Oregon Coast National Marine Sanctuary Proposal: Status Report

Oregon Ocean Policy Advisory Council

December 15, 2006

Oregon Coast National Marine Sanctuary Proposal: Status Report

Executive Summary

In December 2005, Governor Kulongoski requested that the Oregon Ocean Policy Advisory Council (OPAC) provide him with advice in developing a proposal for establishing a National Marine Sanctuary (NMS) along the Oregon coast. This status report, requested by the Governor's Natural Resources Office, addresses two of the primary issues that have emerged in OPAC's research on the sanctuary proposal: the potential effects on ***fisheries management*** policy and processes, and the potential for establishing sanctuary ***governance arrangements*** favorable to the state, local governments, and ocean stakeholders. After reviewing this status report, the Governor is expected to suggest next steps for OPAC's analysis of the national marine sanctuary proposal.

Background: In his letter to OPAC asking for assistance in evaluating his proposal for a coast-wide national marine sanctuary, the Governor noted the difficult challenges facing marine resource users and managers, and emphasized the need for more integrated ocean policy and ecosystem-based management offshore. In making his proposal, he suggested a number of potential benefits of a marine sanctuary for Oregon: greater state policy influence over ocean activities under federal control; increased protection of marine resources from harmful activities such as oil and gas development; improved management under one coordinated, ecosystem-scale plan; increased research and development of an improved information base for management; and economic opportunities associated with the national and international attention a sanctuary would generate, and the direct federal dollars from sanctuary operations, salaries, and research.

The Governor asked OPAC to focus this report on two issues that were outlined in a September 29, 2006 memo from the Governor's Natural Resources Office:

(1) What have you learned about fisheries management in national marine sanctuaries? Based on what you have learned, what are the challenges Oregon would face in keeping fisheries management separate from sanctuary management?

(2) What governance structures exist between federal and state governments within national marine sanctuaries across the country? What is the feasibility of assuring that state and local governments will have a strong voice in sanctuary management?

Fisheries Management: When making his proposal for an Oregon sanctuary, the Governor emphasized that fisheries management would continue to be the responsibility of the Pacific Fishery Management Council (PFMC) and the Oregon Fish and Wildlife Commission. Even if this does turn out to be the ultimate arrangement, these agencies would still have to respect the principal purpose of sanctuaries, namely resource protection. Fisheries management could not be conducted in a manner inconsistent with this purpose. This could lead to further restrictions on commercial and recreational fishing, albeit imposed by PFMC, National Marine Fisheries Service (NMFS), and the Oregon Department of Fish and Wildlife (ODFW), not the sanctuary,

per se. Not coincidently, Oregon fishing industry and coastal community opposition to the sanctuary proposal, expressed in oral and written testimony at every OPAC meeting, is based mostly on the specter of this additional regulatory burden. It is also conceivable, even probable, given recent initiatives in the Channel Islands and Florida Keys sanctuaries, that marine reserves could be pursued in federal waters of an Oregon sanctuary. Provisions for state, local, and stakeholder involvement in such a process would need to be included in a sanctuary designation document.

Preliminary Finding: Many existing sanctuaries directly or indirectly get involved with management of commercial and/or recreational fisheries, mainly through gear, take, and bottom-contact restrictions, or through temporary or permanent closures to protect marine habitat, ecosystems, or living sanctuary resources.

Governance Arrangements: In theory, many of the issues and concerns OPAC has about a sanctuary in Oregon waters could be addressed in the development of a sanctuary designation document and, subsequently, a management plan. For example, Oregon could insist on a strong co-management arrangement whereby the state had joint decision-making authority for sanctuary regulations in all sanctuary waters, rather than just state waters. Oregon could also insist on a larger, more influential role for local governments and other stakeholders. However, given that the great majority (~95 percent) of the proposed sanctuary is federal waters, both of these provisions might be difficult to achieve.

The complexity and workability of governance arrangements is highly dependent on sanctuary size and scale. In general, the larger the sanctuary, the greater is the potential for conflicts among federal authorities (NMSA and MSA being a case in point), between state and federal authorities, and between government and the diversity of ocean users and other interests. Based on what OPAC has learned to date, establishing governance arrangements favorable to state, local, ocean users, and conservation interests in Oregon would be especially challenging for the large-area sanctuary now proposed. Further, none of these issues could be resolved except through the approval of a designation document, a process that generally takes 1-3 years (NAPA 2006). Thus, at this point, OPAC knows no way to assure that the state or local governments would have a strong voice in sanctuary management.

Preliminary Findings: Governance arrangements for existing sanctuaries have important similarities and differences. State governments, particularly when a sanctuary includes state waters, usually play important roles in sanctuary management. These are spelled out during the sanctuary designation process and the subsequent development of a management plan. On the other hand, local governments and stakeholders generally have a lesser voice in sanctuary management, generally through a NMSA-mandated Sanctuary Advisory Council (SAC) and through a variety of issue-based working groups. The size and scale of a sanctuary also has significant implications for governance arrangements. Very large sanctuaries, similar to that proposed for Oregon, are understandably more complex than smaller ones and require the harmonizing of diverse interests, jurisdictions, and authorities of many ocean users, coastal communities, and federal, state, local, and tribal agencies.

Oregon Coast National Marine Sanctuary Proposal: Status Report

Purpose

In December 2005, Governor Kulongoski requested that the Oregon Ocean Policy Advisory Council (OPAC) provide him with advice in developing a proposal for establishing a National Marine Sanctuary (NMS) along the Oregon coast. This status report, requested by the Governor's Natural Resources Office, addresses two of the primary issues that have emerged in OPAC's research on the sanctuary proposal: the potential effects on *fisheries management* policy and processes, and the potential for establishing sanctuary *governance arrangements* favorable to the state, local governments, and ocean stakeholders. After reviewing this status report, the Governor is expected to suggest next steps for OPAC's analysis of the national marine sanctuary proposal.

Background

In his letter to OPAC asking for assistance in evaluating his proposal for a coast-wide national marine sanctuary, the Governor noted the difficult challenges facing marine resource users and managers, and emphasized the need for more integrated ocean policy and ecosystem-based management offshore. His sanctuary proposal, he said, was influenced by the findings and recommendations of the US Commission on Ocean Policy's report, *An Ocean Blueprint for the 21st Century* (USCOP 2004). That report documented many threats to marine environments and marine-dependent communities throughout the United States, including over-development of coasts, habitat loss, pollution, depleted fisheries, and climate change. The USCOP report also included more than 100 recommendations, including the establishment of a regional, ecosystem-based approach to ocean management. This and other recommendations are central to the Governor's sanctuary proposal.

In making his proposal, Governor Kulongoski suggested a number of potential benefits of a marine sanctuary for Oregon: greater state policy influence over ocean activities under federal control; increased protection of marine resources from harmful activities such as oil and gas development; improved management under one coordinated, ecosystem-scale plan; increased research and development of an improved information base for management; and economic opportunities associated with the national and international attention a sanctuary would generate, and the direct federal dollars from sanctuary operations, salaries, and research. The Governor also stated that "commercial and recreational fishing would continue within the sanctuary and will be regulated by the Pacific Fishery Management Council (PFMC) and the Oregon Fish and Wildlife Commission based on the management plan for the sanctuary" (Kulongoski 2005).

The proposed sanctuary would include approximately 21,000 square miles of state and federal waters and submerged lands of the continental shelf, slope, and rise, extending to the edge of the continental margin and from Washington State to California (Figure 1). This area corresponds to the *Oregon Ocean Stewardship Area*, the area over which Oregon has asserted its interest in

effective marine resource management and stewardship for more than a decade (*Oregon Ocean Plan* 1991; *Oregon Goal 19: Ocean Resources* 2000 amendment). At present, roughly 5 percent of this area is principally under state control (the Territorial Sea); the remainder is under federal control.

Figure 1. Proposed Oregon Coast National Marine Sanctuary (image courtesy of DLCD).

What is a National Marine Sanctuary?

A National Marine Sanctuary (NMS) is a type of marine protected area[1] (MPA). Sanctuaries are managed to protect and conserve their natural and cultural features and to allow multiple uses that are compatible with resource protection. Under the National Marine Sanctuary Act (NMSA), a sanctuary is "an area of the marine or Great Lakes environment of special national significance that has been designated as a sanctuary and is managed by NOAA[2]." The NMSA describes the purposes and polices of sanctuaries, outlines procedures for their designation, and provides funding authorization for appropriations. In addition to their primary purpose—resource protection—sanctuaries protect historically significant shipwrecks and artifacts, serve as natural classrooms and laboratories for school children and researchers, promote understanding and stewardship of our oceans, support commercial fishing, and provide valued recreational spots for sport fishing, diving, and other tourism activities.

There are currently 13 national marine sanctuaries designated under the NMSA, varying in size from 0.25 square miles in American Samoa's Fagatele Bay to 5,328 square miles in California's Monterey Bay (Figure 2). Specific purposes and goals are defined for each sanctuary during its designation process. For example, the Monitor NMS off North Carolina was created solely to protect the final resting ground of the Civil War ironclad warship, the U.S.S. *Monitor*, while the Flower Gardens NMS, off of the coast of Texas in the Gulf of Mexico, is intended to protect a unique coral reef habitat. A fourteenth "sanctuary"—the Northwestern Hawaiian Islands Marine National Monument—was designated in 2006 under the Antiquities Act and is managed jointly by NOAA and the US Fish and Wildlife Service.

---

[1] A MPA is broadly defined in Presidential Executive Order 13158 (Clinton 2000) as "any area of the marine environment that has been reserved by Federal, State, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein."
[2] National Oceanic and Atmospheric Administration

The NMS program has been chronically under-funded such that it barely has adequate funds to maintain the existing network of 13 NMSs, let alone expand the system (NOAA-NMSP 2004; NAPA 2006). As a consequence, the 2000 Congressional reauthorization of the NMSA included a moratorium on the designation of new sanctuaries, the lifting of which would be contingent on several factors:

- A study published by the Secretary of Commerce stating that the "addition of a new sanctuary will not have a negative impact on the [existing] system";
- Sufficient funding for an inventory of new sanctuary resources; and
- Funding in the Commerce Department for site characterization studies of all sanctuaries within ten years.

Sanctuaries may be designated by the Secretary of Commerce, by the Congress directly, or the Congress may direct the Secretary to designate a sanctuary. Given the current moratorium and funding situation, it appears that direct Congressional action would be necessary, should the Governor decide to seek sanctuary designation in the near term. The NMSA is currently up for Congressional reauthorization.

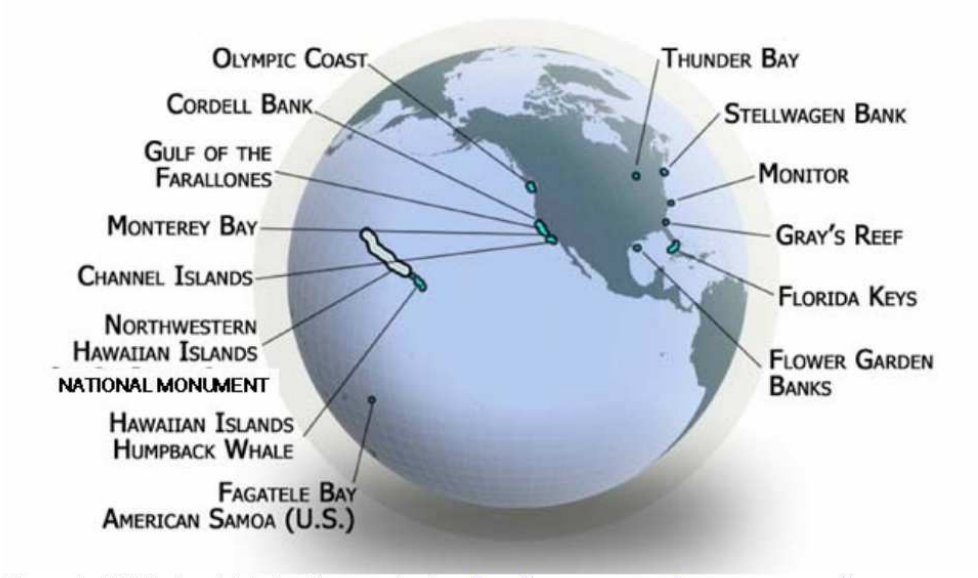

Figure 2. US National Marine Sanctuaries (see http://www.sanctuaries.nos.noaa.gov/).

Governor's Initial Charge to OPAC

The Governor asked OPAC for assistance on three matters regarding a potential Oregon sanctuary: *first*, to provide information to, and gather input from, local and tribal governments, the fishing industry, other ocean users, and the public; *second,* to assess whether the Ocean

Stewardship Area is an appropriate area for a sanctuary and if not, what area might be appropriate; and *third*, to identify issues or concerns that should be addressed in the designation process or future management.

In providing this assistance, the Governor also asked OPAC to consider three additional requirements for a sanctuary. *First*, a sanctuary must be scaled to be consistent with marine ecosystem processes and dynamics. *Second*, all stakeholders must be involved in designating and managing a sanctuary. *Finally*, the best available science and local user knowledge must be used in sanctuary designation and subsequent management. Initially, the Governor asked OPAC to report its findings by July 1, 2006, and later revised the due date to December 31, 2006, to accommodate the public workshops OPAC was planning.

OPAC Progress

In January 2006, OPAC established a NMS Outreach Committee to develop a work plan for seeking public input on a proposed sanctuary. That group later became OPAC's NMS Working Group, charged with developing and carrying out the public process and developing a draft report to the Governor for OPAC consideration. Initially, public workshops were planned for spring 2006. However, funds to carry out the process were not provided until July 2006, when a contract was issued for facilitation assistance at outreach workshops.

Another contract was issued to Oregon State University to develop a background report on the sanctuary proposal (Connor and others 2006). Other informative input was provided at regular OPAC meetings during public comment periods. In January 2006, OPAC heard from and questioned a member of a fishing group that has had extensive interactions with the NMS in Monterey Bay; in March 2006, OPAC had presentations from and questioned staff from the National Marine Sanctuary Program.

On August 24, 2006, OPAC members participated in a "dry run" of the public process designed by the NMS Working Group. At its regular meeting the following day, OPAC decided that revisions were needed in the public process and asked the NMS Working Group to prepare a revised process for OPAC approval at its October 10, 2006, meeting. Considering the delay in conducting a public input process that had been scheduled to start in October, OPAC also relayed a request to the Governor for an extension through March 31, 2007, for a final report.

Why this Status Report?

Responding to OPAC's request for a second extension to March 31, 2007 to allow time for the public workshops designed to draw extensive, diverse public input on the NMS proposal, the Governor asked OPAC for a formal *status report*, based on what OPAC has learned thus far from its research, from presentations and public testimony at regular OPAC meetings. The Governor asked OPAC to focus this report on two issues that seem to be of central concern: ***fisheries*** and ***governance***. Specific questions the Governor wants addressed were outlined in a September 29, 2006 memo from the Governor's Natural Resources Office:

1. What have you learned about fisheries management in national marine sanctuaries? Based on what you have learned, what are the challenges Oregon would face in keeping fisheries management separate from sanctuary management?

2. What governance structures exist between federal and state governments within national marine sanctuaries across the country? What is the feasibility of assuring that state and local governments will have a strong voice in sanctuary management?

After reviewing OPAC's report on these questions, the Governor will suggest next steps for OPAC's analysis of the national marine sanctuary proposal. This report addresses the above questions based on what we have learned to date.

Although not discussed here in depth, a number of other issues and questions have been identified that we believe need further investigation before considering a sanctuary designation request. Two of these are particularly important.

> *First*, what is the potential for additional regulation of already existing or potential ocean uses? Examples include dredging and dredged material disposal, communication cable routing and landing, wave energy facility siting and operation, and marine aquaculture siting and operation. Answers about potential regulation of these activities within sanctuary boundaries could have significant implications for Oregon, especially for nearshore waters.
>
> *Second*, what are the ecological, social, economic, and state-level administrative costs and benefits of the proposed sanctuary, and how are they distributed? Who wins and who loses, and to what extent? Our preliminary research indicates that costs and benefits are not well documented for existing sanctuaries and will be difficult to estimate and compare, especially in advance.

This draft report draws mainly on research conducted by the OPAC NMS Working Group and by the OSU research team that prepared a background report on sanctuary issues. Other findings are based on the personal experience of OPAC members, public comments presented at regular OPAC meetings, and special presentations by NMS staff and one California fishing industry representative. No formal outreach meetings have been held to collect public input.

Formal Public Outreach on the Sanctuary Proposal Still Needed

If the Governor moves ahead with a proposal for a NMS, OPAC is committed to reach out to a broad array of ocean users, local governments and ports, tribes, coastal residents, and other Oregonians. As explained earlier, there have been several delays in conducting this public process so public input has been limited to public testimony during formal OPAC meetings. Nevertheless, before issuing a *final report* on the national marine sanctuary proposal, OPAC believes it has a responsibility to these stakeholders to fully explain the sanctuary proposal, identify their issues and concerns, and incorporate their feedback and advice into our report.

Fisheries Management

Two questions related to fisheries management were posed in the Governor's request for a status report. *First*, what has OPAC learned about fisheries management in national marine sanctuaries? *Second*, based on what OPAC has learned, what are the challenges Oregon would face in keeping fisheries management separate from sanctuary management? These questions are addressed below.

Preliminary Findings

Many existing sanctuaries directly or indirectly get involved with management of commercial and/or recreational fisheries, mainly through gear, take, and bottom-contact restrictions, or through temporary or permanent closures to protect marine habitat, ecosystems, or living sanctuary resources.

Experience in other sanctuaries suggests that an Oregon sanctuary would likely become involved directly or indirectly in fisheries management, given the overarching mandate of the Sanctuaries Act for resource protection. For example, sanctuary regulations expressly allow bottom trawling in just three West Coast sanctuaries—Olympic Coast, Gulf of Farallones, and Cordell Bank. The PFMC, however, has designated portions of all five West Coast sanctuaries as essential fish habitat (EFH) under the Magnuson-Stevens Fishery Conservation and Management Act (MSA). Such areas are off limits to bottom trawling. Five other sanctuaries prohibit bottom trawling, and four restrict it to certain areas (Table 1). Other sanctuaries get involved in fisheries management indirectly through other actions, such as the designation of no-take marine reserves within sanctuary boundaries.

The Channel Islands NMS (Figure 3), for example, is proposing changes in its designation document that would give it authority to regulate fisheries in recently-designated no-take marine reserves, marine parks, and marine conservation areas within its boundaries. Although supportive of the CINMS goals and objectives and the proposed MPAs, the PFMC has repeatedly expressed its strong opinion to National Marine Fisheries Service and the Secretary of Commerce that the regulation of fishing in the NMS is best implemented under the existing authorities of the MSA (McIsaac 2006). This disagreement is an example of the kinds of problems that arise due to the separate and conflicting authorities and mandates of the two federal laws: the NMSA and the MSA. It should be noted, however, that while NOAA has developed an elaborate process for resolving disputes such as those currently ongoing between the PFMC and CINMS, that the resolution is ultimately determined by the Secretary of Commerce after input by the relevant sanctuary manager and their Sanctuary Advisory Committee (NOAA 2005). In the case of the proposed CINMS designation document change to allow them fisheries management authority, this process has been underway since June 2006.

Table 1. US National Marine Sanctuary jurisdictions, regulated activities, and general prohibitions, as addressed in designation documents (compiled by NMS Working Group).

MARINE SANCTUARY	SANCTUARY JURISDICTIONS	SPECIFIC REGULATIONS									GENERAL REGULATIONS/PROHIBITIONS[3]		
	Federal//State Waters	Fishing	Oil/Gas	Marine Aquaculture	Dredging	Drilling	Maritime Passage	Fiber Optic Cables	Wave Energy Generation	Alternative Energy Generation	Depositing any Material or Matter	Constructing, abandoning or placing any structure on lake/ocean bottom	Damaging, taking or removing any bottom formation
Hawaiian Islands Humpback Whale	FS	-	-	-	Y	Y	-	Y	-	-	Y	Y	-
Florida Keys	FS	Y	Y	-	Y	Y	-	Y	-	-	Y	Y[4]	Y
Olympic Coast	FS	-	Y	-	Y	Y	-	Y	-	-	Y	Y	-
Gulf of the Farallones	FS	-	Y	-	Y	Y	Y	Y	-	-	Y	Y	-
Fagatele Bay	F	Y	-	-	Y	-	-	Y	-	-	Y	-	Y[5]
Channel Islands	FS	Y	Y	-	Y	Y	Y	Y	-	-	Y	Y	-
Gray's Reef	F	Y	-	-	Y	Y	-	Y	-	-	Y	-	Y
Cordell Bank	F	-	Y	-	-	-	-	Y	-	-	Y	-	Y
Flower Gardens	F	Y	Y	-	Y	Y	-	Y	-	-	Y	-	Y
Monterey Bay	FS	Y	Y	-	Y	Y	-	Y	-	-	Y	Y	-
Stellwagen	F	-	-	-	Y	Y	-	Y	-	-	Y	Y	-
Thunder Bay	S[6]	-	-	-	Y[7]	Y	-	Y	-	-	-	-	Y
Monitor	F	Y[8]	-	-	Y[9]	Y	-	Y	-	-	-	-	-

KEY: S-Only state waters part of sanctuary F-Only federal waters part of sanctuary FS-Both state and federal waters part of sanctuary Y-Activity regulated

[3] In addition to the specific prohibitions contained in general regulations. The National Marine Sanctuary Act makes it unlawful for any person to "destroy, causing the loss of, or injure any sanctuary resource managed under law. 16 USC §1436(1).
[4] Florida Keys NMS regulations prohibit "Drilling into, dredging or otherwise altering the seabed of the Sanctuary . . . or constructing, placing or abandoning any structure, material or other matter on the seabed of the Sanctuary [.]" 15 CFR §922.163(a)(3).
[5] Fagatele NMS regulations prohibit "disturbing the benthic community by dredging, filling . . . or otherwise altering the seabed[.]" 15 CFR §922.102(a)(5). The benthic community is made up of organisms that live in and on the bottom of the ocean floor.
[6] Thunder Bay NMS is only sanctuary entirely within state waters.
[7] Thunder Bay NMS regulations prohibit "Drilling into, dredging or otherwise altering the lake bottom *associated with underwater cultural resources*[.]" 15 CFR §922.193(2). "Underwater cultural resources" includes matter like sunken watercraft & artifacts associated with the watercraft. *See* 15 CFR §922.191(a)(1)-(2).
[8] Monitor NMS regulations prohibit trawling. 15 CFR §922.61(h)
[9] Monitor NMS regulations prohibit "lowering below the surface of the water any . . . wrecking device[.]" 15 CFR §922.61(d)

Figure 3. Channel Islands National Marine Sanctuary (NOAA).

Current indications are that this management authority will be granted to the CINMS. Until such time as the PFMC develops and implements an "ecosystem-based fishery management plan," under which they would manage all species and organisms throughout the water column in addition to existing fishery management plans, regulatory authority for fisheries management will likely be handed to the NMS programs. Because of this controversy, the PFMC has begun dialog for the planning and future implementation of ecosystem-based fishery management plans in order to prevail in its fishery management authority within the NMS system on the West Coast (F. Warrens, PFMC, personal communication, November 19, 2006).

On the other hand, the NMSA and resulting sanctuaries have also been criticized for their limited ability to adequately meet their resource protection mandate, including prohibition of fishing when sanctuary resources or habitat are threatened (Chandler and Gillelan 2005). Critics conclude that the NMSA suffers from structural flaws that make protection difficult, notably the Act's multiple-use provisions. These provisions require exhaustive consultation and can be employed by politically powerful lobby groups to challenge scientifically sound regulations. The recent review of the sanctuary program by the National Academy of Public Administration (NAPA 2006), however, states that it is clear that Congress never intended sanctuaries to be ocean "wilderness" areas.

Challenges and Implications for Fisheries Management

When making his proposal for an Oregon sanctuary, the Governor emphasized that fisheries management would continue to be the responsibility of the PFMC and the Oregon Fish and

Wildlife Commission. Even if this does turn out to be the ultimate arrangement, these agencies would still have to respect the principal purpose of sanctuaries, namely resource protection. Fisheries management could not be conducted in a manner inconsistent with this purpose. This could lead to further restrictions on commercial and recreational fishing, albeit imposed by PFMC, NMFS, and ODFW, not the sanctuary, *per se*. Not coincidently, Oregon fishing industry and coastal community opposition to the sanctuary proposal, expressed in oral and written testimony at every OPAC meeting, is based mostly on the anticipation of this additional regulatory burden. It is also conceivable, even probable, given recent initiatives in the Channel Islands and Florida Keys sanctuaries, that marine reserves could be pursued in federal waters of an Oregon sanctuary. Provisions for state, local, and stakeholder involvement in such a process would need to be included in a sanctuary designation document.

Governance

Questions the Governor posed about governance are these. *First*, what governance structures exist between federal and state governments within national marine sanctuaries across the country? *Second*, what is the feasibility of assuring that state and local governments will have a strong voice in sanctuary management? Some background and answers to these are below.

Background

The term "*governance*" refers to the use of public policies, institutions, and structures of authority, coordination, and collaboration to allocate resources, control uses and activities, and manage society's problems and affairs. *Ocean governance*, then, involves intergovernmental relations and problem-solving across marine jurisdictional boundaries; the management and protection of living resources such as fisheries and marine mammals; the exploitation of nonliving resources like oil and gas; the disposal and management of waste; the placement of objects and structures in the sea; the prevention and clean-up of oil and other spills; and the protection and coordinated management of special areas of the marine environment, such as cultural artifacts, reefs, rocky shores, or even whole ecosystems.

A variety of laws and associated management regimes presently exists to address specific uses and activities in marine environments. However, the separate and sectoral nature of these policies and programs has led to a variety of resource and jurisdictional conflicts over the last several decades (Lester 1996; NRC 1997; Juda 1999; Cicin-Sain and Knecht 2000). Summarizing this situation, Cicin-Sain (2002) noted that "U.S. ocean policy today is less than the sum of its parts, given the many instances of conflicting, overlapping, or duplicative policies, and lack of vision of how the various parts may be harmonized." This in turn has led to proposals for a more integrated, national ocean policy, implemented regionally at ecosystem scales (NRC 1997; POC 2003; USCOP 2004; JOCI 2006).

For the west coast of the United States, the largest ecosystem scale of interest is the highly-productive *California Current Large Marine Ecosystem*, stretching from Washington State south

to California and into Mexico (Bottom et al. 1993). Establishing an Oregon sanctuary encompassing a significant portion of this regional ecosystem—the Oregon Ocean Stewardship Area (Figure 1)—is one of the principal reasons the Governor has given for his proposal.

Preliminary Findings

Governance arrangements for existing sanctuaries have important similarities and differences. State governments, particularly when a sanctuary includes mostly state waters, usually play important roles in sanctuary management. These are spelled out during the sanctuary designation process and the subsequent development of a management plan. On the other hand, local governments and stakeholders generally have a lesser voice in sanctuary management, generally through a NMSA-mandated Sanctuary Advisory Council (SAC) and through a variety of issue-based working groups. The size and scale of a sanctuary also has significant implications for governance arrangements. Very large sanctuaries, similar to that proposed for Oregon, are understandably more complex than smaller ones and require the harmonizing of diverse interests, jurisdictions, and authorities of many ocean users, coastal communities, and federal, state, local, and tribal agencies.

State versus Federal Roles in Sanctuary Management. The roles and authorities of NOAA and States in the management of existing sanctuaries vary. The most important determinant of governance structures and arrangements is whether a sanctuary includes state waters only, federal waters only, or both (Table 1). For example, one sanctuary (Thunder Bay) includes only state waters, so the state plays a strong co-management role with NOAA. Six sanctuaries include state and federal waters, similar to the proposed Oregon sanctuary (Table 1). These have a variety of shared federal-state management, administrative, and decision-making arrangements. Generally, states must approve regulations within state waters; in federal waters, states are consulted, with the goal of achieving consensus, but NOAA's authority is paramount. Sanctuaries comprised only of federal waters are managed principally by NOAA, with state involvement on the SAC, working groups, and other forums, particularly for activities that affect state waters and the coastal zone. Specific examples of power-sharing arrangements for three sanctuaries that may be particularly relevant to the Oregon situation are described below.

Florida Keys National Marine Sanctuary (FKNMS). The FKNMS (Figure 4) operates under a formal Interagency Compact Agreement that officially joins federal, state, and local agencies and institutions to support implementation of the sanctuary's management plan (NOAA-NMSP 1996). Since state lands and waters make up the majority of the FKNMS, the participation of state and local agencies is considered critical to the "continuous management" approach outlined in the plan.

The Compact forms the foundation for interagency and intergovernmental cooperative agreements, protocols, and other less formal interagency work efforts, and reflects the federal/state co-trustee management of the region's resources, reiterating the goals of the *Florida Keys National Marine Sanctuary and Protection Act* designating the sanctuary in 1990. In addition to the co-trustee agreement, cooperative agreements have been executed for submerged

cultural resources, water quality, enforcement, fisheries management, emergency response, Federal/State permit review, and other key issues (NOAA-NMSP 1996).

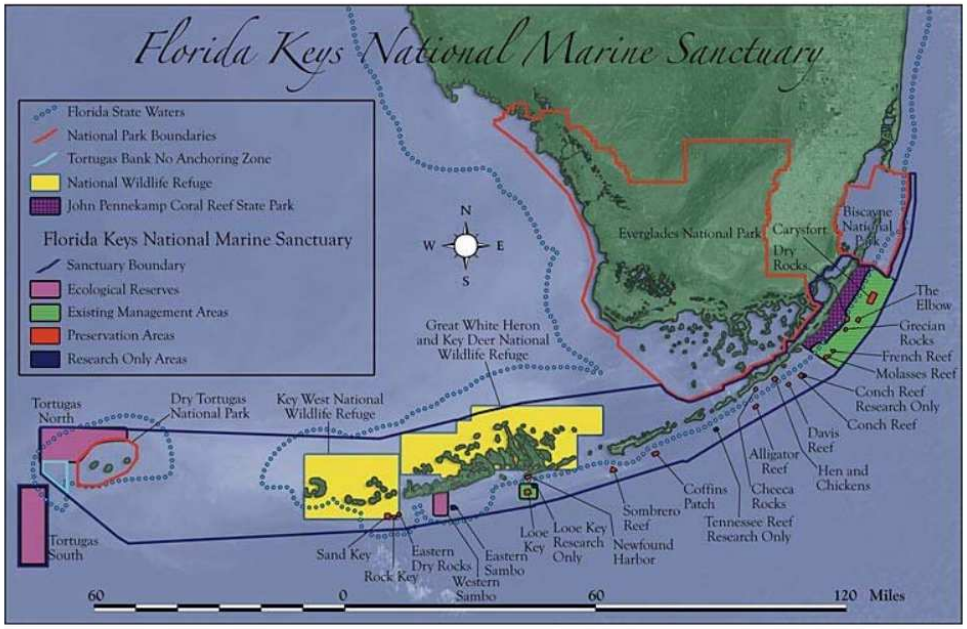

Figure 4. Florida Keys National Marine Sanctuary (NOAA).

The FKNMS' overall management team is comprised of an interagency group and a larger field staff level "Resource Management Team". The management team represents agencies actively involved in some aspect of resource management in the Florida Keys—federal, state, and local. The management team identifies and recommends sanctuary actions, based in part on advice from a Sanctuary Advisory Council (SAC). The SAC also identifies gaps in sanctuary management, serves as liaison to communities regarding the impact of implementation on the public interest, and assists in resolving difficult and controversial issues by providing its expertise and advice in recommendations to the Resource Management Team and Sanctuary staff (NOAA-NMSP 1996).

Hawaiian Islands Humpback Whale National Marine Sanctuary (HIHWNMS). This sanctuary, like the FKNMS, operates under an Interagency Compact Agreement and a Memorandum of Understanding (MOU) that integrates the roles of federal and state agencies with various responsibilities for management in the sanctuary area (NOAA-NMSP 2002). The sanctuary is jointly administered by a federal sanctuary manager, a State of Hawaii co-manager, and other field staff via a cooperative federal-state partnership. Approximately 65% of sanctuary waters fall under state jurisdiction; thus, the sanctuary works closely with state agencies to ensure the coordinated management of sanctuary resources and habitats. In addition, the sanctuary consults

with other federal agencies and the State of Hawaii to review all permit requests for activities that may affect humpback whale habitats (NOAA-NMSP 2002).

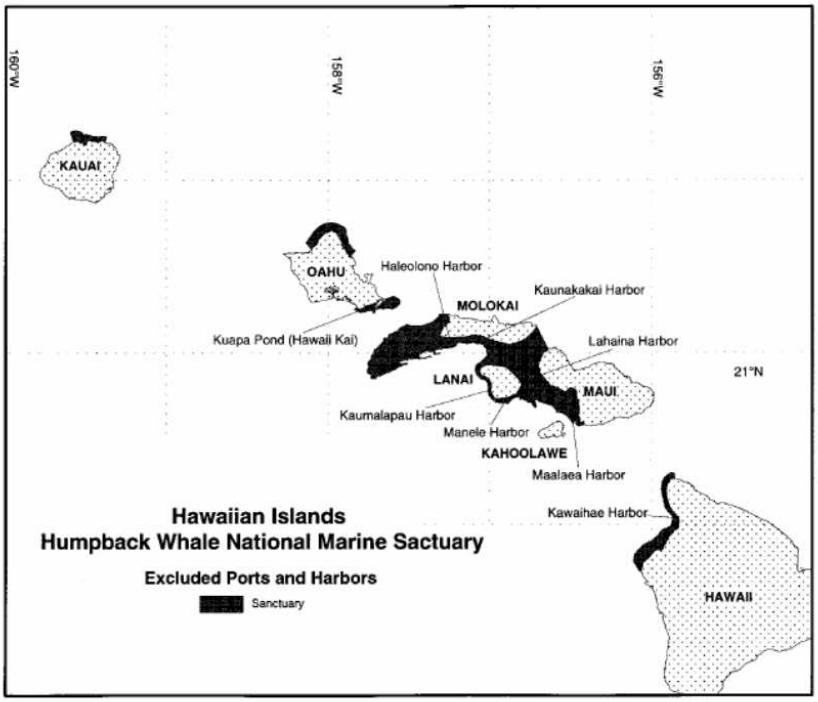

Figure 5. Hawaiian Islands Humpback Whale National Marine Sanctuary (NOAA).

Olympic Coast National Marine Sanctuary (OCNMS). The OCNMS is somewhat more like the proposed Oregon coast sanctuary in terms of its ecology and the fact that the great majority of sanctuary waters are under federal, not state jurisdiction. The Olympic sanctuary is administered by a federal NOAA superintendent and staff, with advice from other federal and state agencies and many different stakeholders, including Indian tribes. State involvement in sanctuary occurs through a series of cooperative agreements with state agencies and through participation in the SAC. Similarly, a number of federal agencies also use cooperative agreements to coordinate with the sanctuary in carrying out their respective responsibilities, including the Department of Defense, which has important operational areas in sanctuary waters.

The following activities are prohibited within Olympic Coast National Marine Sanctuary, as noted in Table 1: exploring for, developing or producing oil, gas or minerals within the Sanctuary; discharging or depositing, from within the boundary of the Sanctuary, any material or other matter; moving, removing or injuring, or attempting to move, remove or injure, a Sanctuary historical resource; drilling into, dredging or otherwise altering the seabed of the Sanctuary; taking any marine mammal, sea turtle or seabird in or above the Sanctuary; flying motorized aircraft at less than 2,000 feet both above the Sanctuary within one nautical mile of various rocky

islands; possessing within the Sanctuary any historical resource, or any marine mammal, sea turtle, or seabird taken in violation of the Marine Mammal Protection Act, the Endangered

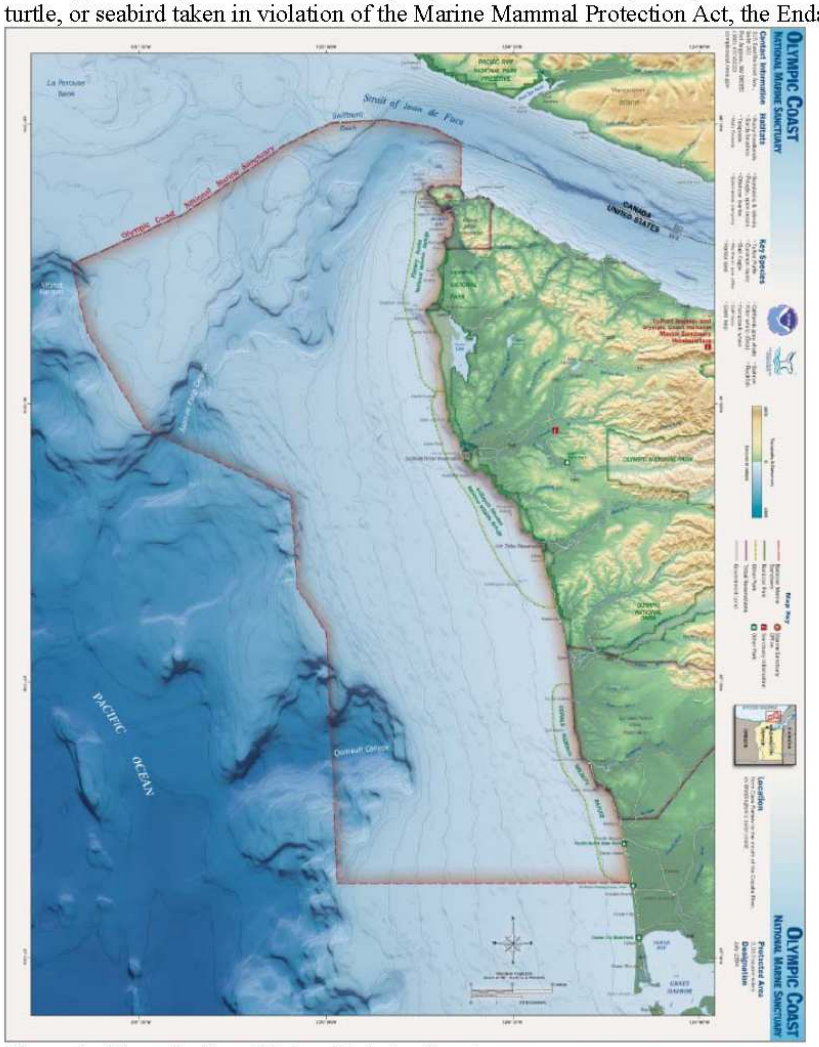

Figure 5. Olympic Coast National Marine Sanctuary.

Species Act, or the Migratory Bird Treaty Act; interfering with, obstructing, delaying or preventing an investigation, search, seizure or disposition of seized property in connection with enforcement of the Act or any regulation or permit issued under the Act; and finally, the Department of Defense is prohibited from conducting bombing activities within the Sanctuary. Other Tribal, State and Federal Agencies regulate specific activities within or adjacent to Olympic Coast National Marine Sanctuary, including commercial fishing, sport fishing, shellfish

gathering, shoreline development, access, parking, backcountry travel and camping. Such regulations are likely similar to those that might be put in place for an Oregon sanctuary.

Local Government and Stakeholder Roles. Local governments, tribes, ocean users, nongovernmental organizations, and other stakeholders have a mandated voice in sanctuary management through a Sanctuary Advisory Council (SAC). SACs provide advice and recommendations to NOAA, through the Sanctuary Manager, regarding resource protection initiatives, research priorities, education and outreach needs, and administration. Their role, while important and influential, is strictly advisory in nature. SAC members have no authority to perform operational or management functions, or to represent or make decisions on behalf of a sanctuary or NOAA, unless specified as part of separately-executed cooperative agreements. Further, SAC members are appointed by, and serve at the pleasure of, the Sanctuary manager. Some on OPAC question whether or not SAC representation is always adequately balanced and reflective of all key interests.

Local governments and stakeholders are also involved in sanctuary management through more issue-focused working groups, an avenue that a recent NMSP review characterized as especially constructive in negotiating agreements about how to best protect sanctuary resources (NAPA 2006). In at least one sanctuary, the Florida Keys, local governments are an important part of the overall sanctuary management team, playing an expanded role as compared to other sanctuaries (NOAA-NMSP 1996).

Regulation of Activities Within Sanctuaries. Non-regulatory approaches to problem solving, including education, are generally the first-choice mechanism for protection resources in national marine sanctuaries. According to NAPA (2006), these efforts have been quite successful, effectively employing voluntary, community-based, bottom-up approaches to resource protection. Nevertheless, given their overarching resource protection mandate, sanctuaries do regulate a variety of activities, based on their potential to impact ecological, historical, recreational, or other resources. Table 1 provides a general summary of the regulated activities and prohibitions across the 13 national marine sanctuaries, as reflected in their designation documents.

National marine sanctuary regulations are codified at 15 Code of Federal Regulations (CFR) Part 922. Each NMS has its own unique set of regulations within 15 CFR Part 922 that is designed to protect its resources. These are developed initially as part of sanctuary designation and management plan preparation. Certain regulatory provisions and prohibitions are applicable in most sanctuaries, including (1) discharging material or other matter into the sanctuary, (2) disturbance of, construction on, or alteration of the seabed, (3) disturbance of cultural resources, and (4) exploring for, developing, or producing oil, gas, or minerals (Table 1). These prohibitions would likely be applicable to an Oregon sanctuary as well, and would seem to have implications for the siting and installation of anticipated new uses off Oregon, such as wave energy conversion, as well as for possible future uses, such as marine aquaculture.

Other activities are regulated by certain sanctuaries but not others. For example, seven sanctuaries [Florida Keys (FL), Fagatele Bay (AS), Channel Islands (CA), Gray's Reef (GA), Flower Gardens (FL), Monterey Bay (CA), Monitor (NC)] regulate fishing, although Regional

Fishery Management Councils take the lead, as discussed earlier. Maritime passage is regulated in two sanctuaries: Gulf of the Farallones (CA) and Channel Islands (CA). Permits may be issued for certain activities that would normally be prohibited, if they would be beneficial to a sanctuary and consistent with its goals. Examples include research or education projects.

Some sanctuaries have other regulatory provisions, for example, overflight limitations (designed to prevent disturbance of seabirds or marine mammals) (NOAA-NMSP 2006a). Other activities are regulated through "special use permits," including the "continued presence of submarine cables beneath or on the seabed" (NOAA-NMSP 2006b). Further, this same regulation states that new cable installation and the maintenance of existing cables would require a regular NMS permit. This regulation would seem to make maintenance of existing cables highly problematic and, in effect, prohibit new cables from landing in an Oregon coast national marine sanctuary.

Sanctuary Size and Scale. The size and scale of a sanctuary have a dramatic effect on the complexity and workability of potential governance arrangements. A sanctuary encompassing the Oregon Ocean Stewardship Area would include both state waters (~5 percent) and federal waters (~95 percent). At roughly 20,000 square miles, it would be the largest sanctuary designated under the Sanctuaries Act by a factor of four. One of the rationales for proposing such a large sanctuary is that it comprises the entire Oregon portion of the *California Current Large Marine Ecosystem*. Indeed, such an area would provide an opportunity for Oregon to participate in the development and implementation of a single, coordinated management plan for a part of this large marine ecosystem, an outcome that the recent ocean commission reports and their subsequent joint initiative have encouraged (POC 2003; USCOP 2004; JOCI 2006). The NAPA (2006) sanctuary review lends additional support to this finding, stating that "the sanctuary program is unique among marine agencies—or very nearly so—in having authorizing legislation and active programs along the lines suggested by the commissions." That said, the proposed Oregon Sanctuary would cover only a fraction of the *California Current Large Marine Ecosystem*, and begs the question of whether or not a regional, whole-West Coast approach to harmonizing ocean policy might be useful, particularly in light of the recent tri-state agreement on ocean health (Gregoire, Kulongoski and Schwarzenegger 2006).

Designating and developing a management plan and regulations for a sanctuary encompassing the entire Ocean Stewardship Area would be a huge, complex task with many uncertainties. These include the adequacy of scientific information available to help make management decisions and justify regulatory and non-regulatory programs; the sheer number and diversity of state and federal agencies and authorities, existing and potential ocean users, and other stakeholders that would need to be engaged; the large array of issues such a sanctuary would face; and the significant initial and ongoing resources that would be required to undertake the needed planning, research, monitoring, enforcement, and performance evaluation.

In contrast to the present sanctuary proposal, the much smaller Heceta-Stonewall Banks complex was included by NOAA on a list of potential sanctuaries in 1979. Although that site never advanced to active candidacy, it does represent an actual example of a proposal for a much smaller Oregon sanctuary. The question of sanctuary size is relevant to one of the Governor's requirements, namely that "a sanctuary must be scaled to be consistent with marine ecosystem processes and dynamics." A legitimate question is whether or not smaller marine ecosystems,

such as that encompassed in the 1979 proposal or other discrete areas along the coast, might be viable for sanctuary consideration and less complex to develop. This question has not been examined by OPAC, but may warrant further investigation through OPAC's Sanctuary Working Group and the Scientific and Technical Advisory Committee (STAC).

Challenges and Implications for Governance

In theory, many of the issues and concerns OPAC has about a sanctuary in Oregon waters could be addressed in the development of a sanctuary designation document and, subsequently, a management plan. For example, Oregon could insist on a strong co-management arrangement whereby the state had joint decision-making authority for sanctuary regulations in all sanctuary waters, rather than just state waters. Oregon could also insist on a larger, more influential role for local governments and other stakeholders. However, given that the great majority (~95 percent) of the proposed sanctuary is federal waters, both of these provisions might be difficult to achieve.

The complexity and workability of governance arrangements is highly dependent on sanctuary size and scale. In general, the larger the sanctuary, the greater is the potential for conflicts among federal authorities (NMSA and MSA being a case in point), between state and federal authorities, and between government and the diversity of ocean users and other interests. Based on what OPAC has learned to date, establishing governance arrangements favorable to state, local, ocean user, and conservation interests in Oregon would be especially challenging for the large-area sanctuary now proposed. Further, none of these issues could be resolved except through the approval of a designation document, a process that generally takes 1-3 years (NAPA 2006). Thus, at this point, OPAC knows no way to assure that the state or local governments would have a strong voice in sanctuary management.

References Cited

Anonymous. 2005, 2006. Oregon Ocean Policy Advisory Council Meeting Summary. Summaries of OPAC meetings, including public comment, conducted December 9, 2005; and January 20, March 17, June 23, August 25, October 10 and November 27, 2006. Salem, Oregon.

Bottom, Daniel L., Jones, Kim K., Rodgers, Jeffrey D., and Brown, Robin F. 1993. Research and
Management in the Northern California Current Ecosystem. in Kenneth Sherman, Lewis M. Alexander, and Barry D. Gold (eds), 1993. *Large Marine Ecosystems, Stress, Mitigation and Sustainability*. American Association for the Advancement of Science. Washington, D.C. pp. 259-271.

Cicin-Sain, B. 2002. Invited testimony before the US Commission on Ocean Policy. January 10, 2002. Charleston, SC.

Cicin-Sain, B. and Knecht, R.W. 2000. *The Future of U.S. Ocean Policy: Choices for the New Century*. Washington, D.C.: Island Press.

Chandler, W.J. and H. Gillelan. 2005. *The Makings of the National Marine Sanctuaries Act: A Legislative and Analysis*. Marine Conservation Biology Institute. 35 p.

Clinton, B. 2000. *Marine Protected Areas*. Executive Order 13158 of May 26, 2000. Presidential Documents. Washington, DC.

Connor, D., C. Holmes, and S. Holmes. 2006. *Oregon Coast National Marine Sanctuary: A Preliminary Scoping Report (Draft)*. A background report prepared for the Oregon Ocean Policy Advisory Council Advisory, September, 2006. Marine Resource Management Program, Oregon State University. Corvallis, OR.

Gregoire, C., T. Kulongoski, and A. Schwarzenegger. 2006. *West Coast Governors' Agreement on Ocean Health*. September 18, 2006.

Joint Ocean Commission Initiative (JOCI). 2006. *From Sea to Shining Sea: Priorities for Ocean Policy Reform*. Report to the United States Senate. June, 2006.

Juda, L. 1999. Considerations in developing a functional approach to the governance of large marine ecosystems. *Ocean Development and International Law* 30(2):89-126.

Kulongoski, T. 2005. Letter to Senator Ron Wyden, United States Senate, regarding a proposal for an Oregon Coast National Marine Sanctuary, dated December 13, 2006.

Lester, C. 1996. Reforming the offshore oil and gas program: rediscovering the public's interests in the outer continental shelf lands. *Ocean and Coastal Management* 30(1):1-42.

McIsaac, D. 2006. *RE: Proposed Marine Reserves in the Channel Islands National Marine Sanctuary*. Letter from the executive director, Pacific Fishery Management Council to C. Mobley, Superintendent of the CINMS, dated October 10, 2006.

National Academy of Public Administration (NAPA). 2006. *Ready to Perform? Planning and Management at the National Marine Sanctuary Program*. Report to NOAA. October 2006.

National Research Council (NRC). 1997. *Striking a Balance: Improving Stewardship of Marine Areas*. Marine Board. Washington, D.C.: National Academy Press.

NOAA. 2005. National Marine Sanctuaries Act Regulatory and Magnuson Stevens Act Regulatory Processes, Draft Flow Charts and Descriptions. January 6, 2005.

NOAA National Marine Sanctuaries Program (NOAA-NMSP). 1996. *Florida Keys National Marine Sanctuary Final Management Plan/Environmental Impact Statement*, Volume 1: Management Plan.

NOAA-National Marine Sanctuary Program (NOAA-NMSP). 2002. *Hawaiian Islands Humpback Whale National Marine Sanctuary Management Plan*. National Oceanic and Atmospheric Administration, National Ocean Service.

NOAA National Marine Sanctuary Program (NOAA-NMSP). 2004. *Funding Requirements for the National System of Marine Sanctuaries*. Supplemental Documentation for Report to Congress
As Required by the National Marine Sanctuaries Act Section 304 (f).

NOAA National Marine Sanctuaries Program (NOAA-NMSP). 2006a. *Guidelines for submitting applications for National Marine Sanctuary permits and authorizations*. http://www.sanctuaries.noaa.gov/management/permits/welcome.html

NOAA-National Marine Sanctuary Program (NOAA-NMSP). 2006b. *Final Notice of Applicability of Special Use Permit Requirements to Certain Categories of Activities Conducted Within the National Marine Sanctuary System.* Federal Register, Volume 71, No. 19, Monday, January 30, 2006. Department of Commerce, NOAA.

Pew Oceans Commission (POC). 2003. *American's Living Oceans: Charting a Course for Sea Change*. A Report to the Nation, May 2003. Pew Oceans Commission, Arlington, Virginia.

US Commission on Ocean Policy (USCOP) 2004. *An Ocean Blueprint for the 21st Century*. Washington, DC.

Appendix A

List of Acronyms

CINMS – Channel Islands National Marine Sanctuary

FKNMS – Florida Keys National Marine Sanctuary

HIHWNMS – Hawaiian Islands Humpback Whale National Marine Sanctuary

JOCI – Joint Ocean Commission Initiative

MPA – marine protected area

MSA – Magnuson-Stevens Fishery conservation and Management Act

NAPA – National Academy of Public Administration

NMFS – National Marine Fisheries Service

NMS – National Marine Sanctuary

NMSA – National Marine Sanctuaries Act

NMSP – National Marine Sanctuaries Program

NOAA – National Oceanic and Atmospheric Administration

NOAA-NMSP – NOAA–National Marine Sanctuary Program

NRC – National Research Council

ODFW – Oregon Department of Fish and Wildlife

OPAC – [Oregon] Ocean Policy Advisory Council

PFMC – Pacific Fishery Management Council

POC – Pew Oceans Commission

SAC – Sanctuary Advisory Council

STAC – [OPAC] Scientific and Technical Advisory Committee

USCOP – US Commission on Ocean Policy

Appendix B

Fishery Management Role Overview

Oregon Department of Fish And Wildlife
The Oregon Department of Fish and Wildlife, including the Oregon Fish and Wildlife Commission, is responsible for the management and conservation of commercial and recreational fisheries in Oregon's state waters. The ODF&W also has a seat on the Pacific Fishery Management Council.

Pacific Fishery Management Council -- The Pacific Fishery Management Council is one of eight regional fishery management councils established by the Magnuson Fishery Conservation and Management Act of 1976 for the purpose of managing fisheries 3-200 miles offshore of the United States of America coastline. The Pacific Council is responsible for fisheries off the coasts of California, Oregon, and Washington. The PFMC is an advisory body that recommends fishing regulations that are passed through National Marine Fisheries Service to the Secretary of Commerce.

National Marine Fisheries Service -- NOAA's National Marine Fisheries Service (also referred to as NOAA Fisheries) is the federal agency, a division of the Department of Commerce, responsible for the stewardship of the nation's living marine resources and their habitat. NOAA's National Marine Fisheries Service is responsible for the management, conservation and protection of living marine resources within the United States' Exclusive Economic Zone (water three to 200 mile offshore). Using the tools provided by the Magnuson-Stevens Act, NOAA's National Marine Fisheries Service assesses and predicts the status of fish stocks and ensures compliance with fisheries regulations established by the Secretary of Commerce.

Glossary

Ecosystem – the living and non-living components of the environment which interact or function together, including plant and animal organisms, the physical environment, and the energy systems in which they exist. All the components of an ecosystem are interrelated.

Habitat – the environment in which an organism, species, or community lives.

Marine protected area – A marine protected area is broadly defined in Presidential Executive Order 13158 (Clinton 2000) as "any area of the marine environment that has been reserved by Federal, State, territorial, tribal, or local laws or regulations to provide lasting protection for part or all of the natural and cultural resources therein."

Marine reserve – A marine reserve is an area of the sea which is completely protected from all extractive activities. Within a reserve, biological resources are generally protected through prohibitions on fishing and the removal or disturbance of living and non-living marine resources, except as necessary for monitoring or research to evaluate reserve effectiveness. *Marine reserves are a special category of marine protected areas* (National Research Council 2001)

National Marine Sanctuary – A National Marine Sanctuary is a specific type of marine protected area established by Congress and codified in federal statute. Under the National Marine Sanctuary Act (NMSA), a sanctuary is "an area of the marine or Great Lakes environment of special national significance that has been designated as a sanctuary and is managed by NOAA." The NMSA describes the purposes and polices of sanctuaries, outlines procedures for their designation, and provides funding authorization for appropriations.

Ocean Stewardship Area – The Ocean Stewardship Area is Oregon's area of direct concern and responsibility for ocean resource management. It was established in the Oregon Ocean Resources Management Plan (1990), and includes the entire continental margin from mean high water, across the continental shelf, and down to the bottom of the continental slope. The stewardship area covers approximately 21,000 square miles.

Special use permit – A special use permit is generally a permit or license to conduct an activity that is not included in a list of approved activities under a specific authority. Whereas a designation document for a national marine sanctuary would establish the conditions under which approved activities could occur and the conditions of their implementation, those activities not specified in the designation document would require special use permits. The conditions of use under special use permit would be negotiated under the direct authority of the sanctuary manager, having not been specified in the designation document.