Fish Receiving Ticket (Sampson et al. 1997). Fish ticket data include the weight and price by species purchased, as well as area of catch, port of landing, seller, and buyer. However, not all tickets report area of catch; even when the information is included, it will be misleading for trips that operated in multiple areas.

Oregon law also requires that logbooks be maintained for each vessel that harvests ocean food fish, which includes fish caught with groundfish trawls, pots, longlines, jigs, vertical longlines, and trolls, as well as shrimp trawls. Trawl logbook data include latitude and longitude of tows and estimated retained catch by tow. The response rate is about 95 percent. Most trawl tows off Oregon occur in deeper water, outside of the Oregon Territorial Sea.

Some economics survey data exist. The survey questionnaires focused on four types of information not provided by other sources (landings, registration, logbook, etc.): annual costs, annual earnings, vessel characteristics, and crew compensation. Survey data include limited-entry trawl vessels (1999; 2003–04), processors (1999), charter vessels (2001), fixed gear vessels (2003–04), open-access groundfish and salmon vessels (2005–06), and fuel costs (ongoing; 1999+). Response rates varied widely.

A number of other data sources are relevant to economic analysis. State and Coast Guard vessel registration data include vessel characteristics and ownership information. Federal limited-entry permit data include permits held by vessels. The processed-product survey reports the quantity and mix of product annually produced by plants or companies, although the data are of unknown quality and representativeness because it is a voluntary survey. Vessel monitoring system (VMS) data exist for vessels catching groundfish in federal waters. Community profiles of Oregon fishing ports include descriptive information on seafood buyers and processors, markets, landings, ex-vessel revenues, and demographics.

## 7.2 State of Oregon Data

Using a broad definition of economic data as any data that may apply to an economic analysis, a few state data sources apply. Landings data are collected for commercial and some recreational fisheries. The Oregon Parks and Recreation Department collects visitor data at state parks. The Oregon Tourism Commission collects tourism-related data.

Few Oregon data are represented in Geographic Information System (GIS) format. Commercial and recreational fishery data can be characterized according to four categories of GIS data-readiness: (1) electronic data at fine resolution (e.g., latitude-longitude or Loran coordinates or 1-minute blocks); (2) electronic data at coarse resolution (e.g., port/reef/management area); (3) hard copy data at fine resolution (e.g., latitude-longitude or 1-minute blocks), and (4) hard copy data at coarse resolution (e.g., port/reef/management area). Hard-copy data exist on paper and are not entered into any electronic database, and thus are further away from being incorporated into GIS.

Oregon commercial fishery data fall into all four categories. Data available as categories 1 or 2 are available to be used in GIS format.

- GIS-ready as category 1 (at least some data): logbooks for groundfish bottom trawl, nearshore groundfish (mostly drift jig), sardine, shrimp, spot prawn, urchin, and flat abalone fisheries.
- GIS-ready as category 2: fish tickets for species caught with bottom trawl, midwater trawl, shrimp trawl, fish and crab pots, hook and line, longlines, troll, shellfish hand gear, and non-foodfish bait. Logbook data for some years of the nearshore groundfish and urchin fisheries.

There is a data-entry backlog for categories 3 and 4, and there is no expectation that these data will be available in electronic form in the near future. Some entry of crab and spot prawn data is taking place. No funds are available to support entry of fixed-gear data. Nearshore logbook data have not been error-checked and are not considered usable for detailed analysis. Other data have quality issues, for example, uncertainty about entered fishing locations. Some data are confidential because they are revenue information for specific vessels. These data are available for research purposes according to specified protocols. More-detailed discussions of Oregon commercial fisheries data can be found in two reports of The Research Group (2005; 2007).

Information about the economic effects of Oregon coastal recreational fisheries is scattered among different sources. A 2006 study was undertaken to bring together existing economic information and provide estimates for fisheries where none existed, but the included fisheries are still selective (The Research Group 2006).

The Ocean Recreational Boat Survey (ORBS) conducted by the ODFW is an annual angler-intercept survey of ocean salmon and bottomfishing. It provides data on catch and effort. In some years, the ODFW has also surveyed recreational fishing in the lower estuary areas through the Shore and Estuary Boat (SEB) survey. Due to budget restrictions, this survey has not been conducted since 2005. The Columbia River mainstem recreational fisheries are surveyed through the Columbia River Creel Program (CRCP). Estimates of recreational catch and effort derived from the ORBS, SEB, and CRCP surveys are compiled in the RecFIN database administered by the Pacific States Marine Fisheries Commission (PSMFC). The most recent ocean fisheries trip information is 2006 (The Research Group 2007).

At the federal level, NMFS has conducted the nationwide Marine Recreational Fisheries Statistics Survey (MRFSS) since 1979. The MRFSS is a two-stage survey: a random-digit-dialing telephone survey of coastal residential households and an access-point intercept survey of anglers. The survey provides estimates of marine recreational angler fishing effort, participation, and catches of finfish, and distinguishes among three different modes of fishing: bank, charter boat, and private boat at two locations in the ocean (within and outside territorial seas and inland saltwater (estuary) areas. The West Coast MRFSS was discontinued in 2002, and state survey programs (ORBS in Oregon) have substituted for acquiring recreational fishing data collection (Schindler et al. 2003, cited in The Research Group 2007).

Oregon recreational data are classified as categories 1 and 2, although none are GIS-ready. Survey data exist for the ocean shore finfish, ocean boat finfish, and charter boat fisheries for various time periods. Economic data elements in these surveys include trip costs, other expenditures, county of expenditure, boat ownership, income, distance traveled, and charter revenues.

The ODFW is now working on an economic survey of fish and wildlife recreation. The survey comprises four separate sub-surveys: hunting, angling, shellfish harvesting, and wildlife viewing. The first three sub-surveys use a stratified random sample of the recreational license database. The primary focus of the survey is trip costs and their association to the county-level (or wider) economic contribution of recreational shellfish harvesting, hunting, and fishing. The fishing survey breaks out marine species as an aggregate rather than individual species. The fourth survey, on wildlife viewing, is a phone survey of the general population, with a focus similar to the hunting and fishing surveys. The surveys will have spatial data represented by the nearest city or county to where trips were taken. A final report on the surveys will be available in early 2009 (Fox 2009).

## **8.0 Economic Data Gaps for Oregon Marine Reserves**

Proposed sites for Oregon marine reserves received an initial qualitative evaluation based on eight coarse review criteria. One criterion was the minimization of significant adverse impacts to

ocean users/coastal communities. The qualitative evaluation addressed which fisheries exist in the affected area and described general impacts on those fleets. The intent is that in the next phase of review, the proposed sites will be analyzed for economic impacts on ocean users and coastal communities.

The workshop discussion identified a number of gaps in the economics data that will need to be addressed if economic impacts are analyzed.

**Baseline data:** The absence of ongoing collection of economic data for Oregon fisheries and other ocean uses means that there is no spatially explicit economic baseline representing conditions before planning for new action on reserves began. A limited baseline is provided by the identification of port of landing or trip end. However, there is no documentation of the spatial uses of the Territorial Sea, the value they produce, or their economic contribution to coastal communities. The absence of a pre-reserve baseline severely restricts the ability to quantify post-reserve impacts. Most of the existing fishery data are limited by the lack of a spatial component.

**Spatially explicit data:** Spatially explicit economic data are limited to logbooks and fish tickets for some commercial fisheries. They are limited in the extent to which they can be used to document fishery uses of proposed marine reserve sites and fishery revenues produced in those sites. Other marine uses such as surfing, boating, or ecotourism are not represented by spatial data.

**Recreational fishery data:** There is a marine sampling program for Oregon's marine recreational fisheries, with some components being sampled more completely than others. Recreational fisheries data collection is targeted on key fisheries from a management perspective and needs to be assessed with regard to their use in the economic analysis of reserve proposals or evaluations.

**Valuation of marine reserves:** No research exists on the economic values placed on marine reserves by the Oregon public. Such research would estimate the values of the ecosystem services produced by a marine reserve, for example, insurance values.

**Valuation of the Territorial Sea:** There has been limited assessment of the economic values placed on the Territorial Sea's portfolio of marine economic activities by the Oregon public. New methods of analysis that derive empirical social preferences for different ecosystem services offer potential to supplement traditional methods based on estimated monetary values (cf. Fisher et al. 2009; Whitmarsh and Palmieri in press).

**Coastal community economics:** Research in this area needs updating. The most recent version of FEAM is based on 2006 data, with recreational fishing represented only through 2002. There is a critical need for data on shoreside infrastructure, for example, jetties, seafood processing, and ice production.

## **9.0 Workshop Findings and Recommendations**

Workshop participants worked sequentially through a series of topics related to the economic analysis of Oregon marine reserves: OPAC objectives for marine reserves, economic elements of

marine reserves, economic analytical methods, examples of models and software, economic data needs, existing economic data, and gaps in these data. A number of findings and recommendations emerged from these discussions.

## **General Findings**

**Finding 1:** OPAC's marine reserves objectives require the assessment of economic impacts on ocean users and coastal communities.

**Finding 2:** The assessment of economic impacts (both positive and negative) of marine reserves has several dimensions: documenting existing ocean uses and their economic contribution to people and communities, predicting human behavioral responses, and identifying benefits and costs. Marine reserves may be complementary to fishery regulations already in effect in Oregon's Territorial Sea.

**Finding 3:** Executive Order 07-08 lists ocean users and coastal communities as the focus of impact assessment for marine reserves; however, depending on their scale and placement, marine reserves may also have impacts beyond coastal areas.

**Finding 4:** Several methods and models are appropriate for analyzing economic impacts of marine reserves.

## **Specific Findings and Recommendations**

**Finding 5:** Existing economic data are limited in their geographic specificity and are therefore inadequate to analyze the impacts (both positive and negative) of Oregon marine reserves on ocean users and coastal communities. There are fundamental gaps in baseline data, spatially explicit data, recreational fishery data, coastal community economics, public valuation of marine reserves, and public valuation of other marine activities in the Territorial Sea.

**Finding 6:** There is no coherent, comprehensive documentation of the spatial uses of the Territorial Sea, the value they produce, or their economic contribution to coastal communities. The absence of a pre-reserve baseline severely restricts the ability to quantify post-reserve implementation effects. Most of the existing data are on fishery uses, but these data have limited information about exact harvesting locations, ports where the catch is delivered, or residency of fishing industry workers. Spatially explicit economic data are needed for effective marine reserve implementation and for management to ameliorate adverse effects.

**Recommendation 6.1:** OPAC should highlight the inadequacy of economics data needed to support its marine reserve objective for avoiding significant adverse economic impacts on ocean users and coastal communities and for estimating the potential of positive, long-term economic impacts.

**Recommendation 6.2:** In the short term, OPAC should recommend the collection of spatially explicit economic data for specific marine reserve sites through expert opinion methods that involve ocean users and managers. The collected data should be

crosschecked with available data and judged verifiable before being incorporated into the decision-making process.

**Recommendation 6.3:** In the short term, OPAC should recommend the collection of information about likely user group and community response to spatial exclusion through surveys of affected groups. The collected data should be crosschecked with available data and judged verifiable before being incorporated into the decision-making process.

**Recommendation 6.4:** As the lead agency for marine reserves, ODFW should create a Web space to host the economic information they fund, with links to other pertinent marine economic information, to enhance its circulation and application.

**Finding 7:** State-level marine economics data are collected. However, the process of data collection is *ad hoc*, incomplete, and uncoordinated.

**Recommendation 7.1.** For the long-term economic assessment of marine reserves and other uses of the Territorial Sea, OPAC should recommend the formation of an Oregon Marine Economics Data Work Group charged with defining an ongoing core economic data-collection program.

**Recommendation 7.2.** The Oregon Marine Economics Data Work Group should consider methods to involve ocean users and coastal communities in data collection, including incentive-based programs.

**Recommendation 7.3.** OPAC should recommend state funding of the core data program developed by the Oregon Marine Economics Data Work Group.

**Finding 8:** Economic impacts are one element of marine reserve performance. There are opportunities to learn about economic impacts of marine reserves by investing in economic data and research.

**Recommendation 8.1:** OPAC should ensure that economic performance indicators are a component of the monitoring and periodic performance review of marine reserves. Economic and ecological monitoring should be coordinated and complementary.

**Recommendation 8.2:** OPAC should recommend that cooperative research be funded to learn from existing and ongoing studies of marine reserves on the U.S. West Coast and elsewhere, and to enhance the ability to understand and interpret economic impacts of reserve creation and operation.

**Finding 9:** Economic data are also needed for the planning and analysis of other uses of Oregon's Territorial Sea, such as wave and wind energy.

**Recommendation 9.1:** OPAC should recommend that the economic data collection program to be designed by the Oregon Marine Economics Data Work Group include the full range of uses of the Oregon Territorial Sea.

## 10.0 References

- Ablan, F., G. Appere, and J. Boncoeur. 2006. *Economic Analysis of Marine Protected Areas: A Literature Review*. EMPAFISH Project Booklet No. 3.
- Anderson, L. 2002. A Bioeconomic Analysis of Marine Reserves. *Natural Resource Modeling* 15(3):311–334.
- Dziegielewska, Dominika (lead author); Tom Tietenberg, and S. Niggol Seo (topic editors). 2007. Total Economic Value. In C. J. Cleveland, ed. *Encyclopedia of Earth*. Washington, D.C.: Environmental Information Coalition, National Council for Science and the Environment. [First published in the Encyclopedia of Earth August 22, 2006; Last revised April 15, 2007; Retrieved December 12, 2008.]  
[http://www.eoearth.org/article/Total\\_economic\\_value](http://www.eoearth.org/article/Total_economic_value)
- FAO Fisheries Department. 2003. *Fisheries Management 2. The Ecosystem Approach to Fisheries*. FAO Technical Guidelines for Responsible Fisheries – No. 4 Suppl. 2.
- Fisher, B., R. K. Turner, and P. Morling. 2009. Defining and classifying ecosystem services for decision making. *Ecological Economics* 68:643–653.
- Fox, D. 2009. Personal communication by email regarding the OPAC marine reserves proposal development process, January 30.
- Grafton, R. Q., L. H. Pendleton, and H. W. Nelson. 2001. *A Dictionary of Environmental Economics, Science, and Policy*. Edward Elgar, Northampton, MA.
- Hanna, S. 2008. Marine Reserves and Coastal Communities: Economic Effects. Oregon Sea Grant unpublished circular provided to education/outreach program for Oregon marine reserves. February 8.
- . 2004. The Economics of Protected Areas in Marine Fisheries Management: An Overview of the Issues. Chapter 26 in *Aquatic Protected Areas as Fisheries Management Tools*. Bethesda, MD: American Fisheries Society.
- Heppel, S., J. Barth, and H. Reiff. 2008. Size and Spacing of Marine Reserves Workshop Report. Oregon Institute of Marine Biology, Charleston, OR. April 9–10, 2008.
- Kiker, G. A., T. S. Bridges, A. Varghese, T. P. Seager, and I. Linkov. 2005. Application of Multicriteria Decision analysis in Environmental Decision Making. *Integrated Environmental Assessment and Management* 1(2):95–108.
- McCay, B. J., C. Pomeroy, and K. St. Martin. 2006. Peer review of Ecotrust MLPAI Products. Report submitted to the California Fisheries Coalition, an ad hoc committee of the

- Alliance of Communities for Sustainable Fisheries (CFC/ACSF), 1621 B Thirteenth Street, Sacramento, CA 95814. Available at [http://www.ecotrust.org/mlpa/CFC\\_Ecotrust\\_peer\\_review\\_final.pdf](http://www.ecotrust.org/mlpa/CFC_Ecotrust_peer_review_final.pdf)
- National Ocean Economics Program. 2008. Environmental & Recreational (Non-Market) Values – Research Methodologies. <http://noep.mbari.org/nonmarket/methodologies.asp>
- National Research Council. 2001. *Marine Protected areas: Tools for Sustaining Ocean Ecosystems*. Washington, D.C.: National Academy Press.
- NOAA Coastal Services Center and National Marine Protected Area Center. 2005. Social Science for Marine Protected Areas Web site [www.csc.noaa.gov/mpass](http://www.csc.noaa.gov/mpass).
- Oregon Ocean Policy Advisory Council (OPAC). 2008a. Marine Reserves Web site at [http://www.oregonmarinereserves.net/index.php?option=com\\_content&task=view&id=83&Itemid=1](http://www.oregonmarinereserves.net/index.php?option=com_content&task=view&id=83&Itemid=1)
- Oregon Ocean Policy Advisory Council (OPAC). 2008b. Summary of Meeting, January 8, 2008, The Loft at the Red Building, Astoria, Oregon.
- . 2008c. *Oregon Marine Reserve Policy Recommendations: A Report to the Governor, State Agencies and Local Governments*. OPAC. August 18, 2008.
- Sampson, D. B., P. R. Crone, and M. R. Saelens. 1997. Groundfish Data Collection in Oregon. Chapter 3 in D. B. Sampson and P. R. Crone, eds. *Commercial Fisheries Data Collection Procedures for U.S. Pacific Coast Groundfish*. NOAA Tech. Memo. NMRS-NWFSC-31, 189 p.
- Sanchirico, J. N. and J. E. Wilen. 2002. The Impacts of Marine Reserves on Limited-Entry Fisheries. *Natural Resource Modeling* 15(3):380–400.
- Schindler, E., P. Flanders, D. Bodenmiller, and B. Wright. 2003. Sampling Design of the Oregon Department of Fish and Wildlife's Ocean Recreational Boat Survey (ORBS). ODFW Marine Resources Program.
- State of Oregon Office of the Governor. 2008. Executive Order No. 08-07 Directing State Agencies to Protect Coastal Communities in Siting Marine Reserves and Wave Energy Projects.
- Sumaila, U. R. and A. Charles. 2002. Economic Models of Marine Protected Areas: An Introduction. *Natural Resource Modeling* 15(3):261–272.
- Sumaila, U. R. and C. W. Armstrong. 2006. Distributional and Efficiency Effects of Marine Protected Areas: A Study of the Northeast Atlantic Cod Fishery. *Land Economics* 82(3):321–332.

- The Research Group. 2007a. *Oregon Marine Recreational Fisheries Economic Contributions In 2006*. Report prepared for Oregon Department of Fish and Wildlife and Oregon Coastal Zone Management Association. June 2007. Available at [http://www.oczma.org/pdfs/ODFW%20Marine%20Rec\\_effects%202006.pdf](http://www.oczma.org/pdfs/ODFW%20Marine%20Rec_effects%202006.pdf)
- . 2007b. *Oregon's Commercial Fishing Industry. Year 2005 and 2006 Review and Year 2007 Outlook*. Report prepared for Oregon Department of Fish and Wildlife and Oregon Coastal Zone Management Association. June 2007. Available at <http://www.oczma.org/pdfs/ODFWreview2006outl2007.pdf>
- . 2006. *A Demographic and Economic Description of the Oregon Coast: 2006 Update*. Report prepared for Oregon Coastal Zone Management Association. March 2006.
- . 2005. *Nearshore Species Commercial Fishing Economic Analysis*. Report prepared for Oregon Department of Fish and Wildlife and Oregon Coastal Zone Management Association. August 2005. Available at [http://www.oczma.org/pdfs/Nearshore%20Econo\\_port8-10-05.pdf](http://www.oczma.org/pdfs/Nearshore%20Econo_port8-10-05.pdf)
- Whitmarsh, D. and M. G. Palmieri. N.d. Social Acceptability of Marine Aquaculture: The Use of Survey-based Methods for Eliciting Public and Stakeholder Preferences. *Marine Policy*, in press.
- Wilens, J. E. and J. Abbott. 2006. Discussion of Ecotrust Methodology. In: *Commercial fishing grounds and their relative importance off the Central Coast of California*. Report submitted to the California Marine Life Protection Initiative in Partial Fulfillment of Contract No. 2006-0014M. Available at [http://www.ecotrust.org/mlpa/Wilens\\_re\\_EcoTrust.pdf](http://www.ecotrust.org/mlpa/Wilens_re_EcoTrust.pdf)

## Appendix A. Workshop Participants

Christine Broniak	Oregon Department of Fish and Wildlife
Chris Carter	Oregon Department of Fish and Wildlife, Ret.
Dave Colpo	Pacific States Marine Fisheries Commission
Shannon Davis	The Research Group
Jeff Feldner	Oregon Sea Grant
Dave Fox	Oregon Department of Fish and Wildlife
Susan Hanna	Oregon State University
Michael Harte	Oregon State University
Dan Huppert	University of Washington
Sarah Kruse	Ecotrust
Arlene Merems	Oregon Department of Fish and Wildlife
Hans Radtke	Economics consultant
Jay Rasmussen	Oregon Sea Grant
David Sampson	Oregon State University
Carla Sowell	Oregon Department of Fish and Wildlife
Charles Steinback	Ecotrust
Gil Sylvia	Oregon State University
Linda ZumBrunnen	Oregon Department of Fish and Wildlife

### Notetakers:

Chris Cusak	Oregon State University
Juna Hickner	Oregon Sea Grant

## Appendix B. Public Observers

Laura Anderson	Local Ocean Seafoods
Walter Chuck	Sport fishing representative, Newport, OR
Flaxen Conway	Oregon State University
Carl Finley	Corvallis, OR
Onno Husing	Oregon Coastal Zone Management Association
Andy Lanier	Salem, OR
Jim O'Higgins	Newport, OR
Ron Mason	Sport fisherman, Newport, OR
George Mpitsos	Newport, OR
John Sherman	Coastal resident
Chuck Weller	Coast Range Association

## Appendix C. Public Comments

Tuesday, October 21, AM

- Chuck Willer, Coast Range Association:
  - This process must be interdisciplinary.
  - Re: the social discount rate and uncertainty: a negative discount rate is what should probably be assumed.
  - Scale issues are important – relevant to biodiversity over time.
  - Extensive literature in conservation biology
- Ron Mason, sport fisherman:
  - Experience value: need to take into account sport fishing. Biggest part of experience is just being out on the ocean. Won't go out just to look at the area, but being able to go out is very important.
  - Economic impact: spends money in places other than just coast.
  - Fisheries management sustainability: OPAC said reserves aren't for this, but clear that it is. Many places where MRs went in had poor management, and Oregon has some of the best management in the world.
  - Can't tell how MRs will improve experience for beachwalkers, surfers, etc.
- Walter Chuck, sportfisher representative:
  - Asks that discussions consider economic impact to existing businesses. If current businesses went away, what would the cost be in five years to re-enter business?
  - Need to focus also on wave energy, gas/oil exploration, aquaculture, etc.
  - Each port along the coast has different tipping points: losing 10 percent in one port could be devastating, while not a huge impact on other areas.
  - Long-term funding considerations. Outside money not well received.
- Onno Husing, Oregon Coastal Zone Management Association:
  - Urges workshop participants to spend very little time trying to figure out what's on OPAC's mind and instead focus on the Territorial Sea Plan.
  - Thinks that at OPAC, two pilot projects will go forward and the rest will be asked to go back to the community level. So economists have time to go forward with somewhat of a blank slate.
  - SOORC: Group from Depoe Bay will start working with Ecotrust.
- George Mpitsos
  - Problem: it is a complex, multidimensional system in ocean and on land. We know very little about the environment, and environment has to restore itself. Answer won't come in numbers, but in terms of values: where we wish to place our resources.

## Tuesday, October 21, PM

- Laura Anderson, Local Ocean Seafood:
  - From the industry perspective, it's important to ensure a steady supply of sustainable seafood. Also from the industry perspective, reserves are only one issue on the horizon.
  - Burden of proof falls on industry to provide information useful to decision makers. Some industry groups are moving forward (SOORC); others should be because it's in their best interest to defend their boundaries.
  - A two-year time frame is enough to start conversations and work on getting industry on board.
  - Notion of adaptive management is beyond the scope of immediate data needs, but pertinent to trying to predict where fishermen will move. Tools can help us understand what has happened – can show why a certain fishery went downhill so it doesn't get blamed on incorrect factor.
- Chuck Willer, Coast Range Association:
  - OPAC is an advisory committee; the governor and legislature then make decisions. So the work done here can inform more than just OPAC.
  - Analytic tools: we're talking about relatively small reserves, and many tools are scaled toward larger areas.
  - Re: Santa Barbara group doing some modeling: has a paper he will bring in. Reserves will benefit fishers; it's just a matter of how far in the future.
  - Economics is static, extremely hard to do dynamic analysis. Impact to individual fishers must be weighed against future benefits to others.

## Wednesday, October 22, AM

- Chuck Willer, Coast Range Association:
  - Data issue: needs to be understood in terms of public interest. Data is becoming much more transparent.
  - Data needs: look at full suite of ecosystem services. Remember what it is that a reserve does that nothing else can do: re-establish functioning ecological conditions in a space.
  - Gaps: we don't have an understanding of historic range of variability, which is important.
  - "Outsiders driving process": not necessarily true. His organization has many coastal residents who support reserves.
  - Most economists in the room are probably conventional economists. Key problem: failure to interface or deal with ontological reality of what we're talking about. Wondering about data gaps from an institutional perspective. There are other economic schools out there with different data and perspectives.

- Onno Husing, Oregon Coastal Zone Management Association:
  - Confidentiality: diagram on flipchart of fishing area intensity. It is possible to collect information from fishermen on more than just fishing grounds.
  - Budget: Onno has been working to get grant funding to get outside dollars; hoping to move forward by 2009–10. Would hope to get spatially explicit mapping done. Has application in to Meyer Memorial Trust.
  - Response to Chuck’s comments about “outsiders” and “community”: hoping to have a process where people from coast, outside of coast, and industry take time to talk to each other about process.
  
- Laura Anderson, speaking as marine resource consultant:
  - Port Orford (PO) is a model of a community addressing economic questions.
  - Lots of work done already in PO. Ecotrust has been working in PO, also have other good baseline information.
  - Community members would likely want the same questions asked as have been talked about in the workshop: will catch levels go up or down, will revenue go down, will there be attrition in a fishery because of reserves?
  - If PO is adopted as a pilot site, there must be some level of funding. Minimum \$25–50K/year to follow up on baseline of what’s already there.
  
- John Sherman:
  - Lives on coast, frequently visits the beach (esp. from South Beach to Boiler Bay). Developed Devil’s Punchbowl to Whale Cove proposal.
  - Asking group not to fret over perfect data – it will never be perfect. Do best you can with what you have.
  - In OPAC, there is a strong emphasis on commercial fisheries. But there are also people who have a strong interest in the marine environment and value it very much. Loves storm watching and walking along beach – how do you put a value on that? Hopes noncommercial values will be taken into consideration and the values/concerns/interests of those not fortunate enough to live on the coast.
  - Please try to reach out beyond commercial interests and coastal interests. Sooner or later the proposals will have to go to the legislature for funding, and will need support from broad constituent base.

**Appendix D. Workshop Agenda**  
**Ocean Policy Advisory Council Scientific and Technical Advisory Committee**  
**Technical Workshop on Economic Data and Analysis of Marine Reserves**  
**October 21–22, 2008**  
**Library Seminar Room**  
**Hatfield Marine Science Center, Newport, OR**

**Workshop Objective:** To assess the status of economic data and analysis with regard to siting and management of marine reserves in Oregon waters and to reach a series of findings and conclusions regarding the availability and adequacy of data.

**This is a technical workshop focused on economic data and analytical methods useful to inform decision makers. The workshop will explore tools for evaluating decision outcomes but will not include advocacy for particular policy outcomes.**

**Reporting Objective:** To produce a report for STAC adoption and subsequent submission to OPAC. The report will identify economic questions relevant to the size, siting, and management of marine reserves; describe appropriate economic methodology; assess the existence and adequacy of economic data; and identify economic data gaps.

**Workshop Format:** Workshop will be open to the public, but discussions will be limited to invited participants. Public comment periods will be held at the end of each morning and afternoon session. Written submissions are also welcome.

**Tuesday, October 21**

- |               |   |
|---------------|---|
| 9:00 – 9:10   | Welcome: STAC Chair Jay Rasmussen   |
| 9:10 – 9:30   | Workshop Chair Susan Hanna <ul style="list-style-type: none"><li>• Introductions</li><li>• Review of workshop format and ground rules</li><li>• Review and approval of agenda</li></ul> |
| 9:30 – 10:00  | Oregon OPAC Objectives for Marine Reserve<br>Presentation: OPAC objectives (10 minutes)<br><br>Discussion   |
| 10:00 – 11:00 | What are the economic questions relevant to Oregon’s marine reserve objectives?<br><br>Discussion   |
| 11:00 – 11:15 | Break   |
| 11:15 –12:15  | What are the economic analytical methods relevant to marine reserves?   |

Setup summary presentation: Types of economic analyses of marine reserves (10 minutes)

Discussion

12:15 – 12:30 Public comment

12:30 – 1:30 Lunch provided

1:30 – 2:30 Presentations: models and software

1:30 – 2:00 FEAM I-O Model  
Hans Radtke

2:00 – 2:45 OCEAN Tools software  
Charles Steinback  
Sarah Kruse

2:45 – 3:30 What are the economic analytical methods relevant to marine reserves in Oregon?

Discussion

3:30 – 3:45 Break

3:45 – 4:45 What data are needed to support economic analyses of Oregon marine reserves?

Discussion

- Market goods and services
- Nonmarket goods and services

4:45 – 5:00 Public comment

5:00 Adjourn for the day: Dinner on your own

### **Wednesday, October 22**

8:30 – 9:00 Discussion: review of Day 1 and modification of Day 2 agenda

9:00 – 10:30 Inventory of existing economic data

Spatial economics data: Dave Colpo, PSMFC (15 minutes)  
State data: Dave Fox, ODFW (15 minutes)

GIS data: Arlene Merems, ODFW (15 minutes)

Discussion

10:30 – 10:45 Break

10:45 – 11:30 What are the data gaps for Oregon marine reserves?

Discussion

- Identification of data gaps
- Cost of bridging the gaps

11:30 – 1:00 Workshop findings and recommendations

Discussion

1:00 – 1:30 Public comment

1:30 Adjourn  
Lunch provided

## Appendix E. Outline of Economic Data for Measuring Marine Reserve Impacts

### 1. Community Baseline Conditions

- Degree of fishery dependence
  - History and tradition of fishing
  - Proportion of total economic activity represented by the fishing industry
  - Dependence on activities within reserve areas
- Existing ocean users
  - Commercial fishing
    - number and sizes of vessels
    - gear types
    - value of landed catch
  - Charter fishing
    - number and sizes of vessels
    - numbers of anglers and fishing trips
    - value per fishing trip
  - Recreational non-charter fishing
    - numbers of anglers and fishing trips
    - value per fishing trip
  - Diving
    - numbers of divers and dive trips
    - value per dive trip
  - Surface recreation (kayaking, whale watching, etc.)
    - number of trips
    - value per trip
  - Shipping
    - traffic
    - gross tonnage
- Existing shoreside economic activities
  - Seafood processors
  - Marine suppliers: gear, fuel, ice, bait, etc.
  - Dock support and maintenance
  - Tourism-related businesses
  - Marine-related festivals and events
- Ocean access infrastructure
  - Jetties
  - Dredging
  - Maintenance

### 2. Trends in Existing Uses in Proposed Reserve Area

- Fishery participation
  - Commercial fleet home-ported
    - vessel numbers by gear type
    - vessel size by gear type

- employment
    - federal permits
    - state permits
  - Charter fleet home-ported
    - vessel numbers by gear type
    - vessel size by gear type
    - employment
  - Recreational non-charter
    - numbers
  - Seafood buyers and processors
    - number
    - size
  - Other fishery infrastructure
    - marine suppliers: gear, fuel, ice, bait, etc.
    - other marine-related businesses
- Fishery revenues
  - Ex-vessel commercial
  - Charter
  - Processing
- Fishery costs
  - fixed
  - variable
- Other revenues
  - Guided diving
  - Whalewatching, etc.
  - Tourism-related businesses
- Threshold effects
  - Interactions among businesses
  - Minimum scales for continued operation
  - Recent infrastructure developments or losses

### 3. Trends Outside the Reserve Area

- Other spatial set-asides (e.g., Rockfish Conservation Areas)
- Other fishery management actions
- Other fishing opportunities
- New ocean uses

### 4. Likely Displacement Effects

- Fishing effort
  - Commercial
  - Charter
  - Non-charter recreational

- Substitute areas
  - Spillover effects
- Avoidance costs
  - Travel time
  - Fuel
- Safety
  - Vessel suitability for new areas
- Landings change (volume, composition, and location)
  - Commercial
  - Charter
  - Non-charter recreational
- Revenue change
  - Commercial
  - Charter
  - Non-charter recreational
  - Processor
  - Ecotourism
- Marine Reserve Research
  - Monitoring costs
  - Evaluation costs

#### 5. Nonmarket values

- Nearshore recreational fisheries
- Nearshore surfing
- Nearshore diving
- Marine reserves

#### 6. Reserve-related Effects

- Compliance incentives
- Enforcement costs

#### 7. New Data Collection

# 1 Oregon Territorial Sea Plan

## 2 DRAFT PART FIVE:

# 3 Use of the Territorial Sea for the Development of 4 Renewable Energy Facilities or Other Related 5 Structures, Equipment or Facilities 6

7  
8 PART FIVE of the Territorial Sea Plan describes the process for making decisions  
9 concerning the development of renewable energy facilities (e.g., wind, wave, current, or  
10 thermal etc)<sup>1</sup> in the state territorial sea, and specifies the areas where that development  
11 may be sited. The requirements of Part Five are designed to protect areas important to  
12 renewable marine resources (i.e. living marine resources), ecosystem integrity, marine  
13 habitat and areas important to fisheries from the potential adverse effects of renewable  
14 energy development, and to identify the appropriate locations for that development that  
15 minimize the potential adverse impacts to existing ocean resource users and coastal  
16 communities.  
17

18 Oregon's renewable energy portfolio lists ocean energy as renewable sources with  
19 potential to reduce dependence on fossil fuels.<sup>2</sup> Renewable ocean energy facilities  
20 development may present opportunities to apply technologies that rely on wave, wind,  
21 current or thermal energy, that may potentially reduce the environmental impact of fossil  
22 fuels. If developed in a responsible and appropriate manner, renewable ocean energy  
23 may help preserve Oregon's natural resources and enhance our quality of life.  
24  
25

---

## 26 A. Renewable Energy Facilities Development

### 27 1. Background

28 Oregon's territorial sea has been identified as a favorable location for siting renewable energy  
29 facilities for research, demonstration and commercial power development. These facilities may  
30 vary in the type and extent of the technologies employed and will require other related  
31  
32

---

<sup>1</sup> For the purposes of this chapter of the Territorial Sea Plan, the term "renewable energy facilities development or other related structures, equipment or facilities," means energy conversion technologies and devices that convert the energy or natural properties of the water, waves, wind, current or thermal to electrical energy, including all associated buoys, anchors, energy collectors, cables, control and transmission lines and other equipment that are a necessary component of an energy conversion device research project, demonstration project or commercial operation. The terms "renewable energy facility" or "renewable energy facilities" will be used to describe any and all components of these developments.

<sup>2</sup> The state's renewable energy portfolio is described under ORS 469A.025 Renewable energy sources. (1) Electricity generated utilizing the following types of energy may be used to comply with a renewable portfolio standard to include: (a) Wind energy, (b) Solar photovoltaic and solar thermal energy, (c) Wave, tidal and ocean thermal energy, and (d) geothermal energy.

1 structures, equipment or facilities to connect together, anchor to the seafloor and transfer  
2 energy to on-shore substations. The State of Oregon will require the proper siting and  
3 development of these facilities in order to minimize damage to or conflict with other existing  
4 ocean uses and to reduce or avoid adverse effects on marine ecosystems and coastal  
5 communities.

6  
7 State agencies, including the Oregon Departments of State Lands, Fish and Wildlife, Parks and  
8 Recreation, Environmental Quality, Land Conservation and Development, Water Resources,  
9 and Geology and Mineral Industries, need specific policies and standards for considering the  
10 siting and regulation of renewable energy facility development in the territorial sea. The State  
11 also needs specific policies and standards to guide federal agencies in the siting and regulation  
12 of renewable energy facilities development located in federal waters adjacent to the Oregon  
13 territorial sea.<sup>3</sup>

14  
15 **NOTE: The following policies and implementation requirements are mandatory. Decisions**  
16 **of state and federal agencies with respect to approvals of permits, licenses, leases or other**  
17 **authorizations to construct, operate, or maintain any facility to produce, transport or support**  
18 **the generation of renewable energy within Oregon's territorial waters and ocean shore must**  
19 **conform with the requirements mandated in the Oregon Territorial Sea Plan. The**  
20 **enforceable policies of the Territorial Sea Plan and the Oregon Coastal Management**  
21 **Program are applicable to those federal actions that impact Oregon's coastal zone and are**  
22 **subject to the federal consistency requirements of the federal Coastal Zone Management Act.**  
23

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## 25 **2. Policies**

26 When making decisions to authorize the siting, development and operation of renewable energy  
27 facilities within the Oregon Territorial Sea, state and federal agencies shall<sup>4</sup>:

- 28  
29 a. Maintain and protect renewable marine resources (i.e. living marine resources),  
30 ecosystem integrity, marine habitat and areas important to fisheries from adverse effects  
31 that may be caused by the installation or operation or removal of renewable energy  
32 facility by requiring that such development or operation:  
33
- 34 1.) Avoid harm to the integrity, diversity, stability and complexity of the marine  
35 ecosystem and coastal communities, and give priority to the conservation and use of  
36 renewable resources as a first priority;
  - 37 2.) Minimize effects by limiting the degree or magnitude of the action and its  
38 implementation; and
  - 39 3.) Rectify or reduce the effect over time by monitoring and taking appropriate  
40 corrective measures through adaptive management.
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<sup>3</sup> A listing and description of the state and federal agencies with regulatory, consultation or other authority or responsibility for management of ocean resources is located in Part 1 of the Territorial Sea Plan.

<sup>4</sup> State and federal agencies making decisions to authorize the siting, development and operation of renewable energy facilities development or other related structures, equipment or facilities within the Oregon Territorial Sea, will be referred to as "the regulating agency" or "regulating agencies".

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- b. Protect marine renewable resources, the biological diversity and functional integrity of marine ecosystem, important marine habitat, areas important to fisheries, navigation, recreation and aesthetic enjoyment as required by Statewide Planning Goal 19; and
  - c. Promote direct communication and collaboration between an applicant<sup>5</sup> for a state or federal authorization for the siting, development and operation of renewable energy facilities and affected ocean users and coastal communities to reduce or avoid conflicts. Agencies should encourage applicants to engage with local, state and federal agencies, community stakeholders, tribal governments and affected users in a collaborative agreement-seeking process prior to formally requesting authorization to initiate a project.<sup>6</sup>
  - d. Limit the potential for unanticipated adverse impacts by requiring, as necessary, the use of pilot projects and phased development to collect data and study the effects of the development on the affected marine resources and uses.
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## 18 19 **B. Implementation Requirements**

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When considering a proposal for the placement or operation of renewable energy facilities development, state and federal agencies shall comply with the standards and procedural requirements in Part 5 of the Territorial Sea Plan as prescribed below. This includes the cables, connectors or other transmission devices that connect, anchor, support or transmit energy between the separate components within a renewable energy facility. The requirements in Part 4, Uses of the Seafloor for Telecommunication Cables, Pipelines, and other Utilities, will apply to the utility cables that transmit the electrical energy from the renewable energy facility to the on-shore substation.<sup>7</sup>

### 30 **1. Siting: areas designated for renewable energy facilities development.**

#### 31 32 **a. In State Waters:**

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Renewable energy facilities development within the state lands of the territorial sea lying seaward of Extreme Low Water (which is the seaward boundary of the Ocean Shore Recreation Area) shall be sited within the areas designated for that use so as to avoid, reduce or mitigate the adverse effects of that development, and to protect: renewable marine resources, biological diversity and functional integrity of marine ecosystem, important marine habitat, and areas important to fisheries, as defined in Statewide Planning Goal 19 Ocean Resources. (see appendix or map)

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<sup>5</sup> An applicant for a state permit, license, lease or other authorization for renewable energy facilities development or other related structures, equipment or facilities will be referred to as "the applicant".

<sup>6</sup> The Department of State Lands pre-application requirements under OAR 141-140-0040 (Rules Governing the Placement of Ocean Energy Conversion Devices on, in or over State-Owned-Land within the Territorial Sea) requires applicants to meet with the agency prior to applying for a lease or temporary authorization.

<sup>7</sup> The requirements in Part 2 of the Territorial Sea Plan, Making Resource Use Decisions, will not apply to the evaluation, siting or operation of renewable energy development or other related structures, equipment or facilities.

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3 **b. In Federal Waters:**

4 Decisions to permit, license, or otherwise authorize renewable energy facilities  
5 development within the waters and seafloor of the outer continental shelf adjacent to the  
6 Oregon Territorial Sea will be reviewed by the Oregon Department of Land  
7 Conservation and Development for consistency with the Oregon Territorial Sea Plan  
8 and the applicable enforceable policies of the Oregon Coastal Management Program.  
9 Federal actions affecting coastal uses and resources within the Oregon Coastal Zone  
10 shall be supported by environmental studies and analysis, as prescribed below, to ensure  
11 compliance with the enforceable policies of Oregon Territorial Sea Plan and the Oregon  
12 Coastal Management Program.<sup>8</sup>  
13

14  
15 **2. State Agency Review Process**  
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17 State agencies apply the policies and provisions of the Territorial Sea Plan as required to  
18 conform to with ORS 196.485 Oregon Ocean Resources Management, and ORS 197.180  
19 State Agency Coordination agreements (OAR 660 Divisions 030 and 031), and Goal 19  
20 Ocean Resources.  
21

22 The Department of State Lands shall coordinate the review of requests for approvals of  
23 leases, temporary use permit, easements and removal-fill in consultation with the  
24 Departments of Fish and Wildlife, Parks and Recreation, Environmental Quality, Land  
25 Conservation and Development, Water Resources, and Geology and Mineral Industries, and  
26 coastal local governments, and tribal governments as appropriate. These agencies, with the  
27 addition of the regulating federal agencies, will constitute the joint agency review team  
28 described in subsection B.2 above. The Department of Land Conservation and  
29 Development will use its authority under the federal Coastal Zone Management Act to  
30 review the consistency determination submitted by the applicant for federal authorization  
31 for a renewable energy facilities development to ensure the project is consistent with  
32 enforceable policies of the Oregon Coastal Zone Management Program, including the  
33 Territorial Sea Plan.  
34

35 **3. Project Review Process and Coordination**  
36

37 A joint agency review team, as described below, shall be convened in order to facilitate the  
38 coordination of state and federal agencies as they apply their separate regulatory or other  
39 authorized responsibilities to the review of a proposed renewable energy facility  
40 development project. The team shall consist of the state and federal agencies with  
41 regulatory or planning authority applicable to the proposed project and location, the  
42 affected local jurisdictions, and may also include local interest groups and advisory

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<sup>8</sup> The regulations for federal consistency with approved state coastal programs are prescribed in 15 CFR 930. Energy projects are defined under § 930.123 Definitions as (c) The term "energy project" means projects related to the siting, construction, expansion, or operation of any facility designed to explore, develop, produce, transmit or transport energy or energy resources that are subject to review by a coastal State under subparts D, E, F or I of this part.

1 committees. The review team will coordinate the agency review and comment on the  
2 adequacy of the resource inventories and effects evaluations required under subsection B.4  
3 Resource Inventory and Effects Evaluation Standards, below, NEPA environmental  
4 assessments and environmental impact statements. The joint agency review team will also  
5 consider the adequacy of the information provided for the operation plan, as required under  
6 Section C. Operation Plan Development below, including the monitoring requirements,  
7 mitigation measures, adaptive management plans, construction and operational performance  
8 standards, or any other special conditions that may be applied pursuant to the lease, permit,  
9 license or other authorization by the regulating state agency.

10  
11 The regulating state agency shall require an applicant to provide documentation of their  
12 communication and coordination efforts with local communities, interest groups and  
13 advisory committees. Those efforts shall, at a minimum, include information on the  
14 proposed project operation protocols, response to emergencies and procedures for on-going  
15 communication as specified in Section C. Operation Plan Development, below.

#### 16 17 **4. Resource Inventory and Effects Evaluation Standards**

18  
19 Regulating agencies will require a resource inventory and effects evaluation be prepared by  
20 the applicant, as required by this section, prior to making any decision.

##### 21 22 **a. Sufficiency of Inventory and Evaluation.**

23 The resource inventory and effects evaluation shall be sufficient to understand the short-  
24 term and long-term effects of the proposed renewable energy facility development on  
25 the affected marine resources and uses.

##### 26 27 **b. Purpose of the Effects Evaluation**

28 The purpose of the effects evaluation is to determine whether the proposed actions can  
29 meet the policies and standards for the protection of resources, resource users and  
30 coastal communities referred to above in subsection A.2, Policies. The evaluation will  
31 help identify where the applicant needs to address deficiencies. Results of the  
32 evaluation will be used by the authorizing agency to develop specific measures for  
33 environmental protection and mitigation, measures to protect ocean uses, monitoring,  
34 and adaptive management.

##### 35 36 **c. Use of Available Environmental Information.**

37 Regulating agencies may allow the use of existing data and information from any  
38 source when complying with the requirements for resource inventory and effects  
39 evaluation. All data and information used for the inventory and evaluation, including  
40 existing data from federal environmental impact statements or assessments, shall meet  
41 the same standards of adequacy required for the inventory and the evaluation.

##### 42 43 44 **d. Inventory Content**

45 Regulating agencies shall request that the following factors be considered for inclusion  
46 in the inventory to evaluate the magnitude of the proposed development, the likelihood  
47 of the effects of the development, and the significance of the resources and uses that  
48 may be affected by the development:

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- 1) Proposed factors associated with the development, placement, operation, and decommissioning of the project:
  - A) Location (using maps, charts, descriptions, etc.);
  - B) Numbers and sizes of equipment, structures;
  - C) Methods, techniques, activities to be used;
  - D) Transportation and transmission systems needed for service and support;
  - E) Materials to be disposed of and method of disposal;
  - F) Physical and chemical properties of hazardous materials, if any, to be used or produced;
  - G) Navigation aids; and
  - H) Proposed time schedule.
- 2) Location and description of all affected areas, including, but not limited to:
  - A) Site of the renewable energy facility;
  - B) Adjacent areas that may be affected by physical changes in currents and waves caused by the facility;
  - C) Utility corridor transiting territorial sea and ocean shore; and
  - D) Shoreland facilities
- 3) Physical and chemical conditions including, but not limited to:
  - A) Water depth;
  - B) Wave regime;
  - C) Current velocities;
  - D) Dispersal, horizontal transport, and vertical mixing characteristics;
  - E) Meteorological conditions; and
  - F) Water quality.
- 4) Bathymetry (bottom topography)
- 5) Geologic structure, including, but not limited to:
  - A) geologic hazards such as faults or slides;
  - B) mineral deposits;
  - C) seafloor substrate type, and;
  - D) hydrocarbon resources.
- 6) Biological features, including, but not limited to:
  - A) Critical marine habitats (see Definitions);
  - B) Other marine habitats;
  - C) Fish and shellfish stocks and other biologically important species;
  - D) Recreationally or commercially important finfish or shellfish species;
  - E) Planktonic and benthic flora and fauna;
  - F) Other elements important to the marine ecosystem; and
  - G) Marine species migration routes.
- 7) Cultural, economic, and social uses affected by the project including, but not limited to:
  - A) Commercial and sport fishing;

- B) State or Federally protected areas;
- C) Scientific research;
- D) Ports, navigation, and Dredge Material Disposal sites;
- E) Recreation;
- F) Coastal Communities Economy;
- G) Aquaculture;
- H) Waste discharge;
- I) Utility or pipeline corridors and transmission lines;
- J) Military Uses; and
- K) Aesthetic Resources.

8) Significant historical, cultural or archeological resources.

**e. Written Evaluation.**

Regulating agencies shall require the applicant to submit a written evaluation of all the reasonably foreseeable adverse effects associated with the development, placement, operation, and decommissioning of the proposed renewable energy facility. For purposes of the evaluation, the determination of "reasonably foreseeable adverse effects" shall be based on scientific evidence. The evaluation shall describe the potential short-term and long-term effects of the proposed renewable energy facility on marine resources and uses of the territorial sea, continental shelf, onshore areas and coastal communities based on the inventory data listed above and the following considerations:

1) Biological and Ecological Effects:

Biological and ecological effects include those on critical marine habitats and other habitats, and on the species those habitats support. The evaluation will determine the probability of exposure and the magnitude of exposure and response, as well as the level of confidence (or uncertainty) in those determinations. The evaluation need not discuss highly speculative consequences. However, the evaluation will discuss catastrophic environmental effects of low probability. Factors to consider include, but are not limited to:

- A) The time frames/periods over which the effects will occur;
- B) The maintenance of ecosystem structure, biological productivity, biological diversity, and representative species assemblages;
- C) Maintaining populations of threatened, endangered, or sensitive species;
- D) Vulnerability of the species, population, community, or the habitat to the proposed actions; and
- E) The probability of exposure of biological communities and habitats to adverse effects from operating procedures or accidents.

2) Current Uses:

Evaluate the effects of the development on current uses and the continuation of a current use of ocean resources such as fishing, recreation, navigation, port activities. Factors to consider include, but are not limited to:

- 1 A) Local and regional economies;  
 2 B) Archeological and historical resources; and  
 3 C) Transportation safety and navigation  
 4

5 3) Geologic Hazards

6 Evaluate the potential risk to the facility, in terms of its vulnerability to certain  
 7 hazards and the probability that those hazards may cause it damage or interrupt  
 8 operation. Consider both the severity of the hazard and the level of exposure it  
 9 poses to the facility or its operation. Hazards to be considered should include the  
 10 scouring action of currents on the foundations and anchoring structures, slope  
 11 failures and subsurface landslides, faulting, tsunamis, and variable or irregular  
 12 bottom topography.  
 13

14 4. Cumulative Effects

15 Evaluate the cumulative effects of a project in conjunction with effects of past  
 16 projects, other current projects, and probable future projects.<sup>9</sup> The report should  
 17 extrapolate the biological, physical, and socioeconomic effects of the renewable  
 18 energy facility development to those of other renewable energy facility  
 19 developments along the Oregon coast, while also taking into account the effects of  
 20 existing and future human activities and the regional effects of global climate  
 21 change.  
 22

23  
 24 **f. Insufficient/Incomplete Information**

25 An applicant may not be able to obtain or provide the information required by  
 26 subsection B.4 above due to the lack of data available about the effect that the proposed  
 27 project may have on environmental resources and uses. When a regulating agency  
 28 determines that the information provided by the applicant is not sufficient or complete  
 29 enough to fulfill the requirements of subsection B.4,<sup>10</sup> the agency has the following  
 30 options:  
 31

32 1. Agency Discretion

33 The regulating agency may terminate the decision-making process or suspend the  
 34 process until the applicant provides the information.  
 35

36 2. Pilot Project

37 The regulating agency may recommend that an applicant conduct a pilot project to  
 38 obtain adequate information and data and measure the effects. Pilot projects are  
 39 renewable energy facility developments which are removable or able to be shut  
 40 down quickly, are not located in sensitive areas, and are for the purpose of testing

<sup>9</sup> National Environmental Policy Act (NEPA), defining "cumulative effects" as: "the impact on the environment encompassing the environmental (ecology, biology, physical) parameters and human dimension (economic, social, etc.) which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-federal) or person undertakes such actions (40 CFR § 1508.7)."

<sup>10</sup> One measure of whether the information provided by an applicant is sufficient are the federal consistency regulations under § 15 CFR 930.58 Necessary data and information (a) The applicant shall furnish the State agency with necessary data and information along with the consistency certification.

1 new technologies or locating appropriate sites. The agency's decision to allow the  
2 use of a pilot project is for the purpose of obtaining the data and information  
3 necessary to fulfill the requirements of subsection B.4., and shall be based on the  
4 following approval criteria:

5  
6 A) The exclusive purpose of the proposed pilot project shall be to provide  
7 information on the performance, structural integrity, design and environmental  
8 effects of a specific renewable energy technology or its supporting equipment  
9 and structures.

10 B) Adequate inventories of baseline conditions, as required by subsection 4(d)  
11 above, shall be completed by the applicant prior to conducting the pilot project.

12 C) The risk of adverse effects from the project shall be insignificant, because:

- 13  
14 1. of low probability of exposure of biological communities and habitats; or  
15 2. of low sensitivity of the biological communities and habitats to the  
16 exposure;  
17 3. or the effects of exposure to sensitive communities and habitats will be  
18 insignificant.

19  
20 D) The proposed pilot project shall not adversely affect any "critical marine  
21 habitat" (see Appendix A: Glossary of Terms).

22  
23 E) The proposed pilot project will have a term, not to exceed five years, and  
24 authorization for the project will include a standard condition requiring project  
25 alteration or shutdown in the event that there was an unacceptable level of  
26 environmental effect.

27  
28 F) The proposed pilot project shall avoid significant or long-term interference  
29 with other human uses of marine resources, and will require decommissioning  
30 and site restoration at expiration of the authorization period if federal and state  
31 authorization for a commercial renewable energy facility is not sought.

32  
33 G) All data shall be in the public domain subject to ORS 192.410 et seq.

34  
35 H) Work Plan: The applicant shall provide a written work plan which will  
36 include, but not be limited to the following:<sup>11</sup>

- 37  
38 1. A list of the information needed to satisfy the requirements of subsection  
39 B.4. above.  
40 2. Specific pilot project objectives to obtain the needed information and an  
41 explanation of how the study or test design will meet the objectives.  
42 3. Description of study or test methods to meet the objectives, such as:  
43 (a) Literature review;

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<sup>11</sup> Pilot projects that are authorized under the standards and conditions of this subsection 6 (b) are not required to fulfill the requirements of Section C below. The standards and requirements of Section C will apply to an application for authorization to expand the pilot project from a short-term limited scope facility to a commercial operation scale facility.

- (b) Collection of any needed baseline data;
- (c) Hypotheses to address the study objectives;
- (d) Descriptions of field sampling and data-analyses methods to be used; and
- (e) Use of adequate controls to allow the effects of the proposed action to be separated from natural fluctuations in resources and habitats.

4. Supporting documentation demonstrating that the study design is scientifically appropriate and statistically adequate to address the research objectives.

5. Descriptions of how the data and analyses will be reported and delivered to the authorizing state agency for review and approval.

**g. Test Facility**

Applications for a permit, license, or other authorization for the installation and use of an experimental or test device at the Northwest National Marine Renewable Energy Center Mobile Test Berth Site zone, are not subject to the requirements of Section B. See Section D Northwest National Marine Renewable Energy Center Mobile Test Berth Site, below for the specific requirements for the use to these facilities.

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## **C. Operation Plan Development**

The regulating agency shall require an operation plan to be prepared as a condition of approval for a state or federal permit, license, lease or other authorization for renewable energy facility development. The operation plan should explain the procedures and mechanisms that will be employed by the operator so that the facility will comply with regulatory standards and other conditions of permit or license approval related to water and air quality, adverse environmental effects, maintenance and safety, operational failure and incident reporting. The operation plan shall be designed to prevent or mitigate harm or damage to the marine and coastal environment and at a minimum shall include the following information.

### **1. Phased Development Plan**

The regulating agency may require that a facility be developed in phases in order to determine whether the environmental effects of the structures and the operation of the facility are consistent with the inventory and effects evaluation conducted under subsection B.4. The requirements for an operation plan listed in this subsection would apply to each stage of the phased development so as to account for any changes in design, technology or operation that may result from monitoring the initial phase of the operation.

A facility that has been developed to the full extent of its design and operating capacity may, during the lifetime of its authorization, require systematic improvements to the technology, structures and operational procedures that were originally authorized. The regulating agency will require a new facility development plan, as appropriate and

1 necessary, to provide the data and information for the redevelopment and operation of the  
2 new facility components.

## 3 4 **2. Facility Development Plan**

5 A plan is required that describes the physical and operational components of the proposed  
6 facility and must contain, at minimum, detailed technical information, data, protocols and  
7 references for:

- 8  
9 **a.** Structural and project design, fabrication, anchoring and installation information;  
10  
11 **b.** All cables and pipelines, including lines on project easements;  
12  
13 **c.** A description of the deployment activities;  
14  
15 **d.** A listing of chemical products used;  
16  
17 **e.** A description of vessels, vehicles, aircraft and the transit lanes that will be used;  
18  
19 **f.** A general description of the operating procedures and systems;  
20  
21 **g.** Construction schedule; and  
22  
23 **h.** Other information as required by the Department of State Lands.

## 24 25 26 **3. Project Operation Plan**

27 The operation plan is required that describes, at a minimum, information regarding the  
28 routine environmental monitoring, safety management and emergency response procedures,  
29 facility inspections, and the decommissioning of the development. The operation plan  
30 should explain the procedures and mechanisms that will be employed so that the facility  
31 will comply with regulatory standards and other conditions of permit or license approval  
32 related to water and air quality, environmental protection and mitigation, facility  
33 maintenance and safety, operational failure and incident reporting. An operation plan will  
34 include the following information:

### 35 36 **a. Contingency Plan:**

37 A plan is required to describe how the facility operator will respond to emergencies  
38 caused by a structural or equipment failure due to human error, weather, geologic or  
39 other natural event. The plan should include a description of the types of equipment,  
40 vessels and personnel that would be deployed, the chain of command or management  
41 structure for managing the facility repairs, recovery or other forms of remedial action,  
42 and the process and timeline for notification of state and federal authorities.

### 43 44 **b. Inspection Plan:**

45 A plan is required to provide for the implementation of a routine inspection program to  
46 ensure the mechanical, structural and operational integrity of renewable energy  
47 development facilities and other related structures, equipment or facilities. In addition,  
48 unscheduled inspections are to be required after any major geologic event such as a

1 subduction zone earthquake or major storm event, to ensure continued operational  
2 safety and environmental protection.

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4 **c. Monitoring Plan:**

5 A plan is required to provide for the implementation of a routine standardized  
6 monitoring program for potential impacts on specific resources as specified by the  
7 resource inventory and effects evaluation. The operator is required to monitor activities  
8 related to the operation of the facility and demonstrate that its performance satisfies  
9 specified standards in its approved plans. Monitoring shall be sufficient to understand  
10 the short-term and long-term effects of the actions on the affected resources and uses.  
11 Plans for monitoring must include, at a minimum:

- 12 1) A list of the information needed to satisfy an effects evaluation.
- 13 2) Specific study objectives to obtain the needed information and explanation of  
14 how the study design will meet the objectives.
- 15 3) Description of study methods to meet the objectives, such as:
  - 16 A) Literature review;
  - 17 B) Collection of needed baseline data;
  - 18 C) Hypotheses to address the study objectives;
  - 19 D) Descriptions of field sampling and data-analyses methods to be used; and
  - 20 E) Use of adequate controls, such as control sites, to allow the effects of the  
21 proposed action to be separated from natural fluctuations in resources and  
22 habitats.
- 23 4) The monitoring plan will include supporting documentation demonstrating that  
24 the study design is scientifically appropriate and statistically adequate to address  
25 the research objectives.<sup>12</sup>
- 26 5) The monitoring plan will include a description of the method that will be used to  
27 report and deliver data and analyses information to the authorizing state agency  
28 for review in a timely and efficient manner.<sup>13</sup>

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37 **d. Adaptive Management Plan**

38 An adaptive management plan is required to provide a mechanism for incorporating  
39 new findings and new technologies into the operation and management of the project.

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<sup>12</sup> Standardized monitoring protocols would result in data sets that are comparable and transferable among sites and technologies. The protocols would include a Before, After, Control, Impact (BACI) experimental study design.

<sup>13</sup> Example: the data and analysis will be applied to determine if conditions meet the standard established under the Oregon Department of Environmental Quality Biocriteria OAR 340-041-0011, as; Waters of the State must be of sufficient quality to support aquatic species without detrimental changes in the resident biological communities.

1 The adaptive management plan shall include performance standards that are based on  
2 results of the resource inventory and effects evaluation and incorporated in the study  
3 design of the monitoring plan as described in subsection 2 (c.) above. Processes for  
4 how adaptation measures are applied to the operation of the project will be explained in  
5 the plan. When the monitoring results show that the performance standards are not  
6 being met due to the operation of the facility, adaptation measures designed to bring the  
7 operation into compliance with the performance standard will be applied to the  
8 operation of the project. Processes for how adaptation measures will be applied to the  
9 operation and management of the project will be explained in the adaptive management  
10 plan. The adaptive management plan should account for:

- 11 1) Variable conditions in the marine environment;
- 12 2) Change in the status of resources;
- 13 3) New information provided by monitoring of the project;
- 14 4) Data and information provided by research and from other sources;
- 15 5) New technologies that would provide for greater protection of ocean resources;
- 16 6) Ocean fisheries, or other ocean uses from adverse effects and operational  
17 conflicts; and
- 18 7) Unanticipated cumulative effects.

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28 **4. Decommissioning Plan:**

29 An applicant is required to provide a plan describing the facilities to be removed; a  
30 proposed decommissioning schedule; a description of the removal methods; description of  
31 site clearance activities; plans for transporting and disposing of the removed facilities; a  
32 description of those resources, conditions, and activities that could be affected by or could  
33 affect the proposed decommissioning activities; results of any recent biological surveys  
34 conducted in the vicinity of the structure and recent observations of marine mammals at the  
35 structure site; mitigation measures to protect archaeological and sensitive biological  
36 features during removal activities; and a statement as to the methods that will be used to  
37 survey the area after removal to determine any effects on marine life.

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40 **5. Financial Assurance Plan:**

41 The applicant must provide a financial assurance compliance plan that describes their  
42 ability to comply with the state regulating agency requirements for financial assurance  
43 instruments to guarantee performance, and any other financial terms and conditions that  
44 may be applied. Wave energy facilities or devices shall comply with the requirements of  
45 ORS 274.867 Wave energy; financial assurance; rules, and any administrative rules issued  
46 by the Department of State Lands to implement this statutory authority.

1 **5. Agreements:**

2 Applicants are encouraged to communicate with traditional ocean users and stakeholders  
3 with an interest in the area of the proposed project to address issues of concern. Applicants  
4 are encouraged to memorialize agreements with those ocean users and stakeholders on the  
5 specific actions that will be taken by the applicant to address their issues of concern.  
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9 **D. Northwest National Marine Renewable Energy Center Mobile**  
10 **Test Berth Site**

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12 **1. Test Berth Site Plan**

13 The Northwest National Marine Renewable Energy Center has obtained the required  
14 permits, lease, and authorizations to conduct short-term experimental testing of renewable  
15 energy technologies at the test berth site located at the "test zone".  
16

17 **2. Test Berth Site Use**

18 Applications for a permit, license, or other authorization for the installation and use of an  
19 experimental or test device at the Northwest National Marine Renewable Energy Center  
20 Mobile Test Berth Site zone, are not subject to the requirements of Section B. above.  
21

## MEMORANDUM

**to: OPAC Members**

**from: Paul Klarin**

**re: Reference Guide to Draft Part 5 of the TSP**

The Part 5 draft document is mostly derived from existing state authorities, and it's been suggested that do a mark-up the draft Part 5 document to indicate where it reflects them. The three primary authorities upon which draft Part 5 is based are; ORS 196 Oregon Ocean Resources Management, Statewide Planning Goal 19 Ocean Resources, and the Territorial Sea Plan. In addition, the regulatory authorities that the Department of State Lands implements, as well as those of other various agency authorities, are also reflected in the draft. After beginning the mark-up exercise and seeing how often those authorities are either directly incorporated or reflected, and how often they overlap, I realized the multi-color coded comment-laden document would require its own explanation.

In order to prevent a situation where we spend our time discussing the origins of Part 5, and not the content itself, I decided that the exercise was not worth the effort. As an alternative, I am providing this memo as a short-hand reference guide. Though you all have copies of the complete text of the Territorial Sea Plan, Goal 19, ORS 196, etc., it is often difficult to find the salient parts of those texts when you need them. So I have selected many of them and incorporated them into this memo. I have also shaded certain sections which are either directly reflected or provide important guidance for particular sections of the draft Part 5.

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### OREGON OCEAN RESOURCES MANAGEMENT

**196.415 Legislative findings for ocean resources management.** The Legislative Assembly finds that:

(1) The Pacific Ocean and its many resources are of environmental, economic, aesthetic, recreational, social and historic importance to the people of this state.

(2) Exploration, development and production of ocean resources likely to result from both federal agency programs in federal waters of the outer continental shelf and initiatives of private companies within state waters will increase the chance of conflicting demands on ocean resources for food, energy and minerals, as well as waste disposal and assimilation, and may jeopardize ocean resources and values of importance to this state.

(3) The fluid, dynamic nature of the ocean and the migration of many of its living resources beyond state boundaries extend the ocean management interests of this state beyond the three geographic mile territorial sea currently managed by the state pursuant to the federal Submerged Lands Act.

(4) Existing federal laws, the Coastal Zone Management Act of 1972, the Coastal Zone Act Reauthorization Amendments of 1990, the Magnuson Fisheries Management and Conservation Act of 1976, as amended, and the Outer Continental Shelf Lands Act of 1978, recognize the interests of coastal states in management of ocean resources in federal waters and provide for state participation in ocean resources management decisions. The Coastal Zone Act Reauthorization Amendments of 1990 require that all federal coastal activities affecting natural resources, land uses and water uses in the coastal zone must be consistent with the federally approved Oregon Coastal Management Program.

**196.420 Policy.** It is the policy of the State of Oregon to:

(1) Conserve the long-term values, benefits and natural resources of the ocean both within the state and beyond by giving clear priority to the proper management and protection of renewable resources over nonrenewable resources;

(2) Encourage ocean resources development which is environmentally sound and economically beneficial to adjacent local governments and to the state;

(5) Encourage research and development of new, innovative marine technologies to study and utilize ocean resources; and

**196.453 Project review panels; guidelines.** (1) The Ocean Policy Advisory Council may establish project review panels to address and coordinate the interests of state, federal and local governments in specific development proposals.

(2) The council may adopt guidelines to establish criteria to create review panels and determine the scope of the activities of the panel.

(3) A panel shall not have any authority independent of the council. The authority of any panel shall be that granted to it by the council. [1991 c.501 §16; 2003 c.744 §11]

**196.471 Territorial Sea Plan review requirements.** (1) The Land Conservation and Development Commission shall review the Territorial Sea Plan and any subsequent amendments recommended by the Ocean Policy Advisory Council to either the Territorial Sea Plan or the Oregon Ocean Resources Management Plan and make findings that the plan or amendments:

(a) Carry out the policies of ORS 196.405 to 196.515; and

(b) Are consistent with applicable statewide planning goals, with emphasis on the four coastal goals.

**196.485 State agency coordination requirements; incorporation of plans.** (1) If a state agency incorporates the Oregon Ocean Resources Management Plan and Territorial Sea Plan by reference in its coordination program and, upon a finding by the Land

Conservation and Development Commission that the agency has amended its rules, procedures and standards to conform with the objectives and requirements of the plan and Territorial Sea Plan, the state agency shall satisfy the requirements of state agency planning and coordination required by ORS 197.180 for ocean planning.

(2) If a state agency does not incorporate the plan or Territorial Sea Plan in its coordination program, the agency shall be subject to the state agency coordination requirements of ORS chapters 195, 196 and 197 for state agency programs, procedures and standards that in any way affect ocean resources.

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## **Statewide Planning Goal 19: Ocean Resources**

To conserve marine resources and ecological functions for the purpose of providing long-term ecological, economic, and social value and benefits to future generations. To carry out this goal, all actions by local, state, and federal agencies that are likely to affect the ocean resources and uses of Oregon's territorial sea shall be developed and conducted to conserve marine resources and ecological functions for the purpose of providing long-term ecological, economic, and social values and benefits and to give higher priority to the protection of renewable marine resources--i.e., living marine organisms--than to the development of non-renewable ocean resources.

### **Information and Effects Assessment Required**

Prior to taking an action that is likely to affect ocean resources or uses of Oregon's territorial sea, state and federal agencies shall assess the reasonably foreseeable adverse effects of the action as required in the Oregon Territorial Sea Plan.

### **Implementation Requirements**

#### **1. Uses of Ocean Resources**

State and federal agencies shall carry out actions that are reasonably likely to affect ocean resources and uses of the Oregon territorial sea in such a manner as to:

- a. maintain and, where appropriate, restore the long-term benefits derived from renewable marine resources;
- b. protect:
  - 1.) renewable marine resources-- i.e., living marine organisms--from adverse effects of development of non-renewable resources, uses of the ocean floor, or other actions;
  - 2.) the biological diversity of marine life and the functional integrity of the marine ecosystem;
  - 3.) important marine habitat, including estuarine habitat, which are areas and associated biologic communities that are:
    - a.) important to the biological viability of commercially or recreationally caught species or that support important food or prey species for commercially or

- recreationally caught species; or
  - b.) needed to assure the survival of threatened or endangered species; or
  - c.) ecologically significant to maintaining ecosystem structure, biological productivity, and biological diversity; or
  - d.) essential to the life-history or behaviors of marine organisms; or
  - e.) especially vulnerable because of size, composition, or location in relation to chemical or other pollutants, noise, physical disturbance, alteration, or harvest; or
  - f.) unique or of limited range within the state; and
- 4.) areas important to fisheries, which are:
- a.) areas of high catch (e.g., high total pounds landed and high value of landed catch); or
  - b.) areas where highly valued fish are caught even if in low abundance or by few fishers; or
  - c.) areas that are important on a seasonal basis; or
  - d.) areas important to commercial or recreational fishing activities, including those of individual ports or particular fleets; or
  - e.) habitat areas that support food or prey species important to commercially and recreationally caught fish and shellfish species.
- c. Agencies, through programs, approvals, and other actions, shall
- 1.) protect and encourage the beneficial uses of ocean resources--such as navigation, food production, recreation, aesthetic enjoyment, and uses of the seafloor--provided that such activities do not adversely affect the resources protected in subsection 1., above; avoid, to the extent possible, adverse effects on or operational conflicts with other ocean uses and activities; and
  - 2.) comply with applicable requirements of the Oregon Territorial Sea Plan.

## 2. Management Measures

Management measures for ocean resources and uses shall be appropriate to the circumstances and provide flexibility for future actions. Such management measures may include:

- a. Adaptive Management: to adapt management programs to account for variable conditions in the marine environment, the changeable status of resources, and individual or cumulative effects of uses;
- b. Condition Approvals or Actions: to place conditions or limit actions to protect or shield other uses and resources;
- d. Intergovernmental Coordination and Cooperation: to coordinate, integrate, and co-manage programs and activities with all levels of government, including Indian tribal governments;

- e. **Public Involvement:** to involve the public and affected groups in the process of protecting ocean resource, especially through public awareness, education, and interpretive programs;
- g. **Precautionary Approach:** to take a precautionary approach to decisions about marine resources and uses when information is limited.

### **3. Contingency Plans:**

State and federal agencies, when approving or taking an action that could, under unforeseen circumstances, result in significant risks to ocean resources and uses, shall, in coordination with any permittee, establish appropriate contingency plans and emergency procedures to be followed in the event that the approved activity results in conditions that threaten to damage the marine or estuarine environment, resources, or uses.

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## **Territorial Sea Plan**

### **Part One (G) Ocean Management Goals and Policies**

#### **Policy 1: Scope of Authority:**

It is the policy of the State of Oregon that all local, state, and federal plans, programs, and activities that affect the resources and uses of the Oregon territorial sea shall:

- A. be developed, managed, and conducted to maintain and, where appropriate, restore the long-term benefits derived from Oregon's renewable marine resources;
- B. meet the requirements of the Territorial Sea Plan for inventory information and effects-analysis;
- C. protect:
  - 1. renewable marine resources from adverse effects of development of non-renewable resources;
  - 2. the biological diversity of marine life and the functional integrity of the marine-ecosystem;
  - 3. important marine habitat, including estuarine habitat;
  - 4. areas important to fisheries;
  - 5. beneficial uses of ocean resources, such as navigation, food production, recreation, and aesthetic enjoyment that do not adversely affect the resources to be protected in policy items 1-4, above.

#### **Policy 3: Management Measures**

- A. It is the policy of the State of Oregon that management measures for ocean resources and uses shall be appropriate to the circumstances and provide flexibility for future actions. Such management measures include:
  - 1. **Cumulative Effects Assessment:** to act with regard for the accumulated consequences or effects of activities in the environment that may occur at a distance, over time, or in combination with other actions;
  - 2. **Adaptive Management:** to adapt management programs to account for variable conditions in the marine environment, the changeable status of resources, and individual or cumulative effects of uses;

3. **Conditional Approvals or Actions:** to place conditions or limit actions to protect or shield other uses and resources;
4. **Special Management Area Plans:** to develop management plans for certain marine areas to address the unique management needs for resource protection, resource utilization, and interagency cooperation in the areas;
5. **Intergovernmental Coordination and Cooperation:** to coordinate integrate, and co-manage programs and activities with all levels of government, including coastal Indian tribal governments;
6. **Regional Cooperation and Governance:** to cooperate with other coastal states, countries, organizations, and federal agencies within the larger marine region to address common or shared ocean resource management issues.
7. **Public Involvement:** to involve the public and affected groups in the process of protecting ocean resource, especially through public awareness, education, and interpretive programs.
8. **Contingency Plans:** to require contingency plans and emergency procedures for activities or operations that may result in damage to the marine or estuarine environment.
9. **Precautionary Approach:** to take a precautionary approach to decisions about marine resources and uses when information is limited.

## **Part Two: Making Resource Use Decisions**

### **A. Resource Inventory and Effects Evaluation - ALL (the entire section applies)**

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## **Chapter 274 — Submersible and Submerged Lands**

**274.867 Wave energy; financial assurance; rules.** (1) In accordance with applicable provisions of ORS chapter 183, the Director of the Department of State Lands may adopt rules for the authorization of wave energy facilities or devices.

(2) Unless exempted under rules adopted by the director under this section, an owner or operator of a facility or device sited within Oregon's territorial sea, as defined in ORS 196.405, that converts the kinetic energy of waves into electricity shall maintain cost estimates of the amount of financial assurance that is necessary, and demonstrate evidence of financial assurance, for:

(a) The costs of closure and post-closure maintenance, excluding the removal of anchors that lie beneath submerged lands in Oregon's territorial sea, of the facility or device; and

(b) Any corrective action required to be taken at the site of the facility or device.

(4) In adopting rules to implement the provisions of this section, the director may specify policy or other contractual terms, conditions or defenses necessary to establish evidence of financial assurance.

## Excerpts from the Territorial Sea Plan

### *Part One: Ocean Management Framework*

- A. History of Ocean Planning in Oregon
- B. The Ocean Policy Advisory Council
- C. Oregon's Territorial Sea
- D. Laws and Legal Authorities Affecting Ocean Management
- E. Ocean Management Agencies
- F. Plan Implementation
- G. Ocean Management Goals and Policies (2001)

### *Part Two: Making Resource Use Decisions*

- A. Resources Inventory and Effects Evaluation
- B. Joint Review Panels (JRPs)
- C. Local Government Consultation

### *Part Four: Uses of the Seafloor*

- A. Telecommunication Cables, Pipelines, and Other Utilities

Prepared by Paul Klarin  
Oregon Coastal Management Program

February 2009



# Oregon Territorial Sea Plan

Adopted 1994



## PART ONE:

# Ocean Management Framework

## A. HISTORY OF OCEAN PLANNING IN OREGON

Ocean planning in Oregon has evolved from strong public interests in coastal use and protection that began long before statehood. This historic concern for the coast has involved several Governors, the Oregon Legislature, and, as always, a vocal and active public.

### 1. Before 1973

Oregon's ocean shore has always been a vital part of the Oregon way of life. Native people lived on the Oregon coast for thousands of years, sustained by a rich, steady supply of food in marine waters and along the shore. The long sandy beaches were integral pathways for journeys between rivers. Early trappers and settlers in the Oregon country customarily used the ocean shore for travel and recreation long before automobiles came to the Oregon coast in the early 1900s. Railroads took "weekenders" to Seaside, Gearhart, and Newport. In some places the beach served as highway until completion of the Coast Highway in the mid-1930s. Governor Oswald West proposed, and the 1913 Oregon Legislature agreed, that the ocean shore, between low and ordinary high tide be officially designated a public highway to ensure that the ocean-front tidelands were retained in public ownership. Over the years Oregonians assumed that all the beach belonged to the public. But in the mid-1960s some coastal property owners asserted their ownership of the dry sand beaches. Out of a growing public concern that public use of beaches would be lost, Governor Tom McCall and the 1967 Oregon Legislature forged and passed Oregon's famous "Beach Bill" that created a public recreation easement across private dry sand beach areas. The law has been upheld in landmark court cases (as recently as March 1994, the United States Supreme Court refused to hear an appeal related to an Oregon Supreme Court Decision upholding the law).

The citizen alliances that formed to support the Beach Bill also began to express concerns about Oregon's coast in light of increasing development of coastal areas and destruction of estuaries, shorelands, and the like. The 1971 Legislature established the Oregon Coastal Conservation and Development Commission, made up principally of coastal officials and citizens, and charged it with preparing a plan for the Oregon coast. The OCC&DC addressed many issues, including use of the ocean shore and ocean waters of the continental shelf. And although the OCC&DC was eclipsed by the statewide planning program begun in 1973, it laid the foundation for policies on

the management and protection of all coastal resources, including the ocean. Thus, the public concerns for the use of the beaches led to the first efforts to create ocean management policies.

## **2. 1973-1987**

In 1973 the legislature established a statewide land-use program and created the Land Conservation and Development Commission (LCDC) to develop a set of statewide planning goals to guide local government planning and state agency programs. Parts of this statewide program are keystone elements of Oregon's ocean planning program as well, such as citizen involvement, local government planning, and state agency coordination. Some 14 statewide goals were adopted in late 1974. In 1976 LCDC adopted four specific coastal planning goals: Goal 16, Estuarine Resources; Goal 17, Coastal Shorelands; Goal 18, Beaches and Dunes; and Goal 19, Ocean Resources. These four coastal goals were derived from the earlier work of the OCC&DC.

The Ocean Resources Goal (Goal 19) was developed amid national concerns about federal offshore oil and gas drilling as well as regional concerns about foreign fishing fleets and over-fishing on or near the US continental shelf. Accordingly, the Ocean Resources Goal established a priority for renewable resources, emphasized optimum-yield management for fisheries, and established a decision-making process that required adequate inventory information and the assessment of impacts from development actions.

The statewide goals created a framework for carrying out the legislative mandate for a consistent, comprehensive statewide land-use planning program. Cities and counties were required by law to prepare and adopt comprehensive land-use plans that complied with the statewide goals. Similarly, state agencies were required to develop "agency coordination" programs to meet the Goals and coordinate their functions with local planning. Between 1973 and 1987 the state's land-use program emphasized completion of local city and county land-use plans to meet land development and urban growth issues covered by Goals 1-18.

Because ocean issues were beyond local government authority and generally not of concern, the plans of coastal local governments did not address ocean resource issues or Goal 19 and the LCDC gave little direction to state or federal agencies regarding the implementation of Goal 19. However, federal initiatives in the early 1980s to create a 200-mile-wide U.S. Exclusive Economic Zone, lease for deep-sea mineral resources, and explore for oil and gas on the outer continental shelf caused Oregon to pay close attention to Goal 19 and how it might be applied. By early 1987, an administrative rule for Goal 19 was prepared but not adopted because the 1987 legislature established the Ocean Resources Management Task Force to prepare a plan for ocean-resources management. Thus LCDC deferred preparing Goal 19 rules pending development of the Ocean Plan by the Task Force.

## **3. 1987-1991**

Two major activities dominated the second phase of ocean planning: 1) preparation of a broad framework plan addressing ocean resources within the 200-mile U.S. EEZ off Oregon, and 2)

responding to federal oil and gas lease sale proposals for the Outer Continental Shelf off Washington and Oregon. The Ocean Task Force developed the Oregon Ocean Resources Management Plan (Ocean Plan) in 1990, which the LCDC subsequently adopted as part of the state's coastal management program as required by law (see Part One Section D.2. for an explanation of the Ocean Plan; see Appendix G for policies of the Ocean Plan). The plan built upon the subject matter addressed by the Ocean Resources goal but-although richer in detail, broader in scope, and more explicit in policy direction-still did not provide detailed guidance to administer Goal 19 or tell how specific areas or activities in Oregon's territorial sea should be managed. A principal recommendation of the Ocean Task Force to the Oregon Legislature was to create an Ocean Policy Advisory Council to prepare a plan for the territorial sea.

## Historical Roots of Oregon's Territorial Sea Plan

### Before 1973

#### "Beach Bill" & O.C.C.& D.C.

- *public access to beaches*
- *coastal protection*
- *coastal conservation*

### 1973 - 1987

#### ORS 197 Oregon Land Use Program

- *Statewide Planning Goals 1 - 19*
- *Local Planning Programs*
- *State Agency Programs*

### 1987 - 1991

#### ORS 196 Creates Ocean Task Force to Develop Ocean Plan

- *Ocean Stewardship Area*
- *Marine Habitat Protection*
- *Ocean Resources Policies*
- *Territorial Sea Plan Needed*
- *Ocean Policy Advisory Council*

### 1991 - 1994

#### ORS 196 Amended:

- *Creates Ocean Policy Advisory Council*
- *Initial Territorial Sea Plan Prepared*

### Future: 1994 ?

- *Territorial Sea Plan Additions and Amendments*

During this 1987-1991 period, areas of the federal Outer Continental Shelf off Washington, Oregon, and California were scheduled by the federal government for potential oil and gas leases. In addition, intense interest developed in exploring and potential mining for strategic minerals off the southern Oregon coast in both state and federal waters. Other concurrent concerns arose over conflicts between Steller sea-lion habitat and the sea-urchin dive industry. Together, these issues provided much of the focus and impetus for the Ocean Plan.

#### **4. 1991-1994**

The 1991 Oregon Legislature established the Ocean Policy Advisory Council (OPAC) to, among other duties, prepare a plan, by July 1, 1994, for managing the resources and activities in the state's territorial sea. The management-oriented Territorial Sea Plan is very different from the policy-oriented Ocean Plan in that it provides detailed guidance to state and federal agencies in managing the area from 0-3 miles while, by contrast, the Ocean Plan addressed the entire 200-mile US Exclusive Economic Zone with emphasis on an ocean stewardship area (0-50 miles) generally covering the continental shelf and slope.

After the OPAC completes the Territorial Sea Plan in mid-1994, it will be submitted to the LCDC, which will review it against the statewide planning goals and state law and then adopt it as part of the state's Coastal Management Program. The LCDC will, in turn, submit the plan to the Office of Ocean and Coastal Resources Management, within the National Oceanic and Atmospheric Administration, for review and approval as an amendment to Oregon's federally approved Coastal Management Program.

#### **5. Beyond 1994**

The Council was unable to address many ocean-resource management issues during preparation of the initial plan. Therefore, the Council will continue to refine and add to the Territorial Sea Plan through plan amendments and updates to address such issues as kelp-reef special-area management, mariculture, seabed leasing, marine water quality and sewerage outfalls, dredged material disposal, ocean structures, oil and gas exploration, marine minerals, and ocean hazards. The Council is charged by law with providing the Governor with policy advice on ocean matters including new ones that will undoubtedly emerge over time.

# Oregon Territorial Sea Plan

Adopted 1994



## PART ONE:

# Ocean Management Framework

## B. THE OCEAN POLICY ADVISORY COUNCIL

The 1991 Oregon Legislature created the Ocean Policy Advisory Council to provide a means of coordinating and creating ocean policy for the state and to prepare a plan for managing the resources and uses of Oregon's territorial sea. The Council's role and membership composition reflects the success of its predecessor, the Oregon Ocean Resources Management Task Force, 1987 - 1990, which recommended this on-going Council structure to the Legislature.

### 1. Membership

Membership on the Ocean Policy Advisory Council is specified in law (ORS 196.438). Current Council positions and membership may be viewed at \*\*\*\* lcd/coastal opacmembers.doc \*\*\*\*.

### 2. Planning Process

#### a. Council Process

The Council began work in early March, 1992, with a two-day workshop at the University of Oregon Institute for Marine Biology in Charleston. During Phase One of its work, the Council met five times over eight months and developed internal procedures, reviewed the Oregon Ocean Resources Management Plan to scope a short list of planning issues to address in the Territorial Sea Plan, and held a series of eight public workshops in the fall of 1992: Brookings, Port Orford, North Bend, Yachats, Newport, Lincoln City, Tillamook, and Seaside. These sessions provided the public with the opportunity to learn about the Council and for the Council to gain information about ocean resource concerns and issues that the Council or member agencies should address. In the end, the Council chose to focus on two major issue areas: rocky shores and administrative procedures for making ocean-resource decisions.

During Phase Two, Plan Development, the Council met four times beginning in January, 1993, to review and approve work being developed by staff and working groups. Working groups met frequently to develop plan materials. At its August 20, 1993, meeting, the Council approved draft plan material for initial review by the public. The Council held three public workshops in late November, 1993, in Tillamook, Newport, and North Bend.

Phase Three, Plan Refinement, was a period of intense work by working groups. The Council met twice to review proposed improvements and amendments to the draft plan. At its March 11, 1994, meeting the Council approved revised plan material to be published for public review in May and June, 1994. The Council held three public meetings to hear comment in Tillamook, Bandon, and Newport. The Council reviewed all comments at its June 17, 1994, meeting, and identified several remaining issues to be resolved. The Council adopted the plan August 12, 1994.

All Council meetings were and are open to the public; all were videotaped and tapes are available for review.

## **b. Planning Considerations**

The Council used the following considerations in determining which issues to address in the initial Territorial Sea Plan, and will use these same considerations to determine whether to address future management issues.

- 1.) **Identified in the Ocean Plan:** the issue is specifically referenced in the Ocean Resources Management Plan as stated problem that should be addressed by the Ocean Policy Advisory Council in preparing the plan for the territorial sea;
- 2.) **Within the Territorial Sea:** the issue specifically encompasses a problem of management of ocean resources or uses within the state's territorial sea seaward of the beach zone line and is within the state's purview to address;
- 3.) **An interagency problem:** the issue involves more than one agency or jurisdiction of government and requires Council action to mediate and address;
- 4.) **Achievable results:** Council action may prevent management problems and/or lead to a foreseeable improvement in management of Oregon's territorial sea;
- 5.) **Information base:** the issue has data and information available to support Council action on the issue or problem;
- 6.) **Consequences of not addressing the issue:** the issue may have substantial economic, environmental or legal costs or consequences if not addressed by the Council.

## **c. A Short List**

The Council considered a lengthy list of issues identified in the Ocean Plan, heard at public workshops, and identified by Council members at their initial workshop. These issues included:

- Administrative Rules for Statewide Planning Goal 19, Ocean Resources

- Marine Birds and Mammals Habitat Areas (Rocks and Reefs)
- Intertidal Areas (Marine Gardens)
- Oil Spill Response
- Marine Water and Air Quality
- Leases for Marine Plants and Animals
- Artificial Reefs
- Recreation and Cultural Resources
- Dredged Materials Disposal
- Marine Minerals
- Overall Policies (Stewardship, Conservation, Habitat Protection)
- Oil and Gas Development
- Littoral Cell Management (Coastal Hazards)
- Beaches and Dunes

From this list, the Council narrowed to a "short list" of planning issues composed of two broad items:

- the need for administrative procedures to guide future decision-making by the Council with emphasis on interpreting and applying the requirements of Statewide Planning Goal 19, Ocean Resources;
- the need to address a bundle of nearshore resource protection and use issues under the umbrella heading of "rocky shores."

As work on these two topics progressed, a third "issue" emerged, i.e. the need to include a management framework to explain and clarify the linkages among and between the various ocean laws, programs, and policies already in place in Oregon.

#### **d. The "Initial" Territorial Sea Plan**

The Oregon Legislature anticipated that not all topics or issues could be addressed during the time period established for the Council to develop the Territorial Sea Plan. Chapter 576, Section

15, Oregon Laws is entitled "Initial Territorial Sea Plan." The Council, too, developed the Territorial Sea Plan with the understanding that the issues not included on the short list remain to be addressed in subsequent phases of planning work and that new issues will arise over time that will need to be addressed. Thus, this Territorial Sea Plan is a reflection of the on-going process of planning for and managing resources and uses of the ocean. The Council will amend and update the plan through a process described in Part One, Section F.2.

**e. The Territorial Sea Plan and Ocean Fisheries**

The principal focus of the Territorial Sea Plan is the conservation and protection of marine habitat through clear procedures and standards for making decisions. Neither the Oregon Legislature nor the Ocean Policy Advisory Council intends the Territorial Sea Plan to be an ocean-fisheries management plan or the Council to assume fisheries regulation and management. However, marine habitat conservation considerations may affect some ocean-fisheries management decisions of state or federal agencies. In that event, Council decisions relative to marine habitat and resource conservation will provide policy direction for the Department of Fish and Wildlife and other fishery-management bodies. The Council will expressly avoid specific fishery management regulations and will instead rely on the agencies with fishery jurisdiction to work with industry on fishery-program changes needed to conform to standards in the Territorial Sea Plan.

# Oregon Territorial Sea Plan

Adopted 1994



## PART ONE:

# Ocean Management Framework

## C. OREGON'S TERRITORIAL SEA

### 1. Oregon's Seaward Boundary

Oregon, along with nearly every other coastal state<sup>1</sup>, has jurisdiction over the seabed and its resources out to three geographical (or nautical) miles<sup>2</sup> and sometimes further if offshore islands or rocks provide a more seaward point for measurement. First proposed in 1793 by then-Secretary of State Thomas Jefferson as a "temporary" seaward boundary for the United States, state jurisdiction over this so-called "territorial sea" was finally established by Congress in the 1953 Submerged Lands Act (43 USC 1301-1315). This three-mile ribbon of ocean, comprising about 1,000 square miles, is Oregon's ocean area covered by this Territorial Sea Plan.

The term "territorial sea" is not used in the Submerged Lands Act. Instead, that act confirmed that the seaward boundary of a coastal state consists of "a line three geographical miles distant from its coast line."<sup>3</sup> "Coastline" is defined as "the line of ordinary low water along that portion of the coast which is in direct contact with the open sea and the line marking the seaward limit of inland waters." A 1986 Opinion of the Attorney General, State of Oregon (No. 8182, November 13, 1986), noted that "the determination of the exact location of a state's boundary (is) a complex task." That Opinion states that "the burden of establishing criteria for determining the exact location has fallen on the United States Supreme Court." The Supreme Court, in *United States v. California*, 381 US 139 (1965), adopted the definitions of the Convention on the Territorial Sea and the Contiguous Zone (15 UST 1607) which arose out of the 1958 First Conference on the Law of the Sea in Geneva, Switzerland.

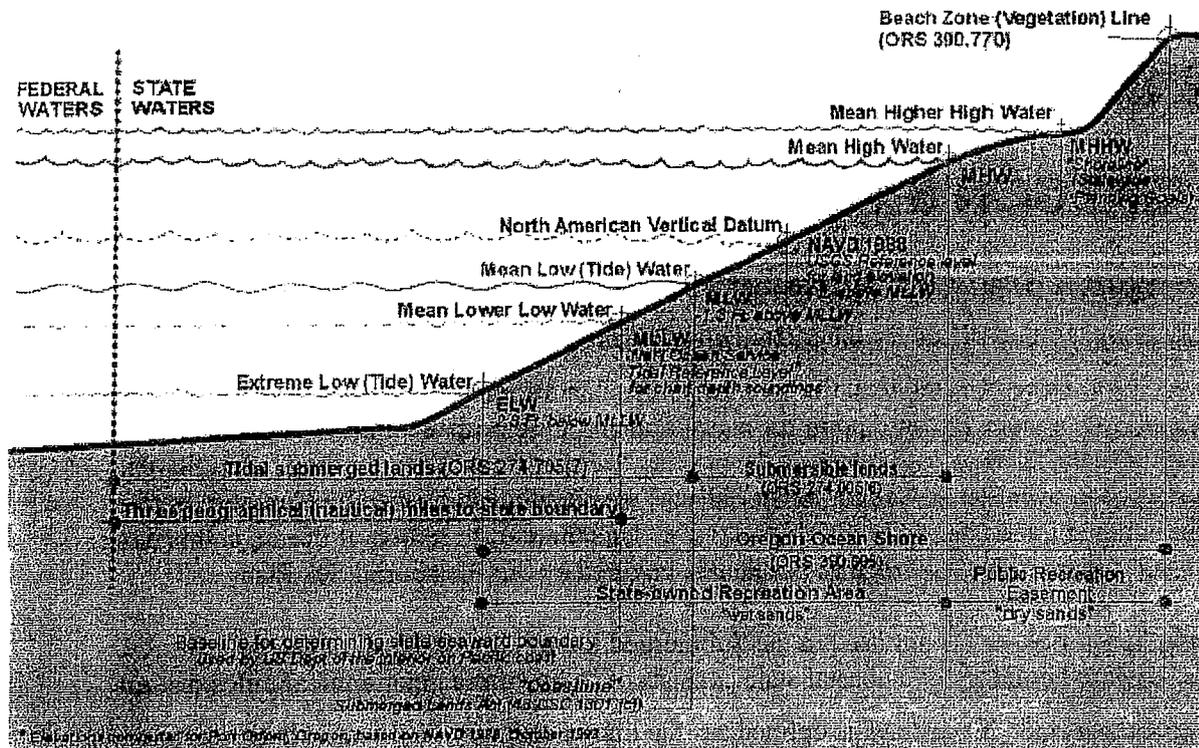
The Attorney General Opinion further urged the state to be guided by "official United States government charts" that depict the coastal boundary, as long as the boundary depicted is "consistent with the terms of the Convention." The U.S. Department of the Interior, Minerals Management Service (MMS) is responsible for locating this boundary for federal oil and gas

<sup>1</sup> Based on historical claims, Texas and Florida have jurisdiction to three marine leagues, which equals nine nautical miles (10.35 statute miles), in waters of the Gulf of Mexico. [*U.S. v. Louisiana* 363 U.S. 83-85 (1960)] [*U.S. v. Florida* 363 U.S. 121 (1960)]

<sup>2</sup> A "geographical" or "nautical" mile is the length along one minute of arc of latitude of the Earth's surface and measures 6,076 feet. A "statute" mile is the familiar 5,280 feet (based on the Latin for 1,000 paces). Thus, a "geographical" mile is about 1.15 "statute" miles.

<sup>3</sup> The 1953 Submerged lands Act (43 USC) 1301 - 1315) uses the two words "coast line" instead of the correct term "coastline" that is used in this plan.

leasing purposes and, on the Pacific Coast, has adopted a coastal "baseline" of Mean Lower Low Water from which to measure three miles seaward. The Oregon Division of State Lands and the MMS undertook a joint project in 1989-90 to identify and document the location of the points of the baseline along the Oregon coast. Maps of the baseline are not yet available from MMS.



**Figure 2: Jurisdictional Boundaries for Oregon's Ocean Shore and Territorial Sea**

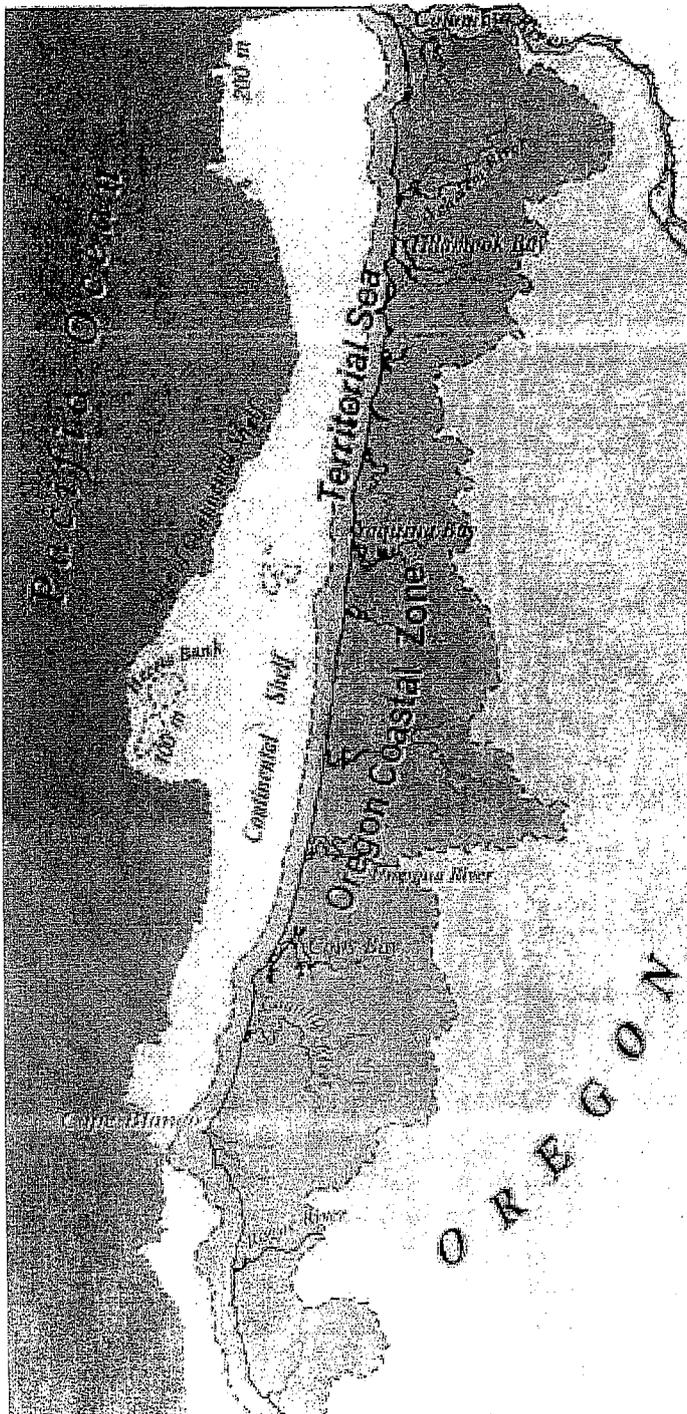
This diagram shows the intersection of the ocean shore with the height of each of six different levels of ocean water described in various state or federal authorities used as reference lines to determine various jurisdictional boundaries. The Oregon Division of State Lands uses "mean" (average) high water in place of "ordinary" high water to determine the upper boundary of tidal submersible lands (authorized in ORS 274.015).

**2. Ocean Shore**

The 1991 Oregon Legislature required that this plan for the Territorial Sea also include the "ocean shore," which is defined in state law (ORS 390.605) as the "land lying between extreme low tide of the Pacific Ocean and the line of vegetation" as established in state law (also known as the "Beach Zone Line"). These boundaries are shown in Figure 2, below. Technical notes are in Appendix D.

This "ocean shore" is very important to Oregonians. A 1967 political and legal struggle to clarify and protect the public's rights to the dry sand beaches resulted in a law that defines the landward

limit of this "ocean shore" as the "line of vegetation" or the 16-foot elevation line, within which the public has rights of access and use.



## Oregon's Territorial Sea and Coastal Zone

*This map shows in light blue the approximate extent of Oregon's three nautical mile-wide (3.45 statute miles) territorial sea, as measured from the "coastal baseline" (Mean Lower Low Water). Note how the boundary bulges seaward off headlands such as Cape Arago or offshore rocks such as those in Orford Rogue Reef. These bulges add to Oregon's total ocean.*

*The landward boundary of the Oregon Coastal Zone is the crest of the coastal watershed except at the downstream end of Puget Island in the Columbia River, Scottsburg on the Umpqua River, and Agness on the Rogue River.*



# Oregon Territorial Sea Plan

Adopted 1994



## PART ONE:

# Ocean Management Framework

## D. LAWS AND OTHER LEGAL AUTHORITIES AFFECTING OCEAN MANAGEMENT

Various state and federal agencies carry out many different laws that have been enacted over the years to govern the resources and activities in Oregon's ocean area. Bringing all these laws and programs together in a coordinated management framework is the task of the Ocean Policy Advisory Council through this Territorial Sea Plan. These laws are briefly described, followed by a discussion of the hierarchy among them. Although this section is intended to be complete, it is NOT a detailed or exhaustive listing of all agency programs and authorities.

**NOTE:** A summary of the AGENCIES that carry out these laws are listed in Section E.

### 1. State ocean-related laws

#### a. Ocean Resources Management Act of 1987/1991 (ORS 196.405 et seq)

**NOTE:** See ORS 196.405-196.515.

This Act is the legislative and policy framework for Oregon's Ocean Program. Enacted in 1987, it resulted in the Oregon Ocean Resources Management Plan, 1990. Amended in 1991, the Act sets legislative policy for ocean resource management, creates the Ocean Policy Advisory Council in the Office of the Governor, and mandates a plan for the Territorial Sea as part of Oregon's Coastal Management Program.

#### b. Statewide Land Use Planning (ORS 197.005 et seq)

Enacted in 1973, this law establishes Oregon's statewide land-use planning program including the Land Conservation and Development Commission, the statewide planning goals as mandatory standards, listing areas to be addressed by the goals, including "...recreational and outstanding scenic areas"; "beaches, dunes, coastal headlands and related areas"; and "unique wildlife habitat." State agencies are required to "carry out their planning duties, powers, and responsibilities and take actions...with respect to programs affecting land use in compliance with

(statewide planning) goals..." and to adopt a coordination program "to assure compliance with the goals..."

**NOTE:** The Land Conservation and Development Commission adopted Statewide Planning Goal 17, Coastal Shorelands, and 19, Ocean Resources, in 1977. Until the enactment of ORS 196 (above) and creation of the Ocean Resources Management Program in 1987, Goal 19 was the state's fundamental policy element related to ocean resources in Oregon's land-use planning program. This Territorial Sea Plan clarifies how Goal 19 will be implemented by government agencies.

**c. Ocean Shores (Beach Bill) (ORS 390.605 et seq)**

Oregon's "ocean shore" is defined in ORS 390.605 as "land lying between extreme low tide of the Pacific Ocean and the line of vegetation as established and described by ORS 390.770. This shore area, whether publicly-owned or part of the privately-owned 23 miles, is declared to be a "state recreation area" under the jurisdiction of the Parks and Recreation Department for public recreational purposes. A complicating fact is that the part of this strip of land "between ordinary high tide and extreme low tide" is under concurrent jurisdiction of the State Land Board and the Parks and Recreation Department. The 1991 Oregon legislature required that this "ocean shore" area be addressed in the Territorial Sea Plan along with the submerged lands lying seaward to three miles.

**d. Submerged/Submersible Lands (ORS 274.005 et seq)**

Submerged lands are defined as "lands lying below the line of ordinary low water... within the boundaries of the state...". Submersible lands are defined as "lands lying between the line of ordinary high water and the line of ordinary low water of all navigable waters and all islands, shore lands...within the boundaries of this state...whether tidal or non-tidal." "Ordinary high and low water" means "annual mean high or mean low water of the preceding year." The Division of State Lands has "exclusive jurisdiction over all un-granted tidal submerged lands owned by the state" (ORS 274.710). "Un-granted" means that the bed or banks of the territorial sea have not been sold or otherwise conveyed out of public ownership.

**e. Fish and Wildlife Laws (ORS 496 et seq)**

These laws define "fish" and "wildlife," establish broad legislative policy regarding management of fish and wildlife, create and provide authority for the Department of Fish and Wildlife (ODFW) and its oversight Commission, and enact laws for threatened and endangered species. These laws give ODFW broad authority to develop fish and wildlife protection programs and perform actions necessary to carry out fish and wildlife laws. The ODFW has adopted general administrative rules about harvesting marine intertidal animals and has created "marine gardens" for certain intertidal areas where no taking of marine invertebrates is allowed.

**f. Commercial Fishing (ORS 506.001-.405)  
and Developmental Fisheries (ORS 506.450-.465)**

These statutes provide the Oregon Fish and Wildlife Commission with "exclusive jurisdiction over all fish, shellfish, and all other animals living intertidally on the bottom, within the waters of this state." Establishes food-fish management policy and creates authority for the commission to regulate commercial harvest of food fish. Establishes a developmental fisheries management program to plan the commercial development of underutilized food-fish species while protecting long-term sustainability of the commercial and biological values of those resources.

**g. Kelp Leasing (ORS 274.885 et seq)**

This law provides the Division of State Lands with exclusive jurisdiction over the state-owned tidal-submerged lands where kelp grows. Authorizes the Division to lease these lands "for the purpose of harvesting kelp and other seaweed after consultation with the State Fish and Wildlife Commission." There are some limitations on lease area, amount, and duration.

**h. Threatened or Endangered Wildlife Species (ORS 496.172 et seq)**

The Oregon Fish and Wildlife Commission is required to identify and establish programs to protect and conserve threatened and endangered wildlife species (ORS 496.172). Procedures and criteria are given for listing species under this law.

**i. Marine Water Quality (ORS 468)**

Discharge of pollutants into the waters of the state is prohibited. The term "waters of the state" is defined as including "the Pacific Ocean within the territorial limits of the State of Oregon." Numerous other provisions address controlling wastes, requiring certain practices, establishing effluent limitations and conditions, and setting water-quality standards generally.

**j. Oil Spill Contingency Planning (ORS 468B.300)**

This act requires an oil spill prevention and emergency response plan approved by the Department of Environmental Quality prior to the operation of onshore or offshore oil or gas facilities or operation of tanker, cargo, or passenger vessels in state waters of the Pacific Ocean, estuaries to the head of tide water, the Columbia River, and the Willamette River to Willamette Falls. This act includes legislative policy, provides the DEQ with authority to adopt standards for preparing contingency plans, and lists minimum requirements for such contingency plans. The act emphasizes coordination with the State of Washington and the United States Coast Guard, establishes an Oil Spill Prevention Fund, creates an Oregon coast safety committee, and establishes a wildlife rescue training program.

**2. The Oregon Ocean Resources Management Plan (Ocean Plan)**

NOTE: See Appendix G for a complete listing of all policies of the Oregon Ocean Plan.

#### **a. Status and Scope**

The Oregon Ocean Resources Management Plan (Ocean Plan) was adopted November 8, 1990, as part of Oregon's Coastal Management Program by the Oregon Land Conservation and Development Commission. The Ocean Plan was prepared pursuant to the requirements of state law by the Ocean Resources Management Task Force during the period 1987-1990. The Ocean Plan addresses ocean uses and resources across the entire continental margin and 200-mile U.S. Exclusive Economic Zone in both state and federal waters.

#### **b. Principal Policies**

The Ocean Plan created a broad policy framework for ocean management. It defined an "Ocean Stewardship Area" off Oregon, from the crest of the coast mountains seaward to the toe of the continental margin, within which Oregon asserts that it has direct concerns and ocean-resource management responsibilities. Within this area Oregon will apply policies and principles of conservation and marine habitat protection. The Ocean Plan also identified 33 "sensitive marine habitats" on offshore rocks and islands and shoreline cliffs where further work is needed to protect resources. The plan prohibits oil and gas development in state waters and lists a number of stringent conditions related to oil and gas activities in federal waters. The Ocean Plan recommended creation of an Ocean Policy Advisory Council and preparation of a plan for the territorial sea.

The Ocean Plan recognized the significance of Oregon's commercial and recreational ocean fisheries to coastal communities and their economies and identified "important fishery areas." The Ocean Plan included several policies related to ocean fisheries, including one to "conserve, protect and, where needed, enhance or restore marine habitats that are important to commercial and recreational fish species" and one to "oppose any uses of nonrenewable resources which [that] could adversely impact ocean fisheries."

#### **c. Application to the Territorial Sea Plan**

The Ocean Plan remains as part of the Oregon Coastal Management Program. The 1991 legislature specifically stated that the Territorial Sea Plan was to build from the policies and issues of the Ocean Plan. Thus the Ocean Plan is a larger framework document for the entire "Ocean Stewardship Area" within which the Territorial Sea Plan applies to the area of state jurisdiction. As policies in the Territorial Sea Plan are adopted, the Land Conservation and Development Commission may need to amend the Ocean Plan to replace or delete policies that the Territorial Sea Plan supersedes.

### **3. Statewide Planning Goals**

Two statewide planning goals directly relate to the present Territorial Sea Plan: Goal 17, Coastal Shorelands, and Goal 19, Ocean Resources.

### **a. Goal 17, Coastal Shorelands**

The Shorelands Goal aims to "...conserve, protect, where appropriate, develop and where appropriate restore the resources and benefits of all coastal shorelands..." while recognizing the diverse contributions that shorelands make such as protecting and maintaining water quality, providing fish and wildlife habitat, siting water-dependent uses for economic development, providing recreational opportunities, and the aesthetic or scenic qualities that define the coastal environment. The goal requires that "management of these shoreland areas shall be compatible with the characteristics of the adjacent coastal waters."

The goal also seeks to "...reduce the hazard to human life and property..." and reduce the adverse effects on water quality and fish and wildlife habitat that can result from the use of Oregon's coastal shorelands.

The Shorelands Goal requires that: "inventories shall be conducted to provide information necessary for identifying coastal shorelands and designating uses and policies. These inventories shall provide information on the nature, location, and extent of geologic and hydrologic hazards and shoreland values, including fish and wildlife habitat, water-dependent uses, economic resources, recreational uses and aesthetics in sufficient detail to establish a sound basis for land and water use management."

Coastal shorelands are defined as lands within 100 feet of the ocean shore as well as other lands around estuaries and coastal streams.

### **b. Goal 19, Ocean Resources**

**NOTE:** *This description of Goal 19 differs from the text of the Territorial Sea Plan published in 1994 because Goal 19 was amended December 1, 2000, by the Land Conservation and Development Commission.*

The Ocean Resources Goal was adopted in 1977 and amended for the first time in 2000. The goal establishes that Oregon's primary ocean policy objectives are long term conservation-oriented the proper management of renewable resources is a top priority. The revised goal requires that

*"...all actions by local, state, and federal agencies that are likely to affect the ocean resources and uses of Oregon's territorial sea shall be developed and conducted to conserve marine resources and ecological functions for the purpose of providing long-term ecological, economic, and social values and benefits and to give higher priority to the protection of renewable marine resources--i.e., living marine organisms--than to the development of non-renewable ocean resources. policy elements."*

The revised goal clearly asserts that Oregon's ocean management interests extend beyond state waters to an Ocean Stewardship Area that extends seaward to the toe of the continental margin. This is a policy assertion first articulated in the Oregon Ocean Resources Management Plan.

The revised goal clarifies the original requirement that agency decisions be based on information

by specific reference to the requirements in the Territorial Sea Plan for resource inventory and effects evaluation:

*"Prior to taking an action that is likely to affect ocean resources or uses of Oregon's territorial sea, state and federal agencies shall assess the reasonably foreseeable adverse effects of the action as required in the Oregon Territorial Sea Plan."*

And the revised goal also provides specific criteria, including definitions of *important marine habitat* and *important fishery areas* for evaluating whether an action complies with the goal.

#### **4. Federal Laws**

A number of federal laws pertain to Oregon's territorial sea. Two of these, the Coastal Zone Management Act and the Submerged Lands Act, establish a framework for management of Oregon's territorial sea. Others relate to specific resources, uses, and activities.

##### **a. Clean Water Act (33 USC 1251 - 1375)**

The Clean Water Act, administered by the US Environmental Protection Agency (EPA), is the most important law dealing with the quality of water in the United States, including marine waters. Under the Act, the EPA and the Oregon Department of Environmental Quality (DEQ) have an agreement that the DEQ regulates all point-source (e.g. a pipe) discharges into rivers, estuaries, and the ocean through the National Pollutant Discharge Elimination System (NPDES). Section 404 of the Act regulates the dumping of dredged materials and is administered by the US Army Corps of Engineers.

##### **b. Coastal Zone Management Act (16 USC 1451 - 1464), amended**

The 1972 Coastal Zone Management Act established a national program of coastal management that is carried out by coastal states through state coastal-management programs reviewed and approved by the Secretary of Commerce through NOAA, the National Oceanic and Atmospheric Administration (NOAA), Office of Ocean and Coastal Resources Management. State programs approved as meeting federal guidelines become the operative management program within the state's coastal boundary. The law, with subsequent amendments, requires all federal actions or programs affecting a state's coastal zone to be consistent with the mandatory provisions of that state's program.

**NOTE:** In 1977, the Secretary of Commerce approved Oregon's Coastal Management Program, which was the second in the nation to be approved. Oregon's Coastal Zone extends from the crest of the Coast Range mountains (with two exceptions on the Rogue and Umpqua Rivers) seaward to the limits of state jurisdiction. Thus, after this Territorial Sea Plan is adopted by the Land Conservation and Development Commission and approved by NOAA/Commerce, it will become an official part of Oregon's federally approved Coastal Management Program.

##### **c. Comprehensive Environmental Response Compensation and Liability Act of 1980 (42 USC 9601 - 9657)**

This Act, known as CERCLA, provides the framework for responding to all manner of hazardous-waste contingencies, including spills, leaks, disposal, or discharges of oil, chemicals, or other hazardous substances into the environment. The Act also provides for recovery of damages from injury or loss of natural resources. The Act authorizes the President to enter into cooperative agreements with states to take actions under this Act, including damage assessment and recovery.

**d. Endangered Species Act of 1973 (16 USC 1531 - 1543)**

The Endangered Species Act authorized the Secretaries of the Interior and Commerce to list all species determined to be endangered or threatened. "Endangered species" means "any species which [that] is in danger of extinction throughout all or a significant portion of its range." "Threatened species" means "any species likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range." The Act prohibits "take" (i.e. killing, harassing, hunting, etc.) and requires protective regulations and recovery plans for any listed species. The federal agencies may enter into agreements with states to develop and carry out conservation programs for such species. The Endangered Species Act refers to the commitments of the United States to various international agreements to conserve natural resources and wildlife.

**e. Fish and Wildlife Act of 1956 (16 USC 742a - 742j-2)**

The Fish and Wildlife Act created the US Fish and Wildlife Service within the Department of the Interior. The Act established legislative policy with regard to fish and wildlife resources. The duties and authorities of the US Fish and Wildlife Service are further described in other related laws such as the Fish and Wildlife Coordination Act (16 USC 661 - 666c)

**f. Magnuson Fisheries Conservation and Management Act (16 USC 1801 - 1882)**

Originally enacted in 1976, the Magnuson Fisheries Conservation Act is the legal framework for the United States to assert its management jurisdiction over fishery resources in the area from three to two hundred miles offshore. In addition to controlling the entry and activity of foreign fishing fleets, the Act created eight regional fishery-management areas, each governed by a council. States have representation on the Council. The Act generally preserves coastal state fisheries-management authority within the territorial sea unless a fishery within state waters is covered by a fishery management plan developed by the council or if the state's fishery program would, either by action or inaction, adversely affect a fishery in a fishery-management plan. Fishery-management plans must be approved by the Secretary of Commerce; implementation is through the National Marine Fisheries Service.

**g. Marine Mammal Protection Act (16 USC 1361 - 1407)**

The Marine Mammal Protection Act set up strict prohibitions against the taking, importation, or

possession of marine mammals or marine-mammal products. "Take" is defined as "harass, hunt, capture, or kill, or attempt to harass, hunt, capture, or kill any marine mammal." Marine mammals include sea otters, polar bears, all cetaceans (whales), pinnipeds (seals and sea lions), and sirens (manatees and dugongs). Some "incidental take" is allowed in commercial-fishery operations. The act also created a Marine Mammal Commission and a Committee of Scientific Advisors on Marine Mammals. The US Fish and Wildlife Service (Department of the Interior) has jurisdiction over sea otters and polar bears; the National Marine Fisheries Service (Department of Commerce) has jurisdiction over all other marine mammals.

#### **h. Marine Plastics Pollution Research and Control Act of 1987**

This act implements an international agreement on ocean garbage titled Annex V of the Protocol of 1978 Relating to the International Convention for the Prevention of Pollution from Ships (known by word MARPOL). MARPOL is a primary impetus for ports in Oregon to provide garbage disposal and recycling facilities for vessels.

#### **i. Marine Protection, Research and Sanctuaries Act (16 USC 1431 - 1434)**

Title III of this act authorizes the Secretary of Commerce to designate marine areas that meet certain standards as National Marine Sanctuaries. The National Oceanic and Atmospheric Administration (NOAA) carries out the National Marine Sanctuary Program. There are no National Marine Sanctuaries off the Oregon coast, although the Heceta-Stonewall Banks complex at the outer edge of the Oregon continental margin has been identified as a potential sanctuary. There are five National Marine Sanctuaries on the Pacific Coast: the Olympic Coast NMS off the northern Washington coast, the Monterey Bay NMS in central California, the Gulf of the Farallones NMS and the adjacent Cordell Bank NMS off San Francisco Bay, and the Channel Islands NMS off southern California. A sanctuary can include state waters as well as federal.

#### **j. Migratory Bird Conservation Act of 1929 (16 USC 715 - 715r)**

This Act created a Migratory Bird Conservation Commission made up of the Secretaries of the Interior (chair), Agriculture, and Transportation; Congressional members; and ex-officio state members. The Commission approves the acquisition of land and water areas for sanctuaries, refuges, or other management purposes.

#### **k. Migratory Bird Treaty Act of 1918 (16 USC 703 - 712) as amended**

This landmark Act recognizes the importance of protecting migratory birds throughout their range and implements treaties with Canada (1916), Mexico (1936), Japan (1972), and the USSR (now Russia, in 1976) for protecting migratory birds. These treaties not only relate to hunting issues, but also to preservation of habitat on which birds depend. This Act is the basis for the Secretary of the Interior (through the U.S. Fish and Wildlife Service) to set and enforce hunting seasons and regulations for migratory birds on both public and private lands..

**l. National Environmental Policy Act (42 USC 4321-4347)**

Enacted in 1969 shortly after the first "Earth Day," this Act is the legal basis for requiring an Environmental Impact Statement for "major federal actions significantly affecting the quality of the human environment." The concept behind the law was one of a systematic and interdisciplinary approach to resource planning and decision making.

**m. National Wildlife Refuge System Administration Act of 1966 (16 USC 668dd - 668ee) as amended**

This Act created a National Wildlife Refuge System that includes wildlife refuges, wildlife ranges, wildlife management areas, and waterfowl production areas. The Secretary of the Interior (US Fish and Wildlife Service) is authorized to manage these areas and to permit uses that are compatible with the purposes of the established areas. This is the basic act authorizing the three National Wildlife Refuges in Oregon's territorial sea (see item s., below).

**n. Ocean Dumping Act (33 USC 1401 - 1445)**

Also known as Title I of the Marine Protection, Research, and Sanctuaries Act of 1972 (MPRSA), this act regulates ocean dumping of all types of materials, including dredged materials. The Act's 1988 amendments aim to end the ocean dumping of sewage sludge and industrial waste in the ocean. The EPA and the Corps administer this Act while NOAA is charged with ongoing research and monitoring.

**o. Oil Pollution Act of 1990**

Enacted in response to the Exxon Valdez oil spill, this act expands federal statutory liability for damages resulting from oil spilled or dumped into navigable waters. It also creates the Oil Spill Liability Trust Fund that may be used to compensate for injuries from spills. The Oil Pollution Act builds on CERCLA and CWA and contains many similar provisions.

**p. Rivers and Harbors Appropriation Act of 1899**

This authorizes the US Army Corps of Engineers to permit, authorize, or construct piers, dikes, jetties, or other structures within navigable waters of the United States or to excavate or place fill material in these navigable waters.

**q. Submerged Lands Act (43 USC 1301 - 1315)**

This 1953 Act legislatively established state ownership of all lands and natural resources "beneath navigable waters" within the boundaries of the state, which are defined as a line three geographical miles from "the coastline" which is defined as the line of "ordinary low water." This "ordinary" (also "mean" or "average") low-water line is the same line as that which, in state law, de-marks "submersible" (intertidal) and "submerged" (subtidal).

**r. Wilderness Act of 1964 (16 USC 1131 - 1136)**

The Wilderness Act of 1964 directs the Secretary of the Interior to review all roadless areas of certain sizes, all islands within the National Wildlife Refuge System regardless of size, and to recommend to Congress areas to be designated for formal protection and preservation as wilderness.

**s. Laws Creating National Wildlife Refuge and Wilderness off Oregon 's Coast**

- **Executive Order 699 (1907)** established Three Arch Rocks Reservation
- **Executive Order 5702 (1931)** protected additional refuge lands at T.A.R.
- **Executive Order 7035 (1935)** established Goat Island Reservation
- **Executive Order 7957 (1938)** created Cape Meares Migratory Bird Refuge
- **Executive Order 2416 (1940)** changed names to Three Arch Rocks N.W.R., Oregon Islands N.W.R., and Cape Meares N.W.R.
- **Public Land Order 4395 (1968)** added islands to Oregon Islands N.W.R.
- **Public Law 91-504 (1970)** "Oregon Islands Wilderness" status for Three Arch Rocks N.W.R. and Oregon Islands N.W.R.
- **Public Law 95-450 (1978)** added islands to Oregon Islands N.W.R. and designated additional "Oregon Islands Wilderness" lands
- **Public Land Order 6287 (1982)** added islands to Oregon Islands N.W.R.; designated some islands "Oregon Islands Wilderness"

**5. International Law**

The oceans cover about 71 percent of the Earth's surface and lap the shores of many nations. A rich and complicated fabric of international laws and agreements has grown over the centuries in response to the use of the oceans for transportation, warfare, food, chemicals, materials, research, and recreation. This web of international laws provides the framework for nations, such as the United States, and their political components, such as states, to manage ocean uses and resources.

The United States is a party to many international agreements related to the oceans, including the 1982 United Nations Convention on the Law of the Sea. Although the United States has yet acceded to the 1982 Convention because of objections to deep-seabed mineral provisions, the U.S. has been a party to all four of the 1958 Geneva Conventions on the Law of the Sea and generally recognizes as customary international law all provisions except for the deep-seabed provisions. States, in carrying out their governance authority for areas of the ocean under their jurisdiction, have a duty to comply with international law as part of U.S. law.

Thus, the Oregon Territorial Sea Plan is a governance instrument for affirmatively addressing these international agreements. The standards for evaluating ocean development proposals, the rocky shores goals and policies to protect marine biodiversity, and the conservation standards of Statewide Planning Goal 19 are all provisions that assist the United States to meet these

international obligations.

## **6. Status and Interests of Oregon Coast Indian Tribes**

There are four federally-recognized tribes on the Oregon coast: the Confederated Tribes of the Grande Ronde; the Confederated Tribes of Coos, Lower Umpqua, and Siuslaw; the Coquille Tribe; and the Confederated Tribes of Siletz. These tribal governments encompass many smaller tribes and bands of Indians that originally inhabited western Oregon and the coast. Tribal status was terminated by the federal government in 1954 but Congressional action in the late 1970s and early 1980s restored federal tribal status to these and other Oregon Indian tribes.

While the federal restoration acts renewed the tribes' relationship with the federal government and renewed health and education benefits for tribal members, hunting or fishing rights were not restored to the tribes. The restoration acts expressly provided that "no hunting, fishing, or trapping rights of any nature of the tribe or of any member...are granted or restored..." Two of the tribes have negotiated agreements with the State of Oregon related to tribal hunting, fishing, trapping, and gathering rights. In 1980, the Confederated Tribes of Siletz, the state, and the federal government reached an agreement that specifies the terms and conditions under which the tribe and its members may hunt, fish, collect, or gather a variety of fish and wildlife resources including seaweed. Under this agreement, the gathering of sea anemones, rocky oysters, and saltwater mussels is subject to all applicable state law except that upon request of the tribe, the Department of Fish and Wildlife may issue special gathering permits to allow an opportunity for ceremonial and subsistence purposes. In 1986, the Confederated Tribes of Grande Ronde and the state entered into an agreement to permanently define the tribes' hunting, fishing, trapping, and gathering rights.

## **7. Hierarchy of Legal Authorities in the Territorial Sea**

Numerous legal authorities apply to the management of ocean resources in Oregon's territorial sea, including state laws (e.g. ORS 196 and ORS 197), the Statewide Planning Goals (specifically Goal 19), the Ocean Resources Management Plan, this Territorial Sea Plan, other Oregon statutes that provide specific management authority to state agencies, and state agency rules and coordination programs. Federal laws also apply in the territorial sea and are a part of the mix of legal authorities. The implementers of these "laws" include OPAC, state agencies, local government, and federal agencies. This section seeks to describe the linkage or relationship of these "laws" to each other.

### **a. State Constitution**

The Oregon Constitution is the basic legal framework for the State of Oregon, including the structure and authorities of the various branches of state government. The Constitution establishes a State Land Board of the Governor, Secretary of State, and State Treasurer, to "manage lands under its jurisdiction with the object of obtaining the greatest benefit for the

people of this State, consistent with the conservation of this resource under sound techniques of land management." Lands under its jurisdiction include all submerged and submersible lands in the Territorial Sea, estuaries, and navigable streams (see also Part I, D.1.d. Submerged/Submersible Lands).

#### **b. Common Law and the Public Trust**

Common law doctrines, such as the public trust doctrine or the doctrine of custom, may provide guidance concerning the public's rights within the territorial sea. Courts generally apply these doctrines to guarantee certain public rights such as recreation, commerce, or navigation. The public trust doctrine, in particular, provides an overarching basis for state ownership and management of resources and activities within the Territorial Sea. This doctrine, derived from English Common Law, traditionally holds that the state holds title to tidelands and navigable waters in trust for the benefit of the public, including navigation, fishing, bathing, swimming, boating, and general water-related recreational uses.

#### **c. State Laws**

As indicated in Figure 4, the relationship of the relevant "laws" is generally conceived of as a hierarchy. First, there are statutes the legislature enacts that provide substantive authority and mandates for natural-resource agencies. Aside from any applicable constitutional provision, these statutes sit at the top of the hierarchy. Overall laws for ocean management are ORS 196 and ORS 197.

#### **d. Statewide Planning Goals**

Next come the statewide planning goals, such as Goal 19, that the LCDC adopted at the direction of the legislature. They are considered "super rules" (as a result of specific court decisions) in that they govern if there is a conflict between the statewide planning goals and, for example, LCDC's other administrative rules. For ocean management in particular, it is also clear that these planning goals come next in the hierarchy because the law (ORS 196) states that LCDC can approve the Territorial Sea Plan only if it finds that the plan is consistent with the statewide planning goals, including Goal 19. Because of this requirement, it is clear that the Territorial Sea Plan (like the Ocean Resources Management Plan) is subordinate to Goal 19, at least to the extent that the plan must be consistent with the goal.

#### **e. Ocean Plans**

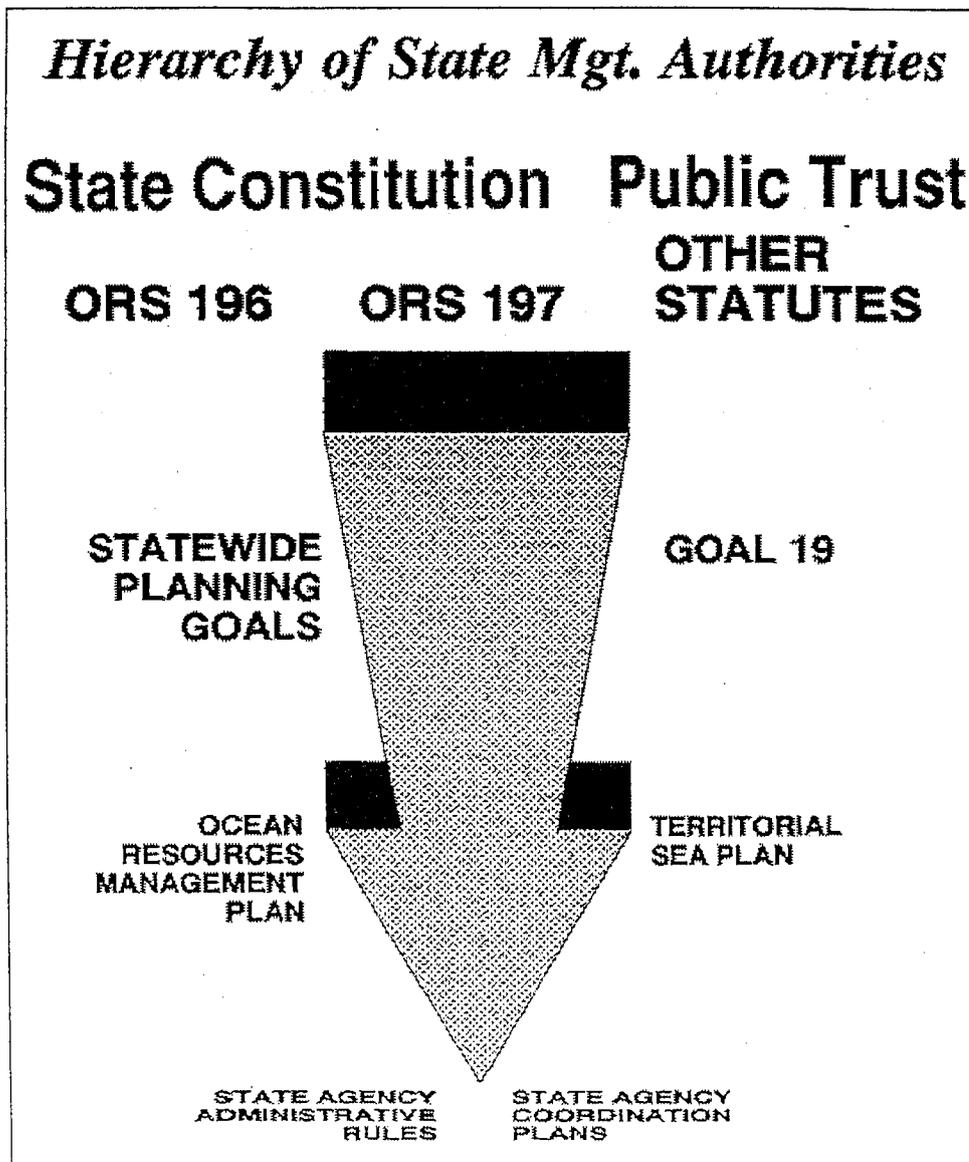
Ranking below state law and the statewide goals are Oregon's two ocean plans: the Ocean Resources Management Plan and the Territorial Sea Plan. This is because, by law, both plans must be consistent with the goals and state laws, including the original authorizing statute. A further complexity, however, is that unless the Ocean Plan is amended prior to the adoption of the Territorial Sea Plan, the Ocean Plan takes precedence and the Territorial Sea Plan must be consistent with it.

f. Agency Rules and Programs

Finally, agency rules and state-agency coordination programs are shown at the bottom of Figure 4. These rules and programs are adopted through rule making and guide the agency in carrying out day-to-day programs. Agency rules must be amended as changes occur in applicable agency statutes or the statewide goals.

8. Conflicts Among Legal Authorities

Although the foregoing describes a hierarchy, conflicts or uncertainties can, and undoubtedly will, arise between or among authorities. It should be emphasized that standard principles of statutory interpretation require that conflicts in law or other authority be resolved to give as much "effect" as possible to all of the authorities, rather than selecting one predominating authority.





# Oregon Territorial Sea Plan

Adopted 1994



## PART ONE:

# Ocean Management Framework

## E. OCEAN MANAGEMENT AGENCIES

**NOTE:** The following descriptions of agency programs and authorities are limited to those that relate to ocean or coastal resources. These descriptions are necessarily brief and do not purport to be comprehensive.

### 1. State Agencies

#### a. Department of Agriculture

The Department of Agriculture has three interests in the territorial sea. One is the leasing and regulatory functions for oysters (although in Oregon none are grown outside of estuaries); the second is regulating the use of TBT (tri-butyltin), a chemical in antifouling paints used to retard the growth of marine life on boat hulls; the third is assisting in the marketing of seafood commodities through seafood-commodity commissions.

#### b. Department of Environmental Quality (DEQ)

The Department of Environmental Quality has overall authority for protecting water and air quality in the territorial sea. In addition to authority and responsibility to carry out state pollution laws, the DEQ is authorized to carry out federal pollution-control laws such as the Clean Water Act and regulate discharge of pollutants into marine waters under the federal National Pollutant Discharge Elimination System. DEQ also has oil spill prevention and response responsibilities and evaluates oil spill contingency plans mandated by state law, manages oil spill response activities, and provides public education and outreach to volunteer responders. DEQ and its oversight body, the Environmental Quality Commission, has divided the state into water quality basins; there are five such basins along the Oregon coast and they include marine and estuarine waters as well as fresh. "Marine waters" are defined by DEQ rules to mean "all oceanic, offshore waters outside the estuaries or bays and within the territorial limits" of the state. DEQ is also involved in reviewing dredge and fill permits for certification of water quality under Section 401 of the Clean Water Act. DEQ and the ODFW are jointly designated as trustee under state and federal law (CERCLA) to assess and recover compensation for environmental damages from oil spills, water pollution, etc.

**c. Department of Fish and Wildlife (ODFW)**

The Department of Fish and Wildlife has broad authority to develop protection programs for fish and wildlife and enforce fish and wildlife laws. The Fish and Wildlife Commission, ODFW's oversight policy body, has adopted harvest regulations for intertidal animals, fish, and shellfish, including sea urchins. ODFW also has responsibilities for protecting marine mammals, including threatened or endangered species, and sea birds. ODFW provides an increasingly important role as the state's "marine biological consultant" to other agencies and the Governor on ocean-related programs such as kelp leasing, dredge-material disposal, marine mineral exploration, and ocean discharge of wastes. ODFW and the DEQ are jointly designated as trustee under state and federal law (CERCLA) to assess and recover compensation for environmental damages from oil spills, water pollution, etc.

**d. Department of Geology and Mineral Industries (DOGAMI)**

The Department of Geology and Mineral Industries has three primary interests in territorial-sea management. One is regulatory authority over such operations as exploring for and extracting oil, gas, or geothermal resources in the territorial sea and coastal zone and hard minerals, such as sand and gravel, on upland sites. Another is advising the Division of State Lands when that agency issues permits for exploratory geological, geophysical, and seismic surveys in the territorial sea. A third is related to understanding and mitigating for geologic hazards and processes. DOGMI undertakes coastal-hazard assessments and studies for both chronic and catastrophic hazards and conducts programs aimed at reducing loss of life and property.

**e. Department of Land Conservation and Development (DLCD)**

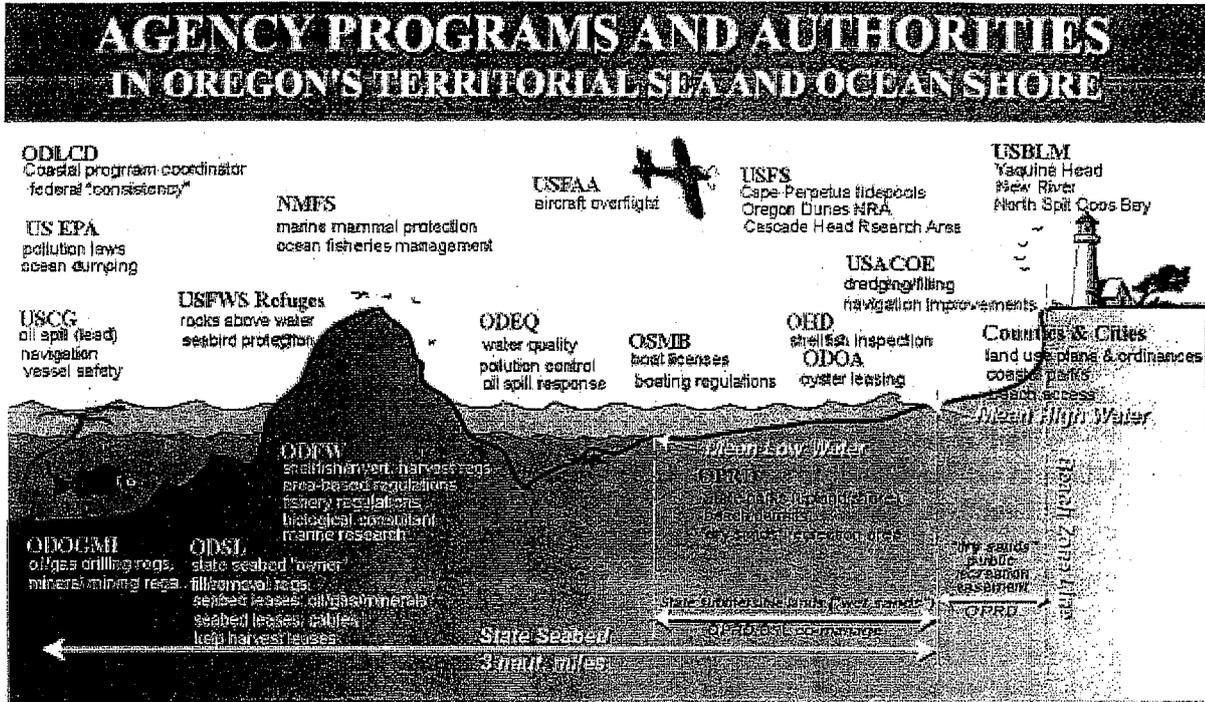
The DLCD is designated by statute as the state's Coastal Zone Management Agency for federal coastal management purposes, provides staff support to the Ocean Policy Advisory Council, and administers the state's land-use program, including Statewide Planning Goal 19, Ocean Resources, and the other 18 statewide goals. DLCD has no direct regulatory authority for ocean resources but, through state-agency coordination requirements and through federal consistency requirements, is the coordinator among all coastal resource agencies to make sure their actions and programs are coordinated with each other, local governments, and the Oregon Coastal Management Program.

**f. Oregon Parks and Recreation Department (OPRD)**

The Oregon Parks and Recreation Department has several management interests in the Territorial Sea. The ocean beach law designates all of Oregon's "ocean shore" as a state recreation area to be managed by OPRD. OPRD has regulatory authority over improvements such as sea walls, rip-rap, pipeline and cable crossings, and other construction within the area from the statutory vegetation (beach zone) line seaward to Extreme Low Tide. Within this "ocean shore," PRD has concurrent jurisdiction with the DSL over submerged and submersible lands seaward of Mean High Water (the so-called "wet sands"). OPRD owns and manages many state parks on the upland adjacent to rocky-shore sites that provide access to rocky shores.

**g. Division of State Lands (DSL)**

The Division is the administrative arm of the State Land Board (composed of the Governor, Secretary of State, and Treasurer) which manages the assets (land and money) of the Common School fund and which holds in trust for the people of Oregon all lands under tidal and navigable waters, including rocky intertidal areas and submerged rocks and reefs in the state's Territorial Sea. In these areas the Division has authority over removal and fill; kelp or seaweed harvest; shellfish harvest (except oysters); geological, geophysical, and seismic surveys; oil, gas, and mineral leasing; and easements or other rights-of-entry for various uses.



**FEDERAL AGENCIES**

- USFWS: U.S. Fish and Wildlife Service
- USEPA: U.S. Environmental Protection Agency
- USACE: U.S. Army Corps of Engineers
- NMFS: National Marine Fisheries Service
- USBLM: U.S. Bureau of Land Management
- USCG: U.S. Coast Guard
- USFS: U.S. Forest Service
- FAA: Federal Aviation Authority

**STATE AGENCIES**

- DLCD: Dept. of Land Conservation and Development
- DOGAMI: Dept. of Geology and Mineral Industries
- ODFW: Dept. of Fish and Wildlife
- DSL: Division of State Lands
- DEQ: Dept. of Environmental Quality
- DOA: Dept. of Agriculture
- OPRD: Oregon Parks and Recreation Department
- OHD: Oregon Health Division
- OSMB: Oregon State Marine Board

**COUNTIES AND CITIES (fronting on the ocean)**

- CLATSOP: Gearhart, Seaside, Cannon Beach, Warrenton
- TILLAMOOK: Manzanita, Rockaway Beach
- LINCOLN: Lincoln City, Newport, Yachats
- LANE: none
- DOUGLAS: none
- COOS: Bandon
- CURRY: Port Orford, Gold Beach, Brookings

Fig. 5 Agencies Diagram

## **h. State Marine Board**

The Marine Board has authority to regulate boating activities in state waters, including the Territorial Sea. The Marine Board, through boater education and publications, can assist in education and awareness of wildlife resources affected by boating activity.

## **2. Federal Agencies**

**NOTE: The following descriptions of agency programs and authorities are limited to those that relate to ocean or coastal resources. These descriptions are necessarily brief and do not purport to be comprehensive.**

### **a. Army Corps of Engineers (USACOE)**

The Corps is responsible for building and maintaining coastal navigational projects, including jetties, navigation channels, and navigational structures under the Rivers and Harbors Act (33 USC 401 - 709b and 2201 - 2329). Material dredged from coastal ports is frequently disposed in ocean waters at sites designated by the Environmental Protection Agency (EPA). Placement of dredged materials at these ocean sites is regulated under sections 102 and 103 of the Marine Protection, Research, and Sanctuaries Act (MPRSA) administered by the EPA or the Corps under section 404 of the Clean Water Act (CWA). The Corps also has permit authority over work performed by others in navigable waters under section 10 of the Rivers and Harbors Act, Section 404 of the CWA, and section 103 of the MPRSA.

### **b. Bureau of Land Management (BLM)**

The BLM (within the U.S. Department of the Interior) owns and administers, on behalf of the public, several sites that include or are adjacent to ocean shore areas. These are Yaquina Head Outstanding Natural Area near Newport, the Coos Head (Cape Gregory) Lighthouse Reserve and Squaw Island near Coos Bay, New River Area of Critical Environmental Concern near Langlois, Cape Blanco Lighthouse Reserve, North Sisters Rock south of Port Orford, and Zwagg Island at Brookings.

### **c. U.S. Coast Guard (USCG)**

The US Coast Guard has several lines of authority and program activities that relate to Oregon's territorial sea. The USCG (1) is the lead agency for oil-spill response and cleanup and is the on-scene coordinator for planning and response; (2) maintains search-and-rescue stations, including air stations at Warrenton (Astoria) and North Bend (Coos Bay); (3) has authority over buoys and markers to regulate vessel operations. The USCG has a program of routine Marine Environmental Patrols along the ocean shore to locate and ensure safe removal of any hazardous materials or debris that may be washed ashore.

**d. Environmental Protection Agency (EPA)**

The EPA is responsible for protecting marine water quality under several federal laws. The EPA and Oregon Department of Environmental Quality have entered into an agreement whereby the DEQ regulates all point-source (e.g. a pipe) discharges into rivers, estuaries, and marine waters through the National Pollutant Discharge Elimination System (NPDES). EPA is also charged with carrying out the Marine Protection, Research, and Sanctuaries Act of 1972 (also known as the Ocean Dumping Act), the Marine Plastics Pollution Research and Control Act of 1987, and the National Marine Pollution Program. The EPA also administers the Clean Air Act of 1977.

**e. U.S. Fish and Wildlife Service (USFWS)**

The USFWS (within the U.S. Department of the Interior) administers three National Wildlife Refuges in Oregon's Territorial Sea: the Oregon Islands NWR, Cape Meares NWR, and Three Arch Rocks NWR. USFWS jurisdiction includes approximately 1,400 rocks and islands above state jurisdiction (Mean High Water), the so-called "dry" portion of the rocks and islands. In addition, USFWS co-administers the federal Endangered Species Act and administers several other federal laws related to marine wildlife and seabirds.

**f. U.S. Forest Service (USFS)**

The Forest Service, an agency of the U.S. Department of Agriculture, operates the Cape Perpetua Visitors Center. Linked to the visitor center are access trails, interpretive facilities, and visitor information programs related to the rocky intertidal areas adjacent to lands of the Siuslaw National Forest.

**g. Minerals Management Service (MMS)**

The Minerals Management Service is housed in the Department of the Interior. It has two functions of potential interest in Oregon's territorial sea. One is locating and mapping the coastal baseline from which the state's three-mile seaward boundary is drawn for purposes of offshore oil and gas leasing. The other is preparing and carrying out a program of oil and gas lease sales in federal waters of the Outer Continental Shelf and offering leases for marine mineral exploration and development in federal waters.

**h. National Marine Fisheries Service (NMFS)**

The National Marine Fisheries Service, a branch of NOAA within the US Department of Commerce, has three interests in Oregon's Territorial Sea. First, NMFS administers the Marine Mammal Protection Act which protects all seals, sea lions, whales, and other marine mammals that use Oregon's ocean area. Second, NMFS co-administers the federal Endangered Species Act under which the Steller sea lion, which breeds on the Oregon coast, is protected. Third, NMFS regulates certain ocean fisheries under the Magnuson Marine Fisheries Conservation Act with consequent indirect effect on fishing activity in Oregon's territorial sea.

### **i. National Ocean Service, Office of Ocean and Coastal Resources Management (OCRM)**

OCRM, a relatively small agency in NOAA, is responsible for administering the National Coastal Zone Management Act of 1972, as subsequently amended. OCRM administers essential federal funds to state coastal management programs through both regular grants and special program enhancement grants. Oregon has made use of both grant programs to fund development of the Territorial Sea Management Plan. OCRM has responsibility within NOAA and the Department of Commerce for reviewing and approving state coastal management programs and subsequent amendments under the federal Coastal Zone Management Act. The National Marine Sanctuary Program and National Estuarine Research Reserve Program are administered by OCRM.

## **3. Local Governments**

### **a. Cities**

Thirteen cities border Oregon's territorial sea: Brookings, Gold Beach, Port Orford, Bandon, Yachats, Waldport, Newport, Depoe Bay, Lincoln City, Rockaway Beach, Manzanita, Cannon Beach, and Seaside. Although these coastal cities have very limited jurisdiction or authority over ocean shore resources or areas, they may play a role in protecting and managing rocky shore areas and resources through policies and decisions about land use on adjacent uplands.

### **b. Counties**

Seven Oregon counties border the Pacific Ocean: Curry, Coos, Douglas, Lane, Lincoln, Tillamook, and Clatsop. Notwithstanding the fact that county boundaries and jurisdiction extend westward to the limit of state waters, Oregon law [ORS 201.370(2)] specifically delegates the planning function for the Territorial Sea to the Ocean Policy Advisory Council and the Territorial Sea Plan. Like coastal cities, coastal counties can play a part in the management of some rocky shore sites where local land-use plans and ordinances can be used to help carry out this rocky shore strategy.

The Council is required to consult with local governments on ocean developments. These mandatory consultation provisions are included in Part Two, Making Resource Use Decisions.

### **c. Coastal Port Districts**

There are fifteen port districts on the Oregon coast: the Ports of Brookings-Harbor, Gold Beach, Port Orford, Bandon, Coquille River, Coos Bay, Umpqua, Siuslaw, Alsea, Newport, Toledo, Nehalem, Garibaldi, Tillamook Bay, and Astoria. While these governmental entities do not have land use planning responsibilities under Oregon law like those of counties or cities, they nonetheless have direct interests in the economy of the coast and, therefore, can play a key role in promoting development of Oregon's ocean resources that is both economically and environmentally sound.

# Oregon Territorial Sea Plan

Adopted 1994



## PART ONE:

# Ocean Management Framework

## F. PLAN IMPLEMENTATION

### 1. How The Plan Works

#### a. A Three-Part Plan

This initial Territorial Sea Plan has developed with three parts. Part One, Management Framework, provides a framework for describing, linking, and understanding the relationships among all relevant state and federal laws, state programs, statewide planning goals, and federal agency programs. This plan will not replace those elements but will coordinate and supplement them through specific plan provisions.

Part Two, Making Resource Use Decisions, establishes mandatory procedures and standards for carrying out Goal 19, Ocean Resources. These procedures will provide agencies and the public with requirements for receiving and reviewing proposals for activities in the territorial sea that require agency approvals. These procedures anticipate that there will be proposals for activities that are not, and perhaps cannot be, directly addressed or anticipated by this plan.

Part Three, A Rocky Shores Management Strategy, is the application of planning to specific locations and resources. It provides a planning framework for agencies to manage rocky shore sites, uses, and resources. The strategy includes goals, policies, and objectives, and applies an ecosystem-management approach to actual rocky shore locales on the Oregon coast.

Other sections on additional topics will be added over time as the Council continues its work.

#### b. Mandatory or Discretionary Provisions of the Plan

The Oregon Legislature clearly intended that the Territorial Sea Plan would have effect and directed that once the LCDC adopts the plan, state agencies must act consistently with it.

Consequently, the plan was written to include sections that are explicitly mandatory and sections that are recommendations only. The provisions of the plan that are mandatory include:

- 1.) all of Part Two: Making Resource Use Decisions; and

- 2.) specific sections within Part Three: Rocky Shores Management Strategy:
  - B.1. Rocky Shores Policy Framework: Goal, Objectives, Policies;
  - C.1. Mandatory Policies for Site Management;
  - C.2. Mandatory Policies for Amending the Rocky Shores Strategy;
  - F.2. Management Categories
  - G.1.-39. Site Designations & Management Prescriptions

All other plan provisions are recommendations and therefore discretionary. The recommendations are intended to provide planning guidance and describe preferred, but not required, courses of action.

### **c. Carrying Out The Mandatory and Recommended Provisions of the Plan**

The mandatory provisions of the Territorial Sea Plan apply to a variety of agency actions. When agencies do any of the following related ocean resources, they must be consistent with the mandatory provisions of the plan: make program decisions, make or amend rules affecting ocean resources, approve resource-use permits and leases, manage property owned or controlled by agencies, and manage ocean resources.

State agencies may choose to incorporate the plan by reference in their state agency coordination programs. Then, upon a finding by LCDC that an agency has amended its rules, procedures, and standards to conform with the Territorial Sea Plan, the state agency will be deemed to have satisfied the requirements of state agency planning and coordination required by ORS 197.180 for ocean planning. If a state agency does not incorporate the Territorial Sea Plan in its coordination program, the agency will be subject to the state agency coordination requirements of ORS chapters 196 and 197 for state agency programs, procedures, and standards that in any way affect ocean resources. This second alternative means, in essence, that the agency must demonstrate compliance with this plan for each action it takes with respect to ocean resources.

For those plan provisions that are discretionary or that anticipate more detailed or site-specific planning and implementation, agencies are expected to refer to the plan and to act consistently whenever possible. For example, the Territorial Sea Plan does not currently provide detailed management plans for each rocky-shore site. State agencies should refer to the Territorial Sea Plan as a framework for making these more detailed, site-specific management decisions, such as improving public access and providing parking.

When adopted by LCDC, some parts of this plan will take effect immediately, such as the provisions of Part II, Making Resources Use Decisions that carry out the meaning of Goal 19, Ocean Resources. Other parts of the plan will not take effect immediately but will depend upon subsequent agency actions, such as revising a master plan for a coastal State Park or building public interpretive facilities at rocky-shoreline areas along the coast.

Local governments also may play a role in carrying out the Territorial Sea Plan, particularly in rocky-shore areas. The Council is specifically authorized to recommend changes to both local comprehensive plan and ordinances to help the local plans become consistent with the Territorial

Sea Plan. However, there are no statutory requirements for local governments to change comprehensive plans, ordinances, or land-use regulations.

#### **d. Adoption and Approval of the Territorial Sea Plan**

The Council first must recommend the plan for adoption to the Land Conservation and Development Commission. Then, LCDC must make findings that the Territorial Sea Plan:

- carries out the policies of the Ocean Management Act;
- is consistent with applicable statewide planning goals, with emphasis on the four coastal goals; and
- is compatible with adjacent county comprehensive plans.

After making these findings, LCDC will adopt the Territorial Sea Plan and any subsequently proposed amendments, through rule making.

If the LCDC cannot make the required findings, it cannot itself amend the Territorial Sea Plan. Instead, LCDC must send the plan back to the OPAC for additional work.

#### **e. Federal Approval**

While the Territorial Sea Plan and its amendments will become part of Oregon's Coastal Management Program, federal approval of this plan is not required. However, such approval by the Secretary of Commerce under the federal Coastal Zone Management Act of 1972 will provide the state with the ability to review certain federal activities for consistency with the mandatory provisions of this plan. After adopting this plan, LCDC anticipates seeking such approval from the Secretary of Commerce.

## **2. Changing the Plan**

After the Territorial Sea Plan is adopted by the LCDC, the Council has a continuing obligation to recommend amendments as needed to both the Oregon Ocean Resources Management Plan and the Territorial Sea Plan. Although the Territorial Sea Plan appears to be a complete document, it is not a completed plan. Rather, the Council has committed itself to a continuous process of addressing new issues and proposing necessary amendments to LCDC to make sure that the plan remains relevant and workable. The LCDC will make any amendments to the plan through official rule making.

The Council recognizes the need to provide a clear and orderly process for taking these actions because of the background work required, the complexity of policy decisions for ocean resources, and the need for scheduling the Council's work program. Accordingly, the Council will adopt clear procedures for proposing amendments to the Territorial Sea Plan. The procedures to be adopted by rule are expected to include the following steps:

### **a. Initiating an Amendment**

There are two ways by which consideration of an amendment may reach the Council:

#### **1.) Issues Survey**

After completing this initial plan or any future additions, the Council will survey issues remaining from the Ocean Resources Management Plan and new issues that have arisen. This survey will occur at approximately one-to three-year intervals depending on the length of time the Council requires to complete plan additions. This issues-survey is intended to be the primary method by which plan amendments are initiated.

#### **2.) Amendment Request**

The Council will consider any written request for plan amendment in the same manner as those arising from the issues survey. The Council intends that the plan be as relevant and accurate as possible and recognizes that amendments to existing provisions will probably be necessary to facilitate implementation, provide more appropriate guidance to agencies, respond to public concerns, or meet changed conditions in the field. The written request may be from an interested party or from the Land Conservation and Development Commission pursuant to its rules for requesting that the Council consider work on an amendment.

### **b. Issue Evaluation**

The Council will weigh the circumstances of the issues surveyed or the requested amendment against the Planning Considerations for Council Action (see section I.B.2.b.) and other factors to determine whether the issue is appropriate for Council action and whether work load, staff resources, and other logistical factors will make it possible to undertake an evaluation of the issue.

### **c. Work Program**

If the Council agrees to address an issue, it will develop a work program that includes a schedule with a completion target date, public participation opportunities, any working groups or other necessary technical assistance.

### **d. Public Participation**

The Council will include opportunities for public review throughout the planning process including public workshops, from time to time, to solicit ideas and comments about needed Council action on issues or concerns.

### **e. Council Approval and Submittal to LCDC**

The Council will approve any plan amendments in the same manner as the initial plan and will

submit the amendment, along with any needed amendments to the Ocean Plan, to the LCDC for adoption.

### **3. Implementing the Plan: Legal Requirements**

Because Oregon has a networked system for coastal management and planning, putting this plan into action will require the involvement and actions of many parties, including OPAC, state agencies, federal agencies, and local governments. As noted in subsection Part I.F.1.c., above, some parts of the plan, such as Part II and the site management designations of Part III.G., will take effect immediately upon approval by LCDC as part of the Oregon Coastal Management Program while other parts of the plan will be acted on over time.

This section lists the legal requirements of the various parties for implementing the plan and briefly describes actions that they need to take.

#### **a. Ocean Policy Advisory Council**

As outlined in state law, the Ocean Policy Advisory Council will play a coordinating, supervising role in carrying out the Territorial Sea Plan. However, it has no authority to take action on its own to regulate ocean uses or resources and instead will rely on state and federal agencies, primarily, to take appropriate action. The Council will continue to develop and refine the Territorial Sea Plan through amendments.

#### **1.) Legal Requirements**

ORS 196.443 specifies the duties of the Council:

- a.) Prepare a management plan for the territorial sea as described in ORS 196.471;
- b.) Provide a forum for discussing ocean-resource policy, planning, and management issues and, when appropriate, mediating disagreements;
- c.) Recommend amendments to the Oregon Ocean Resources Management Plan and Territorial Sea Plan as needed;
- d.) Offer advice to the Governor, the State Land Board, state agencies and local governments on specific ocean resources management issues;
- e.) Coordinate interagency and intergovernmental review of specific ocean-resource projects or actions through project review panels;
- f.) Encourage participation of federal agencies in discussion and resolution of ocean-resources planning and management issues affecting Oregon;
- g.) Coordinate development of a computerized ocean-resources information system among

affected state and federal agencies.

**b. Local Governments**

Coastal local governments have a great interest in the development and conservation of ocean resources. Use and management of upland areas under city or county jurisdiction can affect marine resources. In other instances, the development of resources at sea, such as commercial fisheries or petroleum reserves, can have significant impacts on local ports, labor force, retailers, housing, and the like. The legislature was concerned that local government comprehensive plans and the Territorial Sea Plan be compatible. Compatibility will require a close working relationship among the Council, state agencies, and local governments.

In addition to the statutory coordination requirements between the Council and local governments, the Council has developed mandatory consultation procedures with local governments for major ocean-development proposals that are spelled out in Part II.C. of this plan.

**1.) Legal Requirements**

ORS 196.465 spells out three basic ways the Ocean Policy Advisory council is to coordinate the Territorial Sea Plan with coastal local governments. These are summarized as follows:

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# LINKAGES: OCEAN RESOURCES MANAGEMENT

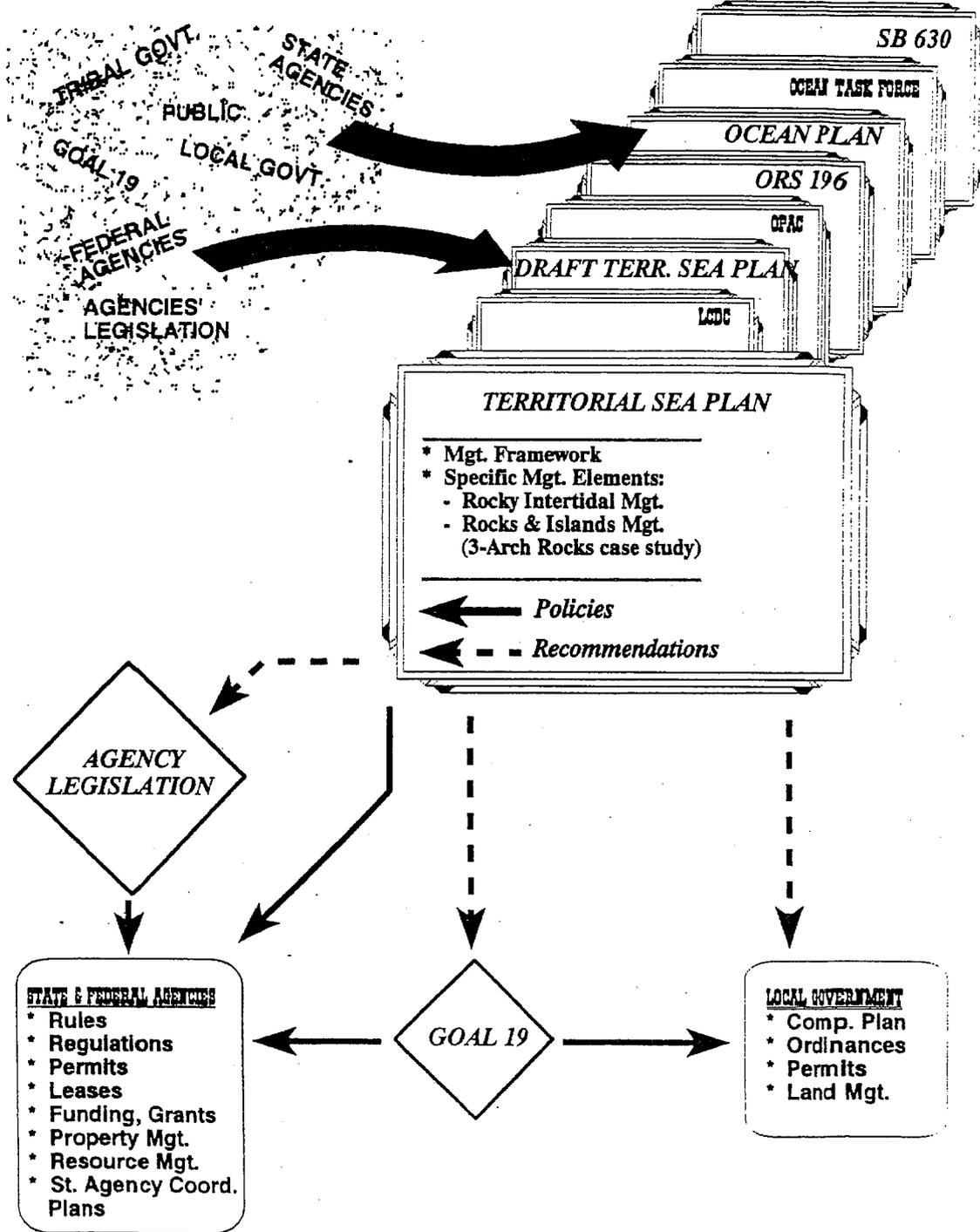


Figure 6: Territorial Sea Management Linkages With Other Ocean Management Authorities

- a.) When adopted by the Land Conservation and Development Commission, the Territorial Sea Plan must be compatible with the acknowledged comprehensive plans of adjacent coastal counties and cities;
- b.) The Council is to work with the coastal zone management association to coordinate with coastal local governments during preparation of the Territorial Sea Plan, including "provisions for mandatory consultation, as necessary, between [among] local governments, the Governor and state agencies on major ocean-development activities or actions";
- c.) The Council may recommend amendments to local comprehensive plans needed to achieve compatibility with state ocean law and policies of the Territorial Sea Plan.

### **c. State Agencies**

State agencies will be the principal implementers of the Territorial Sea Plan. The Legislature in 1991 added three provisions to the Oregon Ocean Resources Management Act that clarify how state agencies are to implement the plan. In addition, the State Agency Coordination requirements of the state's land use planning program will come into play when state agencies carry out the plan.

#### **1.) Legal Requirements**

- a.) The act requires state agencies, within their existing authorities, to amend their programs and rules relevant to ocean resources to be consistent with the Ocean Plan and the Territorial Sea Plan (ORS 196.435(2)). This provision will ensure that the Ocean Policy Advisory Council's (OPAC) policies get incorporated in the rules and programs of the appropriate agencies.
- b.) The act makes LCDC's state agency coordination responsibilities under ORS 197.180 an official part of the Oregon Ocean Resources Management Program (ORS 196.425(5)). The LCDC coordination rule provides a ready-made set of procedures for use by state agencies to adopt the Territorial Sea Plan.
- c.) The act does not change the statutorily and constitutionally mandated responsibilities of agencies other than DLCD (ORS 196.435(2)). This provision prevents OPAC from directing state agencies to do things that the Legislature has not given the agencies the authority to do.

#### **2.) State Agency Coordination Programs**

The Oregon Legislature made LCDC's state agency coordination requirements part of the state's ocean program. All relevant ocean-management state agencies have existing "state agency coordination programs" approved by LCDC. Most of these coordination programs were developed prior to completion of the Ocean Plan and thus typically contain only generic or general statements describing that agency's relationship to the Oregon Ocean Resources Management Program.

In most cases, agencies will amend their existing coordination programs to incorporate relevant provisions of the Territorial Sea Plan. ORS 196.485 and LCDC's rules governing state agency coordination provide the mechanism for review and approval of state agency rules and programs that LCDC has not previously approved.

**d. No New Agencies**

No additional state agencies are needed to manage the resources of Oregon's territorial sea. The state's existing network management approach for ocean and coastal resources, which includes a strong coordination mechanism through OPAC and the Governor's Office, is appropriate to handle ocean-resource issues.

**NOTE: This also appears as a policy statement in the Ocean Plan (pg. 173).**

**e. Federal Agencies**

Federal agencies were invited to participate in the state's process for territorial sea planning. Several did so enthusiastically as a means of coordinating and strengthening their programs and objectives. These agencies will have a program incentive to follow the provisions of the plan and assist in its implementation.

Section 307 (c)(1) of the Coastal Zone Management Act of 1972 (CZMA), amended in 1990, provides that any federal agency activity is subject to the CZMA requirement for consistency if it will affect any natural resources, land uses, or water use in the coastal zone. Oregon's coastal zone includes the territorial sea. The amendments of 1990 overturned the decision of the Supreme Court in *Secretary of the Interior v. California* to make it clear that federal oil and gas lease sales on the outer continental shelf are subject to these consistency requirements. The term "affecting" is to be construed broadly including direct effects and indirect effects later in time or removed in distance.

Federal agencies are required to act consistently with the "enforceable" policies of a state's federally approved coastal-management program. After adoption by the Land Conservation Development Commission, this Territorial Sea Plan will be submitted to the Secretary of Commerce via the National Oceanic and Atmospheric Administration, Office of Ocean and Coastal Resources Management (OCRM), for approval as part of Oregon's federally approved Coastal Management Program. After approval by OCRM, federal agencies will be required to act consistently with the mandatory or enforceable provisions of this plan.

**f. The Public**

ORS 196.425(1) incorporates by reference "applicable elements of the Oregon Coastal Management Program" into the Ocean Resources Management Program. Among these applicable elements are the requirements of Statewide Planning Goal 1, Citizen Involvement. Goal 1 requires that citizens be provided the opportunity to be involved in all phases of the

planning process.

Beyond any legal requirement to involve the public in plan preparation and implementation is the overriding need for informed and aware citizens to take personal responsibility to conserve and protect Oregon's ocean resources. The Council recognizes the need for programs to educate, inform, and increase awareness among the general public and various user or interest groups and to communicate the need for personal and community stewardship.

Simply put, government agencies cannot carry out this plan alone or rely on regulations and enforcement. Members of the public must play a major part in helping to meet its goals and objectives.

# Oregon Territorial Sea Plan

Amendment of May 4, 2001



## PART ONE:

# Ocean Management Framework

## G. OCEAN MANAGEMENT GOALS AND POLICIES

Note: The preamble, goals, and policies of this document were adopted by the Land Conservation and Development Commission May 4, 2001, and were thereby added to the Oregon Territorial Sea Plan.

### *Preamble to Ocean Management Goals and Policies:*

*The Pacific Ocean is an important and defining feature of the State of Oregon. The people of the state, as well as the nation and world, derive numerous economic, aesthetic, cultural, educational, recreational, and ecological benefits and values from the resources of the Pacific Ocean.*

*The State of Oregon holds the lands, waters, and living resources within its boundaries in trust for the public and, acting through local, state, and federal laws, seeks to ensure that these ocean resources, values, and benefits are conserved for the current and future generations. The state has therefore established in law a program of ocean-resources planning and management that includes ocean-resource goals and policies and seeks to integrate the ocean-management responsibilities of all levels of government, involve the public and users of ocean resources, and promote the conservation of all ocean resources. Oregon places special emphasis on conserving renewable ocean resources because these are expected to provide greater long-term benefits to the state from food production, recreation, aesthetic enjoyment, navigation, and ecosystem stability than non-renewable marine resources.*

*The State of Oregon recognizes that the ocean area within its jurisdiction is an integral part of the larger marine environment of the Northeastern Pacific Ocean and the entire Pacific Ocean. The highly dynamic, fluid, and interconnected nature of the marine environment, the migratory life stages of numerous marine organisms, and the patterns of economic use of ocean resources by coastal communities serve to extend the state's interests in the conservation of ocean resources to areas beyond state waters. Similarly, the state recognizes that the marine environment extends into coastal estuaries, which provide important habitat for many marine species and which are affected by or affect the larger marine ecosystem.*

*The State of Oregon encourages the public, ocean users, other coastal states, and nations to embrace the responsibility of stewardship of ocean resources in order to sustain them into the future. The following goals and policies define and assert Oregon's long-term interests in the sustainable use of ocean resources.*

Oregon Territorial Sea Plan  
Ocean Goals and Policies

Adopted by the Land Conservation and Development Commission May 4, 2001

## GOALS

*The following goals and policies of the State of Oregon are mandatory for ocean resources planning and management; all actions by local, state, or federal agencies that affect the ocean resources of the state shall be consistent with them.*

The overall ocean-management goal of the State of Oregon is to:

conserve the long-term values, benefits, and natural resources of the nearshore ocean and the continental shelf.

To achieve this goal, the State of Oregon will:

1. give higher priority to the protection of renewable marine resources than to the development of non-renewable ocean resources;
2. support development of ocean resources that is environmentally sound and economically beneficial to coastal communities and the state;
3. protect the diversity of marine life, the functions of the marine ecosystem, the diversity of marine and estuarine habitats, and the overall health of the marine environment; and
4. seek the conservation of ocean resources within the larger marine region that is of ecologic and economic interest to the State of Oregon.

## **POLICIES**

### **POLICY 1: SCOPE OF AUTHORITY**

It is the policy of the State of Oregon that all local, state, and federal plans, programs, and activities that affect the resources and uses of the Oregon territorial sea shall:

- A. be developed, managed, and conducted to maintain and, where appropriate, restore the long-term benefits derived from Oregon's renewable marine resources;
- B. meet the requirements of the Territorial Sea Plan for inventory information and effects-analysis;
- C. protect:
  - 1. renewable marine resources from adverse effects of development of non-renewable resources;
  - 2. the biological diversity of marine life and the functional integrity of the marine-ecosystem;
  - 3. important marine habitat, including estuarine habitat;
  - 4. areas important to fisheries;
  - 5. beneficial uses of ocean resources, such as navigation, food production, recreation, and aesthetic enjoyment that do not adversely affect the resources to be protected in policy items 1-4, above.

### **POLICY 2: ESTUARIES**

It is the policy of the State of Oregon that:

- A. estuaries are an essential part of the marine environment over which the state has jurisdiction;

- B. the effects of ocean-resource development activities on the estuarine environment shall be considered through the requirements of the Resource Inventory and Effects Evaluation in the Territorial Sea Plan.

### **POLICY 3: MANAGEMENT MEASURES**

- A. It is the policy of the State of Oregon that management measures for ocean resources and uses shall be appropriate to the circumstances and provide flexibility for future actions. Such management measures include:
1. **Cumulative Effects Assessment:** to act with regard for the accumulated consequences or effects of activities in the environment that may occur at a distance, over time, or in combination with other actions;
  2. **Adaptive Management:** to adapt management programs to account for variable conditions in the marine environment, the changeable status of resources, and individual or cumulative effects of uses;
  3. **Conditional Approvals or Actions:** to place conditions or limit actions to protect or shield other uses and resources;
  4. **Special Management Area Plans:** to develop management plans for certain marine areas to address the unique management needs for resource protection, resource utilization, and interagency cooperation in the areas;
  5. **Intergovernmental Coordination and Cooperation:** to coordinate, integrate, and co-manage programs and activities with all levels of government, including coastal Indian tribal governments;
  6. **Regional Cooperation and Governance:** to cooperate with other coastal states, countries, organizations, and federal agencies within the larger marine region to address common or shared ocean resource management issues.
  7. **Public Involvement:** to involve the public and affected groups in the process of protecting ocean resource, especially through public awareness, education, and interpretive programs.

8. **Contingency Plans:** to require contingency plans and emergency procedures for activities or operations that may result in damage to the marine or estuarine environment.

9. **Precautionary Approach:** to take a precautionary approach to decisions about marine resources and uses when information is limited.

B. It is the policy of the State of Oregon to prepare and regularly update a marine research strategy to provide a basis for identifying, funding, and coordinating marine research.

#### **POLICY 4. OCEAN STEWARDSHIP AREA**

A. The State of Oregon has interests in the conservation of ocean resources in an Ocean Stewardship Area, an ocean area where natural phenomena and human uses can directly affect uses and resources of Oregon's territorial sea; the Ocean Stewardship Area includes the state's territorial sea, the continental margin seaward to the toe of the continental slope, and adjacent ocean areas;

B. Within the Ocean Stewardship Area, the State of Oregon will:

1. use all applicable state and federal laws to promote its interests in management and conservation of ocean resources within the state's Ocean Stewardship Area;

2. encourage scientific research on marine ecosystems, ocean resources, and oceanographic conditions to acquire information needed to make ocean and coastal-management decisions;

3. seek co-management arrangements with federal agencies when appropriate to ensure that ocean resources are managed and protected consistent with the policies of the Territorial Sea Plan; and

4. cooperate with other states and governmental entities directly and through regional mechanisms to manage and protect ocean resources and uses.

C. The Ocean Stewardship Area is not intended to:

1. change the state's seaward boundary;
2. extend the seaward boundaries of the state's federally approved Coastal Zone under the National Coastal Zone Management Act of 1972;
3. affect the jurisdiction of adjacent coastal states; or
4. alter the authority of federal agencies to manage the resources of the United States Exclusive Economic Zone.
5. limit or otherwise change federal agency responsibilities to comply with the consistency requirements of the federal Coastal Zone Management Act.

## **POLICY DEFINITIONS**

**The following definitions give meaning to various terms found in the ocean-resource goals and policies. These definitions are to be considered as policy statements with regard to ocean-resource planning and management.**

**“Conserve:”** to manage in a manner that avoids wasteful uses or wanton destruction of habitat and provides for future availability.

**“Long-term values and benefits:”** those values and benefits that accrue to future generations because of the continuous availability of marine resources and ecological functions.

**“Renewable marine resources:”** living marine organisms;

**“Protect:”** to shield from loss, destruction, or injury, or to save for future potential use.

**“Important Marine Habitats”** are areas and associated biologic communities that are:

1. important to the biological success of commercially or recreationally caught species or that support important food or prey species for commercially or recreationally caught species;

2. needed to assure the survival of threatened or endangered species;
3. ecologically significant to maintaining ecosystem structure, biological productivity, and biological diversity;
4. essential to any life-history stage of marine organisms, such as feeding, courtship, breeding, spawning, rearing, parental foraging, overwintering, and resting;
5. especially vulnerable because of size, composition, or location in relation to chemical or other pollutants, noise, physical disturbance, alteration, or harvest;
6. unique or of limited range within the state.

**“Areas Important to Fisheries” are:**

1. areas of high catch (e.g. high total pounds landed and high value of landed catch);
2. areas where highly valued fish are caught even if in low abundance or by few fishers;
3. areas that are important on a seasonal basis;
4. areas important to commercial or recreational fishing activities, including those of individual ports or particular fleets;
5. habitat areas that support food or prey species important to commercially and recreationally caught fish species



# Oregon Territorial Sea Plan

Adopted 1994



## **PART TWO:** **Making Resource Use Decisions**

*Part Two of the Territorial Sea Plan describes the process for making decisions in the future about the use of Oregon's ocean resources. This part lays a very important foundation for consistently evaluating ocean resource proposals to determine whether they satisfy Oregon's ocean resource protection policies. Included in Part Two are requirements for resource inventory information, evaluating environmental effects, conducting small-scale environmental disturbances to seek new information, making the final resource use decision, Joint Review Panels, and a mandatory process for consulting with local coastal governments, including coastal Indian tribes.*

### **A. RESOURCE INVENTORY & EFFECTS EVALUATION**

#### **1. Context**

Informed decision making, the heart of Goal 19 and the Ocean Plan, depends upon adequate information about ocean resources and uses and the effects of any proposed action on those resources and uses.

#### **2. Mandatory Policies**

##### **a. Inventory/Evaluation Required**

1.) **Duty To Inventory and Evaluate.** Prior to making any decision to conduct, approve, or fund any action that will occur within Oregon's territorial sea or the Rocky Shores Management area of the Territorial Sea Plan and that is related to or affects marine resources and uses in Oregon's territorial sea, an agency shall prepare, or cause to be prepared, a resource inventory and effects evaluation as required by this section.

2.) **Sufficiency of Inventory and Evaluation.** The resource inventory and effects evaluation shall be sufficient to understand the short-term and long-term effects of the proposed decision on the affected resources and uses.

##### **b. Standards For Decision Making**

Any government agency making decisions that relate to marine resources and uses in Oregon's territorial sea shall conform to the requirements of this Territorial Sea Plan; Oregon's ocean law; Statewide Planning Goal 19, Ocean Resources; and the policies of the Oregon Ocean Resources Management Plan, as well as any amendments by the Land Conservation and Development Commission upon recommendation from the Ocean Policy Advisory Council.

### **c. Inventory Content**

At a minimum, the following factors shall be considered for inclusion in the inventory as appropriate to the magnitude, likelihood of effects, and the significance of potentially affected resources and uses:

#### **1.) The proposed action:**

- (a) Location (using maps, charts, descriptions, etc.);
- (b) Numbers and sizes of equipment, structures;
- (c) Methods, techniques, activities to be used;
- (d) Transportation and transmission modes needed to serve/support the proposed project;
- (e) Materials to be disposed of and method of disposal;
- (f) Physical and chemical properties of hazardous materials to be used or produced, if any;
- (g) Navigation aids; and
- (h) Proposed time schedule.

#### **2.) Location and description of all affected areas, including areas for onshore support facilities.**

#### **3.) Physical and chemical conditions such as:**

- (a) Water depth;
- (b) Wave regime;
- (c) Current velocities;

- (d) Dispersal, horizontal transport, and vertical mixing characteristics of the area;
- (e) Meteorological conditions; and
- (f) Water quality.

**4.) Bathymetry** (bottom topography).

**5.) Geological structure and hazards.**

**6.) Biological features, including:**

- (a) Critical marine habitats (see Definitions);
- (b) Other habitats important to the marine ecology, such as kelp and other algae beds, exposed seafloor gravel beds, seagrass beds, rocky reef areas, marine mammal rookeries and haulout areas, seabird rookeries, and areas where fish and shellfish congregate in large numbers;
- (c) Fish and shellfish stocks and other biologically important species;
- (d) Recreationally or commercially important finfish or shellfish species;
- (e) Planktonic and benthic flora and fauna; and
- (f) Other elements important to the primary productivity and the food chain.

**7.) Mineral deposits, including sand, gravel and hydrocarbon resources.**

**8.) Cultural, economic, and social uses** (present and projected) associated with the affected resources, such as:

- (a) Commercial and sport fishing;
- (b) Aquaculture;
- (c) Scientific research;
- (d) Ports, navigation, and DMD sites;
- (e) Recreation;
- (f) Tourism;
- (g) Mineral extraction; and

- (h) Waste discharge.

9.) Significant historical or archeological sites.

**d. Effects Evaluation: Purpose & Content**

The purpose of the effects evaluation is to determine whether the proposed action can meet the resource or user-protection standards referred to in Subsection 2.b, Standards For Decision-Making.

**1.) Written Evaluation.** The government agency shall use the inventory information or cause it to be used to write an evaluation of all reasonably foreseeable adverse effects of the proposed actions. Where relevant, the evaluation shall describe:

- (a) The potential short-term and long-term effects on resources and uses of the continental shelf, the Oregon nearshore ocean, and onshore areas based on the following considerations:
- i. Biological and ecological effects, including those on critical marine habitats and other habitats, and on the species those habitats support. Factors to consider include:
    - The time frames/periods over which the effects and recovery will occur;
    - The maintenance of ecosystem structure, biological productivity, biological diversity, and representative species assemblages;
    - Maintaining populations of threatened, endangered, or sensitive species; and
    - Vulnerability of the species, population, community, or the habitat to the adverse effects of pollution, noise, habitat alteration, and human trespass;
  - ii. Conformity and compatibility with existing and projected uses of ocean resources such as fishing, recreational uses, ports and navigation, and waste discharge.
  - iii. Local and regional economies.
  - iv. Archeological and historical resources.
  - v. Transportation safety, accidents.
  - vi. Geologic hazards.

- vii. Cumulative effects of project in conjunction with effects of past projects, other current projects, and probable future projects.
- (b) Financial and technical capability of the applicant to perform.
- (c) Surveillance and monitoring -- agencies' ability to monitor performance and to respond if needed.
- (d) Feasible alternatives to achieve the purpose or objective of the proposed action.
- (e) Evaluations for development of nonrenewable resources shall also determine:
  - i. The probability of exposure of biological communities and habitats to adverse effects from operating procedures or accidents;
  - ii. The sensitivity of these biological communities and habitats to such exposure; and
  - iii. The probable effects of exposure on the marine ecosystem.

**2.) Reasonably Foreseeable Adverse Effects.** For purposes of the above evaluation, the determination of "reasonably foreseeable adverse effects" shall be based on scientific evidence. The evaluation need not discuss highly speculative consequences. However, the evaluation shall discuss catastrophic environmental effects of low probability.

**3.) Use of Available Environmental Information.** State and federal agencies may use existing data and information from any source when complying with the requirements for resource inventory and effects evaluation. All data and information used for the inventory and evaluation, including existing data from federal environmental impact statements or assessments, shall meet the same standards of adequacy required for the inventory and the evaluation (see Subsections A.2.c. and A.2.d.)

#### **e. Insufficient/Incomplete Information**

**1.) Choice.** When any agency discovers during the decision-making process that information regarding the effects of the proposed action is insufficient or incomplete, the agency must then determine whether and how to acquire the additional information. In the situation of insufficient information, the agency has the following options:

- (a) Terminate, suspend, or postpone the decision-making process until the information is available.

OR

- (b) Determine whether the provisions of Subsection A.2.e.2. Limited Environmental Disturbance are appropriate to provide the needed information;

OR

- (c) In the case of Developmental Fisheries pursuant to ORS 506.455, apply the provisions of Subsection A.2.e.3.

**2.) Limited Environmental Disturbances.** To obtain adequate environmental-effects information, it may be necessary to create a limited environmental disturbance and measure the effects. The state agency's decision to allow such a disturbance shall be based on the following:

(a) Approval Criteria:

- i. The exclusive purpose of the proposed disturbance shall be to provide needed information for the effects evaluation as required by the provisions of this Part Two of the Territorial Sea Plan.
- ii. Adequate inventories of baseline conditions, as required by this Part Two, shall be completed prior to conducting the environmental disturbance.
- iii. The risk of adverse effects from the disturbance shall be insignificant, because:
  - of low probability of exposure of biological communities and habitats; or
  - of low sensitivity of the biological communities and habitats to the exposure; or
  - the effects of exposure to sensitive communities and habitats will be insignificant.
- iv. The proposed limited environmental disturbance shall not adversely affect any critical marine habitat (see "Definitions" in Glossary).
- v. The proposed environmental disturbance shall conserve any marine resource as a whole. In this context, "conserve" means:
  - to avoid waste or destruction,
  - to restore and/or continuously maintain for future availability, and
  - to avoid irreversible or long-term adverse effects.

- vi. Each proposed limited environmental disturbance shall avoid significant or long term interference with other human users of marine resources.
- vii. The scale (size and time frame) of the limited environmental disturbance shall be the minimum needed to obtain the required information. Characteristics regarding scale and time frame include: geographic scope or coverage; amount of marine resources to be taken, removed, harvested, or altered; the duration of the disturbance.
- viii. There shall be an adequate work plan developed as described below.

(b) Conditions on the Limited Environmental Disturbance:

- i. All data shall be in the public domain subject to ORS 192.410 et seq.
- ii. The proposed limited environmental disturbance shall be scheduled only for short periods of time, as discrete pieces of research, and shall be evaluated before proceeding to additional activities.

(c) Work Plan: A written work plan shall be developed. Elements of the work plan shall include but not be limited to the following:

- i. A list of the information needed to satisfy the effects evaluation of this plan.
- ii. Specific study objectives to obtain the needed information and explanation of how the study design will meet the objectives.
- iii. Description of study methods to meet the objectives, such as:
  - Literature review;
  - Collection of any needed baseline data;
  - Hypotheses to address the study objectives;
  - Descriptions of field sampling and data-analyses methods to be used; and
  - Use of adequate controls to allow the effects of the proposed action to be separated from natural fluctuations in resources and habitats.
- iv. Supporting documentation demonstrating that the study design is scientifically appropriate and statistically adequate to address the research objectives.
- v. Descriptions of how the data and analyses will be reported and delivered for review and approval.

**3.) Developmental Fishery Harvest:** State law requires the Oregon Department of Fish and Wildlife to institute a management system for the commercial harvest of developmental fishery species, i.e. finfish or invertebrate species that are underutilized or have not been previously harvested. For some fish species very little information is available to assure sustainable harvest or to meet the inventory and effects evaluation required by this plan. Initial harvest of these species may be permitted as controlled "research-level fisheries" to gather necessary information on stocks, habitat interactions, and effects on other marine resources and users. Each such fishery shall be conducted with an information-gathering and research plan developed by the Oregon Fish and Wildlife Commission. The research plan shall address the following:

**(a) Approval Criteria:**

- i. The purpose of research-level fisheries shall be to obtain information needed to manage the fishery on a long-term sustainable basis and to evaluate effects as required by this Territorial Sea Plan and Goal 19;
- ii. The scale, intensity, and duration of fishing effort under a research-level fishery program shall be the minimum needed to obtain information about stock distribution, abundance, reproductive rates, habitat interactions, and life history.
- iii. A research-level fishery shall not adversely affect any critical marine habitat, any special management area designated in this Territorial Sea Plan, or any sensitive habitat areas identified in the Oregon Ocean Resources Management Plan.
- iv. A research-level fishery shall conserve the species and its environment as a whole. In this context "conserve" means:
  - to avoid waste or destruction;
  - to restore and/or continuously maintain for future availability; and
  - to avoid irreversible or long term adverse effects.
- v. A research-level fishery shall
  - avoid significant or long term interference with other human users of marine resources;
  - minimize disturbance or disruption to other marine resources and biological communities.

(b) **Research-Level Fishery Work Plan.** A fishery work plan shall be prepared for each research-level fishery and shall include the following:

- i. A list of the information needed to satisfy the effectsevaluation of this plan;
- ii. Specific study objectives;
- iii. Description of study methods to meet the objectives, such as:
  - Literature review;
  - Hypothese to address study objectives;
  - Harvest effort, techniques, and location;
  - Related monitoring or sampling necessary to understand the effects of the harvest on associated biological resources and habitats;
  - Use of adequate controls to allow the effects of the fishery to be separated from natural fluctuations in the marine environment;
- iv. Methods for reporting and analyzing data that have been gathered.

**4.) Supervision of Research Quality:**

- (a) The approving agency may, subject to its statutory authority, require that the research be conducted or paid for by the applicant/development proponent.
- (b) The approving agency is responsible for ensuring research quality, techniques which may include the following:
  - i. Specify the qualifications of researchers, and approve the applicant's proposed research team (that is, the actual people doing the research) and the methods of research.
  - ii. Determine costs for any cost-incurring participation by state government agencies and assign those costs to the applicant.
  - iii. Encourage the technical staff of affected state and federal agencies to involve themselves in data collection, analyses, etc. being conducted by or for the applicant--for example, to be on board during research cruises (the applicant would be responsible for any associated costs).

- iv. Encourage the submission of results to scientific journals, and the use of peer groups, steering groups, panels of experts, etc. to review research plans, data, analyses, and conclusions.
  - v. Use administrative techniques to avoid problems with proprietary data, such as summarizing proprietary data.
- (c) OPAC recommends to the Legislature that relevant state agencies be provided with adequate staff and funding to conduct long term ocean research and management.
- (d) All research data shall be in the public domain as allowed by ORS 192.410 et seq.

#### **f. Analysis of Data**

Proponents and opponents of any proposed ocean development, proposed environmental disturbance, or developmental fishery shall each be held to the same standards when analyzing resource inventories and effects evaluations or environmental disturbance data.

#### **g. Inventory/Evaluation Checklist**

The Department of Land Conservation and Development shall develop a "checklist" for assisting the relevant agencies in identifying applicable ocean management rules/requirements. The checklist will not be mandatory but merely a guide.

#### **i. Agency Responsibilities, Coordination**

Any government agency required to comply with OPAC ocean-management policies and with Goal 19 also has certain responsibilities for making the process work properly. Due to the emphasis on resource inventories and effects evaluations, the review of a single development proposal may often involve other government agencies with relevant resource expertise. In addition, there may be other agencies involved due to, for example, multiple regulatory authorities or required consultation.

**1.) Process Coordinator.** When multiple agencies are involved for whatever reason, a single agency among the group should serve to coordinate the participation of the agencies and the overall working of the process. "Coordinate" does not mean that an agency is authorized to make decisions for another agency regarding the other agency's compliance with Goal 19 or OPAC's ocean-management policies.

**2.) Individual Agency Responsibilities.** When multiple agencies are involved, each is responsible for incorporating its relevant components into the inventory and evaluation. Each agency which has the responsibility to comply with OPAC's policies and Goal 19 must ultimately decide what is needed in the inventory and effects evaluation to satisfy the agency's responsibilities, and when it is adequate.

**3.) Public Participation.** Agencies implementing the Territorial Sea Plan's policies on resource inventories and evaluations shall provide adequate opportunities for citizens to be involved in all phases of the process.



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## PART TWO: Making Resource Use Decisions

### B. Joint Review Panels (JRPs)

#### 1. Context

Many decisions by government agencies regarding the use of ocean resources require a great deal of coordination among federal, state, and local agencies. Oregon does not have a formal interagency procedure for coordinating these decisions (Ocean Plan, p.168). For example, the State Agency Coordination Program created by ORS 197.180 is very agency-specific. Consequently, it does not set up a single overall coordination program and is not always comprehensive. In response, the Ocean Plan recommends (p. 168) the creation of "project review panels" to coordinate the more complex decisions on ocean development.

The 1991 Legislature responded by specifically authorizing OPAC to create "project review panels to address and coordinate the interests of state, federal and local governments in specific development proposals" (ORS 196.453). OPAC was also given authority to adopt administrative rules for the panels. In turn, OPAC has determined that the name of these coordination mechanisms should be changed to "joint review panels" (JRPs), whose scope would remain the same as for the former "project review panels".

#### 2. Mandatory Policies

##### a. Purpose of JRPs

Joint Review Panels (JRPs) shall be used when appropriate to coordinate interagency involvement and to provide technical advice to state, federal, and local agencies regarding compliance with the Ocean Plan, the Territorial Sea Plan, and Statewide Planning Goal 19 on specific proposals to use or alter ocean resources. JRP review and recommendations shall focus on technical issues. Specific proposals subject to JRP review may include but are not limited to the following:

- 1.) Applications for permits, leases, or other forms of approval;

- 2.) Development actions being proposed directly by an agency; such as facility construction; alteration of ocean habitat, flora, or fauna; resource management plan;
- 3.) Funding by an agency of another party's development or management actions;
- 4.) Marine resource management plans proposed by government agencies; or
- 5.) Proposed state agency administrative rules.

#### **b. Functions and Duties of JRPs**

JRPs may perform any of the following tasks:

- 1.) Advise on preparation of resource inventories and effects evaluations, and comment on their adequacy;
- 2.) Review and comment on the adequacy of NEPA environmental assessments and impact statements, mitigation plans, monitoring programs, and contingency plans;
- 3.) Advise on the design of environmental disturbances, special permit conditions, construction and operational performance standards, lease stipulations, and mitigation measures.
- 4.) Review and comment on alternatives to the proposed action.

#### **c. Membership**

- 1.) Flexibility. JRP membership will be determined by OPAC on a case-by-case basis, and may vary according to the nature of the action being considered.
- 2.) Limitations. Membership on any JRP shall:
  - (a) include one non-state agency member of OPAC with no conflict of interest in the proposed action; and
  - (b) in addition, be limited to representatives of entities with regulatory, proprietary, or statutorily mandated consultative responsibilities; and
  - (c) persons not representing an entity described in (a) above, but who have relevant technical expertise and no conflict of interest in the proposed action as defined by state law.

#### **d. When To Convene JRPs**

JRPs may be convened only when:

- 1.) There is a need for coordination and review; and
- 2.) No better mechanism exists for interagency coordination and review of the proposed action; and
- 3.) The proposed action involves either:
  - (a) A large, complex project or several related projects that require expertise or authorities of several agencies or from outside state government; OR
  - (b) A new or unique issue or project, the understanding and coordination of which would be significantly improved by additional public exposure and agency coordination.

**e. Who Convenes A JRP**

- 1.) JRPs may be convened by:
  - (a) OPAC, upon request of a state or federal agency, a local government, or other interested party; OR
  - (b) OPAC on its own initiative.
- 2.) In the interim between regularly scheduled OPAC meetings, a majority of OPAC members or the chair of OPAC may call a meeting of OPAC to consider convening a JRP.

**f. Accept Recommendations**

Any agency may elect not to accept the JRP's recommendation but shall provide OPAC with written findings and conclusions that explain how the agency's decision is consistent with applicable statutes, rules, and policies.

**g. Public Meetings, Public Participation**

- 1.) Open Meetings. JRP meetings shall be open to the public, consistent with Oregon open meeting laws (ORS 192.610 et seq.).
- 2.) Opportunity for Comment. Opportunity for verbal and written comment from members of the public shall be provided at JRP meetings regarding the technical recommendations being formulated by the JRP.

**h. JRP Authority**

JRPs shall have only such authority as granted to them by OPAC; JRPs have no independent authority.

**i. Administrative Rules**

OPAC shall, by administrative rule, set procedural and substantive requirements and standards it deems appropriate to carry out these policies for JRPs.

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## PART TWO: Making Resource Use Decisions

### C. LOCAL GOVERNMENT CONSULTATION

#### 1. Context

The 1991 Legislature directed OPAC to create a "mandatory consultation process, as necessary, among local governments, the Governor, and state agencies on major ocean-development activities or actions" (ORS 196.465(2)(f)). The purpose of the consultation process is to ensure that the (Ocean) plan and the Territorial Sea Plan are compatible with the comprehensive plans of adjacent coastal counties and cities.

#### 2. Consultation Process Described

The mandatory process for state agencies to consult with local governments consists of three basic parts:

- Agencies inform local governments of the opportunity to comment regarding a major ocean development;
- Agencies respond in writing to local government comments;
- Agencies offer assistance to local governments if appropriate.

#### 3. Mandatory Policies

##### a. Purpose

Major ocean developments can have significant effects, even if secondary. Affected local government's only role in the approval of such offshore actions is to provide comment. This can be frustrating to local governments when the approving state or federal agency neither acknowledges nor explains its disagreement with received comments. Consequently, another purpose of the mandatory consultation process could be to raise the level of state and federal agencies' responses to received comments from local governments. This would not be a veto authority, but only an elevation of the current consultation process.

## **b. Major Ocean Development Activities**

For purposes of the "local consultation process" mandated by ORS 196.465, the term "major ocean developments" means any of the following:

- 1.) Any ocean development that involves the siting of an onshore facility in a coastal county or city.
- 2.) Any ocean activity that results in a Joint Review Panel.
- 3.) Federal or state ocean leasing for oil/gas or hard mineral exploration or development (not geological or geophysical testing or sampling).
- 4.) Any ocean activity or action for which state or federal law requires approval from the Governor.
- 5.) Designation of any restricted ocean-use area, whether for resource protection (e.g., marine sanctuary) or for development (e.g., kelp lease). Included in this category are any future amendments, deletions, or additions to the rocky-shore site planning designations in the adopted Territorial Sea Plan, and future adoptions of rocky-shore site-management plans whether those actions are made by OPAC or any other state agency empowered by the plan to do so.

## **c. Eligible Local Governments**

Any local coastal city or county that submits written comments to a relevant state or federal agency regarding a major ocean development is eligible for this mandated consultation process. The local government's comments shall describe how the proposed major ocean development would be:

- 1.) Compatible or incompatible with specific provisions in the local comprehensive plan applicable to land-use decisions within the local government's land-use planning jurisdiction;

OR

- 2.) Contrary or beneficial to the interests of the community; that is, would have secondary or indirect adverse or beneficial effects which are not covered by the local comprehensive plan.

#### **d. Agency Response To Comments**

**1.) State Agency Coordination Rules.** LCDC's existing "state agency coordination" rule regarding agency compatibility with local plans, OAR 660-30-070, is applicable to agency actions under this policy.

**2.) Agencies That Must Respond.** This mandatory consultation process applies to the Governor's Office, any other state agency, or federal agency that is:

- (a) Proposing a major ocean development; or
- (b) Approving a major ocean development; or
- (c) Funding a major ocean development; or
- (d) In the case of state government, the "lead" or "coordinating" agency formulating a "state" response to a major ocean development.

Such agencies must "consult" with eligible local governments as described below.

**3.) Duty To Inform.** Agencies shall inform local coastal governments regarding major ocean developments.

- (a) Informing the local governments shall occur as soon after the agency learns of the development as is practical. This may mean informing the local governments before the agency is required by law to issue public notice for whatever permitting or decision-making process in which the agency is involved.
- (b) Agencies shall give local governments an adequate opportunity to comment to the agency on the proposed major ocean development.
- (c) Whatever methods are used by agencies shall be sufficient to inform the local governments of the following:
  - i. The nature and location of the major ocean development;
  - ii. That the "mandatory local government consultation" process is commencing;
  - iii. The opportunity for the local governments to submit comments regarding compatibility with the local comprehensive plan as provided in Subsection 2.c "Eligible Local Governments" above; and
  - iv. The name, address, and phone number of the appropriate agency staff person(s) to contact for more information or to whom comments may be sent.

**4.) Agency Response--Local Plan Compatibility.** The responding federal or state agency must provide a written response to each coastal city and county government which comments on whether the proposed major ocean development would be compatible with the local comprehensive plan.

- (a) If the agency agrees with the local government's interpretation, then the agency shall acknowledge that agreement.
- (b) If the agency disagrees with the local interpretation, then the agency shall prepare a written explanation of the agency's determination.
- (c) If the agency determines that the proposed major ocean development will be incompatible with the local plan, then the agency may, or request the proponent to, do one of the following, in addition to other options in law:
  - i. Terminate the proposed development.
  - ii. Revise the proposed development to be compatible with the local comprehensive plan.
  - iii. Provide technical assistance to the local government to help remove the incompatibility; such as, mitigating adverse effects; amending the local comprehensive plan to accommodate the onshore effects of the proposed development.
- (d) If the agency determines that the proposed major ocean development will be compatible with the local plan, but the local government disagrees or determines that the proposed development will be adverse to the interests of the community, then the agency is encouraged to assist the local government in mitigating any adverse effects from the development. Such mitigating actions may include:
  - i. Revising the proposed development,
  - ii. Allowing the local government sufficient time to amend its comprehensive plan and land-use ordinances to address or accommodate the onshore effects of the development, or
  - iii. Working with local officials to conduct educational and informational workshops that address the expressed community concerns.

**5.) Agency Response--Local Community Interest.** The agency is not required to provide a written response to local governments regarding any effects of the proposed development on the interests of the local community. However, the agency is encouraged to assist the local government in mitigating any of the development's adverse effects on local community interests.

**6.) Tribal Governments.** Agencies shall notify and consult with relevant tribal governments as required by this Part 2.C. for coastal city and county governments. Relevant tribal governments are those described for purposes of the state's archeological-resources protection statutes (ORS 358.905 et seq.) and whose archeological-resource administrative boundaries border or include the Pacific Ocean.

**7.) Other Groups.** Agencies are encouraged to notify other local government groups and groups other than local governments. In responding to written comments from these groups, the agency is encouraged to provide at least a single written response that aggregates and responds to clusters of common comments.

**8.) No New Inventory Requirements.** OPAC's "ocean framework" policies already require the resource inventory and effects evaluation for all proposed ocean developments to include the onshore effects of proposed offshore activities. Consequently, the consultation process does not create a new requirement for the proponent of a major ocean development to generate information on local community effects.

#### **e. Local Plan "Compatibility"**

Current state statute (ORS 201.370(2)) prohibits local coastal governments from exercising their planning authorities in Oregon's territorial sea, which essentially extends seaward from the low water line. Consequently, the issue of major ocean development decisions being compatible with local comprehensive plans becomes an issue of the offshore development's onshore land-use effects, both direct and indirect.

Local governments may need assistance evaluating proposed major ocean developments for plan compatibility, or appropriately amending their plans to adequately address the onshore effects of major ocean developments. The following types of technical assistance might be useful to local governments:

**1.) Education.** Some local officials and agency staff people subject to the local consultation process may need assistance to determine whether an ocean development action is compatible with a local comprehensive plan. For example, how does one know which proposed ocean developments need to be evaluated for compatibility; when is consultation needed and when is it not; what aspects of a local plan need to be examined and evaluated; what does it mean for a plan to be "silent" regarding a proposed development; what are the potential secondary effects; why is it useful for the local plan to describe the "community interest" in relation to offshore development? OPAC and DLCD, perhaps working with the League of Oregon Cities and the Association of Oregon Counties, could provide this type of information and assistance on a continuing basis. Such information could include written materials, workshops, and hands-on assistance.

**2.) Model Plan Amendments.** If desired by local governments, there may be standardized, boiler plate language that could be amended into local plans in advance of

major ocean development proposals. One purpose for such standardized language might be to describe whatever restrictions that existing laws place on local governments and local comprehensive plans to affect proposed ocean developments. An example of a restricting law is ORS 469.503 which limits local governments' land-use planning authorities in favor of the state Energy Facility Siting Council regarding certain energy facilities. Such language could be added to plan inventories, policies, or implementing ordinances. Working with local governments and others, OPAC could use its local plan amendment recommendation authority (ORS 196.465(3)) to develop model language for incorporation in local comprehensive plans.

**3.) Specific Plan Amendments, Mitigation.** A local government may wish to amend its comprehensive plan to accommodate the onshore effects of a proposed major ocean development. If needed, the agency making the ocean-development decision should work with DLCD and the local government to develop an understanding of the proposed development's specific onshore land-use effects, and to suggest potential land-use solutions to mitigate or accommodate the effects.

# Oregon Territorial Sea Plan

Adopted December 1, 2000



## PART FOUR: Uses of the Seafloor

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*These amendments were adopted by the Land Conservation and Development Commission on December 1, 2000, based on a recommendation from the Ocean Policy Advisory Council, January 28, 2000. These amendments are consistent with administrative rules adopted by the Oregon State Land Board in August, 1999, governing easements for submarine fiber-optic cables.*

### A. TELECOMMUNICATION CABLES, PIPELINES, AND OTHER UTILITIES

#### 1. Background

Oregon's coast is a prime landing zone for fiber-optic telecommunication cables that cross the ocean floor from sites around the Pacific Rim. Other utilities, such as natural gas pipelines, may eventually be routed across Oregon's Territorial Sea bed. Proper placement of utility easements and installation of fixtures is required to avoid damage to or conflict with other ocean uses, such as commercial fishing, and to reduce or avoid adverse effects on marine habitats.

State agencies, such as the Division of State Lands, the Department of Fish and Wildlife, the Oregon Parks and Recreation Department, and the Department of Land Conservation and Development, need clear policies and standards for reviewing and approving the routing and installation of utilities on the seafloor of Oregon and adjacent federal waters.

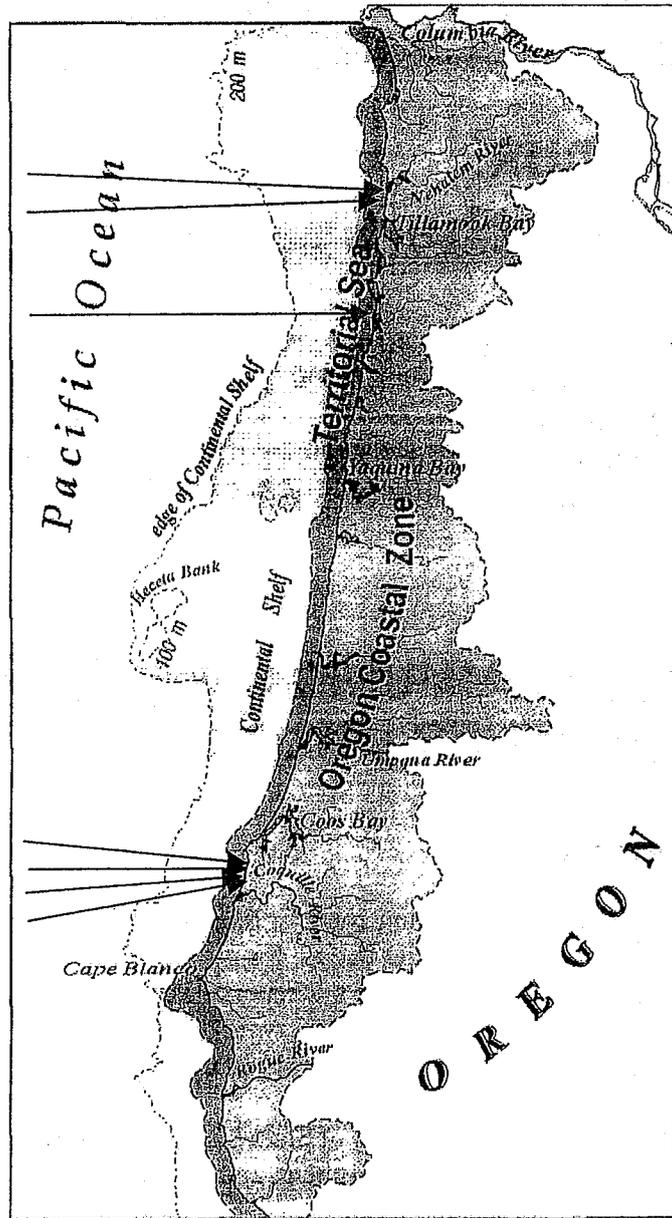
*[NOTE: In approving these plan policies for submittal to the Land Conservation and Development Commission in January, 2000, the Ocean Policy Advisory Council approved the addition of explanatory background text, maps, and illustrations prior to publication of the amended plan. This background material will in no way affect the mandatory policies of this section.]*

# Oregon Coast Fiber Optic Cable Landings

WCI-Alaska Northstar 1999  
 Southern Cross 2000  
 Nedonna Beach

North Pacific -1 1991  
 Pacific City

China-US Segment 19 2000  
 TPC-5 North 1995  
 TPC-5 South 1995  
 China-US Segment E1 2000  
 Bandon



**NOTE: The following policies and implementation requirements are mandatory. Decisions of state and federal agencies with respect to approvals of easements or installation of utilities on the seafloor in Oregon's territorial waters and ocean shore must conform with them as required in the Oregon Territorial Sea Plan.**

## **2. Policies**

When making decisions to approve routing, placement or operation of a seafloor utility or fixture, state and federal agencies shall:

- a. Protect ocean fisheries and other ocean uses from any adverse effects that may be caused by installation or operation of cables, pipelines, or other fixtures by requiring that such routing, placement, or operation:
  - 1.) avoid conflicts between commercial or recreational fishing or other ocean-use activities and utilities, as a first priority;
  - 2.) reduce any adverse effects when conflicts cannot be avoided; and
  - 3.) mitigate for adverse effects after first reducing them to the minimum practicable.
- b. Protect marine habitat, fishery areas, and other marine resources as required by Statewide Planning Goal 19, Ocean Resources and the Oregon Territorial Sea Plan; and
- c. Promote direct communication between affected ocean users to resolve or avoid conflicts and require written agreements among the parties when necessary to ensure communication and memorialize agreements.

## **3. Implementation Requirements**

When approving the routing, placement, or operation of a seafloor utility, state and federal agencies shall avoid or reduce conflicts or adverse effects on other ocean users through the use of one or more of the following:

- a. **Burial.**
  - 1.) In state waters: All telecommunication cables, pipelines and other fixtures, crossing or affixed to state lands of the territorial sea lying seaward of Extreme Low Water (which is the seaward boundary of the Ocean Shore Recreation Area) shall be buried so as to ensure continuous burial unless the approving state agencies make findings that burial cannot be practically achieved and all affected parties agree that adverse effects of not burying the cable, pipeline, or fixture have been reduced, avoided, or mitigated to the extent practicable

- 2.) In federal waters: Decisions to permit burial of cables, pipelines, or other fixtures crossing or affixed to the seabed of the outer continental shelf (beneath federal waters) to a depth of 2,000 meters off Oregon will be deemed consistent with this state policy. When a federal agency does not require burial in waters to this depth, the state may concur that the decision is consistent with state policy only if the federal agency makes findings that burial cannot be practically achieved and all affected parties agree that adverse effects of not burying the cable, pipeline, or fixture, have been reduced, avoided, or mitigated to the extent practicable.
- 3.) Burial shall be certified by the contractor to the easement-granting agency.
- 4.) The easement-granting agency shall require that cables, pipelines, or other utility fixtures shall be inspected periodically and after any major geologic event, such as subduction-zone earthquake to ensure continued burial.

**b. Communication and coordination.**

Written agreements between the applicant and fishers or other users shall be required by the easement-granting agency as evidence of communication and coordination. Such agreements may coordinate work, determine routing, identify routes, respond to emergencies, provide for mitigation of adverse effects, or specify procedures for on-going communication. Written agreements shall specify how fishers or other users and the applicant will resolve disputes over lost fishing gear, damage to seafloor utilities, or liability for such actions.

**c. Controlling the location of utilities.**

Locations for new cables, pipelines, or other utilities shall conserve areas available to ocean fisheries, prevent or avoid conflicts with other uses, protect marine habitats, and minimize adverse effects on other public resources of the seafloor or ocean shore. New rights of way may be required to be located as close to existing rights of way as possible or with sufficient capacity to enable future expansion within the approved right of way.

**d. Single point-of-contact.** The Division of State Lands shall coordinate approvals of easements and permits in consultation with the Parks and Recreation Department, the Department of Fish and Wildlife, the Department of Land Conservation and Development, the Department of Geology and Mineral Industries, and coastal local governments, as appropriate. The Department of Land Conservation and Development will use its authority under the federal Coastal Zone Management Act to review federal permits to ensure that they are consistent with state requirements.



# Oregon

Theodore R. Kulongoski, Governor

## Ocean and Coastal Management Program

Department of Land Conservation and Development

635 Capitol Street, Suite 150

Salem, Oregon 97301-2540

Phone (503) 373-0050

FAX (503) 378-6033

[www.lcd.state.or.us/coastal/html](http://www.lcd.state.or.us/coastal/html)

### MEMORANDUM

June 5, 2009

to: OPAC Members

from: Paul Klarin

re: Update on other Ocean and Territorial Sea Related Activities

#### State Legislature:

SB 195 - Adds exemption for wave energy projects from provisions related to hydroelectric projects. Authorizes Water Resources Commission to adopt rules relating to wave energy projects. Sunsets January 1, 2010. Effective on passage. Passed House and Senate with unanimous votes.

HB 3013A - Directs state agencies to implement specified recommendations of OPAC regarding marine reserves. Directs ODFW to develop work plan for implementing recommendations, specifies components of work plan and directs department to report on results of work plan to appropriate interim legislative committee on or before November 30, 2010. Directs DSL to transfer moneys to ODFW for biennium for purpose of implementing recommendations. Specifies that designation of marine reserve must include commitment to pursue long-term funding for marine reserve. Effective 7/1/09. Passed House, 2<sup>nd</sup> reading in Senate.

HB 3106A - Creates Task Force on Nearshore Research for purpose of making recommendations to ensure protection and utilization of Oregon's nearshore resources. Directs DSL to transfer certain moneys, for biennium beginning July 1, 2009, to OSU for purposes of Task Force on Nearshore Research. Effective 7/1/09 Sunsets 1/2/12. Referred to Ways and Means and assigned to House subcommittee on Natural Resources.

2098A - Limits DSL expenditures to \$1,289,000 to pay for the territorial sea mapping project at OSU for the biennium. Referred to Ways and Means and assigned to House subcommittee on Natural Resources.

#### Federal Activities:

FERC MMS MOU (see attachment)

MMS OCS Renewable Energy Rule – Workshop Portland June 25<sup>th</sup> (attachment)

MMS RFP for OCS Mapping – Nationwide

CSO & NOAA – Cumulative Effects \ Adaptive Management Workshop

WCGA – MMS - NOAA -TNC – Marine Spatial Planning and Mapping Workshop

MEMORANDUM OF UNDERSTANDING  
BETWEEN THE  
THE U.S. DEPARTMENT OF THE INTERIOR  
AND  
FEDERAL ENERGY REGULATORY COMMISSION

I. PURPOSE

The U.S. Department of the Interior (DOI) and the Federal Energy Regulatory Commission (Commission) (jointly, Participating Agencies) enter into this Memorandum of Understanding (MOU) to clarify jurisdictional understandings regarding renewable energy projects in offshore waters on the Outer Continental Shelf (OCS), in order to develop a cohesive, streamlined process that would help accelerate the development of wind, solar, and hydrokinetic (i.e., wave, tidal, and ocean current) energy projects.

II. COMMITMENTS OF THE PARTICIPATING AGENCIES

The Participating Agencies agree as follows:

A. The Participating Agencies recognize that: (1) the DOI's Minerals Management Service (MMS) has exclusive jurisdiction with regard to the production, transportation, or transmission of energy from non-hydrokinetic renewable energy projects on the OCS, including renewable energy sources such as wind and solar; (2) MMS has exclusive jurisdiction to issue leases, easements, and rights-of-way regarding OCS lands for hydrokinetic projects; and (3) the Commission has exclusive jurisdiction to issue licenses and exemptions for hydrokinetic projects located on the OCS.

B. MMS will issue leases, easements, and rights-of-way for hydrokinetic projects to be located on the OCS pursuant to Section 8(p) of the Outer Continental Shelf Lands Act (OCSLA), 43 U.S.C. § 1337(p) (2006), and will conduct any necessary environmental reviews, including those under the National Environmental Policy Act (NEPA), related to those actions. The Commission may, at its discretion, choose to become a cooperating agency with respect to the MMS's preparation of an environmental document for any OCS hydrokinetic project.

C. The Commission will not issue preliminary permits for hydrokinetic projects located on the OCS.

D. The Commission will issue licenses under Part I of the Federal Power Act (FPA), 16 U.S.C. §§ 792-823a (2006), and exemptions from licensing under Sections 405 and 408 of the Public Utility Regulatory Policies Act of 1978, 16 U.S.C. §§ 2705 and 2708 (2006), for the construction and operation of hydrokinetic projects on the OCS, and will conduct any necessary analyses, including those under NEPA, related to those actions. The Commission's licensing process includes the active involvement of relevant federal land and resource agencies, including the DOI. MMS may, at its discretion, choose to become a cooperating agency with respect to the Commission's preparation of an environmental document for any OCS hydrokinetic project. If MMS becomes a

cooperating agency, it will not conduct "off-the-record" communications relevant to the merits of the Commission's licensing or exemption proceeding, including such communications with staff of other non-cooperating DOI agencies regarding preparation of the preferred alternative or about preparation of any recommendations, terms or conditions, or prescriptions filed under Sections 4(e), 10, and 18 of the FPA (16 U.S.C. §§ 797(e), 803, and 811 (2006)). MMS's participation as a cooperating agency in a Commission-led NEPA review for an OCS hydrokinetic project shall not preclude DOI from intervening, on the behalf of other DOI agencies including, but not limited to, the U.S. Fish and Wildlife Service, the National Park Service, and the Bureau of Indian Affairs, in the licensing or exemption proceeding for that project.

E. The Participating Agencies will coordinate to ensure that hydrokinetic projects meet the public interest, including the adequate protection, mitigation, and enhancement of fish, wildlife, and marine resources and other beneficial public uses. Further, the Participating Agencies will coordinate to ensure that any licenses or exemptions issued by the Commission, and all operations regulated by the Commission, with respect to a lease, easement, or right-of-way shall be consistent with the provisions of Section 8(p) of the OCSLA and other relevant provisions of that Act, the FPA, and other applicable law.

F. MMS may attach terms and conditions to leases, easements, and rights-of-way issued for hydrokinetic projects located on the OCS. The Commission will include in any license or exemption issued for such projects a requirement to comply with all terms and conditions of any OCS lease, easement, and right-of-way.

G. The Commission will not issue a license or exemption to an applicant for an OCS hydrokinetic project until the applicant has first obtained a lease, easement, or right-of-way from MMS for the site thereof.

H. MMS will provide in all leases, easements, and rights-of-way for OCS hydrokinetic projects that construction and operation of the hydrokinetic project cannot commence without a license or exemption from the Commission, except in circumstances where the Commission has notified MMS that a license or exemption is not required.

I. The Commission may inspect OCS hydrokinetic projects it authorizes to ensure compliance with the terms of its licenses or exemptions. MMS may inspect OCS hydrokinetic projects to ensure compliance with the provisions of any lease, easement, and right-of-way it issues. The Participating Agencies will coordinate inspections through the development of joint policies or regulations, as appropriate.

J. Each Participating Agency shall use its own appropriations to carry out its responsibilities under this MOU.

### III. ISSUANCE OF POLICIES AND REGULATIONS

The Participating Agencies agree to work together to the extent practicable to develop policies and regulations with respect to OCS hydrokinetic projects to carry out the purposes of this MOU. This will include, among others, processes to address hybrid (wind/hydrokinetic) projects and projects that straddle the boundaries between state waters and the OCS.

### IV. MISCELLANEOUS

This MOU is strictly for internal management purposes, does not expand or alter the scope of the Participating Agencies' respective authorities, and shall not be construed to create any legal obligation on the part of either agency or any private right or cause of action for or by any person or entity.

### V. PRINCIPAL CONTACTS

Each party hereby designates the following as the initial principal contacts for the agency. These contacts may be changed at the Participating Agency's discretion upon written notice to the other Participating Agency.

DOI: MMS Deputy Director

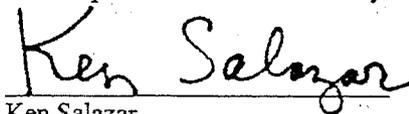
Commission: Director of the Office of Energy Projects

### VI. TERM OF THE AGREEMENT

This MOU shall take effect on the date of the last approving signature specified in Section VII, below. The MOU may be modified only upon the written agreement of the Participating Agencies. The MOU may be terminated 120 days after a Participating Agency provides written notice to the other Participating Agency.

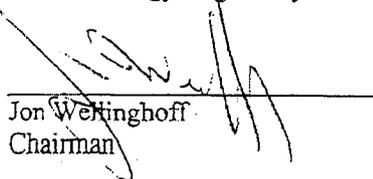
### VII. SIGNATORIES

U.S. Department of the Interior by:

  
 Ken Salazar  
 Secretary

Date: APR 09 2009

Federal Energy Regulatory Commission by:

  
 Jon Wettinghoff  
 Chairman

Date: 04/09/09

April 10, 2009

## OCS Renewable Energy Program Framework

### General Themes

**Coordination and Consultation.** MMS will coordinate and consult with relevant Federal agencies, with the Governor of any state, and the executive of any local government that may be affected by a renewable energy lease. The MMS encourages companies planning to pursue renewable energy activities on the OCS to conduct preliminary outreach, as early in the process as possible, by contacting appropriate state and local parties.

**Environmental Information, Management, and Compliance.** Compliance with NEPA, CZMA, and other relevant laws will be required throughout the life of an OCS renewable energy project—from lease issuance to site assessment, construction, and operation to decommissioning of facilities. Appropriate mitigation measures will be developed through the leasing and plan approval processes.

Understanding the need to be flexible while overseeing the emerging offshore renewable energy industry, MMS will use adaptive management practices as we launch our Renewable Energy Program. We will apply what we and the industry are able to learn by monitoring offshore activities, and adjust our mitigation and other requirements on a case-by-case basis.

### Types of Leases and the Lease Issuance Process

**Leases.** There will be two types of leases issued:

- (1) commercial leases authorizing full build-out and commercial production of energy over a long term (approximately 25 years); and
- (2) limited leases authorizing data collection and technology testing activities over a short term (approximately 5 years).

All leases will include the right to a project easement without further competition for the purpose of installing necessary gathering, transmission, and distribution lines or pipelines or substations.

**Lease Issuance Process.** Renewable energy leases must be issued on a competitive basis unless it is determined that there is no competitive interest. The Program framework outlines both competitive and noncompetitive lease issuance processes.

The competitive leasing process includes the following steps:

- Issuance of the Call for Information seeking information from all parties interested in and affected by the potential lease sale
- Publication of the Area Identification identifying specific areas for leasing consideration and any alternatives to the proposed sale action, mitigation measures, and issues to be analyzed and considered for leasing
- Preparation of necessary environmental compliance documentation (e.g., NEPA, CZMA, and ESA)
- Publication of the Proposed Sale Notice requesting comments on the proposed bidding systems, fiscal terms, lease terms and conditions, mitigation, and award criteria

- Publication of the Final Sale Notice
- Conduct of lease auction and evaluation of bids
- Issuance of leases

The noncompetitive leasing process includes the following steps:

- MMS receives proposal for OCS renewable energy project
- Publication of notice describing proposal and requesting information to use in determining whether competitive interest exists
- If no competitive interest exists, MMS can proceed to issue a noncompetitive lease. If competitive interest exists, then MMS will proceed with the lease sale process (whenever competitive interest is determined, the competitive process must be followed).
- Applicant submission of SAP (Site Assessment Plan)
- MMS review of lease and SAP together and preparation of necessary environmental compliance documentation (e.g., NEPA, CZMA, and ESA)
- MMS determination of lease terms and conditions in consideration of environmental, socioeconomic, and market factors
- Issuance of leases

## **Site Assessment, Construction & Operation, Payments, Decommissioning, and Associated Requirements for MMS-Issued Leases**

**Required Plans.** There are two types of plans for commercial development: (1) Site Assessment Plan (SAP) and (2) Construction and Operations Plan (COP).

Both the SAP and the COP will be required for commercial leases. The SAP describes the site assessment phase, in which a lessee may install a meteorological or marine data collection facility to assess renewable energy resources. The COP describes the construction and operations (generation of power) phase, as well as general plans for decommissioning facilities after termination of the lease. The lessee may submit one plan covering both SAP and COP activities when there is sufficient information to support environmental and technical review.

A General Activities Plan (GAP) will be required for technology testing and resource assessment activities on a limited lease. The GAP describes all site assessment and development activities. A GAP also is the type of plan required to describe activities on a renewable energy right-of-way or right-of-use and easement.

The rule outlines timelines and processes for submission, review and approval or disapproval of SAPs, COPs, and GAPs. For hydrokinetic construction and operations activities that will be authorized by FERC license the rule refers to the license application in lieu of a COP.

**Design, Fabrication, and Installation Requirements.** MMS will require lessees to submit reports describing the renewable energy project's final design, fabrication, and installation of facilities after MMS approves the SAP, COP, or GAP, as applicable.

- The Facility Design Report contains detailed description of the proposed facility or facilities and locations on the OCS.
- The Fabrication and Installation Report describes the plans for both the facility's fabrication and installation process, and will include a schedule for fabrication and installation as well as detailed engineering and environmental information.

In addition to the technical reports, a third party verification process may be required that calls for a certified verification agent (CVA) to verify and certify that projects are designed, fabricated, and installed in conformance with accepted engineering practices and with the submitted reports.

***Safety Management, Inspections, and Facility Assessments.*** The regulatory framework includes requirements to prevent or minimize the likelihood of harm or damage to the marine and coastal environments and to promote safe operations, including their physical, atmospheric, and biological components.

***Bonuses, Rentals, Royalties, and Other Fees to Ensure Fair Return.***

**Commercial Leases:**

- Competitive issuance
  - Bonus bid. Minimum bid level set in sale notice
- Noncompetitive issuance
  - \$0.25 per acre acquisition fee
- All commercial leases
  - \$3.00 per acre annual rental until commencement of production; \$5.00 per acre annual rental for project easement
  - Operating fee based on installed capacity =  
*installed capacity x hrs. per yr. x capacity factor x power price x fee rate*  
(except for hydrokinetic generation, which will have fees set on a case-by-case basis)

**Limited Leases:**

- Competitive issuance
  - Bonus bid. Minimum bid level set in sale notice
- Noncompetitive issuance
  - \$0.25 per acre acquisition fee
- All limited leases
  - \$3.00 per acre annual rental; \$5.00 per acre annual rental for project easement

***Financial Assurance.*** These requirements are designed to minimize the risk of financial loss to the Federal Government if lessees and operators default in fulfilling their obligations under this rule and other applicable laws or regulations. The MMS will require lessees provide sufficient financial collateral to assure obligations can be fulfilled by a third party in the event of default.

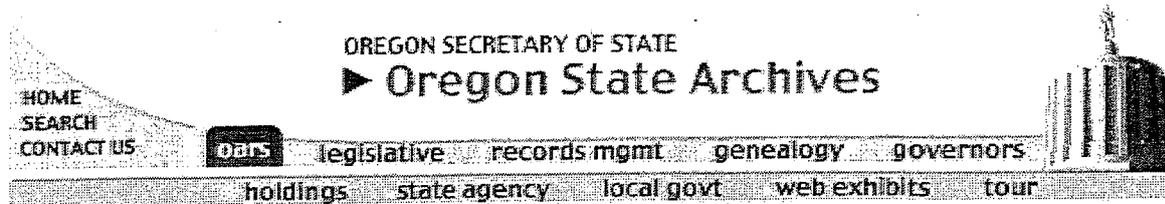
***Revenue Sharing with States.*** EPOA requires the Federal Government to share 27 percent of the revenues received from any project located wholly or partially within the area extending three nautical miles seaward of the state's submerged lands, with any state that has a coastline that is located within 15 miles of the geographic center of the project.

***Decommissioning Obligations and Requirements.*** The rule provides that all facilities, including pipelines, cables, and other structures and obstructions, should be removed when they are no longer used for operations but no later than two years after the termination of the lease.

### **Other MMS Authorizations for Renewable Energy Activity on the OCS**

***Rights-of-Way (ROW) and Rights of Use and Easements (RUE).*** A ROW or RUE grant will be issued to authorize OCS renewable energy activities that are not associated with an MMS-issued renewable energy lease. A ROW will apply to energy transmitted across the OCS from renewable energy resources onshore or in state waters. Similarly, a RUE grant will be issued to authorize a facility on the OCS that supports a renewable energy project located on state submerged lands. A rent of \$5.00 per acre will be charged for ROWs and RUEs, and a fee of \$70.00 per statute mile will be charged for ROWs.

ROWs and RUEs will follow the same issuance processes as leases.



The Oregon Administrative Rules contain OARs filed through January 15, 2009

## LAND CONSERVATION AND DEVELOPMENT DEPARTMENT

### DIVISION 36

### OCEAN PLANNING

**660-036-0000**

#### **Territorial Sea Plan**

The Land Conservation and Development Commission adopts and herein incorporates by reference the **Territorial Sea Plan** approved by the Ocean Policy Advisory Council on August 12, 1994, as part of the Oregon Coastal Management Program.

[Publications: The publication(s) referenced to in this rule are available from the agency.]

Stat. Auth.: ORS 183.310 - ORS 183.550, ORS 196.465, ORS 196.471 & ORS 197.040

Stats. Implemented: ORS 196.465, ORS 196.471 & ORS 197.040

Hist.: LCDC 5-1995, f. & cert. ef. 5-24-95

**660-036-0001**

#### **Telecommunication Cables, Pipelines, and Other Utilities**

(1) Oregon's coast is a prime landing zone for fiber-optic telecommunication cables that cross the ocean floor from sites around the Pacific Rim. Other utilities, such as natural gas pipelines, may eventually be routed across Oregon's Territorial Sea bed. Proper placement of utility easements and installation of fixtures is required to avoid damage to or conflict with other ocean uses, such as commercial fishing, and to reduce or avoid adverse effects on marine habitats. State agencies, such as the Division of State Lands, the Department of Fish and Wildlife, the Oregon Parks and Recreation Department, and the Department of Land Conservation and Development, need clear policies and standards for reviewing and approving the routing and installation of utilities on the seafloor of Oregon and adjacent federal waters.

(2) **Policies.** When making decisions to approve routing, placement, or operation of a seafloor utility or fixture, state and federal agencies shall:

(a) Protect ocean fisheries and other ocean uses from any adverse effects that may be caused by installation or operation of cables, pipelines, or other fixtures by requiring that such routing, placement, or operation:

(A) Avoid conflicts between commercial or recreational fishing or other ocean-use activities and utilities, as a first priority;

(B) Reduce any adverse effects when conflicts cannot be avoided; and

(C) Mitigate for adverse effects after first reducing them to the minimum practicable.

(b) Protect marine habitat, fishery areas, and other marine resources as required by Statewide Planning Goal 19, Ocean Resources, and the Oregon Territorial Sea Plan; and

(c) Promote direct communication between affected ocean users to resolve or avoid conflicts and require written agreements among the parties when necessary to ensure communication and memorialize agreements.

(3) **Implementation Requirements.** When approving the routing, placement, or operation of seafloor utility, state and federal agencies shall avoid or reduce conflicts or adverse effects on other ocean users through the use of one or more of the following:

(a) **Burial:**

(A) In state waters: All telecommunication cables, pipelines, and other fixtures, crossing or affixed to state lands of the territorial sea lying seaward of Extreme Low Water (which is the seaward boundary of the Ocean Shore Recreation Area), shall be buried so as to ensure continuous burial unless the approving state agencies make findings that burial cannot be practically achieved and all affected parties agree that adverse effects of not burying the cable, pipeline, or fixture have been reduced, avoided, or mitigated to the extent practicable.

(B) In federal waters: Decisions to permit burial of cables, pipelines, or other fixtures crossing or affixed to the seabed of the outer continental shelf (beneath federal waters) to a depth of 2,000 meters off Oregon, will be deemed consistent with this state policy. When a federal agency does not require burial in waters to this depth, the state may concur that the decision is consistent with state policy only if the federal agency makes findings that burial cannot be practically achieved and all affected parties agree that adverse effects of not burying the cable, pipeline, or fixture, have been reduced, avoided, or mitigated to the extent practicable.

(C) Burial shall be certified by the contractor to the easement-granting agency.

(D) The easement-granting agency shall require that cables, pipelines, or other utility fixtures shall be inspected periodically and after any major geologic event, such as subduction-zone earthquake to ensure continued burial.

(b) **Communication and coordination.** Written agreements between the applicant and fishers or other users shall be required by the easement-granting agency as evidence of communication and

coordination. Such agreements may coordinate work, determine routing, identify routes, respond to emergencies, provide for mitigation of adverse effects, or specify procedures for on-going communication. Written agreements shall specify how fishers or other users and the applicant will resolve disputes over lost fishing gear, damage to seafloor utilities, or liability for such actions.

(c) **Controlling the location of utilities.** Locations for new cables, pipelines, or other utilities shall conserve areas available to ocean fisheries, prevent or avoid conflicts with other uses, protect marine habitats, and minimize adverse effects on other public resources of the seafloor or ocean shore. New rights of way may be required to be located as close to existing rights of way as possible or with sufficient capacity to enable future expansion within the approved right of way.

(d) **Single point-of-contact.** The Division of State Lands shall coordinate approvals of easements and permits in consultation with the Parks and Recreation Department, the Department of Fish and Wildlife, the Department of Land Conservation and Development, the Department of Geology and Mineral Industries, and coastal local governments, as appropriate. The Department of Land Conservation and Development will use its authority under the federal Coastal Zone Management Act to review federal permits to ensure that they are consistent with state requirements.

Stat. Auth.: ORS 183.310-550, ORS 196.465, ORS 196.471 & ORS. 197

Stats. Implemented: ORS 196.465, ORS 196.471, & ORS 197.040

Hist.: LCDD 1-2001, f. 1-25-01, cert. ef. 1-26-01

#### **660-036-0003**

##### **Territorial Sea Plan: Ocean Policies**

The Land Conservation and Development Commission adopts as part of the Oregon Coastal Management Program, and herein incorporates by reference, an amendment to the Territorial Sea Plan entitled Ocean Management Goals and Policies that was approved by the Ocean Policy Advisory Council on June 4, 1999.

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 197

Stats. Implemented: ORS 196.471

Hist. LCDD 5-2001, f. & cert. ef. 10-16-01

#### **660-036-0004**

##### **Territorial Sea Plan: Rocky Shores Management at Cape Arago**

The Land Conservation and Development Commission adopts as part of the Oregon Coastal Management Program, and herein incorporates by reference, an amendment to the Territorial Sea Plan approved by the Ocean Policy Advisory Council on June 4, 1999, replacing rocky shore management prescriptions and management area designations on pages 139 through 146 pertaining to the rocky shores of the Cape Arago headland.

[Publications: Publications referenced are available from the agency.]

Stat. Auth.: ORS 197

Stats. Implemented: ORS 196.471  
Hist. LCDD 5-2001, f. & cert. ef. 10-16-01

**660-036-0010**

### **Ocean Resources Management Plan**

The Land Conservation and Development Commission adopts and herein incorporates by reference the **Ocean Resources Management Plan** adopted by Commission Order #90-OCEAN-699, December 12, 1990, and amendments to the **Ocean Resources Management Plan** as approved by the Ocean Policy Advisory Council on March 11, 1994 and June 10, 1994.

[Publications: The publication(s) referenced to in this rule are available from the agency.]

Stat. Auth.: ORS 183.310 - ORS 183.550, ORS 196.465, ORS 196.471 & ORS 197.040  
Stats. Implemented: ORS 196.405 - ORS 196.515 & ORS 197.040  
Hist.: LCDC 5-1995, f. & cert. ef. 5-24-95

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# Oregon's Statewide Planning Goals & Guidelines

## GOAL 19: OCEAN RESOURCES

### OAR 660-015-0010(4)

**To conserve marine resources and ecological functions for the purpose of providing long-term ecological, economic, and social value and benefits to future generations.**

To carry out this goal, all actions by local, state, and federal agencies that are likely to affect the ocean resources and uses of Oregon's territorial sea shall be developed and conducted to conserve marine resources and ecological functions for the purpose of providing long-term ecological, economic, and social values and benefits and to give higher priority to the protection of renewable marine resources—i.e., living marine organisms—than to the development of non-renewable ocean resources.

#### **OCEAN STEWARDSHIP AREA**

The State of Oregon has interests in the conservation of ocean resources in an Ocean Stewardship Area, an ocean area where natural phenomena and human uses can affect uses and resources of Oregon's territorial sea. The Ocean Stewardship Area includes the state's territorial sea, the continental margin seaward to the toe of the continental slope, and adjacent ocean areas. Within the Ocean Stewardship Area, the State of Oregon will:

- Use all applicable state and federal laws to promote its interests in management
- and conservation of ocean resources;
- Encourage scientific research on marine ecosystems, ocean resources and uses, and oceanographic conditions to acquire information needed to make ocean and coastal-management decisions;
- Seek co-management arrangements with federal agencies when appropriate to ensure that ocean resources are managed and protected consistent with the policies of Statewide Planning Goal 19, Ocean Resources, and the Territorial Sea Plan; and
- Cooperate with other states and governmental entities directly and through regional mechanisms to manage and protect ocean resources and uses.

The Ocean Stewardship Area is not intended to change the seaward boundary of the State of Oregon, extend the seaward boundaries of the state's federally approved coastal zone under the federal Coastal Zone Management Act, affect the jurisdiction of adjacent coastal states; alter the authority of federal agencies to manage the resources of the United States Exclusive Economic Zone, or limit or otherwise change federal agency responsibilities to comply with the consistency requirements of the federal Coastal Zone Management Act.

## **INFORMATION AND EFFECTS ASSESSMENT REQUIRED**

Prior to taking an action that is likely to affect ocean resources or uses of Oregon's territorial sea, state and federal agencies shall assess the reasonably foreseeable adverse effects of the action as required in the Oregon Territorial Sea Plan. The effects assessment shall also address reasonably foreseeable adverse effects on Oregon's estuaries and shorelands as required by Statewide Planning Goal 16, Estuarine Resources; Goal 17, Coastal Shorelands; and Goal 18, Beaches and Dunes.

## **IMPLEMENTATION REQUIREMENTS**

### **1. Uses of Ocean Resources**

State and federal agencies shall carry out actions that are reasonably likely to affect ocean resources and uses of the Oregon territorial sea in such a manner as to:

a. maintain and, where appropriate, restore the long-term benefits derived from renewable marine resources;

b. protect:

1. renewable marine resources—i.e., living marine organisms—from adverse effects of development of non-renewable resources, uses of the ocean floor, or other actions;

2. the biological diversity of marine life and the functional integrity of the marine ecosystem;

3. important marine habitat, including estuarine habitat, which are areas and associated biologic communities that are:

a) important to the biological viability of commercially or recreationally caught species or that support important

food or prey species for commercially or recreationally caught species; or

b) needed to assure the survival of threatened or endangered species; or

c) ecologically significant to maintaining ecosystem structure, biological productivity, and biological diversity; or

d) essential to the life-history or behaviors of marine organisms; or

e) especially vulnerable because of size, composition, or location in relation to chemical or other pollutants, noise, physical disturbance, alteration, or harvest; or

f) unique or of limited range within the state; and

4. areas important to fisheries, which are:

a) areas of high catch (e.g., high total pounds landed and high value of landed catch); or

b) areas where highly valued fish are caught even if in low abundance or by few fishers; or

c) areas that are important on a seasonal basis; or

d) areas important to commercial or recreational fishing activities, including those of individual ports or particular fleets; or

e) habitat areas that support food or prey species important to commercially and recreationally caught fish and shellfish species.

c. Agencies, through programs, approvals, and other actions, shall

1. protect and encourage the beneficial uses of ocean resources—such as navigation, food production, recreation, aesthetic enjoyment, and uses of the seafloor—provided that such activities do not adversely affect the resources protected in subsection 1.,

above; avoid, to the extent possible, adverse effects on or operational conflicts with other ocean uses and activities; and

2. comply with applicable requirements of the Oregon Territorial Sea Plan.

## 2. Management Measures

Management measures for ocean resources and uses shall be appropriate to the circumstances and provide flexibility for future actions. Such management measures may include:

a. Adaptive Management: to adapt management programs to account for variable conditions in the marine environment, the changeable status of resources, and individual or cumulative effects of uses;

b. Condition Approvals or Actions: to place conditions or limit actions to protect or shield other uses and resources;

c. Special Management Area Plans: to develop management plans for certain marine areas to address the unique management needs for resource protection, resource utilization, and interagency cooperation in the areas;

d. Intergovernmental Coordination and Cooperation: to coordinate, integrate, and co-manage programs and activities with all levels of government, including Indian tribal governments;

e. Regional Cooperation and Governance: to cooperate with other coastal states, countries, organizations, and federal agencies within the larger marine region to address common or shared ocean resource management issues;

f. Public Involvement: to involve the public and affected groups in the

process of protecting ocean resource, especially through public awareness, education, and interpretive programs;

g. Precautionary Approach: to take a precautionary approach to decisions about marine resources and uses when information is limited.

## 3. Contingency Plans:

State and federal agencies, when approving or taking an action that could, under unforeseen circumstances, result in significant risks to ocean resources and uses, shall, in coordination with any permittee, establish appropriate contingency plans and emergency procedures to be followed in the event that the approved activity results in conditions that threaten to damage the marine or estuarine environment, resources, or uses.

the compact. After approval, the proposed budget shall be presented to the chief executive and legislative body of the signatory parties.

(4) Each party shall be responsible for the expenses of its own representatives.

## ARTICLE XII

### Withdrawal from Compact

This compact shall continue in force and remain binding upon each party until renounced by it. Renunciation of this compact must be preceded by sending six months' notice in writing of intention to withdraw from the compact to the other parties to the compact.

[1991 c.617 §2]

Note: See note under 196.175.

#### **196.185 Representation on compact.**

One member of the Senate appointed by the President of the Senate and one member of the House of Representatives appointed by the Speaker of the House of Representatives shall act as the representatives of the State of Oregon on the Pacific Ocean Resources Compact in accordance with the powers and duties set forth in the compact. [1991 c.617 §3]

Note: See note under 196.175.

## OREGON OCEAN RESOURCES MANAGEMENT

**196.405 Definitions for ORS 196.405 to 196.515.** As used in ORS 196.405 to 196.515, unless the context requires otherwise:

(1) "Council" means the council established in ORS 196.438.

(2) "Exclusive Economic Zone" has the meaning set forth in Proc. 5030 whereby the United States proclaimed jurisdiction over the resources of the ocean within 200 miles of the coastline.

(3) "Panel" means a project review panel established under ORS 196.453.

(4) "Plan" means the Oregon Ocean Resources Management Plan.

(5) "Territorial sea" means the waters and seabed extending three geographical miles seaward from the coastline in conformance with federal law.

(6) "Territorial Sea Plan" means the plan for Oregon's territorial sea. [1987 c.576 §6; 1991 c.501 §2; 2003 c.744 §1]

**196.407 Policy.** It is the policy of this state to:

(1) Work with the States of Washington and California to explore the possibility of

development of communication information systems including a computerized system of coastal and marine resource information.

(2) Work with the States of Washington and California to develop compatible programs of ocean oil spill response, damage assessment and compensation.

(3) Cooperate and coordinate with adjacent states to develop a regional approach to obtaining fisheries information. [1989 c.895 §2; 2003 c.744 §2]

**196.408 Duties of state agencies.** (1) State agencies shall, to the maximum extent practicable, coordinate development of coastal and ocean information systems with those in adjacent states.

(2) State agencies with responsibility for oil spill and hazardous material response, damage assessment and compensation in the marine environment shall, to the maximum extent practicable, coordinate Oregon's plans, programs, policies and techniques with those of adjacent states.

(3) State agencies which have jurisdiction over water areas, the seabed and resources adjacent to offshore rocks and islands may coordinate with adjacent states and federal agencies to develop programs and regulations to manage uses and activities of ocean areas adjacent to coastal cliffs and offshore rocks and islands managed within the National Wildlife Refuge System.

(4) The State Department of Fish and Wildlife may coordinate with fishery managers in adjacent states to develop a uniform fish catch and monitoring system. [1989 c.895 §3; 2003 c.744 §3]

**196.410 Legislative findings for offshore oil and gas leasing.** The Legislative Assembly finds:

(1) Oregon's territorial sea encompasses all the rocks and islands of the Oregon National Wildlife Refuge, borders all beaches, headlands and rocky intertidal areas and includes areas heavily used for commercial and recreational fishing. Navigation lanes for barges and vessels pass through the area.

(2) Oregon's territorial sea is rich in marine life. Its renewable resources support significant portions of the coastal economy. It is a dynamic, hazardous marine environment within which oil spills cannot be contained.

(3) Oregon's nearshore zone is extremely high in biological productivity, reflected by the variety and value of commercial and sport ocean fisheries catch. The Oregon coast provides a significant habitat for migrating seabirds and mammals. Oregon is unwilling to risk damaging sensitive marine environments or to sacrifice environmental

conservation and development of ocean and coastal resources;

(2) The Ocean Policy Advisory Council or its successor;

(3) Those portions of the Oregon Ocean Resources Management Plan that are consistent with ORS 196.405 to 196.515; and

(4) The Territorial Sea Plan as reviewed by the council and submitted to the agencies represented on the council. [1987 c.576 §5; 1991 c.501 §5; 2003 c.744 §6]

**196.435 Primary agency for certain federal purposes; restrictions.** (1) The Department of Land Conservation and Development is designated the primary agency for coordination of ocean resources planning. The department is designated the State Coastal Management Agency for purposes of carrying out and responding to the Coastal Zone Management Act of 1972. The department shall assist:

(a) The Governor with the Governor's duties and opportunities to respond to federal agency programs and activities affecting coastal and ocean resources; and

(b) The Ocean Policy Advisory Council.

(2) The provisions of ORS 196.405 to 196.515 do not change statutorily and constitutionally mandated responsibilities of other state agencies.

(3) ORS 196.405 to 196.515 do not provide the Land Conservation and Development Commission with authority to adopt specific regulation of ocean resources or ocean uses. [1987 c.576 §7; 1989 c.325 §1; 1991 c.501 §21; 2003 c.744 §7]

**196.438 Ocean Policy Advisory Council; members; term of office; quorum.** (1) The Governor shall establish an Ocean Policy Advisory Council that is staffed by the State Department of Fish and Wildlife, the Department of Land Conservation and Development and other departments as the Governor deems necessary. The council shall be composed of:

(a) The Governor or the Governor's designee, as a nonvoting member;

(b) The director or the director's designee of the following agencies, as nonvoting members:

(A) Department of Environmental Quality;

(B) State Department of Fish and Wildlife;

(C) State Department of Geology and Mineral Industries;

(D) Department of Land Conservation and Development;

(E) Department of State Lands;

(F) Parks and Recreation Department;

(G) State Department of Agriculture; and

(H) On behalf of the State Board of Higher Education, the director or director's designee of Oregon State University, Sea Grant College;

(c) A member of the governing body of Coos, Curry, Douglas or Lane County to be appointed by the Governor, chosen in consultation with and with the approval of a majority of the members of the governing bodies of Coos, Curry, Douglas and Lane Counties;

(d) A member of the governing body of Clatsop, Lincoln or Tillamook County to be appointed by the Governor, chosen in consultation with and with the approval of a majority of the members of the governing bodies of Clatsop, Lincoln and Tillamook Counties;

(e) An elected city official from a coastal city bordering the territorial sea to be appointed by the Governor with advice from an Oregon coastal zone management association;

(f) A representative of each of the following ocean interests, to be appointed by the Governor, and subject to confirmation by the Senate pursuant to section 4, Article III, Oregon Constitution:

(A) Commercial ocean fisheries of the North Coast from Newport north;

(B) Commercial ocean fisheries of the South Coast south of Newport;

(C) Charter, sport or recreation ocean fisheries of the North Coast from Newport north;

(D) Charter, sport or recreation ocean fisheries of the South Coast south of Newport;

(E) Ports marine navigation or transportation;

(F) Coastal nonfishing recreation interests of surfing, diving, kayaking or windsurfing;

(G) A coastal conservation or environmental organization;

(H) Oregon Indian tribes appointed after consultation with the Commission on Indian Services;

(I) A coastwide organization representing a majority of small ports and local governments, as a nonvoting member; and

(J) A statewide conservation or environmental organization; and

(g) Two representatives of the public, at least one of whom shall be a resident of a county bordering the territorial sea, to be appointed by the Governor.

**196.455 Coordination with federal programs.** To insure that the Oregon Ocean Resources Management Plan and Territorial Sea Plan are coordinated with federal agency programs for coastal and ocean resources, the Ocean Policy Advisory Council may invite federal agencies with responsibility for the study and management of ocean resources or regulation of ocean activities to designate a liaison to the council to attend council meetings, respond to council requests for technical and policy information and review draft plan materials prepared by the council. [1987 c.576 §10; 1991 c.501 §13; 2003 c.744 §12]

**196.465 Compatibility of acknowledged comprehensive plans.** (1) The Oregon Ocean Resources Management Plan and Territorial Sea Plan, when adopted pursuant to ORS 196.471, shall be compatible with acknowledged comprehensive plans of adjacent coastal counties and cities.

(2) To insure that the plan is compatible with the comprehensive plans of adjacent coastal counties and cities, the Ocean Policy Advisory Council shall work with the Department of Land Conservation and Development and any Oregon coastal zone management association to:

(a) Meet and consult with local government officials;

(b) Distribute draft materials and working papers for review and solicit comment on council materials; and

(c) Provide technical and policy information to local governments about ocean resource issues. [1987 c.576 §11; 1991 c.501 §14; 2003 c.744 §13]

**196.470** [1987 c.576 §12; repealed by 1991 c.501 §18]

**196.471 Territorial Sea Plan review requirements.** (1) The Land Conservation and Development Commission shall review the Territorial Sea Plan and any subsequent amendments recommended by the Ocean Policy Advisory Council to either the Territorial Sea Plan or the Oregon Ocean Resources Management Plan and make findings that the plan or amendments:

(a) Carry out the policies of ORS 196.405 to 196.515; and

(b) Are consistent with applicable statewide planning goals, with emphasis on the four coastal goals.

(2) After making the findings required by subsection (1) of this section, the commission shall adopt the Territorial Sea Plan or proposed amendments as part of the Oregon Coastal Management Program.

(3) If the commission does not make the findings required by subsection (1) of this section, the commission shall return the plan or amendments to the council for revision.

The commission may specify any needed revisions.

(4) Upon adoption of the Territorial Sea Plan or subsequent amendments the commission may, after consultation with affected state agencies, identify amendments to agency ocean or coastal resource management programs necessary to conform to the provisions of the adopted plan. [1991 c.501 §20; 1993 c.18 §35]

**Note:** 196.471 was added to and made a part of 196.405 to 196.515 by legislative action but was not added to any smaller series therein. See Preface to Oregon Revised Statutes for further explanation.

**196.475** [1987 c.576 §13; 1991 c.501 §15; repealed by 2003 c.744 §14]

**196.485 State agency coordination requirements; incorporation of plans.** (1) If a state agency incorporates the Oregon Ocean Resources Management Plan and Territorial Sea Plan by reference in its coordination program and, upon a finding by the Land Conservation and Development Commission that the agency has amended its rules, procedures and standards to conform with the objectives and requirements of the plan and Territorial Sea Plan, the state agency shall satisfy the requirements of state agency planning and coordination required by ORS 197.180 for ocean planning.

(2) If a state agency does not incorporate the plan or Territorial Sea Plan in its coordination program, the agency shall be subject to the state agency coordination requirements of ORS chapters 195, 196 and 197 for state agency programs, procedures and standards that in any way affect ocean resources.

(3) State agency programs or rules for management of ocean resources or ocean uses shall be consistent with the Oregon Ocean Resources Management Plan and the Territorial Sea Plan. [1987 c.576 §17; 1991 c.501 §17]

**196.490** [1987 c.576 §18; repealed by 1991 c.501 §18]

**196.495** [1987 c.576 §19; repealed by 1991 c.501 §18]

**196.500** [1987 c.576 §20; repealed by 1991 c.501 §18]

**196.505** [1987 c.576 §21; repealed by 1991 c.501 §18]

**196.515 Short title.** ORS 196.405 to 196.485 shall be known as the Oregon Ocean Resources Management Act. [1987 c.576 §2]

**196.575 Authorization to obtain federal oceanographic data; joint liaison program; use of data.** (1) The Department of Land Conservation and Development is authorized to participate on behalf of the State of Oregon with the States of Washington, California, Alaska and Hawaii in a joint liaison program with the Center for Ocean Analysis and Prediction of the National Oceanic and Atmospheric Administration.

(2) The objective of the program is to assist the states in taking maximum advantage

Memorandum of Understanding  
between the State of Oregon and Ocean Power Technologies

Preamble

Whereas, the State of Oregon is taking important steps to tackle the challenges of climate change, including establishing policies and programs to encourage the use of renewable resources; and

Whereas, Oregon is a partner in the Western Climate Initiative collaboration, created to identify, evaluate and implement collective and cooperative ways to reduce greenhouse gases in the region, focusing on a market-based cap-and-trade system; and

Whereas, Oregon has commenced the process to prepare a comprehensive plan for the siting of wave energy projects in the Territorial Sea of Oregon, which would identify and promote best locations for wave energy facilities; and

Whereas, in furtherance of encouraging use of its renewable resources, Oregon is prepared to collaborate with responsible commercial developers of new sources of renewable energy; and

Whereas, Ocean Power Technologies (OPT) proposes to invest substantial resources and expertise to help Oregon achieve its desired role as a world leader in designing and implementing responsible commercial development of wave energy, and in furtherance of this objective on March 9, 2007, OPT received a preliminary permit pursuant to section 4(f) of the Federal Power Act (FPA), from the Federal Energy Regulatory Commission (FERC) to study the feasibility of the Coos Bay OPT Wave Park Project; and

Whereas, if the Coos Bay OPT Wave Project is approved, OPT intends to operate in Oregon in such a manner that Oregon's natural resource values are protected and significant net economic and social benefits are promoted in coastal communities; and

Whereas, in order to complete the traditional license application process, OPT is under time frames prescribed by federal law and FERC rules; and

Whereas, Oregon has demonstrated a willingness to address statutory constraints confronting commercial wave energy generally by introducing Senate Bill 195 to the 75th Oregon Legislative Assembly; and

Whereas, Oregon has enacted the Business Energy Tax Credit (BETC) under Oregon Revised Statutes 469.185 to 469.225, and 315.354 to 315.356; and Oregon may

consider research and development proposals by OPT and other commercial developers made under those provisions; and

Whereas, Oregon has demonstrated its commitment to the research, testing and commercial development of wave energy technology through programs and incentives important to wave energy development, and Oregon recognizes that OPT is a partner that will advocate for such programs and incentives including continuing BETC credits, fully funding Oregon Wave Energy Trust budgets, production tax credits, state-backed development bonds, research and development funding for wave energy technology in Oregon and federal funding for Oregon wave energy projects; and

Whereas, Oregon understands that it may be beneficial to the responsible commercial development of wave energy for OPT and other interested parties to partner with the state to promote and expand private and public investment in electrical interconnect infrastructure to wave facility sites; and

Whereas, Oregon understands that responsible commercial development of wave energy may require support for utility and wave power developer requests for rate structures that enable first generation wave energy facility development in Oregon.

NOW THEREFORE, the Parties wish to record their understandings as follows:

## 1. Purpose

- 1.1. The purpose of this Memorandum of Understanding ("MOU") is to set forth a potential approach for developing the Coos Bay OPT Wave Project within the coastal waters of Oregon, and to describe on a preliminary basis an arrangement that Oregon and OPT (together, the "Parties") contemplate in relation thereto.
- 1.2. The Parties acknowledge that this MOU is a non-binding expression of the Parties' understandings, which is intended to facilitate the preparation and negotiation of subsequent MOUs that will embody further understandings and actions of the Parties regarding the Coos Bay OPT Wave Project. The Parties agree that they shall have no binding obligation with respect to any of the activities contemplated in this MOU. Notwithstanding the preceding sentence, the Parties agree that the Provisions of Article 1.2 (Non-binding), Article 4(ii) (Subsequent Agreements), Article 5 (Non-Exclusivity), Article 7 (Term and Termination), Article 8 (Costs and Expenses) and Article 9 (Miscellaneous), shall be legally binding on the Parties.
- 1.3. The Parties acknowledge that because this MOU is non-binding, the Parties are free to explore, discuss and agree on any other arrangement that reflects common interests and objectives.

## 2. OPT Role

Pursuant to this MOU, OPT intends to:

- 2.1. Develop projects that are consistent with the express values and criteria of the Oregon Territorial Sea Plan (TSP) and the mandates of appropriate state environmental and regulatory agencies
- 2.2. Develop projects that comply with the protections afforded to Oregon's marine reserves
- 2.3. Develop projects that, to the extent practicable, avoid adverse impacts and reasonably accommodate existing commercial and recreational interests on the Oregon coast, as identified through spatial mapping activities and related scientific evidence
- 2.4. Maintain an open dialog with key stakeholders to assure issues are identified and addressed in a timely manner
- 2.5. Continue to engage in project development and permitting using the settlement process and adaptive management approach with affected Oregon stakeholders
- 2.6. Apply for all appropriate state regulatory and proprietary permits and authorizations, including but not limited to obtaining state water right permits and Clean Water Act water quality certifications
- 2.7. Request that FERC not act on license applications before OPT has:
  - 2.7.1. received authorizations required from other entities under federal law including the Clean Water Act and the Coastal Zone Management Act;
  - 2.7.2. submitted complete applications to the Department of State Lands for both an ocean energy facility lease and a removal-fill permit, the Parks and Recreation Department for an ocean shores alteration permit, and the Water Resources Department for a water right, as required by law; and
  - 2.7.3. completed consultation under the Endangered Species Act
- 2.8. Work with Oregon to identify sources of and seek funding to provide necessary environmental baseline studies
- 2.9. Work with Oregon to establish a Community Benefit Fund for coastal communities' transition to wave energy industry
- 2.10. Address in appropriate lease or permit documents Oregon's legitimate interest in knowing about efforts to sell or otherwise transfer ownership of the Coos Bay OPT Wave Project to another party or assign to another party the state/federal authorities for project operation

### 3. Oregon Role

Pursuant to this MOU, Oregon intends to:

- 3.1. Participate in a FERC settlement process to develop adaptive management plans that would be included in an offer of settlement for the Coos Bay OPT Wave Project that would be signed before OPT submits the Final License Application to FERC, or if

- settlement is not reached by that time, during the post-Application period for incorporation into a FERC license
- 3.2. Following the signing of a settlement agreement, commence final agency review in a manner that is consistent with the settlement agreement
  - 3.3. Negotiate a settlement agreement that aligns with Oregon's goals for an amended TSP, in a way that will not delay project approvals if the TSP amendment process is not completed within 30 days after such approvals are requested
  - 3.4. Work as a "partner" with OPT to encourage development of renewable wave energy resources by:
    - 3.4.1. Identifying and promoting best locations for wave facilities through the TSP amendment process currently underway; and
    - 3.4.2. Negotiating land lease rates with the understanding that this might require progressive rents based on operating profits (starting low and progressing as profits grow)
  - 3.5. Through the settlement process, attempt to align state regulatory review into a collaborative and streamlined state regulatory process that includes:
    - 3.5.1. A primary point of contact between Oregon and OPT;
    - 3.5.2. A well-defined authorization process with concurrent paths whenever possible; and
    - 3.5.3. Potential time frames for completing process steps that include issuing decisions on complete applications according to the following aspirational time frames:
      - 3.5.3.1. 12 months for the Clean Water Act section 401 water quality certification, 33 U.S.C. § 1341(a)(1);
      - 3.5.3.2. 12 months for completion of a Programmatic Agreement or 6 months for completion of a Memorandum of Agreement with FERC, pursuant to section 106 of the National Historic Preservation Act, 16 U.S.C. § 470f;
      - 3.5.3.3. 8 months for the water right approval pursuant to ORS chapters 537 and 543;
      - 3.5.3.4. 6 months for the Coastal Zone Management Act consistency certification, 16 U.S.C. § 1456(c)(3)(A);
      - 3.5.3.5. 6 months for the ocean energy facility lease pursuant to ORS chapter 274;
      - 3.5.3.6. 4 months for the removal-fill permit pursuant to ORS chapter 196; and
      - 3.5.3.7. 2 months for the ocean shore permit pursuant to ORS chapter 390
  - 3.6. Work with the Oregon Department of Fish and Wildlife through its applicable statutes (ORS 506.129, as implemented by OAR 635-005-0055) to expedite crab pot replacement tag processing for gear lost in wave facilities in order to allow crabbing to continue with minimal delays
  - 3.7. Use study results from other wave facilities, where applicable, to minimize redundant studies and to provide greater certainty regarding impacts and required measures for future projects
  - 3.8. Address in appropriate lease or permit documents the legitimate interest of OPT to provide "confidential submissions" under ORS 192.502(4) of information requested by

the state about OPT's efforts to sell or otherwise transfer ownership or operations of the Coos Bay OPT Wave Project.

#### 4. No Obligation to Consummate

The Parties acknowledge that (i) the determination and implementation of any final arrangement for the Coos Bay OPT Wave Project contemplated herein will be based on each Party's business, technical, legal and tax concerns, and (ii) the execution of this MOU does not constitute any obligation or commitment by either Party to enter into any subsequent agreements.

#### 5. Non-Exclusivity

No Party has any exclusivity right over any other Party, and either Party is free to discuss or implement a similar wave project with any third party or government entity.

#### 6. Approvals

The Parties agree that the implementation of the Coos Bay OPT Wave Project contemplated by this MOU will be subject to the receipt of all applicable governmental, regulatory, corporate and other approvals that each Party may require as per the law and regulations of the relevant federal, state and local governments and each Party's internal regulations.

#### 7. Term; Termination

This MOU is effective on the date of the last signature below and remains in effect until December 31, 2011. Either Party may terminate this MOU for any reason by giving the other Party 30 days prior written notice. The term of this MOU may be extended by the Parties if mutually agreed upon in writing.

The provisions of this MOU described in Article 1.2 as binding survive any termination of this MOU.

#### 8. Costs and Expenses

From the effective date of this MOU and until any subsequent agreements are executed or this MOU is terminated, each party is responsible for and shall bear its own costs and expenses in relation to the Coos Bay OPT Wave Project (including but not limited to fees of counsel and other advisors).

#### 9. Miscellaneous

9.1. Amendment; Waiver. A waiver, amendment or modification of any term or condition of this MOU must be in writing and signed by the Parties. No waiver by any Party of any breach hereunder may be deemed a waiver of any other breach or any subsequent breach.

9.2. Governing Law. This MOU is to be governed by and construed in accordance with the substantive laws of the State of Oregon, without giving effect to its conflict of laws provisions.

9.3. Relationship. Nothing contained herein may be deemed to create an agency, joint venture or franchise relation between the Parties.

10. Notices. Notices required in the course of the performance of this MOU must be delivered as follows:

Coos Bay Project Manager  
Ocean Power Technologies, Inc.  
1590 Reed Road  
Pennington, New Jersey 08534

Natural Resources Policy Advisor  
Office of the Governor  
900 Court Street N.E.  
Salem, OR 97301

11. Limitation on Liability. Neither Party is responsible for any direct, indirect, special or consequential damages that may be incurred by the other Party as the result of any failure by a Party to perform any of the non-binding provisions of this MOU, or for the termination or expiration of this MOU for any reason whatsoever. Any liability of the State of Oregon under this MOU is within the limits of and subject to the limitations of Article XI, § 7 of the Oregon Constitution and the Oregon Tort Claims Act (ORS 30.260 through 30.300).

IN WITNESS WHEREOF, the Parties hereto have through their respective authorized representatives, executed this MOU as follows:

STATE OF OREGON

\_\_\_\_\_  
Name: Theodore R. Kulongoski  
Title: Governor  
Date Signed: \_\_\_\_\_

OCEAN POWER TECHNOLOGIES, Inc.  
  
\_\_\_\_\_

Name: George W. Taylor  
Title: Executive Chair  
Date Signed: \_\_\_\_\_

OCEAN POWER TECHNOLOGIES, Inc.

\_\_\_\_\_  
Name: Mark R. Draper  
Title: Chief Executive Officer  
Date Signed: \_\_\_\_\_

DRAFT

# A-Engrossed House Bill 3013

Ordered by the House May 21  
Including House Amendments dated May 21

Sponsored by COMMITTEE ON RULES

## SUMMARY

The following summary is not prepared by the sponsors of the measure and is not a part of the body thereof subject to consideration by the Legislative Assembly. It is an editor's brief statement of the essential features of the measure.

*[Modifies various provisions relating to Ocean Policy Advisory Council.]*

*[Makes legislative finding that wave energy provides renewable, sustainable source of energy.]*

*[Repeals sunset on prohibition against leases for exploration, development or production of oil, gas or sulfur in territorial sea and exemption for academic research or geologic survey activities.]*

*[Repeals provisions related to joint liaison program with National Oceanic and Atmospheric Administration.]*

**Directs certain state agencies to implement specified recommendations of Ocean Policy Advisory Council regarding marine reserves. Directs State Department of Fish and Wildlife to develop work plan for implementing recommendations. Specifies components of work plan. Directs department to report on results of work plan to appropriate interim legislative committee on or before November 30, 2010.**

**Directs Department of State Lands to transfer moneys to State Department of Fish and Wildlife for biennium beginning July 1, 2009, for purpose of implementing recommendations. Specifies that designation of marine reserve must include commitment to pursue long-term funding for marine reserve.**

**Declares emergency, effective July 1, 2009.**

## A BILL FOR AN ACT

1  
2 Relating to ocean resources; and declaring an emergency.

3 **Be It Enacted by the People of the State of Oregon:**

4 **SECTION 1. The State Department of Fish and Wildlife, State Fish and Wildlife Com-**  
5 **mission, State Land Board and relevant state agencies shall, consistent with existing statu-**  
6 **tory authority, implement the November 29, 2008, recommendations from the Ocean Policy**  
7 **Advisory Council on marine reserves by:**

8 (1) **Adopting rules to establish, study, monitor, evaluate and enforce a pilot marine re-**  
9 **serve at Otter Rock and a pilot marine reserve and a marine protected area at Redfish**  
10 **Rocks;**

11 (2) **Studying and evaluating potential marine reserves at Cape Falcon, Cascade Head and**  
12 **Cape Perpetua; and**

13 (3) **Supporting the development of a marine reserve proposal at Cape Arago-Seven Devils.**

14 **SECTION 2. (1) The State Department of Fish and Wildlife, in consultation with members**  
15 **from the scientific and technical advisory committee established under ORS 196.451, other**  
16 **relevant marine and fishery scientists, relevant state agencies, ocean users and coastal**  
17 **communities shall implement the activities described in section 1 of this 2009 Act by devel-**  
18 **oping a work plan.**

19 (2) **The work plan shall contain the following elements regarding the marine reserves**  
20 **described in section 1 of this 2009 Act:**

NOTE: Matter in boldfaced type in an amended section is new; matter *[italic and bracketed]* is existing law to be omitted. New sections are in boldfaced type.

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1 (a) A biological assessment, including information on habitat characterization, biological  
2 resources, local knowledge and, for the established pilot marine reserves, monitoring plans.

3 (b) A socioeconomic assessment, including a description of human uses, net effects on  
4 sport and commercial fisheries and communities and, for the established pilot marine re-  
5 serves, monitoring plans.

6 (c) Formation of community teams, with diverse and balanced stakeholder representation  
7 that includes local government, recreational fishing industry, commercial fishing industry,  
8 nonfishing industry, recreationalists, conservation, coastal watershed councils, relevant ma-  
9 rine and avian scientists, to collaborate and develop recommendations for potential marine  
10 reserves, considering the biological and socioeconomic information developed under this  
11 section. Collaboration may be facilitated by a neutral outside party hired through a compet-  
12 itive bidding process.

13 (d) Provision of information on the process and data gathered to interested parties and  
14 made available to the public.

15 (e) Development of scientifically based goals specific to each of the marine reserve sites,  
16 incorporating continuity and cumulative outcomes, benefits and impacts.

17 (f) Provision of baseline data on Oregon's territorial sea, as defined in ORS 196.405.

18 (g) Development of an enforcement plan in consultation with the Oregon State Police and  
19 representatives from affected user groups.

20 (h) Use of communities and volunteers to assist in implementing the work plan where  
21 feasible and practical.

22 (3) The data and recommendations produced from the work plan and other available  
23 nearshore data shall be used by the State Department of Fish and Wildlife, in consultation  
24 with the Ocean Policy Advisory Council, to recommend the number, size, location and re-  
25 striction limits of the potential sites for marine reserve designation, consistent with Execu-  
26 tive Order 08-07. If, through this process, it is determined that other appropriate sites need  
27 to be considered or that potential sites are not consistent with Executive Order 08-07, then  
28 the data and recommendations produced shall be provided to the public, the State Depart-  
29 ment of Fish and Wildlife and other relevant state agencies for future purposes relevant to  
30 nearshore management.

31 **SECTION 3.** (1) The State Department of Fish and Wildlife shall report on the results of  
32 the work plan to an appropriate interim legislative committee on or before November 30,  
33 2010, regarding:

34 (a) The study and establishment of the pilot marine reserves at Otter Rock and Redfish  
35 Rocks described in section 1 of this 2009 Act;

36 (b) The study and evaluation of the potential marine reserves at Cape Falcon, Cascade  
37 Head and Cape Perpetua described in section 1 of this 2009 Act;

38 (c) The development of a marine reserve proposal at Cape Arago-Seven Devils described  
39 in section 1 of this 2009 Act;

40 (d) The status of funding necessary to carry out the provisions of section 1 of this 2009  
41 Act; and

42 (e) The accomplishment of the goals related to each of the marine reserves.

43 (2) The department shall also report on the activities described in subsection (1) of this  
44 section to members of the Ocean Policy Advisory Council, relevant state agencies and to the  
45 public.

1       **SECTION 4.** The Department of State Lands shall transfer \$1 million to the State De-  
2       partment of Fish and Wildlife, for the biennium beginning July 1, 2009, from other funds that  
3       are not constitutionally dedicated to the Common School Fund, for use by the State De-  
4       partment of Fish and Wildlife to carry out the provisions of section 1 of this 2009 Act.

5       **SECTION 5.** (1) The State Department of Fish and Wildlife may accept only gifts, grants  
6       or contributions from any source for deposit in the State Wildlife Fund established in ORS  
7       496.300 that are consistent with the department's work plan specified in section 2 of this 2009  
8       Act.

9       (2) Any designation of marine reserves in Oregon's territorial sea must include commit-  
10      ments by relevant state agencies to pursue long-term funding necessary to enforce prohibi-  
11      tions, support necessary research and monitoring and provide for public education.

12      (3) If funding cannot be secured to meet the enforcement and research-based monitoring  
13      needs associated with the goals specified in section 2 (2)(e) of this 2009 Act, agencies re-  
14      sponsible for managing the marine reserves shall make recommendations to the State Fish  
15      and Wildlife Commission and the Legislative Assembly and initiate actions to scale down or  
16      suspend fisheries prohibitions in the marine reserves.

17      **SECTION 6.** Designation of marine reserves requires periodic reporting by the State De-  
18      partment of Fish and Wildlife in consultation with other relevant state agencies on the ac-  
19      complishment of the goals described in section 2 (2)(e) of this 2009 Act. The State  
20      Department of Fish and Wildlife and the State Land Board shall, based on review of the pe-  
21      riodic reporting, initiate appropriate rulemaking adjustments that may include size, location  
22      and restrictions on marine reserves.

23      **SECTION 7.** This 2009 Act being necessary for the immediate preservation of the public  
24      peace, health and safety, an emergency is declared to exist, and this 2009 Act takes effect  
25      July 1, 2009.