

# OREGON OCEAN POLICY ADVISORY COUNCIL

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THEODORE R. KULONGOSKI, GOVERNOR

November 29, 2008

The Honorable Theodore R. Kulongoski, Governor  
State Capitol, Room 254  
Salem, Oregon 97301-4047

Re: Recommendations from OPAC on Marine Reserves

Dear Governor Kulongoski:

In response to your March 26, 2008 letter to the Ocean Policy Advisory Council (OPAC) and Executive Order 08-07, OPAC has continued our work over the past eight months to develop policy guidelines and evaluation criteria, and accept and evaluate proposals for potential marine reserves. With this letter I am transmitting to you the results of those efforts. It is my expectation that the Oregon Department of Fish and Wildlife (ODFW) will transmit to you under separate cover the details of the 20 proposals we received, along with the proposal guidance issued to the public.

First, OPAC recommends two proposals, *Otter Rock* near Depoe Bay, and *Redfish Rocks* near Port Orford, move forward as pilot marine reserves. Pilot reserves, as defined by ODFW, will expedite the process of identifying, evaluating, and initiating restrictions on disturbing activities within those areas during the next two years. We find these two proposals the most mature, best supported in their communities, and most suited to evaluate the potential success of marine reserves in Oregon's Territorial Sea. These proposals are identified by ODFW as numbers 2 and 4. The text of OPAC's adopted motion is given in Appendix A.

OPAC also recommends three areas, Cape Falcon, Cascade Head, and Cape Perpetua, as deserving of further study and evaluation as sites for potential marine reserves. We feel the ecological significance of these areas, combined with mixed initial indications of support from the affected communities, justifies more effort to find an acceptable compromise. Each area has a citizen-generated proposal for a marine

reserve that OPAC recommends for further analysis, though OPAC did not endorse the associated proposed marine protected area. Those proposals are: *North Coast Ocean Conservation Action Teams Cannon Beach and Manzanita*, Proposal 19; *Cascade Head Proposal Area-Proposal Rock to D River*, Proposal 17; and, *Heceta Head and Cape Perpetua Marine Reserve*, Proposal 15. OPAC specifically recommends that no further consideration be given to ten submitted proposals: *Tillamook Head Marine Reserve*, Proposal 14; *Three Arch Rocks Proposal Area: Cape Mears to Cape Lookout*, Proposal 7; *Three Arch Rocks Proposal Area*, Proposal 16; *20 Miracle Miles Marine Reserve*, Proposal 5; *Whale Cove to Devil's Punchbowl*, Proposal 1; *Cape Foulweather Proposal Area*, Proposal 9; *Cape Foulweather Proposal*, Proposal 20; *Siltcoos Proposal Area*, Proposal 11; *Cape Arago Proposal Area*, Proposal 12; and, *Mack Reef Proposal Area: Cape Sebastian to Whaleshead Island*, Proposal 13. The text of OPAC's adopted motion is given in Appendix A.

Finally, OPAC recommends that the interested parties in the *Cape Arago/Seven Devils* area, led by the Oregon International Port of Coos Bay, be encouraged and supported to engage in further collaboration to develop a marine reserve proposal. In making this recommendation, OPAC does not endorse the two proposals submitted for this area, the *Cape Arago Proposal Area*, Proposals 12, and the *Seven Devils Marine Reserve*, Proposal 18. The text of OPAC's adopted motion is given in Appendix A. A table summarizing OPAC's actions on all 20 proposals is given in Appendix B.

The document "Oregon Marine Reserve Policy Recommendations: a Report to the Governor, State Agencies and Local Governments from OPAC" (Appendix C) describes OPAC's vision for the Objectives, Planning Principles and Guidelines, and Implementation Principles and Guidelines for any marine reserve in Oregon. It embodies OPAC's recommended criteria for a more thorough evaluation of potential marine reserve sites following the 2009 Legislative Assembly. The principles contained in the document also provided the basis for the coarse review criteria used by OPAC member agencies as an initial screen of the proposed marine reserves.

Appendix D contains minority statements addressing adopted motions 1, 2, 6 and 8.

Following Britain's victory in Egypt in 1942, Winston Churchill remarked "This is not the end. It is not even the beginning of the end. But it is, perhaps, the end of the beginning." I believe we now find ourselves at a similar point. OPAC has taken a long road to get to this point, and we recognize there is a great distance yet to travel. No one on OPAC is fully satisfied with the results reported here, but perhaps that is the truest indicator of a good compromise. We are confident what we have done here will advance our understanding of Oregon's ocean resources. This is the next step in what we hope is a very fruitful process.

Sincerely,



Scott McMullen, Chair  
Ocean Policy Advisory Council

## Appendix A

### Motions Adopted - Votes

Motion	Yes	No	Abstain
1. Recommend Otter Rock and Redfish Rocks as Pilot Sites	9	3	1
2. Dropping sites from consideration. Mack Reef II, Cape Arago, Siltcoos, 20 Miracle Miles, Three Arch Rocks I, Three Arch Rocks II, and Tillamook Head	9	3	1
3. Cape Falcon, proposal #19	9	4	0
4. Cape Falcon, proposal #6	Consensus	-	-
5. Cascade Head	7	5	1
6. Cape Foulweather	9	4	0
7. Cape Perpetua	8	5	0
8. Seven Devils	9	4	0
9. Cape Arago/Seven Devils	10	3	0

### Motions Adopted - Text

1. Motion by Terry Thompson. **Otter Rock and Redfish Rocks** Pilot Sites. “To move the pilot projects of Redfish Rocks and the small marine protected area, and the Otter Rock Site forward on the list to the Governor.” The motion did not receive consensus support. OPAC voted to approve the motion, 9 in favor, 3 opposed (Paul Engelmeyer, Robin Hartmann, Fred Sickler), 1 abstaining (John Griffith).

2. Motion by Terry Thompson. Dropping sites from consideration. “To move to a vote the proposal to drop the seven low-ranked proposals by the state agencies which are: **Mack Reef II, Cape Arago, Siltcoos, 20 Miracle Miles, Three Arch Rocks I, Three Arch Rocks II, and Tillamook Head.**” The original motion did not receive consensus support. OPAC voted to approve this motion, 9 in favor, 3 opposed (Paul Engelmeyer, Robin Hartmann, Fred Sickler), 1 abstaining (Jim Good).

3. Motion by Frank Warrens. “OPAC recommends that the **Cape Falcon** area be moved forward for further evaluation as a potential site for a marine reserve, including an analysis of proposal #19 but without the associated Marine Protected Area.” The motion did not receive consensus support. OPAC voted to approve this motion, 9 in favor; 4 opposed (Jim Bergeron, Jack Brown, John Griffith, Brad Pettinger).

4. Motion by Jim Good. OPAC recommends that **Proposal #6** be removed from consideration. OPAC approved this motion by consensus.

5. Motion by Jim Good. “OPAC recommends that the **Cascade Head** area be moved forward for further evaluation as a potential site for a marine reserve, including an

analysis of proposal #17 but without the associated Marine Protected Area, and limited to the area north of the south boundary of Roads End State Park. Proposal #8 is eliminated.” The motion did not receive consensus support. OPAC voted to approve this motion, 7 in favor; 5 opposed (Jim Bergeron, Jack Brown, John Griffith, Brad Pettinger, Terry Thompson), 1 abstention (Jim Pex).

6. Motion by Frank Warrens. “OPAC recommends that the **Cape Foulweather** area proposals #1, #9 and #20 be eliminated. OPAC recognizes that modification of the Otter Rock proposal may include some areas incorporated in proposals #1, #9 and #20.” The motion did not receive consensus support. OPAC voted to approve this motion, 9 in favor; 4 opposed (Paul Engelmeyer, John Griffith, Robin Hartmann, Fred Sickler).

7. Motion by Jim Good. “OPAC recommends that the **Cape Perpetua** area be moved forward for further evaluation as a potential site for a marine reserve, including an analysis of proposal #15 but without the associated Marine Protected Area. Proposal #10 is eliminated.” The motion did not receive consensus support. OPAC voted to approve this motion, 8 in favor; 5 opposed (John Griffith, Scott McMullen, Terry Thompson, Brad Pettinger, Jim Pex).

8. Motion by John Griffith. “OPAC recommends that the **Seven Devils** proposal, proposal #18, be dropped from further consideration.” The motion did not receive consensus support. OPAC voted to approve this motion, 9 in favor; 4 opposed (Paul Engelmeyer, Jim Good, Robin Hartmann, Fred Sickler).

9. Motion by Jim Good. “OPAC recommends that the interested parties in the **Cape Arago/Seven Devils** area, led by the Oregon International Port of Coos Bay, be encouraged and supported to engage in further collaboration to develop a marine reserve proposal.” The motion did not receive consensus support. OPAC voted to approve this motion, 10 in favor; 3 opposed (John Griffith, Scott McMullen, Jim Pex).

## Appendix B

### Summary of Proposal and Area Names, Numbers, and OPAC's Final Action

<b>Number</b>	<b>Given Name</b>	<b>Common Name</b>	<b>Action</b>
1	Whale Cove to Devil's Punchbowl	Whale Cove to Devil's Punchbowl	Recommend no further consideration
2	Otter Rock Marine Reserve	Otter Rock	Recommended as Pilot Site
3	Mack Reef Marine Reserve	Mack Reef I	Not specifically addressed
4	Redfish Rocks Research Reserve	Redfish Rocks	Recommended as Pilot Site
5	20 Miracle Miles Marine Reserve	20 Miracle Miles	Recommend no further consideration
6	Cape Falcon Proposal Area: Tillamook Head to Cape Falcon	Cape Falcon	Recommend no further consideration
7	Three Arch Rocks Proposal Area: Cape Meares to Cape Lookout	Three Arch Rocks I	Recommend no further consideration
8	Cascade Head Proposal Area: Cascade Head to Whale Cove	Cascade Head I	Recommend no further consideration
9	Cape Foulweather Proposal Area	Cape Foulweather I	Recommend no further consideration
10	Cape Perpetua Proposal Area: Smelt Sands to Berry Creek	Cape Perpetua	Recommend no further consideration
11	Siltcoos Proposal Area: Siltcoos River Estuary to Tahkenitch Creek Estuary	Siltcoos	Recommend no further consideration
12	Cape Arago Proposal Area: Gregory Point to Haystack Rock	Cape Arago	Recommend no further consideration
13	Mack Reef Proposal Area: Cape Sebastian to Whaleshead Island	Mack Reef II	Recommend no further consideration
14	Tillamook Head Marine Reserve	Tillamook Head	Recommend no further consideration
15	Heceta Head and Cape Perpetua Marine Reserve and Protected Area	Heceta Head	Forwarded for further analysis without MPA
16	Three Arch Rocks Proposal Area	Three Arch Rocks II	Recommend no further consideration

17	Cascade Head Proposal Area- Proposal Rock to D River	Cascade Head II	Forwarded for further analysis without MPA
18	Seven Devils Marine Reserve	Seven Devils	Recommend no further consideration
19	North Coast Ocean Conservation Action Teams Cannon Beach and Manzanita Proposal	Cannon Beach and Manzanita	Forwarded for further analysis without MPA
20	Cape Foulweather Proposal	Cape Foulweather II	Recommend no further consideration
N/A	N/A	Cape Arago/Seven Devils area	Referred to Port of Coos Bay

## **Appendix C**

### **Oregon Marine Reserve Policy Recommendations**

A Report to the Governor, State Agencies and Local Governments from OPAC

# OREGON MARINE RESERVE POLICY RECOMMENDATIONS

## A REPORT TO THE GOVERNOR, STATE AGENCIES AND LOCAL GOVERNMENTS FROM OPAC

### INTRODUCTION

This document was prepared by the Oregon Ocean Policy Advisory Council (OPAC). OPAC approved this document on August 19<sup>th</sup>, 2008. This document is a policy recommendation only and should not be construed as formal state policy. It is simply a guide for the marine reserves process.

### MARINE RESERVE DEFINITION

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.

### OVERALL PURPOSE OF OREGON'S MARINE RESERVE SYSTEM

The State of Oregon is considering the establishment of a **system** of fewer than ten marine reserves along its coast as part of an overall strategy in a continuing effort to move towards managing its marine waters and submerged lands using an **ecosystem-based approach**. The overall purpose of marine reserves is to provide an additional tool to help **protect**, sustain, or restore the **nearshore** marine **ecosystem**, its **habitats**, and **species** for the values they represent to present and future generations. Such action complements the collective efforts of Oregon, Washington, and California to manage the California Current in an ecosystem-based manner as expressed in the West Coast Governors' Agreement on Ocean Health (Gregoire, Kulongoski, and Schwarzenegger, 2007).

### MARINE RESERVE GOAL

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 a collection of individual sites that are representative of marine habitats and that are **ecologically significant** when taken as a whole.

### MARINE RESERVE OBJECTIVES, PRINCIPLES AND GUIDELINES

The following **objectives** apply to the entire marine reserve process. The following principles and guidelines are designed to guide the proposal, selection, implementation and management of marine reserves. The objectives, principles and guidelines are not prioritized.

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\* Words that are in the definitions section (pages 4-7) are **bolded** the first time they appear in the text.



## Oregon Marine Reserve Policy Recommendations

### Marine Reserve Objectives

1. Protect areas within Oregon's Territorial Sea that are important to the natural diversity and abundance of marine organisms<sup>1</sup>, including areas of high biodiversity<sup>2</sup> and special natural features<sup>3</sup>.
2. Protect **key types of marine habitat**<sup>4</sup> in multiple locations along the coast to enhance **resilience** of nearshore ecosystems to natural and human-caused effects.
3. Site fewer than ten marine reserves and design the system in ways that are compatible with the needs of ocean users and coastal communities. These marine reserves, individually or collectively, are to be large enough to allow scientific evaluation of ecological effects, but small enough to avoid significant adverse social and economic impacts on ocean users and coastal communities.
4. Use the marine reserves as **reference areas** for conducting ongoing research and monitoring of reserve condition, effectiveness, and the effects of natural and human-induced stressors. Use the research and monitoring information in support of nearshore resource management and **adaptive management** of marine reserves.
5. Although marine reserves are intended to provide lasting protection, individual sites may, through adaptive management and public process, later be altered, moved, or removed from the system, based on monitoring and reevaluation at least every five years.

### Marine Reserve Planning Principles and Guidelines

1. The public, including ocean users, coastal communities and other stakeholders, will be involved in the proposal, selection, regulation, monitoring, compliance and enforcement of marine reserves.
2. Outreach and public engagement will be an ongoing part of the marine reserves planning and implementation process. Available scientific and other information will be made available to the public through outreach and websites.
3. Science and **local knowledge** will be used in the planning process for marine reserves. Such information will also be used to monitor and adaptively manage them into the future.
4. The planning process will encourage coordinated and collaborative marine reserve proposals from communities of place or interest. Communities of place may include coastal counties, cities, and ports; communities of interest may include fishing organizations, fishery/gear groups, governmental and inter-governmental organizations, and non-governmental organizations. Priority consideration will be given to proposals developed by groups comprised of coastal community members, ocean users and other interested parties.
5. The design and siting of marine reserves will take into account the existing regulatory regimes (e.g., fisheries management, **ocean shore** management, watershed management, land use planning, and water quality regulations) along with existing and emerging uses such as buried cables, ocean outfalls, wave energy, and proximity to ports.
6. Size and spacing guidelines developed by the Science and Technical Advisory Committee (STAC) will be used to help understand potential ecological benefits of marine reserve site proposals, rather than dictate minimums or maximums needed. The potential for adverse social and economic impacts will also be a key factor on the size and spacing of reserves recommended by OPAC for further evaluation.

### Preliminary Marine Reserve Implementation Principles and Guidelines<sup>5</sup>

1. Marine reserves as a system and each individual marine reserve will have a plan that includes clearly defined objectives, monitoring protocols, compliance and enforcement provisions,

## Oregon Marine Reserve Policy Recommendations

effective management measures, and a commitment of long-term funding necessary to achieve its goals.

2. Marine reserves will be adequately enforced.
3. Marine reserves will be adequately monitored and evaluated in support of adaptive management. Cooperative and collaborative research will be encouraged as well as utilization of fishing vessels as research platforms. These activities will be compatible with the goal of conserving marine habitats and biodiversity.
4. Education and economic development opportunities that are compatible with the goal of conserving marine habitats and biodiversity will be encouraged.
5. Marine reserves are not intended to prevent marine transit, safe harbor, and beach access.
6. Significant adverse social and economic impacts of marine reserves on ocean users and coastal communities will be avoided and positive social and economic effects will be sought.
7. Adequate baseline data will be collected at each site prior to excluding extractive activities. The types and adequacy of baseline data, and the timing and methods of data collection will be driven by the research and monitoring objectives and sampling designs employed at each site.

### NOTES

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<sup>1</sup> This includes areas essential to marine organism life histories and behaviors. Examples include areas important for marine species reproduction, including nurseries, spawning areas, egg production sources, recruit aggregation areas, larval dispersal routes, and adult as well as juvenile movement between depths.

<sup>2</sup> Habitat types based on depth and bottom structure may serve as surrogates for organism community types.

<sup>3</sup> Examples of special natural features may include geological formations (such as canyons or pinnacles), seafloor vents, dominant oceanographic fronts, major river plumes, ocean current eddies or jets.

<sup>4</sup> An individual reserve can contain more than one habitat type. See definitions section.

Key Types of Marine Habitat for Marine Reserves	
Rocky Intertidal	EHTL-ELTL
<b>Rocky Subtidal with Canopy Forming Kelp</b>	ELTL-25 m greater than 25 m depth
Rocky subtidal (without Canopy Forming Kelp)	ELTL-25 m greater than 25 m depth
<b>Soft Bottom Subtidal</b>	ELTL-25 m greater than 25 meters depth

Note: EHTL-extreme high tide line, ELTL-extreme low tide line. 25 m=14 fathoms or 82 feet.

<sup>5</sup> These implementation guidelines and principles will evolve as the process gets closer to implementation.

## DEFINITIONS

**Adaptive Management:** a systematic process for continually improving management policies and practices by learning from the outcomes of operational programs (BC Forest Service, 2006).

**Biodiversity:** at its simplest, a term meaning the diversity of life forms and communities that occur in a particular environment. Diversity is a concept that means “variety or multiformity, a condition of being different in character and quality (Patrick, 1983, in Ray, 1988, in OPAC, 1994).” There is no single way to define, measure, or evaluate diversity of life; rather there are at least four interrelated ways:

- *species diversity*, which refers to the variety and abundance of species in an ecosystem;
- *ecological diversity*, which refers to the variety of types of biological communities found on earth;
- *genetic diversity*, which refers to the genetic variation that occurs among members of the same species; and
- *functional diversity*, which refers to the variety of biological processes or functions characteristic of a particular ecosystem(OPAC, 1994).

The United Nations Convention on Biological Diversity defines biological diversity (aka biodiversity) as “the variability among living organisms from all sources, including, ‘inter alia’, terrestrial, marine, and other aquatic ecosystems, and the ecological complexes of which they are part: this includes diversity within species, between species and of ecosystems (UN, 1992).”

**Canopy Forming Kelp:** a sub-set (or ecotype) of hard bottom (rocky) subtidal habitat. Canopy forming kelp grows on many of Oregon’s shallow rocky reefs, typically in waters between 5 and 25 meters (ODFW, 2006). Generally, this term is used to refer to canopy forming kelp species such as *Nereocystis* and *Macrocystis*.

**Conserve:** to manage in a manner which avoids wasteful or destructive uses and provides for future availability (Oregon Statewide Planning Goals and OPAC 1994).

**Disturbance:** extraction of living organisms and non-living materials, or human induced changes to the environment. Prohibited activities will be established with the management plan for each site or through rulemaking.

**Ecologically Significant:** contributing to biodiversity, resilience of the system and its populations and ecological communities.

**Ecosystem:** an ecosystem is a dynamic complex of plant, animal, and microorganism communities and the nonliving environment interacting as a functional unit. Humans are an integral part of ecosystems. Ecosystems vary enormously in size; a temporary pond in a tree hollow and an ocean basin can both be ecosystems (Millennium Assessment, 2005).

**Ecosystem-Based Approach:** ecosystem-based management is an integrated approach to management that considers the entire ecosystem, including humans. The goal of ecosystem-based management is to maintain an ecosystem in a healthy, productive and resilient condition so that it can provide the services humans want and need. Ecosystem-based management differs from approaches that focus on a single species, sector, activity or concern; it considers the cumulative impacts of different sectors. Specifically, ecosystem-based management:

- emphasizes the protection of ecosystem structure, functioning, and key processes;
- is place-based in focusing on a specific ecosystem and the range of activities affecting it;

## Oregon Marine Reserve Policy Recommendations

- explicitly accounts for the interconnectedness within systems, recognizing the importance of interactions between many target species or key services and other non-target species;
- acknowledges interconnectedness among systems, such as between air, land and sea; and
- integrates ecological, social, economic, and institutional perspectives, recognizing their strong interdependences (McLeod et. al., 2005).

**Framework:** a broad overview or outline composed of ideas or principles that are used to plan or decide something, within which details can be added in the future.

**Goal:** a clear, concise statement of the intended result or outcome toward which effort is directed; it is what you hope to accomplish or achieve over time. Goals are made operational through more specific objectives or tasks.

**Habitat:** the environment in which an organism, species, or community lives (OPAC, 1994).

### Key Types of Marine Habitat:

- Rocky intertidal (EHTL-ELTL)
- Rocky subtidal
  - With canopy forming kelp (ELTL-25 m and greater than 25 m depth)
  - Without canopy forming kelp (ELTL-25 m and greater than 25 m depth)
- Soft bottom subtidal
  - ELTL-25 meters
  - Greater than 25 m depth

EHTL-extreme high tide line, ELTL-extreme low tide line. 25 m=14 fathoms or 82 feet. See the individual habitat types for definitions.

### Local Knowledge:

- *Traditional ecological knowledge* is the knowledge of a localized place that is passed down through time through social and cultural practices (Wedell, 2005).
- *Local fisheries knowledge* is a particular type of local knowledge acquired through experiences and observations made during fishing and related activities. It may include knowledge of: local distribution of fishes and habitats, unique underwater structures, geological features, ecological interactions, local fishing businesses, social dynamics of fishing, fishing communities' territories of use, local economics and networks of regional economies of which communities are a part, and local fishing culture (adapted from Hall-Arber et. al., 2002).
- *Local fisheries knowledge:* "Knowledge about commercial, subsistence, and recreational marine fishing/harvest, including the **marine environment** and species; fishing culture and society; fishing technology and practices; and business and economic aspects of fishing (NMFS, 2004)."
- *Local ecological knowledge:* local knowledge acquired through experiences and observations collected through activities such as bird watching, beach walking, tidepooling, charter boat fishing, whale watching, diving, surfing, and kayaking.

**Marine Environment:** those areas of coastal and ocean waters, the Great Lakes and their connecting waters, and submerged lands thereunder, over which the United States exercises jurisdiction, consistent with international law (Executive Order 13158, May 26, 2000).

**Marine Protected Area (MPA):** any area of the marine environment that has been reserved by Federal, State, territorial, tribal, or local laws or regulations to provide lasting protection

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for part or all of the natural and cultural resources therein (Executive Order 13158, May 26, 2000).

**Marine Reserve:** 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.

**Nearshore:** the area from the coastal high tide line offshore to the 30-fathom (180 feet or 55 meter) depth contour. However, this does not always stay within the state boundary of 3 miles. For the purposes of the planning process, marine reserves will be within the boundaries of Oregon's Territorial Sea as well as some rocky intertidal areas.

**Objective:** an action statement designed to help move toward the goal.

**Ocean Shore Recreation Area:** "Ocean shore" means the land lying between extreme low tide of the Pacific Ocean and the statutory vegetation line as described by ORS 390.770 or the line of established upland shore vegetation, whichever is farther inland. "Ocean shore" does not include an estuary as defined in ORS 196.800. "State recreation area" means a land or water area, or combination thereof, under the jurisdiction of the State Parks and Recreation Department used by the public for recreational purposes.

**Oregon Territorial Sea:** the waters and seabed between the coastal baseline of Mean Lower Low Water seaward to the three nautical mile (3.45 statute miles) limit of state jurisdiction (OPAC, 1994; Christie and Hildreth, 1999; ORS 196.405). The inner boundary that separates the territorial sea from internal waters is called the "baseline" and baselines are drawn across river mouths, along outer points of complex coastlines and offshore islands (Frohnmayr, 1986; Christie and Hildreth, 1999; Kalo et. al., 1999).

**Protect:** save or shield from loss, destruction, or injury or for future intended use (Oregon Statewide Planning Goals and OPAC, 1994).

**Reference Area:** an area that provides a baseline to compare with non-reserve areas, specifically to evaluate changes in habitat, species abundance, and species composition due to natural changes, fishing and other human effects.

**Resilience:** the amount of natural or manmade disturbance an ecosystem can absorb while retaining the same function, structure, and feedbacks (Walker and Salt, 2006).

**Rocky Intertidal:** hard substrates that fall between the extreme low tide and extreme high tide along the coastline that are alternately exposed and covered by tides (Fox et. al., 1994, ODFW, 2007). Oregon's coastline has approximately 82 linear miles (21%) of rocky intertidal habitat (ODFW, 2006).

**Rocky Subtidal:** (aka hard subtidal) habitat includes all hard substrate areas of the ocean bottom that are never exposed at low tides. They often are referred to as reefs, rocky reefs, rocky banks, pinnacles or hard bottom. Rocky subtidal habitats can exist anywhere in the subtidal region from just beyond the limit of the area exposed by tides (intertidal) out to the westward boundary of the Territorial Sea. Some rocky subtidal areas are extensions of rocky shoreline features such as headlands, cliffs or rocky intertidal, while others exist as isolated regions of rock surrounded by sandy substrate habitat. Some of these habitat areas are contained entirely within the Territorial Sea, while others extend westward into deeper water habitat. Rocky reefs may have relatively low topography barely raised above the surrounding seafloor, or may rise from the seafloor many meters, often with exposed rocks, seastacks or small islands (ODFW, 2006).

**Social and economic (socioeconomic) impact:** Scope and content to be determined.

**Soft Bottom Subtidal:** soft bottom subtidal habitat is defined as extending from the lowest reaches of the intertidal west to the outer extent of the Territorial Sea. Subtidal soft bottom

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habitats are diverse, as a result of distinct organism assemblages that are influenced by differences in substrate type (sand vs. mud), organic content and bottom depth. The Oregon coast primarily is an exposed, high energy environment, so most soft bottom subtidal areas are sandy. Mud can be a more pronounced bottom type in areas receiving less energy from water movement (e.g., isolated and sheltered embayments) and in deeper waters toward the outer edge of the Territorial Sea (ODFW, 2006).

**Species:** one of the basic units of biological classification and a taxonomic rank. A species is often defined as a group of organisms capable of interbreeding and producing fertile offspring. While in many cases this definition is adequate, a more precise or differing measures are often used, such as based on similarity of DNA or morphology. Presence of specific locally adapted traits may further subdivide species into subspecies.

**System:** a collection of individual sites that are representative of marine habitats and that are ecologically significant when taken as a whole.

**Topographical Relief:** the three-dimensional complexity of the seafloor. In general, soft-bottom (mud and sand) seafloors have the least topographical relief, followed increasingly by pebbles, cobbles, boulders, rock ridges, and rock pinnacles. At larger spatial scales, submarine canyons and seamounts have high topographical relief.

**User:** an individual, group or entity that makes use of the territorial sea and adjacent rocky intertidal, whether it is for traditional, recreational, educational, commercial or other purposes.

## Oregon Marine Reserve Policy Recommendations

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## **Appendix D**

### **Minority Report on Adopted Motions 1, 2, 6, and 8**

We, (Paul Engelmeyer, Robin Hartmann, and Fred Sickler) feel that it is critical that OPAC acknowledge that within this public process that has spanned almost eight years and two full Council memberships, **20 proposals were submitted by the public nominating sites for a marine reserve designation in the future.** And from all 20 proposals there have been **nine discrete ecologically important areas identified.** We believe that these discrete areas when taken together meet one component of the Executive Order No. 08-06 and that while some site proposals have had extensive outreach and vetting other sites have opened a dialogue with key ocean fishing sectors – all sites need further evaluation and analysis. Clearly, any evaluation and/or discussions concerning potential economic impacts and/or economic benefits need significant analysis. To the best of our knowledge no one from OPAC has seen a report from the Scientific Technical Advisory Committee’s (STAC) ‘economic workshop’ which we expect will give significant insights pertaining to this discussion.

While the OPAC process has recommended six sites for further evaluation and analysis two of which are designated as pilot projects, we believe the nine areas identified by the public would in fact fulfill the Executive Order direction. If the State of Oregon is going to be successful with a scientific evaluation of ecological benefits of a system of ecologically significant areas we urge the use of the STAC’s Size and Spacing document to identify the potential sites. We also believe that there should have been clear timeline with benchmarks with clearly defined outcomes established for the direction to do ‘further evaluation and analysis.’ So, while some may believe this effort to be a good compromise (as was stated in the letter to the Governor) we believe the final recommendations to be reflective of toward short term economic thinking as opposed to a long-term ecosystem-based management approach that would sustain our marine resources well into the future. Finally, the minority voters also urge the Marine Cabinet to embrace the precautionary approach and the use of best available science when making management decisions for Oregon’s Territorial Sea.

**1. Motion by Terry Thompson. Otter Rock and Redfish Rocks Pilot Sites. “To move the pilot projects of Redfish Rocks and the small marine protected area, and the Otter Rock Site forward on the list to the Governor.” The motion did not receive consensus support. OPAC voted to approve the motion, 9 in favor, 3 opposed (Paul Engelmeyer, Robin Hartmann, Fred Sickler), 1 abstaining (John Griffith).**

Redfish Rocks, and its associated MPA, are supported by the minority, (Engelmeyer, Hartmann, and Sickler), and if voted on separately would likely have received unanimous approval. The larger stewardship area associated with this proposal also appears to be of value ecologically and of importance to the local community action team, which had an open process with diverse stakeholders involved in decision-making.

On the other hand, Otter Rock is too small and would not serve to protect key habitat areas including large kelp forests and rocky reefs found in adjacent waters to the north. It’s size may put it at risk of failure of achieving adequate protection and, thus, failing as a pilot project and for improving public support of future reserves.

OPAC’s Scientific and Technical Committee (STAC) recommended in the Size and Spacing of Marine Reserves Workshop Report a “minimum size guideline of 5-10km alongshore distance”

and “preferably 10-20km.” The Otter Rock site has a length of coastline of 3.5km. Moreover, the Otter Rock site extends 1.2km offshore and has a very limited depth range, providing no protected corridor to deep offshore waters, whereas the STAC stated that, “habitat protection should extend from the intertidal zone to deep waters offshore.” There were other sites (#1, 9, 2, and 12) proposed for this area, which would improve ecological protection if designated. At a minimum these proposals should be used to help expand the Otter Rock proposal to improve its chance of success.

**2. Motion by Terry Thompson. Dropping sites from consideration. “To move to a vote the proposal to drop the seven low-ranked proposals by the state agencies which are: Mack Reef II, Cape Arago, Siltcoos, 20 Miracle Miles, Three Arch Rocks I, Three Arch Rocks II, and Tillamook Head.” The original motion did not receive consensus support. OPAC voted to approve this motion, 9 in favor, 3 opposed (Paul Engelmeyer, Robin Hartmann, Fred Sickler), 1 abstaining (Jim Good).**

The minority (Engelmeyer, Hartmann and Sickler) are in agreement that for Oregon to host the best possible marine reserve evaluation process, OPAC should forward nine discrete areas for further evaluation in order to establish a network of reserves and associated MPAs along Oregon’s coast to include all habitats found in state waters.

In particular, the minority is in disagreement with removing the Mack Reef, Siltcoos and Three Arch Rock areas from further evaluation. These three areas, as well as the others, should be reviewed by the agencies and legislature and receive a timeline with concrete benchmarks and outcomes, to ensure stakeholders will have clear guidelines and objectives for negotiating on the boundaries of specific sites. Three Arch Rocks was rated by ODFW as having high ecological significance, and was established by Theodore Roosevelt as a National Wildlife Area. It was supported by the US Fish and Wildlife Service for consideration as a marine reserve. The Siltcoos area is important to the purpose of a system that is “ecologically significant when taken as a whole.” (OPAC 2008, Marine Reserve Policy Guidance Recommendations). The Mack Reef area was also rated as high ecologically by ODFW and including the area received a great amount of local support during the proposal nomination phase (a Mack Reef site proposal lost by a vote of 7/6 during this OPAC meeting). So, while there may controversy over the areas they clearly meet one of the objectives laid out by Gov. Kulongoski -- these sites are clearly ecologically significant, and it must be acknowledged that at this time no economic analysis is available to assist in an evaluation of significant adverse economic impacts

**6. Motion by Frank Warrens. “OPAC recommends that the Cape Foulweather area proposals #1, #9 and #20 be eliminated. OPAC recognizes that modification of the Otter Rock proposal may include some areas incorporated in proposals #1, #9 and #20.” The motion did not receive consensus support. OPAC voted to approve this motion, 9 in favor; 4 opposed (Paul Engelmeyer, John Griffith, Robin Hartmann, Fred Sickler).**

Three of the minority (Engelmeyer, Hartmann and Sickler) believe that Cape Foulweather area be evaluated for further consideration as a marine reserve and/or a marine protected area, in order to fully understand the range of ecological benefits and social or economic impacts of

modifying the Otter Rock proposal to include a larger depth range and to be within the minimum size guidelines recommended by the STAC. Otter Rock is too small, on its own, to have a likelihood of showing success, ecologically and, thus, would be a poor example as a pilot project.

**8. Motion by John Griffith. “OPAC recommends that the Seven Devils proposal, proposal #18, be dropped from further consideration.” The motion did not receive consensus support. OPAC voted to approve this motion, 9 in favor; 4 opposed (Paul Engelmeyer, Jim Good, Robin Hartmann, Fred Sickler).**

The minority (Good, Engelmeyer, Hartmann and Sickler) agree that the 7 Devils proposal, at a minimum, should be considered as a starting point for further evaluation. A group of citizens, including prominent marine scientists from the community, developed this proposal which is considerably smaller than the Our Ocean proposal. The 7 Devils proposal includes a good mix of habitats -- kelp beds and rocky reefs. Cape Arago area was rated high ecologically by ODFW, and it is critical that a marine reserve area and associated MPA be sited in this area to provide a network link from Cape Perpetua to the north and Redfish Rocks to the south.