

OLYMPIC COAST NATIONAL MARINE SANCTUARY

Navigating the Future

Management Plan Review



PUBLIC SCOPING & ISSUES ANALYSIS

PART I: SCOPING SUMMARY



DECEMBER 2008

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I. INTRODUCTION

This document was created to assist Olympic Coast National Marine Sanctuary (OCNMS) staff, sanctuary Advisory Council (AC) members, Olympic Coast Intergovernmental Policy Council (IPC) representatives, and Office of National Marine Sanctuaries (ONMS) staff in understanding and interpreting the comments received during the Public Scoping & Issues Analysis (scoping) phase of management plan review (*Navigating the Future*). The goal of the scoping phase is to create an early and open process for determining the significant issues to be addressed in the sanctuary's revised management plan.

The scoping phase began on September 15, 2008 and continues on through the issue prioritization process, which is not scheduled to conclude until April 2009. Sanctuary stakeholders, partners and the public are welcome to provide comments and input at any point during this time. However, to encourage comment submissions the sanctuary held a formal 60-day public comment period from September 15 to November 14, 2008.

The Scoping Summary explains the *Navigating the Future* scoping process and summarizes the comments received during the formal public comment period. All scoping comments received through December 1, 2008 are summarized by grouping the comments under 37 topics (Table 2). A bulleted list of all the comments related to each topic is also provided (Appendix A).

A series of documents are being produced as part of the scoping phase, the Scoping Summary report being the first in the series. The second document in the series, the Topics Analysis Report, is being published concurrently with the Scoping Summary. The Topics Analysis Report provides an initial analysis of each topic identified in the Scoping Summary, including a description of the topic as interpreted by OCNMS staff, a synopsis of public comments related to the topic, a summary of findings from the OCNMS 2008 Condition Report and a description of OCNMS work related to the topic.

The Scoping Summary and Topics Analysis Report are closely related and together serve several functions. The Scoping Summary serves as a public reference document, presenting comments in an organized way such that the reader can easily locate and review all comments related to a particular topic. Moreover, by allowing the reader to see how each comment was grouped, the Scoping Summary adds transparency to the process by which staff interpreted the comments. The Topics Analysis Report, by providing analysis of each of the 37 topics, serves both as a source of additional information and as a tool for prioritizing issues for the revised management plan.

II. SUMMARY OF SCOPING PROCESS

Notice of Intent for the Review of Management Plan/Regulations

On September 15, 2008, the National Oceanic and Atmospheric Administration (NOAA) formally initiated the *Navigating the Future* scoping phase by publishing a notice of intent in the federal register (73 FR 53161) (Appendix B). This notice of intent 1)

initiated review of OCNMS' management plan and regulations; 2) served as the start of a 60-day public comment period; 3) provided information about the public scoping meetings held during the comment period; and 4) provided public notice of NOAA's intent to prepare an environmental impact statement pursuant to the National Environmental Policy Act.

Additionally, OCNMS published in the notice of intent six preliminary priority topics, which were developed in consultation with the IPC. This list represents the IPC and OCNMS' best professional judgment of the most important issues NOAA should consider in preparation of a new OCNMS management plan. OCNMS staff noted that the list was not meant to preclude or in any way limit the consideration of additional topics raised through public comment, government-to-government consultations, and discussions with partner agencies.

The IPC consists of the State of Washington and the Coastal Treaty Tribes who have jurisdiction over resources within the Sanctuary. OCNMS and the IPC have signed a Memorandum of Agreement (MOA) that provides for the formation of the IPC as a forum for communication and exchange of information and policy recommendations regarding the management of marine resources and activities within the boundaries of OCNMS. The stated goals of the MOA are to:

- Enhance intergovernmental relationships between the parties through the creation of a Policy Council.
- Improve communication among the parties towards identifying common goals and reaching consensus on management priorities within the boundaries of the OCNMS for the protection and management of natural resources and the promotion of educational opportunities and scientific research

Meeting with Partners

Throughout the scoping phase (and in some cases prior to), OCNMS staff met and discussed the management plan review process with the IPC, Olympic National Park, the Washington Maritime National Wildlife Refuge Complex, the Environmental Protection Agency, the Olympic Coast Alliance and a variety of other agencies and interested parties. OCNMS staff requested, for the sake of transparency, that all agencies, organizations and governments with suggestions for the management plan review process submit them in writing during the public comment period. OCNMS staff offered to hold government-to-government consultations with each of the four coastal treaty tribes, but these meetings have not yet occurred.

AC Scoping Workgroup Recommendations

In September 2007, the OCNMS Advisory Council (AC) established a work group to develop recommendations for the scoping phase. The work group was comprised of Bob Bohlman, Doug Fricke, Jennifer Hagen, Al Hightower, Ellen Matheny, Roy Morris, Fan Tsao, and Gene Woodwick. Based upon the outcome of the working group's five meetings, the Advisory Council adopted several recommendations, which were

forwarded to the Sanctuary Superintendent. Staff used these recommendations as a guide for planning the public scoping period. The recommendations included the following:

- Suggested locations and venues for the seven public scoping meetings
- A detailed format for the meetings focused on small group discussion
- Suggestions for questions to ask those who attend public scoping meetings
- A list of key governments, agencies, key constituents and media outlets that the sanctuary should inform about the management plan review and the scoping period
- A list of outreach products that sanctuary staff should produce for the scoping period and specifically to be provided at the public scoping meetings

Raising Public Awareness about *Navigating the Future*

Staff adhered closely to the list of outreach products recommended by the AC, which included a save-the-date postcard, a four-page mailer, an eight-page tabloid newsletter, a series of one-page handouts on sanctuary program areas, a CD with key documents, large displays to serve as the focus for the public meeting open houses, and a *Navigating the Future* website. The postcard and mailer were sent to a list of approximately 2,300 people. The other materials were distributed at the public scoping meetings. Following the AC's recommendation, the OCNMS 2008 Condition Report was finalized and publicly available by the start of the public comment period. Staff sent scoping notification letters to approximately 70 key agencies, non-governmental organizations, tribes, businesses and elected officials, and notified 58 papers, 23 television stations and dozens of local and regional radio stations. At least nine articles related to *Navigating the Future* appeared in local/regional newspapers during the comment period. The sanctuary also sent regular e-mails about the scoping phase to its listserv (approximately 1,500 e-mail addresses).

OCNMS staff also encouraged comment submissions by distributing public comment forms at the Dungeness Crab Festival, the COASST volunteer dinner and other events. Additionally, staff contacted by phone or e-mail upwards of 60 Advisory Council members, IPC members, non-governmental organizations, government agencies, tribes and industry representatives to remind them about the public comment period. The eight-page tabloid newsletter was distributed at the Seattle Aquarium, Feiro Marine Life Center, Port Angeles Visitor Center, and included in the Port Angeles Regional Chamber of Commerce November newsletter mailing, which was sent to over 570 people.

Scoping Meetings

Public scoping meetings were held in seven Western Washington communities starting in Port Angeles on September 29th and ending in Seattle on October 5th. All meetings followed a similar format. They began with an informal open house to give participants an opportunity to ask staff questions. The open house was followed by a brief introduction to the *Navigating the Future* process from the Sanctuary Superintendent and welcoming remarks from a representative of the IPC. The largest portion of the meetings (one to two hours) was dedicated to facilitated small group discussions. Participants were

put in small groups (usually four to eight people); each group was staffed with a sanctuary facilitator and note taker. The facilitator took comments from each person, continuing until all comments had been received. The note taker took notes on a laptop computer that was projected on a screen so that the group could see what was written. The note taker confirmed with each commenter that his/her comments had been adequately characterized. The notes from these meetings were published on the *Navigating the Future* website the following week.

III. METHODOLOGY FOR SUMMARIZING COMMENTS

When summarizing the public comments, OCNMS staff started with no pre-conceived list of topics or categories. To ensure consistency in the process, at least two (often three) staff were present during all comment review and categorizing.

As a first step, prior to the close of the public comment period, OCNMS staff reviewed comments from the public scoping meetings. For each comment, staff assessed the issue being discussed and either created a topic heading to describe that issue or binned the comment under a topic heading that had already been created based upon an earlier comment. When possible, language directly from the comments was used to create the topic headings. Comments could be placed under several topic headings (note: there was no limit to the number of topics under which a comment was binned, but no comment ended up under more than six topic headings).

It is important to note that while some comments were simple statements clearly associated with one specific topic, other comments were more complex. In some cases, this complexity was due to the comment referencing multiple topics, in which case the comment was duplicated under multiple topic headings. In other cases, this complexity was due to the ambiguous nature of the comment. Staff wanted to make sure that every comment was binned under at least one topic heading, so in these situations staff had to use their best judgment in categorizing the comment.

During this first iteration, a list of 57 topics was generated - some general in nature, others quite specific. Staff then sorted all the comments by topic and reviewed the topic headings in relation to the comments. Based upon this review, some topics were lumped or split. Staff then conducted a second iteration of the comment-by-comment analysis, using the initial list of topics to guide the process, resulting in a revised, more concise list of 37 topics. A brief description of each topic was drafted and together, the 37 topics and topic descriptions formed the first draft of what are now the Scoping Summary and Topics Analysis Report. This draft was provided electronically to the IPC the AC for review on November 19, 2008.

After the public comment period closed on November 14, 2008, OCNMS staff began analyzing the written comments received by mail, e-mail and fax to determine whether they fit within the context of the 37 topics. While none of the written comments warranted the addition of new topics, the comments did require staff to revise the way in which many of the topics were characterized. Often the written comments shed new light

on or added depth and dimension to a topic. Staff used the written comments as a basis for expanding and refining the draft topic descriptions into more in-depth topic analyses. Additionally, staff incorporated suggestions from sanctuary program leads and AC members into the analyses.

IV. SUMMARY OF COMMENTS

A total of 166 people attended the seven public scoping meetings and provided 516 comments. An additional 688 letters, e-mails and public comment forms were received (Table 1), of which approximately 600 were form e-mails containing the same five comments.

TABLE 1. Sources of written comments received as of December 1, 2008.

	<i>Individuals</i>	<i>Tribes</i>	<i>Agencies</i>	<i>NGOs*</i>	<i>Total</i>
Formal Letters	5	1	5	15	26
Public Comment Forms	8				8
E-mails	649			5	654
Total	662	1	5	20	688

* *Non-governmental organizations*

Many of the letters and e-mails contained multiple comments, each of which was analyzed separately. Thus, the total number of individual comments analyzed and binned by OCNMS staff was 1,009 (516 from the public meetings and 493 from written comments). Staff summarized these comments by grouping them under 37 topics (Table 2). These topics themselves serve as a brief summary of the major issues raised in the comments. A more extensive summary, which includes a bulleted list of all the comments related to each of the 37 topics, is also provided (Appendix A).

TABLE 2. Summary of 37 topics raised during scoping (in alphabetical order)

1	Administration - Flexibility to Respond to Emerging Issues
2	Administration – Infrastructure
3	Administration - Sanctuary Goals & Objectives
4	Boundary Adjustment
5	Climate Change
6	Collaborative and Coordinated Management
7	Community Outreach
8	Ecosystem Impacts of Fishing
9	Fisheries Stock Assessment
10	Habitat Characterization
11	Habitat Protection
12	Invasive Species
13	Living Resource Conservation
14	Living Resources Monitoring
15	Local and Customary Knowledge
16	Marine Debris – Abandoned Submerged Equipment
17	Marine Debris – Shoreline Clean-Up
18	Maritime and Environmental Safety - Harbors of Refuge
19	Maritime and Environmental Safety – Navigation
20	Maritime and Environmental Safety - Vessel Management
21	Maritime and Environmental Safety - Weather Forecasting
22	Maritime Heritage - Cultural Resource Management
23	Maritime Heritage - Living Cultures
24	Military Activities
25	Non-point Source Pollution
26	Ocean Literacy
27	Public and Private Resource Use - Commercial Development
28	Public and Private Resource Use - Compatibility Analysis
29	Public and Private Resource Use - Recreational Opportunities
30	Public and Private Resource Use - Socioeconomic Values & Human Use
31	Regulations, Permitting & Enforcement
32	Research to Support Ecosystem Management
33	Spill Prevention, Contingency Planning and Response
34	Treaty Trust Responsibility
35	Visitor Services
36	Water Quality Monitoring
37	Water Quality Protection

V. CONCLUSION

Value of Public Comments

The comments received during the public comment period are a critical element of the *Navigating the Future* process. Many agencies, governments, organizations, and individuals invested substantial time and effort to provide OCNMS with thoughtful guidance that staff has spent many hours reviewing. The comments were so thorough in fact, that staff found it unnecessary to add any additional topics to the list of 37 generated from the public comments. These comments, as represented through the 37 topics, now serve as the foundation for the issue prioritization process.

In many cases, comments recommended specific actions for the sanctuary to take on particular issues. Staff tried to mention briefly some of these specific suggestions in the Topic Analysis Report. However, the primary goal of the scoping phase is to discuss, identify and prioritize the significant issues to be addressed in the management plan. OCNMS is not at the point of deciding what actions will be taken on particular issues. Once the priority issues are identified, staff will begin developing action plans to address each issue. During action plan development, all of the suggested actions provided in the public comments will be compiled and provided to relevant workgroups to be reviewed and discussed.

Issue Prioritization Process

The next step in the scoping phase is to identify a subset of topics from public scoping that will be the priority issues addressed in the revised OCNMS management plan. In addition to being available to the public, the Scoping Summary and Topic Analysis Report will be provided specifically to the AC and IPC as a primer for the issue prioritization process. The 37 topics will serve as a platform from which to launch the Advisory Council's Issue Prioritization workshop, January 29 – 30, 2009 at the Olympic Natural Resources Center in Forks, WA. The workshop, as well as future Advisory Council meetings, will be open to the public, and public comment periods will be included in the agenda.

The goal of the workshop is for the AC to provide the Sanctuary Superintendent with recommendations on the priority issues it would like to see addressed in the revised management plan. The results of the workshop will be written up as the third in the series of public documents being produced as part of the scoping phase (Table 3). The IPC then will consider the public comments, the Scoping Summary, the Topics Analysis Report and the AC workshop report, in order to provide its recommendations to the Sanctuary Superintendent on the priority issues it recommends be addressed in the revised management plan.

The Sanctuary Superintendent, through ongoing dialogue with the IPC and AC, will work with sanctuary staff to review these recommendations, decide on a final list of priority issues for the management plan, and develop a Work Plan for the next phase of *Navigating the Future* - action plan development. The Work Plan will be the fourth and final public document produced for the scoping phase of *Navigating the Future*.

TABLE 3. List of public documents being produced as part of the *Navigating the Future* scoping phase

	<i>Title of Document</i>	<i>Estimated Publication Date</i>
1	SCOPING SUMMARY	DECEMBER 2008
2	TOPICS ANALYSIS REPORT	DECEMBER 2008
3	ADVISORY COUNCIL ISSUE PRIORITIZATION WORKSHOP REPORT	FEBRUARY 2009
4	WORK PLAN FOR ACTION PLAN DEVELOPMENT	APRIL 2009

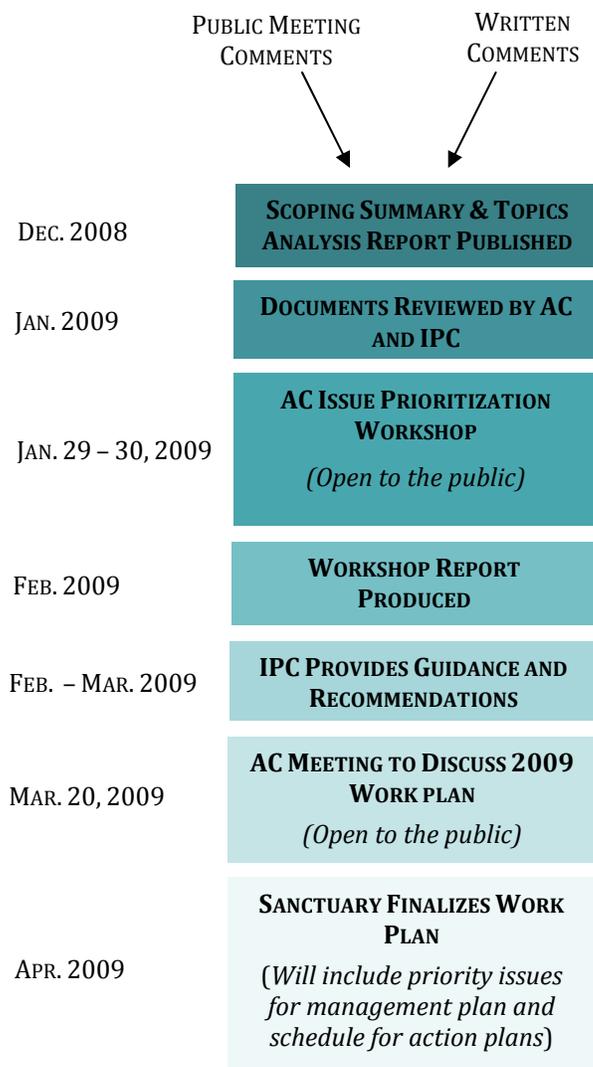


FIGURE 1. Diagram showing activities for remainder of the *Navigating the Future* Public Scoping & Issues Analysis phase at OCNMS.

APPENDIX A EXPANDED SCOPING SUMMARY

The following is a bulleted list of all written and verbal comments received during the scoping public comment period, grouped under 37 topics. The comments have been not been edited; only typos and small grammatical errors have been corrected for ease of reading. If a comment is relevant to more than one topic, it is duplicated under multiple topic headings.

1. ADMINISTRATION - FLEXIBILITY TO RESPOND TO EMERGING ISSUES

- Part of the management plan review should be the development of a process to intake, prioritize and act on new issues that occur between now and the next plan.
- The sanctuary should be the place for using new technologies. The sanctuary should be looking into: Fishing technology development, fuels and lubricants for vessels that are not harmful to the ocean, and similar technologies.
- Sanctuary is a good place for this research (new technologies) because it does not have conflicting impacts. It is a good control area. We can get background reading of hydrocarbons and other chemicals.
- Incorporate language into the management plan that allows flexibility to address emerging issues.
- Threats to resources should be assessed, including current and potential future ones.
- There should be an annual discussion about issues that may have come up during that year instead of waiting 14 years for a management plan review. This might alleviate some of the perceived conflict between the Sanctuary and the tribes because of better communication. Not something as big as a full management plan review, but a way to gauge interest in issues on a more frequent basis.
- Management plan review every 14 years is not adequate to address changing conditions. There should be a built-in mechanism for community members to address developing issues before they become too big to fix. There should be direct internet availability for members of the public to make the sanctuary aware of new issues and/or changing conditions.
- Adaptive management to change policy and management practices.
- Energize and enable Sanctuary management, regulation, and administration to respond to emerging needs.
- Consider more frequent management plan and regulatory updates to increase responsiveness to changing ocean conditions, species and marine resource protection and recovery needs, and Sanctuary protection and damage prevention.
- The life span of a management plan is five to 10 years. Within that timeframe, the sanctuary will most likely see new activities and emerging issues that are not currently anticipated. The management plan should outline a process for evaluating and managing such activities if they occur between management plan review timelines, making sure the process supports the primary goal of resource protection.
- Incorporate adaptive mechanisms that allow periodic review, updates, and response to new opportunities and unanticipated challenges or progress.
- The Management Plan is for five to ten years, during which time new threats to Sanctuary resources may emerge along with new information. The Management Plan needs to account for unforeseeable changes and be flexible enough to adapt.

2. ADMINISTRATION - INFRASTRUCTURE

- Sanctuary should take lead in establishing coastal marine research station along northern coast (modeled after Mote, Bamfield, Moss Landing labs). These stations focus research on local resources, and provide economic benefits and educational opportunities to communities.

- Minimum expenditure of federal money (underline 12x)
- Sanctuary should have a hot line for reporting ocean issues, concerns, observations.
- The sanctuary office should be adjacent to the sanctuary instead of the current, relatively remote location. Other resource management agencies are located near their activities. Ideal areas would be Forks or La Push.
- We need land facilities, bathrooms on trails, signs, to assist with people who are visiting / viewing the Sanctuary: permits needed; sustain use of coast with appropriate infrastructure; maintenance
- The sanctuary needs to replace the RV Tatoosh with a better small research platform. Bigger, more deck space, flying bridge, newer instrumentation. More use for education trips into the sanctuary.
- It's important for the sanctuary to increase interactions with other users. Staff should be out on the coast closer to the sanctuary.
- Creative ways to continue your efforts with all the budget cutbacks and economic problems
- Instead of the center at Port Angeles provide 3 research/marine Center for the public that are located along the coast. These centers will support research, education and naturalist tours. . . This will provide education and awareness for the public more data for research and employment for 1st nation people, help with research and marine center for the public that are located along the coast.
- The management plan should acknowledge the possibility that variable funding may affect the scope and scale of sanctuary programs and that funding priorities will be reviewed and adjusted annually to reflect evolving conditions. It should also provide guidance concerning where funding allocations are expended by emphasizing fundamental resource protection activities as priority over supporting ones, such as visitor information centers.

3. ADMINISTRATION - SANCTUARY GOALS & OBJECTIVES

- The sanctuary should summarize better what the original management plan was set out to do for the public, and summarize better where the sanctuary is in accomplishing those original goals.
- The main priority should be to conserve biodiversity.
- Regard the current management plan as a valuable operational tool.
- Biodiversity conservation should be main focus of sanctuary and management plan. Primary purpose of sanctuary is to protect resources in area.
- A priority should be to maintain existing resources (living and non-living) – with focus on biodiversity, water quality, habitats. Research, education, partnerships, and preparing for change are ways to approach this.
- The sanctuary should be more specific in defining what sanctuary resources are and their status, and establishing measurable goals and metrics relative to sanctuary resources in the new management plan. Benchmarks for measurement of change are important for effective management.
- Sanctuary should conduct retrospective analysis of its accomplishments since designation.
- Sanctuary should retain policy of not being involved with fisheries management.
- There is adequate fisheries regulation currently, so there is no need for additional regulations or another entity to add to what is currently working.
- Concerned that the sanctuary area will grow and fishing will not be allowed in the future.
- Honor original agreement from time of designation of sanctuary to stay out of fisheries management.
- The sanctuary should remain neutral on fishery management regulatory actions and leave the management to the co-managers of the fisheries.
- We should jointly identify what we think the threats to those resources are. We should jointly identify strategies for management and uses in the sanctuary. The emphasis needs to be on joint understanding, joint management.

- The sanctuary knows its strengths and weaknesses. The sanctuary should reflect on these strengths and weaknesses and communicate them to its partners. This would add value to the sanctuary.
- The condition report is a qualitative document. There is not enough quantitative information. It does not contain an analysis of the goals and objectives of the initial sanctuary designation document and management plan. The management plan review (MPR) process should produce a quantitative evaluation of the state of the sanctuary resources and evaluate the degrees of success in attaining the original goals and objectives of the sanctuary.
- There needs to be a better understanding of what the sanctuary's roles, functions and authorities are.
- In the new management plan, the regulation of fisheries should not be authorized. Continue the same management plan action as the one in 1994 with regards to fishing.
- Ecosystem protection in and of itself as a priority in terms of sanctuary management. Should be underlined concept in research, education and all activities of the sanctuary.
- Problem with the effectiveness of existing management plan of the sanctuary with protecting natural resources, such as the use of bottom contact gear and the effects on corals or wave energy with impact to marine mammals with noise, movement, entanglement. How does the management plan protect the sanctuary from the expansion of U.S. Navy activities?
- Sanctuary-wide assessment and analysis of key topics, oceanography, biological function, fisheries function, economies and values. What is the most important and why? Process should be inclusive of all governments and interests. Multiple minds to get common idea.
- The sanctuary needs to be more transparent about its goals. It is hard to get information from the sanctuary (in regards to data and decision-making). The sanctuary needs to be more transparent about how decisions are made.
- The sanctuary needs to be forward-looking (instead of looking back).
- I support the sanctuary's original management goals and objectives (from the 1994 plan): resource protection, research, education and visitor use). Under the goal of resource protection, objective 1 should be strengthened to support objective 9. Co-management is a complicated function. Nevertheless, I believe the authority provided sanctuary managers should be asserted to meet their mandate and particularly objective 9
- Continue to oppose OCS oil drilling
- Most people I speak to about the sanctuary share a common dream: that our precious coast could be a true refuge, where all who live below the surface could have a chance to thrive in a water wilderness. No trawlers; no buoys; no mining; no drilling; no Navy war games.
- Protection of our oceans is very important for our and future generations
- It's not clear to me how the National Marine Sanctuary system addresses trade-offs among your many worthy goals. Do you take a multiple-use approach in which all legitimate uses must be balanced against one another? Or do you take a more hierarchical approach to goals, as the National Wildlife Refuge System has taken since 1997? I would like to see an explicitly hierarchical approach to the goals in your planning process. In this approach, ecosystem management goals would take priority, and would have to be met before other goals could be pursued.
- Sustainable harvest of fish and other marine resources should certainly be part of OCNMS goals, with priority to tribal treaty rights.
- Other goals should receive lower priority than ecosystem management and sustainable harvest goals. This may mean that the OCNMS needs to restrict or prohibit some economic uses of the Sanctuary if these pose a damage to its living resources.
- I think it is important that the PFMC along with WDFW be the governing bodies in all fishing related decisions.
- We support having the sanctuary and an ecosystem approach to its management
- Support processes that maintain that ecosystem

- One of the most important issues today is saving the environment for future use. And it must begin with saving the oceans and all of its resources and inhabitants. Please continue to expand the research for the Olympic Coast Sanctuary so it can be enjoyed by future generations.
- I would support this project as long as traditional fishing is preserved. We have gone to Neah Bay for over twenty years and the underwater life is unique among the dive sites on the Oregon and Washington Coast and Inland waters.
- The protection of marine biological diversity should be recognized as the primary goal of the management plan. The sanctuary was created with the primary mandate of resource conservation, and the management plan should put conservation front and center and provide a roadmap for meeting said mandate.
- My major concern for the sanctuary is to restore and protect natural ecosystems by treating the sanctuary as a true wilderness area.
- Five to ten year planning is prudent, I would suggest that five years be the first choice with perhaps 1 year reviews to "spot check" areas of concern raised during comment periods.
- OPA endorses the Olympic Coast Alliance's (OCA) position that advocates strongly for scientifically-based and conservation oriented management of the Sanctuary.
- OCNMS is also a place that needs to expand to provide needed protection of precious ocean ecosystems that will benefit current and future needed resources.
- The management plan should support development of a shared or joint understanding of sanctuary goals that are consistent with the national sanctuary program mandates, but also respect treaty rights and reflect local stakeholder needs and interests.
- [Determine] what the local communities think the conditions of the sanctuary ought to be (what are the goals and desired ranges for ocean resources in terms of persistence and abundance in perpetuity?)
- Biodiversity conservation should be recognized as the primary goal of the management plan. The Sanctuary was created with the primary mandate of resource conservation, and the management plan should place this front and center, and provide a roadmap for meeting this mandate.
- The Sanctuary should take advantage of its management authority over multiple activities, to manage them in a coordinated fashion to conserve the entire ecosystem . . . The management plan should adhere to principles of Ecosystem-based Management such as the precautionary approach, adaptive management, and preserving ecosystem functions holistically across multiple species and sectors.
- Continue learning, inventory, and research within the Sanctuary.
- Address known and potential threats to the Sanctuary, emphasizing prevention in addition to mitigation and remediation.
- Help to identify information gaps and research needs.
- In closing, it is hoped that the Sanctuary could spend less time going through a full environmental impact statement and focus on meeting the objectives of the original management plan.
- The Sanctuary's primary focus should be to support, engage and foster collaboration among the various federal, state and tribal entities with jurisdiction over the natural resources within the sanctuary.
- Address how the Sanctuary has implemented the goals and direction of the original management plan, including what impediments the Sanctuary encountered in achieving those goals and how the Sanctuary proposes to address unmet goals and objectives.
- Biodiversity conservation should be recognized as the primary goal of the management plan. The sanctuary was created with the primary mandate of resource conservation, and the management plan should place this front and center, and provide a roadmap for meeting said mandate.
- The sanctuary should take advantage of its management authority over multiple activities, manage them in a coordinated fashion to conserve the ecosystem, and be an EBM role model for other marine ecosystems. The management plan should adhere to EBM principles of precautionary approach, adaptive management, and preserving ecosystem functions holistically across multiple species and sectors.

- OCA advocates strongly for scientifically-based and conservation oriented management of the Sanctuary.
- [We] are very concerned at how long it has taken to develop and finalize new sanctuary management plans and we urge OCNMS to avoid excessive delay in public release of management plan documents. Such delays have the unfortunate result of undermining public interest and confidence in the Sanctuary System.
- Improved Protection of Biodiversity and Habitats [should be a priority topic].
- The OCNMS draft management plan should identify the full range of tools available to improve biodiversity and habitat conservation.
- *The highest priority management goal for the Sanctuary is the protection of the marine environment, resources and qualities of the Sanctuary.* (OCNMS Management Plan. 1994, at V-3). We agree with this management goal identified in the 1994 OCNMS Management Plan and we believe this should remain the highest priority. Given the demands of an increasing population, global climate change, overfishing, habitat damage, pollution, offshore development and cumulative stresses, this goal will require an ecosystem-based approach to management. An ecosystem plan must include habitat protection measures; identification, control, and elimination of threats to ocean health; research and monitoring programs; and ongoing public education.
- [We recommend that the updated OCNMS Management Plan include] implementation of protective management measures.
- [We recommend that the updated OCNMS Management Plan include] a monitoring and evaluation program and an adaptive management framework for the overall sanctuary and specific habitat areas.
- Protection of the marine environment and resources of the Sanctuary requires an integrated resource assessment and management approach and precaution should be utilized in the face of uncertainty. In particular, the Sanctuary should consider the use of marine protected areas and reserves both as habitat and ecosystem protection tools.
- Natural shoreline physical and biological processes [should be] unimpeded along most of the coastline of Olympic National Park, and where altered by human activities or structures, measures are taken to mitigate effects and restore natural conditions as much as possible.
- [Work with Olympic National Park to] maintain and restore components and processes of naturally evolving park marine ecosystems, recognizing that change caused by extreme natural events (e.g., storms, red tide, and El Nino) is an integral part of natural systems.
- [Work with Olympic National Park and] other agencies and tribal governments to maintain or improve water and air quality affecting marine ecosystems, and maintain natural marine viewsheds.
- Include principles of ecosystem-based management at the broadest level in the Management Plan.
- Under the National Marine Sanctuaries Act, the primary objective of sanctuary management is resource protection. In order to achieve this primary objective, ecosystem protection must be incorporated as a priority focus area in the Olympic Coast Sanctuary management plan. The recently released Stellwagen Bank National Marine Sanctuary draft management plan offers a good model for addressing Ecosystem Protection, referring to the preservation and enhancement of biological and habitat diversity and care for the associated physical environment. We feel this is a good approach. Ecosystem should entail the consideration for biodiversity, the complex relationships between species and habitats, and the associated ecological processes both inside and outside Sanctuary boundaries. Furthermore, humans and human uses should be considered as part of the ecosystem.
- [We] recommend that the Sanctuary adopt goals for coordinating with resource management agencies, tribes and with local governments in improving planning, monitoring and adaptive management.

4. BOUNDARY ADJUSTMENT

- The sanctuary should consider expanding the boundaries of sanctuary down the Strait to include San Juan Islands.
- Sanctuary management should analyze the spatial scale of ecosystems within and beyond the sanctuary. Do the sanctuary boundaries provide for (or get in the way of) ecosystem-based management? Consider other boundary configurations to fit ecosystem-based management.
- Concerned that the sanctuary area will grow and fishing will not be allowed in the future.
- Would like to investigate the feasibility to determine whether the Sanctuary should be extended to entire Washington coast.
- Increasing the size of the sanctuary and strict enforcement of existing limitations will be the keys to maintaining this area as an educational highlight for the public, divers and non-divers both.
- OPA agrees with OCA that there is a need to expand the OCNMS to provide a more complete natural ecosystem on the Northern part of the Olympic Peninsula. For managing human impacts, on endangered species, and other marine resources it is necessary that the boundaries include the marine biological areas needed to enable successful management.
- Examine Sanctuary boundaries and recommend any additional areas in need of protection/inclusion within the OCNMS.
- The southern boundary of the sanctuary should be extended to the Chehalis River in Grays Harbor, which is a natural river boundary line that would protect birds and wildlife. This would extend to this area protections against commercial and oil & gas development.
- OCA calls for expansion of the OCNMS to include waters to the west and south of the Sanctuary (south a point just north of Grays Harbor) where off-shore oil and/or gas fields are present. This expansion would allow the OCNMS to better manage threats associated with oil and gas exploration and extraction.
- OCA calls for expansion of the OCNMS boundary into the Strait of Juan de Fuca to Observatory Point (OCNMS FEIS option 4c). This would greatly expand kelp forest habitat within the Sanctuary, protect kelp forests in the Strait from harvest, and contribute substantially to sea otter conservation. Since western portion of the Strait of Juan de Fuca lies partly in state waters, this section of the Strait of Juan de Fuca cannot be included without the approval of the Governor of Washington State. The Sanctuary should reopen discussions with Washington State on inclusion in the OCNMS of the portion of the Strait of Juan de Fuca that extends to Observatory Point.
- OCA calls for expansion of OCNMS boundaries to include portions of the Nitnat, Juan de Fuca, and Quinault Canyons. The western boundary of the OCNMS should be extended to include canyon areas where deep-sea coral and sponge communities are found. This expansion would help protect these delicate and threatened deep sea ecosystems.
- OCA calls for expansion of the OCNMS to include the extensive kelp forests within the western portion of the Strait of Juan de Fuca. These kelp forests provide excellent habitat for sea otters and should be protected from harvesting and other threats as part of an OCNMS comprehensive recovery strategy for sea otters.

5. CLIMATE CHANGE

- Documenting the condition of existing habitats is a prerequisite for, among other things: getting baseline information to gauge the likely looming effects of climate change.
- Though they may not yield useful results in the short term, long-term monitoring projects will be essential for OCNMS to understand how climate change affects its resources.
- Given the current expectations for global climate change, I believe that it would be a very good idea for the sanctuary to support more paleoenvironmental research. It may be possible to model and plan for possible changes. For example, there are several archaeological sites on the Olympic Peninsula that are associated with a relatively higher sea level than at present. The animal remains (and in one case so far, plant remains) in these archaeological sites can shed light on the nature of the marine environment in the area, when sea level is higher. The human/marine environment interaction can be traced through time, which will shed light on management issues (known

archaeological records of more than 4,000 years of interaction). Research in non-archaeological sites (such as lake bottom sediments) can help separate the human and natural factors in the human/environmental interaction.

- In its preparations for climate change, OCNMS should focus primarily on adaptation rather than mitigation efforts. . . OCNMS should concentrate projects and plans on adapting to the changes brought by rising temperatures and more intense weather events. . . Throughout the planning process, OCNMS should utilize many of the resources available through the U.S. Climate Change Science Program (CCSP), NOAA, and U.S. Environmental Protection Agency (US EPA). In addition to reports, OCNMS should try to learn from other areas and programs that have been working to prepare for the uncertainties of climate change. . . In addition to learning from specific areas and other Sanctuaries, OCNMS should utilize information from estuary programs as well.
- In order to begin preparing for the effects of climate change, OCNMS should conduct a vulnerability assessment of as much of the Sanctuary's resources as possible. . . The US EPA recently developed a program to prepare estuaries for the effects of climate change. Their new program Climate Ready Estuaries (www.epa.gov/cre) has developed an extensive coastal toolkit with information on adaptation planning and tools as well as example vulnerability assessments conducted in coastal areas. Information from some of these example assessments may guide OCNMS in completing one of their own. The program is currently working with six pilot estuaries to improve their management of uncertainty. Information and lessons learned from these pilots should be ready and available soon for OCNMS to utilize.
- Monitor conditions and trends, particularly indicators and sensors of climate change, for oceanic conditions, physical and chemical features and processes, and marine biota.
- Develop adaptation needs, strategies, and potential management actions for climate change.
- Sanctuaries should be places where basic long-term natural resource monitoring is done as a consequence of designation. At a minimum NOAA should be archiving their own satellite data to track seasonal changes in temperature and primary productivity in the nation's 13 Sanctuaries, but this is not done. These data will enable the Sanctuary program to provide an archive of the impacts global climate change is having on our nation's marine habitats.
- Increased coordination and cooperation between resource management agencies are required to improve planning, monitoring and adaptive management to address global climate change. The Sanctuary should look to partner with the Makah Tribe, weather and climate experts within NOAA, and the University of Washington to better understand the role of the ocean past, present and future in climate change. We need sustained observational systems and data delivery systems at a coastal scale, including oceanographic, geophysical, hydrological, chemical, biological and geological. Data collection points could be increased through more sophisticated monitoring buoys which could assist in developing models for tsunami source, seafloor stability models, land subsidence, and storm formation.
- Assist Tribes, state and federal agencies in developing strategies to prepare for and respond to climate change.
- Ocean acidification could be detrimental to calcifying organisms and potentially have ecosystem-altering effects, but the extent of ocean acidification is not being monitored in the sanctuary. With monitoring infrastructure already in place for many aspects of the sanctuary's oceanographic conditions, the management plan should look into including the monitoring of pH changes in the sanctuary's ongoing research program.
- Ideally, OCNMS and the nation's 13 other marine sanctuaries should serve as a network of sentinel sites detecting ocean-wide changes caused by global warming, including ocean acidification. This is particularly pertinent for the OCNMS since the calcite and aragonite saturation horizons in the Pacific are historically shallower than other regions.
- OCA recommends that OCNMS place greater emphasis on monitoring climate change and its impacts within the Sanctuary. Changes in ocean temperatures and currents are important factors in assessing the condition and expected trends in Sanctuary health. Monitoring of climate impacts on glaciers in Olympic National Park is ongoing. The Sanctuary should establish sentinel monitoring sites to augment this important research.

- Climate Change Monitoring, Research and Adaptation.[should be a priority topic]
- The OCNMS should include in its new management plan both a research program directed at studying the effects of climate change and resource protection provisions designed to enhance the capacity of sanctuary resources and ecosystems to adapt to climate change.
- A wide variety of human impacts act to reduce resiliency and therefore make ocean ecosystems more susceptible to climate change. Thus, to enhance the capacity of ocean ecosystems to withstand and absorb the impacts of climate change they must be maximally resilient. In most places, this requires removing or minimizing anthropogenic stresses in order to give the ocean a chance to recover fully resilient. We encourage the National Marine Sanctuary System to take a proactive role in climate change research, monitoring and adaptation throughout all of the sanctuaries. Specifically, the OCNMS draft management plan should include a climate change action plan. We encourage the OCNMS to coordinate with efforts and activities already underway in the Channel Islands, Gulf of the Farallones and Cordell Bank sanctuaries on this important issue.
- Incorporate a modeling component to the [kelp] monitoring program to assess how the physical effects of climate change may impact the density and distribution of the kelp canopy.
- How kelp bed distribution and health is impacted by climate change could fundamentally effect the nearshore habitat. Not only might the abundance and distribution of fish and invertebrate species be shifted but any reduction of the protective function kelp forests provide would cause increased exposure of the nearshore to the physical forces of waves and currents. The nearshore would experience changes in sediment transport and that would affect the geomorphology of the bed and change the shape of the beaches and shoreline. Incorporating a modeling component into the kelp monitoring would allow for some predictive capacity and a better understanding of the potential changes that will need to be addressed to best protect the Sanctuary resources.
- Expansion of the kelp monitoring program to: 1) capture the site scale changes that have been reported, 2) include a climate change modeling component, and 3) incorporate monitoring of additional macroalgae would significantly strengthen the Sanctuary's management plan. These changes would address two of the five priority topics to be addressed by the revised management plan *Characterization and Monitoring*, and *Climate Change*. Including an expanded macroalgae monitoring program as described above in the OCNMS Management Plan would allow for improved characterization of the Sanctuary resources, and the ability to more effectively respond to acute and long term environmental stressors.
- [W]e encourage the sanctuary to continue monitoring water quality using mooring stations and to collect data to better understand global climate change induced impacts such as ocean acidification, temperature changes and hypoxic events.
- Climate change will have dramatic effects on the Sanctuary. In order to monitor these changes and understand the dynamics of the area, adequate equipment must be deployed to gauge dissolved oxygen, salinity, temperature, and subsurface current flow. This could be achieved by deploying year-round enhanced mooring buoys equipped with the proper sensors.
- [I]ncorporate research into the effects of climate change. Collectively, national sanctuaries can offer great insight into the impacts of climate change on ocean ecosystems.
- Monitor ocean acidification and other climate related impacts.
- Surfrider Foundation feels that climate change should be highlighted as a separate priority in the Management Plan.
- The sanctuary should do more work on deep-sea corals and deep-sea communities in order to monitor for climate change.
- Specifically what is the role of sanctuary with climate change research?
- We need more geological research specifically focused on paleo-shoreline and sea level history over the past 20,000 years.
- Monitor the effects of ocean acidification and other effects of climate change within the sanctuary.
- Evaluate existing monitoring programs, and determine effectiveness in detecting climate change effects within the sanctuary.

- Make proactive efforts to monitor for climate change effects in the sanctuary. Link to the National Park's efforts, National Oceanic and Atmospheric Administration (NOAA) work (e.g., R. Feely) and others within a network. This could tie into the Ocean Observing Systems.
- Consider prioritizing research on ocean acidification and its potential effects on species within the sanctuary.
- A program to monitor the interspecies dynamics of increased abundance warm water species such as tuna and pelican. How are these changes affecting the ecosystem and what are these species eating (stomach contents analysis)?
- Sanctuary should maintain regular data to investigate carbon sequestering and ocean acidification. Need baseline data. Monitor key species that may be affected by acidification. Coccolithophores
- The sanctuary should focus research programs to conduct monitoring on decadal scale. The program needs to be sufficient to conduct continuous long-term monitoring. The current research programs are not focused enough (i.e. detect changes cause by climate changes).
- Resource management needs to identify resources at risk and address potential impacts of climate change.
- Oceanographic long-term monitoring should be undertaken to document what is happening with climate change (chemistry, water temperature, etc). Short-term monitoring is not enough.
- Low oxygen problem. Need continued focus, improved understanding of oceanographic and climate change linkages.
- Understand impacts of climate change
- The sanctuary needs to find a way to fund "spiders" on existing buoys that monitor ocean acidification. The degree of ocean acidification is extremely important to monitor.
- The sanctuary should research how global warming will affect resources in the sanctuary.

6. COLLABORATIVE AND COORDINATED MANAGEMENT

- The Surfrider Foundation actively supports the creation of Marine Resource Committees in coastal counties, like Grays Harbor. We believe it will significantly enhance communication.
- In looking through the list of sanctuary staff, I don't see many faces who look like members of the peninsula tribes -- is there an opportunity to involve Native people on a professional level to develop and implement some of the planning documents that are going to guide the future of their traditional territories?
- I think it is important that the PFMC along with WDFW be the governing bodies in all fishing related decisions.
- We appreciate more "PARTNERSHIPS to Help Puget Sound Marine Life, endangered salmon, etc. /CONSERVATION".
- The sanctuary should initiate a shared stakeholder process to identify and evaluate the condition of ocean species and habitats, and jointly develop strategies to wisely manage them. It is critical to leverage partnerships and identify and fill data gaps that can lead to improved long term management of the sanctuary.
- Data collected by the sanctuary needs to be available to concerned parties in an electronic format -- especially Geographic Information System (GIS) data - so that it can be used and additive to projects within and beyond the sanctuary.
- Data also needs to be processed and analyzed in a timely manner (much data just sits on the shelf never analyzed).
- Data needs to be consistent with other entities (tribes, state and local agencies, NGOs) that are collecting data along the coast.
- Data collected and analyzed by sanctuary should be conducted with standardized methods.
- Improved shared understanding of the sanctuary's roles, functions, and authorities among sanctuary neighbors, other stakeholders and the treaty tribes in the region would be helpful.
- It would be helpful if the sanctuary could clarify on its website how all of the entities with jurisdiction within the sanctuary boundaries interact and share operating agreements or authorities.

- Better communication between the agencies and organizations that have overlapping jurisdiction in the sanctuary would be beneficial (more interagency communication).
- The Sanctuary should take advantage of its management authority over multiple activities, to manage them in a coordinated fashion to conserve the entire ecosystem . . . The management plan should adhere to principles of Ecosystem-based Management such as the precautionary approach, adaptive management, and preserving ecosystem functions holistically across multiple species and sectors.
- Develop strong partnerships to improve management plan implementation.
- Provide knowledge, awareness, and leadership in identifying the need for additional marine protected areas and reserves.
- Continue consultation and collaboration with tribes. Establish and emphasize pursuit of mutual goals.
- Increase communication and collaboration with the National Park Service, Washington Department of Fish and Wildlife, Department of Defense operations, and other pertinent government and non-governmental entities.
- The SAC itself needs to review its charter. Rather than just responding to questions posed by the Superintendent, the SAC should be bringing issues to the attention of the Sanctuary and encouraging them to engage in the discussion. When the SAC does write the Superintendent with a requested action, the Sanctuary needs to do more than just pass on the SAC's letter with a disclaimer that it does not reflect the views of the Sanctuary. Instead, the Sanctuary should apply its technical and political prowess to the issue the SAC brings to its attention. Otherwise, the SAC offers members of the public little sense of meaningful contribution to the management of Sanctuary resources.
- The Sanctuary should aim to be more transparent, cooperative, and coordinated with the four coastal treaty tribes and the State of Washington as envisioned in the original Management Plan.
- The Sanctuary should work within existing forums to increase effectiveness, achieve efficiencies, and promote improved integration of resource management efforts. We have stressed these points repeatedly over the years, yet we feel our voices have not been heard to our satisfaction.
- Formally incorporate the IPC into the Sanctuary Management Plan Administrative framework to provide formal guidance and direction on policy initiatives, research and other programs to the Sanctuary Superintendent to ensure that all management proposals and actions begin with meaningful coordination, collaboration and transparency.
- Create a formal mechanism to coordinate Sanctuary program planning with the Tribes and IPC.
- Establish a mechanism for improved information and data sharing between the Sanctuary, Tribes and IPC, and design transferable data protocols to facilitate information sharing.
- Facilitate cooperative and mutually beneficial research among the Tribes, IPC and other Sanctuary partnering agencies.
- Develop a media clearing house process between the IPC and the Sanctuary for information disseminated to the general public.
- In addition, we believe that the Sanctuary needs to more effectively communicate research results to marine resource managers and the public. The Sanctuary should integrate knowledge of ecological interrelationships with societal values.
- Establish a science review framework.
- Develop policies that ensure the availability of translatable data.
- Develop protocols for data sharing among agencies and researchers and publish on Sanctuary website to keep the public informed.
- Coordinate grant applications for research with Tribes, state and federal agencies.
- Public engagement through citizen science, volunteer activities, partnering with schools and universities, and participation in Marine Resource Committees and Lead Entities will foster healthy civic involvement in marine protection and restoration work.

- OCA recommends that the OCNMS seek increased funding and commitments for research and monitoring – including regular ship time- which is critical for gathering data on stock structure, for assessing permit activities, and is the first step to identify sensitive species and habitats.
- OCA recommends that OCNMS work to identify impediments to rapid data analysis and ways that this component can be streamlined, resulting in more completed reports that will assist stakeholders in Sanctuary management, planning, and development of conservation and harvest strategies. OCA calls for passage of the National Ocean Protection Act, while at the same time preserving the protections afforded to the OCNMS. OCA believes that the coastal waters of the United States would benefit from management by a unified, federal agency.
- OCA calls for federal protection, as set forth in the National Ocean Protection Act, for the entire Washington coast from the entrance to the Columbia River into the Strait of Juan de Fuca to Observatory Point. The challenges of habitat preservation, energy development, and global warming are too vast to be accomplished through the staff and funding resources available to the Sanctuary. This added layer of protection is needed regardless of whether the current boundaries of the Sanctuary remain the same or are expanded.
- Where possible integrate NOAA data with NMFS data. Both data sets are directly related and should be summarized together to gain the greatest understanding of the Sanctuary system dynamics.
- Incorporate a broad emphasis on data management and information synthesis as integral part of the Management Plan. Continued training of information managers in metadata technologies and data processing techniques should be a focal point of the data management plan in order to promote interoperability between partner organizations.
- We feel that there is an opportunity to formalize the relationship between PISCO and OCNMS in order to build on the strong collaborations of the last 10 years. We hope that this formalization, especially in regards to data sharing, will be considered in the Management Plan review.
- Coordinate research and management objectives with federal, tribal, state and local resource managers.
- Share information with academic institutions, federal, tribal, state and local resource managers.
- In order to manage an ecosystem effectively, decision makers, managers, user groups, resident communities, scientists and/or experts and other interested parties must work collaboratively. From fishing regulations to the land used practices of the individual living in the watershed, decisions driving the conditions of the Sanctuary happen at multiple levels. Taking an ecosystem approach means looking up into the watershed and working with adjacent managers, communities and interest groups.
- Surfrider Foundation appreciates your commitment to “provide a more transparent, cooperative and coordinated management structure of Olympic Coast marine resources within tribal, state and federal jurisdictions.” To achieve this objective, we stress that the Sanctuary invest time and resources into the following recommendations. In addition, we request that you include local governments in this effort.
- Conduct research and resource status assessments in an open forum that allows for participation and input from resource agencies, tribes, academic institutions, and interest groups.
- Create additional opportunities to engage partners, including collaborative research projects, joint science and educational workshops, and community outreach events.
- Include language specific to supporting and coordinating with coastal Marine Resources Committees.
- Land use decisions, especially in the southern portion of the Sanctuary are managed by local jurisdictions. Decisions made at the local level can and should be informed by Sanctuary research and other programs.
- Engage new partners in activities that support Sanctuary goals and enhance site visibility.
- Assess and incorporate appropriate Action Agenda items from the ongoing efforts regarding the West Coast Governors' Agreement on Ocean Health that might contribute to the improved health of Sanctuary habitat and resources.

- There is a major effort in the state to clean up Puget Sound and the Sound is connected to the Outer Coast. The different parts of NOAA should collaborate more/work together better to improve scientific research efforts. There needs to be better coordination throughout NOAA.
- There needs to be better coordination in the region. The sanctuary should look for opportunities to collaborate with other groups on putting in core infrastructure in support of hard science. These partnerships should be leveraged to create awareness.
- The National Ocean Service and National Marine Fisheries need to work together better to avoid conflicting management authorities.
- The sanctuary should be really really good at something and if the thing about this sanctuary that is unique is its relationship with the coastal tribes, then the sanctuary should be world class at that relationship. The sanctuary should then share this experience within the sanctuary program and worldwide.
- Along these lines, the sanctuary should consider having a conference (5 or 6 years out) on the model it would develop on best practices for working with indigenous peoples.
- The other stakeholders should acknowledge what the sanctuary does well. The sanctuary should continue its strong relationship with the Makah Cultural and Research Center (especially in identifying culturally-sensitive sites in the sanctuary and in continuing archeological projects).
- The sanctuary needs to concentrate its efforts on forming partnerships with the four coastal tribes.
- The sanctuary should be a nexus for the research; a research monitoring facility. Including:
- There is an identity crisis with two National Oceanic and Atmospheric Administration (NOAA) agencies: the National Ocean Service, and National Marine Fisheries Service. What is the specific role of sanctuary? It is a great research mechanism.
- Sanctuary should research the perceptions of the coastal tribes to see if they are in line with the priorities of the sanctuary.
- Enhance public understanding and use ecosystem management approach; interfaced with policy of Canadian government as well as with tribal policy. Get different sovereign governments on the same page for resource management.
- The sanctuary staff and volunteers should have training on the overlapping responsibilities and roles of the individual governments; tribes, state agencies, and federal agencies that have roles within the boundaries of the sanctuary.
- To continue and develop multiple and effective partnerships for the goals of resource protection, research and education.
- Leverage the partnership with volunteers to improve many types of research. Create a stronger volunteer base with training and rewards. Consider underwater archeology models such as Coastal Maritime Archeology Resources, the Underwater Archeology Society of British Columbia, and National Archeology Society of the United Kingdom. Seek the critical mass.
- To play the coordinating role for research in the sanctuary with an emphasis on long-term studies and use of common formats for data collecting analysis and reporting.
- Tribal council and tribal community involvement and full partnership are important. The sanctuary should work with tribal communities to address and educate each other on progress, opportunities, and priorities.
- Partnerships should be expanded and deepened (tribes, Pacific Fishery Management Council, state and federal agencies, environmental organizations, education institutions) to improve overall resource management of the sanctuary.
- Expand upon current physical and biological parameter monitoring using remote ocean sensing devices (buoys) to provide baseline data and early warnings (e.g., harmful algal blooms). Integrate current deployments into Coastal Ocean Observing Systems, and partner with them.
- Develop personal relationships with partners such that they can be spokespersons for the sanctuary.
- The sanctuary should have a cooperative agreement on the state/tribes ecosystem initiative. This initiative will look at rockfish stocks on a regional basis and look at rockfish stocks in relation to

mapped habitat. There is a need to help improve the objectivity of scientific research produced by all resource managers.

- Data collected by the sanctuary needs to be available to concerned parties in an electronic format – especially Geographic Information System (GIS) data. Data also needs to be processed and analyzed in a timely manner. Cooperative agreements could help insure the analysis gets done.
- Data needs to be consistent with other entities that are collecting data along the coast (to include California, Oregon, Washington and Vancouver Island). Data collected and analyzed by sanctuary should be conducted with standardized methods.
- The sanctuary should initiate a stakeholder process to develop a shared set of species and habitats to be evaluated. Determine the conditions of those species and habitats and jointly develop strategies to protect them. Leverage partnerships and identify gaps.
- Find ways to engage local high school and college students to be active with the sanctuary and staff conducting research.
- The sanctuary should outreach to other groups to coordinate opportunities for ship time on research vessels.
- Marine Resource Committees on outer coast – need scientists and experts to be involved to advise county governments. The sanctuary staff can provide support and information, and encourage community involvement.
- How much do we know about resources (species and habitats); what are important resources to local communities? The sanctuary should fill in data gaps and find ways to work collaboratively to manage, protect, and sustain uses on shared priorities.
- Coordination among agencies is import role for sanctuary with regards to long-term monitoring and eradication of invasive species.
- The sanctuary should facilitate communications with Canada to coordinate management of resources in international border area. Fishing, vessel traffic, etc. in Canadian waters can influence condition of sanctuary resources.
- Important for the sanctuary to educate, engage, and involve members of coastal communities, especially on projects that focus on issues that effect local communities. Stakeholder involvement is important because their input is important to success of sanctuary’s efforts. Transparency on the part of the sanctuary is important.
- Sanctuary should work with local communities to use local knowledge of resources.
- Sanctuary should look across spectrum of agencies and organizations to identify resource data gaps.
- Research on fish biomass should be provided to regulators.
- Combine some groups to eliminate duplication of efforts.
- Collaborate with universities for research. Especially ships and ship time.
- The sanctuary should partner and collaborate with Marine Resource Committees (e.g., Grays Harbor MRC).
- Local knowledge from fishermen should be used to help develop sanctuary research.
- Monitoring oxygen levels is important, as well as early notification of low levels. Work with local fishermen to enhance early reporting.
- Dead zones: O2 levels effect crab, fish, and other habitat. Work with fishermen to improve knowledge, map affected areas, get information to/from fishermen.
- Recent marine debris cleanup efforts recently have not shown any debris from the commercial crab fishing. The sanctuary should give recognition to the voluntary efforts of the fishermen to reduce marine debris.
- The sanctuary should coordinate research and management efforts and share information with tribes, state agencies, local resource managers and other entities.
- The sanctuary should utilize a bank of volunteers.
- Develop meaningful partnership with Olympic Coast Intergovernmental Policy Council.
- Sanctuary should provide information and data to the Pacific Fisheries Management Council (PFMC) and in doing so respect the Council’s process and knowledge base and expertise.

- The sanctuary is in unique position to review pitfalls and problems of marine reserve initiatives at California sanctuaries to avoid repeating mistakes. Sanctuary needs to work with all entities involved to develop common goals and objectives, work with PFMC, state, and tribes more effectively.
- The sanctuary should work together with the state, counties, port authorities, and the tribes to expand knowledge of habitat characterization. Collecting the data would help other initiatives such as siting of wave energy structures, ecosystem assessments, protection of essential fish habitat, etc...
- Recommendations are contained within the state ocean policy document and West Coast Governor's agreement. For example, marine debris and derelict fishing gear. The sanctuary should look at those recommendations and find the ways in which it can partner with other entities to further those objectives.
- For example, help other agencies/groups (WA Dept of Fish and Wildlife) in putting together and pursuing grant proposals (the National Ocean and Atmospheric Administration marine debris program).
- The Pacific Fisheries Management Council (PFMC) and National Marine Fisheries Service (NMFS) northwest fishery science center have long-term research plans. These plans should be reviewed by sanctuary to potentially form partnerships for research. In the past they focused on single species and stock assessment. In the new research plans, they must ask whether there are regional differences in the stocks (where the fish lives, migrates, etc) when doing stock assessment. Now they need to ask "Is there a reason to manage stock differently in different regions?" The sanctuary should make sure that there is communication with fisheries researchers and that resources and data can be pooled together to help further our goals. What makes the sanctuary special may create various habitats for different stocks of fish. The sanctuary can help fisheries managers with refining regional differences within stocks.
- Need monitoring using remote sensing. More work with partnerships; agencies, tribes, non government organizations, and research institutions. To monitor physical changes and biological changes in the water of the sanctuary (e.g., harmful algal blooms - HABs).
- To create more opportunities for coastal communities and recreational users to become stewards of the ocean environment (e.g., beach clean ups, water quality monitoring, education and awareness, etc.). Ocean literacy; education.
- Improving partnerships to meet the goals of the peoples of the sanctuary: those who use; those who live near; Anyone who has an interest
- Sanctuary should stay involved with recently formed action groups: Marine Resource Committees; Governor's Ocean Action Plan; Ocean caucus; stay involved in state coordinating
- Build partnerships and better relationships with the Intergovernmental Policy Council (IPC) and local communities through integrated activities that are relevant to local concerns. We can do better than we are currently doing.
- I support the management plan goals that are currently in place. Specific to resource protection to require rather than merely encourage coordination on research studies, be it tribes or other agencies.
- The sanctuary should be a centralized data gathering body for all research related to the sanctuary. Permits should require researchers to bring their data back to the sanctuary.
- Conduct ecosystem inventory and assessment and analysis by the Intergovernmental Policy Council (IPC) and the sanctuary. There is currently a lack of data and data integration.
- The sanctuary should be as transparent as possible so that the community feels it understands what is going on. If an issue comes up, the general public has a voice in the decision-making.
- The sanctuary advisory council needs to be more publicized and emphasized as a means of communication between the sanctuary and the public.
- Coordination: we all need to have an understanding of how to develop processes. For example, better coordination can lead to more effective involvement.

- Collaboration: we need to put more emphasis on collaboration and bringing all of the entities together so that everyone has an equal voice.
- We should determine what the local communities think the conditions of the sanctuary ought to be (what the goals for those resources should be in perpetuity).
- Preservation, conservation and stewardship of the environment. These priorities are shared between the tribes and NOAA and should be sanctuary priorities.
- The sanctuary needs to acknowledge and recognize the Intergovernmental Policy Council members as co-managers.
- Right now, there is friction between the sanctuary and certain groups; and the more dialogue that can occur, the better. Continual, repeated dialogue is key to the successful resolution of these frictions.
- The sanctuary is living in an overlay of jurisdictional authorities. The sanctuary is not autonomous and should improve how it works with these other authorities.
- It would be helpful if the sanctuary could clarify on its website how all of the entities with jurisdiction within the sanctuary boundaries interact and/or have operating agreements.
- More communication between the agencies/organizations that have overlapping jurisdiction in the sanctuary would be beneficial (more interagency communication).
- The Nature Conservancy has a strong interest in sharing information/data about the Olympic Coast ecoregion and working with partners on the Olympic Coast.
- We need to improve communication between the entities within the sanctuary boundaries in order to develop mutual respect.
- An issue is not only coordination between the sanctuary and the tribes, but also coordination from the national level to the local sanctuary and from the sanctuary to the tribes. Don't assume there is a trickle-down effect from the national level to the local level (reauthorization, etc), for example if there is a shift on how certain actions will be taken (fishing, etc) after reauthorization. The tribes and the treaty rights should be considered in those national level decisions. Both the national and local sanctuary offices should work in a truly open, transparent process with the tribes.
- The Advisory Council (AC) and the Intergovernmental Policy Council (IPC) should understand their respective roles with the sanctuary; they currently do not. Their paths don't currently cross, and it is a problem.
- The federal government has not worked very closely with the tribes. There doesn't seem to have been much work with the tribes at the time of designation. The tribes weren't presented in the documentation as crucial players in this situation.
- The Sanctuary Advisory Council (AC) should make a more proactive effort to invite members of the community to come participate at AC meetings. Often few people attend the public comment part of the AC meetings. The AC should make it more accessible for the public to participate.
- The sanctuary should reach out to citizens to do citizen activist activities such as the clean coast alliance. Programs designed to engage people in some activity in the sanctuary so they can see human impacts in the sanctuary. This will help people take these lessons learned back to their communities.
- Better coordination with stakeholders especially with tribes. Tribes have been here for thousands of years and live in balance with the ecosystem.
- Due to remoteness the park, the people who live locally are hearty and best suited to work with the Olympic Coast National Marine Sanctuary. Use people who are already acclimatized to do the work that needs to be done.
- Use locals for information – they are out here and know what is going on with the resources: green crabs are at Koitlah Point and Warmhouse Beach; develop relationship with fishermen to gather information; fishermen could help assist locating derelict crab pots; we do not have enough information and we are not using the best sources for that information.
- Should use tribes as co managers for resources.
- Focus on research – What's been done, how it serves us, and where is it going? Build collaboration with other agencies.

- Develop meaningful and long-term relationships with the communities around the sanctuary.
- Local community relationship building. Expectations of what the sanctuary was going to do. Place-oriented that is unique and provides excellent resource for what the sanctuary does. Communication, knowledge base, problem-solving that has support and act
- Build better partnership with Olympic Coast Intergovernmental Policy Council to facilitate inventory and issues identification and to better access adequate resources for implementation phase. What issues are realistic for us to pursue.
- Coordination with Canadians with marine vessel safety, vessel sewage, ballast water, air deposition. Both coordination with activities, and costs to do that.
- System-wide – Develop better coordination and appreciation with Sanctuary family and Fisheries family. Fishing is not necessarily bad. Tribal fisheries are doing well. There is a great wealth that comes from the ocean. That is the tribe's existence. Incorporating this traditional knowledge is vehicle for getting to this cooperation issue.
- Federal jurisdiction over a large area has taken community and state processes out of the loop: The sanctuary should work to overcome this disconnect and partner with the state right now in the Outer Coast Marine Resources Committee process
- The Advisory Council should interact better with its representative groups. The Advisory Council should be able to report on what its representative groups are concerned about.
- Synthesizing and integrating data from fish and wildlife, tribes and the National Marine Fisheries Service. The sanctuary or someone needs to be the integrator.
- Coordination with other agencies to get a better understanding of roles and responsibilities. Comprehensive understanding of research trends. Analysis of trends that have changed since the sanctuary designation. What improvements have occurred since designation?
- Need a baseline for future monitoring. Sanctuary to help facilitate with agencies, academic, tribes and act as a clearing house. Coordinate a bi-annual symposium of knowledge of the sanctuaries, i.e., recent research results.
- Ecosystem research objectives and data collected should be coordinated with other federal and state agencies such as Olympic National Park and the tribes.
- Stop U.S. Navy exclusion of bathometric data and the sharing of that data, also the restriction of civilian collection of bathometric data.
- The sanctuary needs to create a better working relationship with the tribes. The tribes have been stewards of the resources for 1000s of years.
- The sanctuary needs to involve tribes in research/planning/surveys early on and throughout the entire process.
- The sanctuary should be more forthcoming with data.
- The sanctuary needs genuinely to open the lines of communication with industries (tribal and non-tribal, fishing, shipping, wave energy companies, etc.), and work with the fishing industry on a continuous basis to resolve problems.
- The sanctuary should explore opportunities to work across the international border with Canada. We should look more at working with them on research and protection. The sanctuary should look at improving regional approaches to management.
- The sanctuary needs to increase the power of the Intergovernmental Policy Council (IPC) so that it has a greater voice as co-managers of resources within the sanctuary. The IPC has a co-management role. Right now, the IPC doesn't have enough of a role.
- Once there are significantly more meetings between the IPC voting members and the sanctuary, the groups can develop more mutual respect and function better as partners. The IPC and sanctuary can then develop a history and a trust relationship.
- The sanctuary needs proactively to identify barriers and explore opportunities to improve government to government relations, possibly using a third party.
- The sanctuary needs to work to heal wounds that occurred in the past.
- There needs to be more mutual respect between the sanctuary and the IPC.
- The sanctuary needs to make the public more aware of the IPC and their roles.

- Improve data acquisition, data management, and data sharing. Implement the Sanctuary Integrated Monitoring Network (SIMoN) at Olympic Coast National Marine Sanctuary.
- Data collected by the sanctuary needs to be available to concerned parties in an electronic format – especially Geographic Information System (GIS) data. Data also needs to be processed and analyzed in a timely manner. Cooperative agreements could help insure the analysis gets done.
- The sanctuary needs an on-line database where the public can access data and information. This would better educate people about what the sanctuary is doing. It is difficult to access sanctuary data. If data was accessible on-line, it would lead to more transparency.

7. COMMUNITY OUTREACH

- Along these lines, the sanctuary should consider having a conference (5 or 6 years out) on the model it would develop on best practices for working with indigenous peoples.
- Sanctuary should do more than educate school children. They should do more to reach people who do not attend meetings, try to educate people who are harder to reach.
- Continue and expand efforts toward use in youth and adult education in ocean literacy with emphasis on practical work based learning and long-term volunteerism, and this is an area for collaboration.
- Expand website and other ways for the public to understand management strategies, and participate and support management plan more fully. Increase understanding of the sanctuary by the general public so as to be more informed on action plans.
- Develop and expand education and outreach through partnerships with universities and other institutions (e.g., Monterey Bay Aquarium).
- Leverage internal and partner resources to improve educational outreach outside of the Olympic Peninsula. Host trainings (e.g., REEF). For example, the sanctuary could host trainings at Sand Point in Seattle.
- The sanctuary should study who is the target audience for education programs, i.e., is it K-12 relative to the specific objective? Be strategic in determining the target audience considering funding is limited.
- The sanctuary needs to increase attention from the sanctuary foundation to increase funding for projects in the sanctuary. We need galas and other fundraising events.
- Develop education collaborations with other environmental education organizations, such as the Audubon Institute.
- Sanctuary should continue its primary role in annual coastal cleanup – benefits include community outreach and removal of marine debris.
- The sanctuary should increase the educational outreach, not only with the website, but have people on the ground to interact face to face with communities. Schools are important, but there is a need to reach out to a wider population as well.
- Outreach programs should encompass Westport and Ilwaco; children and adults.
- The sanctuary should support an education program that starts with students and follows up all the way to seniors. Some visitors and residents have no background on marine life – lifelong learning is important. Don't take just the kids on field trips – also take newcomers and seniors on field trips to the beach, tide pools, rainforest, whale watching, etc...
- Continue education, not just in the schools but within surrounding communities. Using web, posting information, updates online; Alternative to print media.
- Develop education programs that reach those communities: Neah Bay, Forks, La push, Taholah.
- The sanctuary should partner more with the Feiro Marine Science Center to collaborate with the educational service districts on programs aimed at creating programs that are transportable to the field.
- The sanctuary should be as transparent as possible so that the community feels it understands what is going on. If an issue comes up, the general public has a voice in the decision-making.
- The sanctuary advisory council needs to be more publicized and emphasized as a means of communication between the sanctuary and the public.

- Communication: we need to communicate what our goals and objectives are.
- The sanctuary needs to flesh out the way it represents the tribes to the public. The sanctuary needs to update the representation of the tribes; the tribes are more than just their heritage. The tribes are involved in modern technology and current management processes. The tribes are only portrayed in an 1855 cast, and that leads to misunderstandings among the public.
- AC meetings should be better publicized in the target communities, like flyers at the grocery store, etc... Just having it on the website and the Port Angeles paper may not be enough for the community to really find out about it.
- Communities are remote here on the peninsula. Newsletters could be distributed through the Makah Access Portal in order to reach local communities. A quarterly e-newsletter would be useful (for example like the one at Channel Islands).
- The sanctuary should reach out to citizens to do citizen activist activities such as the clean coast alliance. Programs designed to engage people in some activity in the sanctuary so they can see human impacts in the sanctuary. This will help people take these lessons learned back to their communities.
- The sanctuary should work collaboratively and partner with other groups such as schools or private groups on education programs.
- Economy is not doing very well. Make the peninsula a center for marine oceanography. Need for tourism, kid camps, etc that are focused on marine resources. Promote peninsula for marine research and a center for marine study. If National Oceanic and Atmospheric Administration (NOAA) based in Port Angeles, it would be a great opportunity to promote entire peninsula for marine resources. Need for integrated effort to promote marine research and tourism.
- Increase public ocean literacy programs for community and K-12 (action item). Help people to be stewards of the ecosystem (underlying priority).
- Education. The local population needs to know more about the sanctuary and its function. Foster stewardship. Interpretive signage to help educate populous. Education programs with local communities.
- Disappointing at this is the first newsletter from the sanctuary since it was designated. Should have had (or have) better flow of information. Many web-based opportunities. Sanctuary appears to be a stealth operation. Need to let public know the resource exists, what the sanctuary is doing. Present early results. What are the trends, baselines, etc? Must be communicated.
- The sanctuary needs to make the public more aware of the IPC and their roles.
- Surfrider urges increased partnerships between local, state and federal agencies, as well as grass roots volunteer organizations like Surfrider in supporting outreach activities with schools, recreational users of the marine environment, commercial interests like fishers, crabbers, oyster growers, etc., and tribal interests.
- An important element of a successful management plan will be to bring people together at the local level, to exchange views, expand knowledge and engage people in activities like beach cleanups, water quality testing and other "hands on" opportunities.
- More educational outreach to local citizens.
- Leveraging existing NOAA resources - NOAA had a facility at Sandpoint - The Western Regional Center - yet it is not a component of the Sanctuary's outreach. I understand it is a different arm of the same organization but leveraging existing INTERNAL resources would benefit both arms.
- Outreach needs to be both PUSH and PULL. Outreach PUSH is-that the OCNMS need to make its information available at suitable venues even without going to the work of the having a booth.
- Outreach needs to be both PUSH and PULL. Outreach PULL is that the OCNMS should be a suitable magnet to allow individuals or groups to take advantage of web and physical resources to expand the OCNMS' mission.
- In reality outreach is constant and I would think if it were part of a structured education effort at all levels then OCNMS would benefit. I understand outreach costs but if the costs were shared with Partners and self-supporting then everyone wins.

- The ability to build community outside the "science/research" community would be to the OCNMS benefit. . . SHIPWRECKS and the human drama of coming to the Pacific Northwest prior to all our navigational improvements is a story that needs attention.
- Engagement comes from a sense of ownership. To get ownership you need to participate in the Sanctuary processes. Your status report highlights a wide collection of opportunities for involvement and I suspect the general public does not have the advantage of the report to understand the breath of the Sanctuary process.
- Improve outreach, communication, and collaboration with the public, tribes, and other stakeholder groups.
- The Sanctuary needs to prioritize a public outreach strategy that includes at minimum a quarterly electronic newsletter that is sent to the public as well as to the press, a regularly updated website with information about the latest Sanctuary research findings and education opportunities.
- In addition, the Sanctuary Advisory Council (SAC) needs to find ways to be more relevant to their coastal constituents by making their meetings more accessible to the public and to invite members of the public to make presentations to inform them of their interests and concerns.
- Create more opportunities in coastal communities for idea and information exchange, and develop new curricula for learning for children, teens and adults.
- OPAS would like to see NOAA expand its role in the education of the public on the uniqueness and importance of the Sanctuary. This initiative could include an annual or biennial public symposium sponsored by Federal Agencies, the Tribes and other users of the Sanctuary. It should focus on describing the physical oceanic processes off the Olympic Coast and how they relate to the health of the biological populations.
- Outreach offers an excellent opportunity to engage coastal users, organizations and coastal communities, including schools in partnership building efforts while increasing ocean literacy and appreciation for the Sanctuary.
- Create opportunities for coastal residents and seasonal visitors to become stewards through activities such as monitoring and beach clean ups.
- Promote and support local coastal community programs to better manage waste and to recycle.
- Support plastics and Styrofoam bans by distributing educational information on the harmful impacts of these products. Consider purchasing and distributing reusable bags.

8. ECOSYSTEM IMPACTS OF FISHING

- Archeological sites contain information that can be used to understand the ecology of present systems which could help us with resource management (e.g., look at things in the past before management issues such as overfishing were occurring).
- The sanctuary should pursue a policy of ecosystem-based management, which should focus on interaction of all elements of ecosystems, including humans as element of the system.
- The sanctuary should keep the draggers out of the sanctuary. Draggers (bottom trawling) are tearing the bottom up.
- Sanctuary should undertake more coral biomass research – not just taking pictures of the resources but estimating the biomass of the coral resources, for example in areas not accessible to fishing gear as well as fished areas.
- Analysis of fisheries impacts or levels of impacts, what impacts have been sustained.
- Create areas to be avoided by trawlers and identify rocky areas that could be utilized by corals and sponges.
- The apparent ineffectiveness of the existing management plan in protecting the sanctuary resources from 1) the likely expansion of the Navy's test range into the sanctuary, 2) the unknown effects of the experimental wave-energy project, 3) destructive fisheries
- While it may not want to get involved in helping to determine catches, the Sanctuary should prohibit damaging fishing techniques within its boundaries, such as bottom trawling.

- The OCNMS should also establish some marine reserves that are protected from fishing, even if these reserves are small. These can serve as important refugia that restock adjacent damaged or overfished areas.
- I would like to offer a comment in support of the strongest possible protections for the rockfish (particularly Tiger, China, and Canary) in danger of extirpation off of our state's coast. Survey data indicate that these populations are far too low to allow further harvesting or incidental take.
- Continued work with tribes to minimize impacts from their fishing and harvesting including closures when needed
- No fishing areas to let populations recover and expand
- Please close the rockfish fishery for the foreseeable future. Populations of China Rockfish, Tiger Rockfish and Canary Rockfish in the portion of the Marine Sanctuary encompassing Tatoosh Island, the entrance to the Strait of Juan de Fuca, and Neah Bay are reported to have declined greatly, and are currently under heavy fishing pressure by recreational fishers.
- I support stronger fishing and harvesting restrictions within the Marine Sanctuary along with continued awareness and action regarding invasive species.
- Protection of benthic infrastructure is of critical importance to the maintenance of healthy ecosystems, particularly where fisheries species associated with fragile benthic communities are targeted by destructive fishing practices (e.g., trawling for some species of Rockfish). Cold water and deep water benthic communities are known to be slow growing, with unknown recruitment/recovery rates, therefore management practices should be pro-active and conservative.
- I am greatly concerned to learn that numbers of fish, particularly rockfish, has declined significantly in recent years. Encourage you to place stringent limits on the exploitation of these resources.
- I would like to ask that you please consider managing the OCNMS rockfish population with an eye to preserving one of the few places in Washington where divers can see these long lived but elsewhere critically depleted species. The populations of rockfish in the sanctuary are presently suffering as a result of fishing regulations which are not sufficient to maintain sustainable breeding populations of these fish. . . .I suspect that as we try to rebuild rockfish populations throughout Puget Sound and the San Juans we will rely on seeding from places like the OCNMS - we need a sustainable population from which to base the recovery.
- No trawling should be allowed, nor any other type of fishing. Areas where fishing is outlawed experience major rebounds of species. The sanctuary should be a no-fishing zone, otherwise we will never have a natural ecosystem.
- Compatible use and close monitoring of fisheries can assure limited activities in some areas while other areas are "off line" and recovering, serving as nurseries for outside harvest areas.
- Help to prevent overfishing and contribute to recovery of depleted fisheries. For example, consider designating marine reserves and refugia.
- Prohibit or adequately restrict fishing techniques that damage the sea floor, such as, bottom trawling and long lining.
- We remain concerned by the effects of bottom trawling on seafloor habitats within sanctuary waters. In 2002, the National Research Council published the report, *Effects of Trawling and Dredging on Seafloor Habitat*, which provides an independent, objective and critical review of scientific literature and reports on bottom trawling impacts. The National Research Council (NRC 2002) concluded that bottom trawling alters the seabed and marine life by: reducing habitat complexity; altering seafloor communities; and reducing habitat productivity. Bottom trawl gear, consisting of expansive nets plus steel doors, chains and footrope gear, is dragged across the seafloor, knocking over living, habitat-forming invertebrates, suspending sediments into the water column, compressing the seafloor, displacing boulders and digging into sandy habitats. We encourage the Sanctuary to protect sensitive habitats and resources from the destructive impacts caused by this fishing practice.
- The National Marine Sanctuaries Act and the Magnuson Stevens Fishery Conservation and Management Act are both important pieces of legislation administered by NOAA. While they

- should be administered in a compatible manner, they have different purposes and mandates that are not always complementary. Each year NMFS authorizes industrial fisheries that remove thousands of metric tons of living marine resources like whiting, rockfishes and salmon from sanctuary waters. It is becoming increasingly clear that fishing affects more than just targeted species--it affects the entire ecological community. Through the direct removal of targeted fish species, indirect competition with ocean wildlife, bycatch of non-target species and habitat damage induced by destructive fishing gear, commercial fisheries affect the marine environment and resources of the sanctuary. It is important that the Sanctuary work closely with the National Marine Fisheries Service and tribes to ensure that ocean fisheries are managed in an ecologically sustainable manner. We recommend that the OCNMS management plan include direction to work closely with NMFS in the development of an ecosystem-based fishery management plan that consider ocean fishery management in the context of a vibrant and healthy ocean ecosystem, rather than in the context of single species managed for maximum yield objectives.
- With regard to habitat protection within the Sanctuary, we first urge NOAA to work with trawl vessel owners and operators to ensure that the impacts of their gear - known to be damaging to sensitive benthic habitats - is minimized. This may be done through area-based restrictions around known sensitive habitats such as corals and sponges. In addition, considerable investment should be made in cooperative research that offers opportunities for fishermen to design and participate in studies that demonstrate effective use of selective fishing gears and methods. From an economic stand point, restoration of the marine environment is exponentially more expensive than precautionary efforts to preserve sensitive areas. Furthermore, precautionary management measures within the Sanctuary are in keeping with your mission statement to “preserve the area’s ecological integrity.”
 - The discovery of deep-water corals and sponges in the Sanctuary indicates the importance of this area of the coast. Unfortunately, these organisms are extremely susceptible to damage associated with human activities, including some types of fishing and geological exploration. It is therefore imperative that these organisms receive full protection. Please note that under the reauthorization of the Magnuson Act, protection of organisms other than fish in our waters is now authorized.

9. FISHERIES STOCK ASSESSMENT

- I would like to see OCNMS work with government entities in doing stock assessments of fish.
- The OCNMS is home to a vast array of fishes including salmon, lingcod, cabezon, kelp greenling, halibut and many species of rockfish. Some, such as lingcod, have high site fidelity to individual reefs, while others such as Pacific whiting (hake) traverse waters along the West Coast. We believe that some of the most pressing problems in our fisheries – bycatch and overfishing for example -- have occurred because management actions have inadequately accounted for spatial variability of the resource. While west coast salmon and groundfish fisheries face crisis after crisis, fishing effort in the usual and accustomed fishing grounds of Washington’s coastal Treaty Tribes - and therefore in the OCNMS - is increasing. We feel strongly that NOAA, state agencies, and tribal councils should do everything possible to manage and steward this area with caution and foresight, using the best available science. With regard to biophysical processes in the region, nearshore demersal habitats tend to be vastly different from deeper offshore areas of the continental shelf and slope. Nearshore regions are typified by “sticky water” with very low alongshore movement. Offshore regions are generally colder, lower oxygen, and stable ocean environments with much stronger alongshore advective processes coming into play in the pelagic region (Francis et al. 2008). PMCC believes that the Sanctuary could be a leader in the move toward finer scale spatial management of the region’s fisheries. We recognize that, from an ecosystem perspective, the nearshore coastal environment presents a challenge to manage on fine spatial scales not encountered with offshore fisheries. The OCNMS management plan should include provisions for spatial management, including specific actions to be taken based on the latest fisheries science.

- There is an identity crisis with two National Oceanic and Atmospheric Administration (NOAA) agencies: the National Ocean Service, and National Marine Fisheries Service. What is the specific role of sanctuary? It is a great research mechanism.
- The sanctuary should stay back from the regulatory role of fisheries. It should conduct/coordinate research that contributes to the regulatory policies.
- The sanctuary should have a cooperative agreement on the state/tribes ecosystem initiative. This initiative will look at rockfish stocks on a regional basis and look at rockfish stocks in relation to mapped habitat. There is a need to help improve the objectivity of scientific research produced by all resource managers.
- Information available to the Pacific Fisheries Management Council (PFMC) could be augmented. Sanctuary could help with data-poor stock assessments to fill in data gaps.
- Ocean fisheries are being depleted – more research and regulation on fish stocks. More current stock data. Sanctuary should be an area of more intense study.
- Research on fish biomass should be provided to regulators.
- Would like the sanctuary to assist with rockfish stock assessments. Current efforts are insufficient.
- Work with the Washington Department of Fish and Wildlife (WDFW) to develop stock assessment of fish, especially yelloweye and canary rockfish. Coast-wide biomass assessment (Mexico to WA) not representative of regional abundance.
- Sanctuary should contribute, can take a lead with regional stock assessment to refine groundfish management.
- National Marine Fisheries Service (NMFS) science centers need help. Stock assessments are data poor. Sanctuary could have access to more resources to expand stock assessment efforts.
- Diversity of data sources would help to ground truth differences in results gained from different methods. Need to make sure data input into stock assessment models is reliable.
- Remotely-operated vehicles (ROVs) and other modern technologies should be used to improve stock assessment methods in conjunction with conventional techniques.
- For example, the sanctuary could facilitate stock assessment research by giving boat time or other means to help fisheries researchers to do their job.
- Rockfish assessment research should be expanded to areas that current methods have not captured (randomized transects within variable bottom contours): current methods are unable to access certain areas that some species tend to prefer or require
- There need to be regionally-based assessments of rockfish and not a coast-wide management.
- Where possible, provide data and information to fisheries management entities to improve stock assessments -- but in so doing, characterize the full life cycle of organisms and their habitat associations - to support sustainable fisheries.
- In addition to banning cruise ship discharges in the Management Plan the Sanctuary needs to rededicate itself to informing the public about the natural wealth that lies off the coast, enhance our region's ability to prevent and respond to oil spills and conduct research that helps to inform fisheries management rather than including fishing within the scope of regulations as you told the public when the Sanctuary was first designated.

10. HABITAT CHARACTERIZATION

- The sanctuary should do more work on deep-sea corals and deep-sea communities in order to monitor for climate change.
- Seafloor mapping should be 100% complete and assessment of benthic habitat which are important, especially deep coral.
- We need more geological research specifically focused on paleo-shoreline and sea level history over the past 20,000 years.
- Seafloor mapping and habitat characterization need to be high priorities.
- The sanctuary should continue habitat mapping in the sanctuary. This habitat mapping data also needs to be ground-truthed.

- The sanctuary should consider that habitat mapping data should support other ecosystem objectives, and not just support sanctuary or rockfish needs.
- The sanctuary should pursue an Intergovernmental agreement to declassify U.S. Navy maps and bathymetric data.
- Corals and living organisms that form seafloor habitats should be protected as best we can. These habitats regenerate very slowly after damage.
- A priority should be continuation of seafloor mapping and habitat classification programs. Mapping efforts should be completed.
- Would like public access to sanctuary's maps (e.g., bottom habitats). Would like improved charting for navigation safety. Suggest using sanctuary data to improve National Oceanic and Atmospheric Administration (NOAA) charts.
- Sanctuary should continue habitat mapping efforts. Get 'er done.
- Conduct and/or support those conducting analyses of existing data and identify data needs.
- The sanctuary should work together with the state, counties, port authorities, and the tribes to expand knowledge of habitat characterization. Collecting the data would help other initiatives such as siting of wave energy structures, ecosystem assessments, protection of essential fish habitat, etc...
- Sanctuary should conduct more mapping and habitat characterization within its boundaries.
- Need additional research on deep sea corals. Where they are, what they do, how they interact within the ecosystem.
- The sanctuary should develop data standards that provide for data and interpretation of the data to be translatable and available to resource managers in a timely fashion.
- We should survey the habitats and species to understand better what lives in the sanctuary and where. Habitat mapping is key.
- The sanctuary should make its data/research more accessible to the public and others.
- Further deep sea coral research – lack of data, need of more complete picture.
- Habitat mapping, developing response plan, continue and accelerate work
- Develop and adhere to a standard to making existing data translatable and available in a reasonable time period to inform resource management.
- Sanctuary should expand monitoring and characterization of all habitats within the sanctuary. We need to understand the habitat needs of all lifecycle stages.
- Sanctuary should undertake more coral biomass research – not just taking pictures of the resources but estimating the biomass of the coral resources, for example in areas not accessible to fishing gear as well as fished areas.
- Sanctuary should expand random transect video monitoring rather than site-specific video monitoring, in order to have a more representative picture of habitat, species composition, abundance, etc...
- Analysis of fisheries impacts or levels of impacts, what impacts have been sustained.
- Need a baseline for future monitoring. Sanctuary to help facilitate with agencies, academic, tribes and act as a clearing house. Coordinate a bi-annual symposium of knowledge of the sanctuaries, i.e., recent research results.
- Species research that captures trends and status of different types in the sanctuary. Research should focus on habitat conditions and habitat types, i.e., deep corals.
- Sanctuary needs to be doing more mapping of the seafloor habitat.
- The protection of newly found deep-sea coral is very important. The coral needs to be identified and protected. We also need to increase the area of sanctuary that is mapped, so that we know what we've got. There needs to be stewardship among all the users.
- The sanctuary should assist/support fisheries managers by doing research that helps managers (rather than managing fisheries itself). For example, seafloor mapping research could help fisheries managers.

- The need to continue mapping the sanctuary seafloor. Documenting the condition of existing habitats is a prerequisite for, among other things: minimizing the damage to deep-sea corals and sponges.
- Documenting the condition of existing habitats is a prerequisite for, among other things: getting baseline information to gauge the likely looming effects of climate change.
- Continuation of mapping and ground-truthing efforts should be given high priority, and the use of predictive models for extrapolation of data into unknown areas should be employed where possible.
- [Identify]to the best of our ability the current condition of habitats and resources – comprehensive habitat mapping will be key
- The sanctuary should pursue inner-governmental agreements or MOAs to declassify appropriate U.S. Navy maps and bathometric data.
- The sanctuary should consider that habitat mapping data support other ecosystem objectives, and not only support sanctuary or rockfish needs.
- Biodiversity conservation should include the following [issue]: The management plan should include continued undersea explorations to map the distribution of habitat-forming structures, such as deep-sea corals and sponges. . .
- The management plan should describe the Sanctuary’s planned effort for seafloor mapping and habitat classification to cover the entire Sanctuary at high enough resolution to inform habitat-conservation decisions.
- Continue habitat mapping and baseline inventory of biota.
- Shoreline characterizations need to be completed for the development of an environmental sensitivity atlas that would be helpful in Natural Resource Damages Assessments as well.
- It seems unfortunate that NOAA has to spend its limited resources in mapping the bottom of the Sanctuary when the Navy already possesses these data but will not make them available and then prohibits NOAA from making their results public as well. NOAA needs to seek from the Navy an analysis of their bottom mapping that enables the Navy to protect classified information while allowing NOAA to better define the nature of the benthic habitat.
- We believe that there are several goals and objectives that the Sanctuary, together with its partnering agencies and the Tribes, should work toward. We. . .need to gather baseline data sufficient to measure change in marine resources within the boundary of the Sanctuary. From this, the Sanctuary can begin to develop an understanding of the distribution and quality of habitats and the role in which they function in the marine ecosystem.
- The Sanctuary should initiate work to characterize benthic habitats. The Sanctuary should determine to what extent the navy would be willing to share its data while protecting classified information.
- The management plan should include continued undersea explorations to map the distribution of habitat-forming structures, such as deep-sea corals and sponges. OCNMS researchers have surveyed only a small portion of the sanctuary, and there might be many undiscovered corals and other living structures in sanctuary waters that warrant protection.
- Only a quarter of the sanctuary’s seafloor habitat has been mapped. . . The management plan should describe the sanctuary’s planned effort for seafloor mapping and habitat classification to cover the entire sanctuary at high enough resolution to inform habitat conservation decisions.
- OCA calls for research on and implementation of the best methods for restoration of kelp forests in the OCNMS. Research should be conducted to identify the appropriate sites for restoration within the Sanctuary. Successful restoration methods used in California should be adapted for use in the OCNMS.
- Specifically, the draft management plan should include a plan to complete seafloor mapping and habitat classification throughout the sanctuary at high enough resolution to inform management decisions.
- Continue underwater explorations for habitat-forming structures, such as corals and sponges.

- Complete Seafloor mapping and habitat classification for the entire sanctuary at a high enough resolution to inform management decisions.

11. HABITAT PROTECTION

- Sanctuary should continue the protection of habitats for marine mammals and seabirds.
- The sanctuary should identify certain areas along the coast that are key for larval dispersal for a prioritized oil spill response to reduce impacts to critical habitats. Primarily identifying critical intertidal habitats.
- A priority should be to maintain existing resources (living and non-living) – with focus on biodiversity, water quality, habitats. Research, education, partnerships, and preparing for change are ways to approach this.
- Corals and living organisms that form seafloor habitats should be protected as best we can. These habitats regenerate very slowly after damage.
- Continue to promote a healthy ecosystem in the sanctuary, using the best science to promote a healthy habitat for sea life, good water quality.
- The sanctuary should work with Olympic National Park to establish protected zones where harvesting is not permitted by non-indigenous people. There has been damage to some intertidal resources.
- The sanctuary should keep the draggers out of the sanctuary. Draggers (bottom trawling) are tearing the bottom up.
- The need to continue mapping the sanctuary seafloor. Documenting the condition of existing habitats is a prerequisite for, among other things: minimizing the damage to deep-sea corals and sponges.
- Create areas to be avoided by trawlers and identify rocky areas that could be utilized by corals and sponges.
- Closures to protect marine life when needed
- Protection of benthic infrastructure is of critical importance to the maintenance of healthy ecosystems, particularly where fisheries species associated with fragile benthic communities are targeted by destructive fishing practices (e.g., trawling for some species of Rockfish). Cold water and deep water benthic communities are known to be slow growing, with unknown recruitment/recovery rates, therefore management practices should be pro-active and conservative.
- I think all the programs the Sanctuary works on are important. If we don't have programs to protect and watch over our habitat, it could become like so many other parts of the world that have not managed their natural resources well.
- Deep-sea corals provide habitat to fish and invertebrates, are vulnerable to disturbance, and need centuries to recover from damage, if at all. The vulnerability of these living habitats merits particular conservation attention. The management plan should outline the sanctuary's coral protection efforts over the next five to 10 years.
- The Sanctuary . . . should provide necessary areas for natural estuary habitat – the cradle of many marine species.
- Biodiversity conservation should include the following [issue]: protecting the benthic communities; protecting the benthic communities will help maintain healthy fisheries stocks, because they are the most fundamental elements of the whole aquatic ecosystem. The vulnerability of these living habitats merits particular conservation attention. The management plan should outline the Sanctuary's commitments to protecting these communities, including the corals over the next five to 10 years.
- The management plan should outline the sanctuary's coral protection efforts over the next five to 10 years. . . Deep-sea corals and sponges provide habitat to fish and invertebrates, are vulnerable to disturbance, and are very slow to recover from damage, if at all. It has been shown that changes in benthic infrastructure cause changes in mobile coral associated communities, including commercially valuable fisheries species. Protecting the benthic communities will therefore help

maintain healthy fisheries stocks. The vulnerability of these living habitats merits particular conservation attention.

- The management plan should incorporate the use of spatial planning as a tool to allow human activities to take place in zones where marine life can withstand the resulting human impacts. Zoning prevents user conflicts by separating activities that are incompatible with each other, and protects biodiversity by prohibiting disturbance in vulnerable habitat. The sanctuary should review the experiences of existing zoning efforts, such as Australia's Great Barrier Reef Marine Park, and integrate applicable lessons into the management plan.
- OCA calls for research on and implementation of the best methods for restoration of kelp forests in the OCNMS. Research should be conducted to identify the appropriate sites for restoration within the Sanctuary. Successful restoration methods used in California should be adapted for use in the OCNMS.
- OCA calls for regulations that prohibit harvesting of kelp forests within the OCNMS. Additional regulations are also needed to prevent degradation of existing kelp forests from other current and future Sanctuary uses such as fishing, military testing, wave energy generation, and sea floor disturbance.
- Improved Protection of Biodiversity and Habitats [should be a priority topic].
- The management plan should address ocean zoning, marine protected areas and ecosystem based management as potential methods of improving protection of sanctuary resources.
- [We recommend that the updated OCNMS Management Plan include] identification of immediate, potential, and long-term anthropogenic impacts and threats to each habitat area.
- We encourage the Sanctuary to take specific actions to protect sensitive habitats such as the coral and sponge habitats and other Important Ecological Areas within the Sanctuary, . . . such habitats are of value, are important Sanctuary resources, and the Sanctuary thus has the responsibility to protect these important habitats.
- Removal of habitat structure in relatively low-structure soft-sediment systems significantly decreases biodiversity, and consequently that of the wider marine ecosystem. Therefore, protecting known areas of coral and sponge habitat inherently protects areas of high benthic diversity and a host of benthic organisms that provide habitat for fish in the form of food and shelter.
- [S]ubmarine canyons provide habitat for larger sized rockfish that seem to prefer structures of high relief such as boulders, vertical walls, and ridges. . . .Because submarine canyons on the U.S. West Coast are typically upwelling zones, they often contain higher abundances of filter feeding invertebrates, such as corals, sponges, tunicates, and bryozoans, which contribute to the structural complexity of the seafloor. Thus, the submarine canyons within the OCNMS are Important Ecological Areas. These areas should be identified in the management plan as well as immediate, potential and long-term impacts and appropriate management measures.
- One of [the Olympic National Park's] protective strategies identified within the GMP selected alternative is to establish intertidal reserve zones on approximately 38% of the coastal portion of the park. Given our overlapping jurisdiction in this area, a similar proposal in your management plan would be consistent. In implementing our GMP, we would like to work with you to set up the zoning guidelines and draft appropriate regulations to help us manage these areas.
- [Work with Olympic National Park to] regulate and mitigate nontribal human activities to minimize adverse impacts along the park's coastal strip.
- With regard to habitat protection within the Sanctuary, we first urge NOAA to work with trawl vessel owners and operators to ensure that the impacts of their gear - known to be damaging to sensitive benthic habitats - is minimized. This may be done through area-based restrictions around known sensitive habitats such as corals and sponges. In addition, considerable investment should be made in cooperative research that offers opportunities for fishermen to design and participate in studies that demonstrate effective use of selective fishing gears and methods. From an economic stand point, restoration of the marine environment is exponentially more expensive than precautionary efforts to preserve sensitive areas. Furthermore, precautionary management

measures within the Sanctuary are in keeping with your mission statement to “preserve the area’s ecological integrity.”

- The discovery of deep-water corals and sponges in the Sanctuary indicates the importance of this area of the coast. Unfortunately, these organisms are extremely susceptible to damage associated with human activities, including some types of fishing and geological exploration. It is therefore imperative that these organisms receive full protection. Please note that under the reauthorization of the Magnuson Act, protection of organisms other than fish in our waters is now authorized.
- Assess and identify areas that may need to be protected from development and other human activities in order to maintain their habitat functions and values.

12. INVASIVE SPECIES

- Sanctuary should do more baseline monitoring especially in regards to invasive species and upland activities (examples: mineral extraction, logging, coastline development)
- Sanctuary should proactively address invasive species. For example, intertidal surveys should be conducted frequently enough to not let invasive species become established.
- Coordination among agencies is import role for sanctuary with regards to long-term monitoring and eradication of invasive species.
- Invasive species
- Invasive species – Are there any thoughts of a response plan for invasive species?
- Continue efforts to protect area from invasives
- I am concerned about the influx of invasive species, whether through ballast water or carried on currents. We now have 2 invasive *Spartina* species in Grays Harbor, and anticipate more pressure from seed carried north from Humbolt and San Francisco Bays. I would like to know if there are any plans to set aside funding for detecting and controlling invasive species?
- I support stronger fishing and harvesting restrictions within the Marine Sanctuary along with continued awareness and action regarding invasive species.
- Invasive Species monitoring needs to be conducted in a tiered response for early detection. Having a broad constant look and then a more focused approached routinely so that nothing slips in is important.
- You have a note about it but from having dealt with invasive *Didemnum* at the Underwater Park at Edmonds it is not something that can be handled hit or miss. I would encourage an intensive survey even if the density were one data point per square mile to understand the existing status.
- Identify, prevent, and remove invasive species.

13. LIVING RESOURCE CONSERVATION

- Biodiversity conservation should be main focus of sanctuary and management plan. Primary purpose of sanctuary is to protect resources in area.
- A priority should be to maintain existing resources (living and non-living) – with focus on biodiversity, water quality, habitats. Research, education, partnerships, and preparing for change are ways to approach this.
- Human interaction – How do the fishermen impact the wildlife? Is there illegal shooting of wildlife? The sanctuary needs more education for the fishermen.
- Wildlife Conservation
- Protection of the pristine; keep the diversity and purity of all creatures - from plankton to the top of the food chain. Help the ocean survive.
- Many observers of coastal issues would like to see more research directed to the use of the OCNMS by gray whales. It is especially important to understand the timing of the arrival of mothers and calves to the nearshore areas of La Push and the Makah . . . More information could shed light on how best to minimize disturbance to them by human activities.

- The Olympic Coast National Marine Sanctuary should be expanded and have increased protections. It should be a true sanctuary that bans all hunting and fishing. The Makah whale hunt should not be allowed!
- I am sorry to report that you continue to fail control of the low flying aircraft in the OCNMS. Airplanes and the occasional helicopter regularly turn off the beach environs to the east flying just over our subdivision. It is commonplace to see aircraft fly below the 80' elevation of our home when the flight floor is 3000'. Why do you not set up a monitoring station in the area cliffs? This could be temporary or automated. Does the OCNMS issue regular warnings to airports in Western Washington, Oregon and British Columbia? Why do you not close the Copalis airport that is on the beach, in the OCNMS and has been there since WWII? Low flying aircraft do touch downs right over the spit that is a nesting and habitat area. Why will the Navy not give you access to its radar?
- Closures to protect marine life when needed
- Continue efforts on protecting and expanding sea otters
- Future OCNMS management plans should have a strong conservation and protection focus. The numbers of rockfish throughout Washington's waters are declining rapidly and need to be protected and better managed.
- As one who has done diving in the vicinity of Neah Bay on the mouth of the Strait of Juan de Fuca, there is a concern about the amount of rockfish being taken from those waters. . . Now from recent counts by other divers working with REEF as fish surveyors, the fish count has gotten to a point where these particular fish now need protection. . . This whole marine area is special, as a dive site and as a continuation of our own natural marine heritage. It needs more recognition and respect as being important rockfish habitat. It should be guarded from any mass depletion of fish, whether the fish are being taken by sport divers or by commercial fishing or by sports fishermen.
- The sanctuary is one of the few remaining areas where certain species of marine life still thrive, in large part due to sanctuary status. Continued intense monitoring and limitations on runoff of waste water, boating and shipping impacts and catch limits for sport and commercial fisheries are the key to maintaining the continued wildlife growth we see in the area.
- Whales should not be hunted. They are important species -- more so in the past -- whose sediment-moving feeding habits are important for other species.
- Hatchery fish should not be allowed in streams that enter the sanctuary. Hatchery operations devastate wild runs, and wild runs cannot recover in the face of hatchery competition.
- As a working fisheries biologist and member of the American Fisheries Society I would urge the continued protection of the sanctuary areas for rockfish in particular.
- The death of 7 of the L pod Orcas is further proof that their habitat and our ecosystem is in danger. . . Please . . . provide the strongest protection possible for the Olympic Coast National Marine Sanctuary.
- We agree with OCA when it says, "The OCNMS, like other Sanctuaries, should serve as a "seed bank" for the future. Management policy should focus primarily on preserving the ecological integrity of the Sanctuary by minimizing invasive species and disruptive human activities.
- I am writing to urgently ask the Olympic Coast National Marine Sanctuary to enact all available measures in the Sanctuary Management Plan to protect the valuable environment of the Sanctuary from harm. The Sanctuary provides a home and feeding grounds to a significant number of marine mammals including sea otters, chinook salmon, and the endangered Southern Resident orca.
- Biodiversity conservation should include the following [issue]: protecting the benthic communities; protecting the benthic communities will help maintain healthy fisheries stocks, because they are the most fundamental elements of the whole aquatic ecosystem. The vulnerability of these living habitats merits particular conservation attention. The management plan should outline the Sanctuary's commitments to protecting these communities, including the corals over the next five to 10 years.
- Advance marine vessel safety, underwater noise control, and oil spill preparedness.

- Improper use of the Copalis Beach aircraft landing area (beyond designated area) is a safety hazard for beach pedestrians and causes disturbance to wildlife. The sanctuary should work with the FAA, WDOT, and WSPRC to regulate the area and restrict beach use by aircraft to the area within 4,500 feet north of the Copalis River. Consider limiting its use to emergency situations.
- If a complete ban is not adopted, OCA calls for a ban on seismic and sonar testing associated with any energy project in or adjacent to the OCNMS. OCA encourages potential energy producers and the federal government to use best available technologies that do not cause harm to mammals or other marine life.
- OCA calls for the OCNMS to work with other federal and state agencies to augment the OCNMS sea otter population if it does not begin increasing substantially within the next five years.
- OCA requests that the OCNMS Management Plan provide authority to halt sources of noise that exceed an established baseline, set at a level that will have negligible effect on biological communities in the Sanctuary.
- OCA requests that Sanctuary staff revise the Management Plan to include baseline and ongoing monitoring of all sound levels using passive acoustic recording buoys within the Sanctuary.
- OCA requests that the OCNMS establish sound benchmarks for the Sanctuary and scientifically evaluate the impacts of human-produced sounds on marine animals in the Sanctuary.
- OCA requests that there be better monitoring and enforcement of current policies that mandate negligible impact of sound on marine mammals in the OCNMS.
- OCA requests mitigation of potential impacts that includes ceasing use of sonar during sensitive times (such as during marine mammal and fish migrations and breeding seasons) and in sensitive areas of the OCNMS.
- OCA requests the mid and low frequency sonar and seismic air guns be designated non compatible uses in the OCNMS and that these technologies be prohibited within acoustic impact range of the Sanctuary.
- The management plan should also require identification of particularly vulnerable species such as coldwater corals and include management measures to ensure protection of these species.
- One of [the Olympic National Park's] protective strategies identified within the GMP selected alternative is to establish intertidal reserve zones on approximately 38% of the coastal portion of the park. Given our overlapping jurisdiction in this area, a similar proposal in your management plan would be consistent. In implementing our GMP, we would like to work with you to set up the zoning guidelines and draft appropriate regulations to help us manage these areas.
- Areas of high biodiversity within the intertidal areas [should be] protected as "seed banks" for adjacent habitats and communities.
- [Work with Olympic National Park to] protect and restore threatened and endangered species and their critical habitat.
- [Work with Olympic National Park to] regulate and mitigate nontribal human activities to minimize adverse impacts along the park's coastal strip.
- [Work with Olympic National Park to meet sanctuary] goals and requirements for overflight restrictions.

14. LIVING RESOURCES MONITORING

- The sanctuary's future management plan should pay increased attention to living marine resources. Given their condition, attention to living marine resources should be an increased priority for the sanctuary.
- A priority of the sanctuary should be to establish with confidence what the status of the living marine resources is. Once we know this status, the sanctuary could act with more authority in managing the resources.
- The sanctuary should contribute to the understanding of the winter distribution of the endangered southern resident killer whale population.
- Study morbillivirus and toxoplasma in sea otters to determine its contagiousness.

- Expand upon current physical and biological parameter monitoring using remote ocean sensing devices (buoys) to provide baseline data and early warnings (e.g., harmful algal blooms). Integrate current deployments into Coastal Ocean Observing Systems, and partner with them.
- Increase knowledge on the presence, use and abundance in the sanctuary of threatened and endangered species. For example, study migratory pathways of hatchery and wild salmon.
- Monitoring should occur year-round (not just during good weather seasons), and should capture events that occur during the winter. For example, kelp monitoring in the winter is important in order to know what's coming for the spring.
- Check for parasitic algae on bull kelp, which is occurring in the central Sound.
- NOAA should use all of its observation assets (e.g., satellites) to the benefit of the national marine sanctuaries. Make this part of the management plan.
- The sanctuary should do more research on baseline levels of water column plankton larval fish and forage fish species. This data is needed for oil spill response and natural resource damage assessment.
- The sanctuary should initiate a stakeholder process to develop a shared set of species and habitats to be evaluated. Determine the conditions of those species and habitats and jointly develop strategies to protect them. Leverage partnerships and identify gaps.
- Continue surveying and monitoring efforts for long-term data sets on marine mammals, seabirds, kelp, etc. Existing monitoring programs need to continue and be identified as high priority items and not be terminated.
- A key role of the sanctuary is long term monitoring of living resources. Sites where long-term data is collected are needed. The sanctuary can serve this role by conducting and encouraging research and monitoring, and maintaining data and history.
- Research on predator biomass: seals, sea lions, pelicans.
- Local knowledge from fishermen should be used to help develop sanctuary research.
- Utilize local charter or commercial vessel operators for monitoring of baseline conditions. Create two-way communication process (e.g., email) to inform of changes in environmental conditions.
- There is a strong need to provide sanctuary data in a timelier manner and we need to identify the impediments that inhibit these reports from being produced and made available to other agencies and organizations.
- Conduct and/or support those conducting analyses of existing data and identify data needs.
- Need monitoring using remote sensing. More work with partnerships; agencies, tribes, non government organizations, and research institutions. To monitor physical changes and biological changes in the water of the sanctuary (e.g., harmful algal blooms - HABs).
- The sanctuary should develop data standards that provide for data and interpretation of the data to be translatable and available to resource managers in a timely fashion.
- We should identify to the best of our ability what is the condition of those resources.
- The sanctuary should make its data/research more accessible to the public and others.
- The sanctuary should act as a science based advisory panel and not implement belief based policy. Research that will fill data gaps in the transition to ecosystem based fisheries management. Specifics to include monitoring of apex predators, or sea otter-sea urchin dynamics. Conduct research that is mutually beneficial to tribes and the sanctuary. To be collaborators.
- Base line data – need data to make intelligent decisions for resources and managing resources.
- Marine bird assessment and why in decline.
- Develop a gap analysis about marine resources what we know and what we don't know. To inform management decisions. Example: Increases information for oil spills. Base line data.
- Develop and adhere to a standard to making existing data translatable and available in a reasonable time period to inform resource management.
- The sanctuary should set up a monitoring program to help with oil spill prevention that would monitor larval stages of rockfish and other groundfish species. To date, there is mainly risk assessment info on near shore species but no or little monitoring to assess damage to groundfish species, migratory species, recruitment, etc. Monitoring should be seasonal or even monthly.

- The sanctuary should increase research efforts and investigation on the marine survivability of all salmonid species in the ocean environment, with an emphasis on coastal species and/or ESA-listed species.
- The sanctuary should undertake genetic studies of salmonids passing through the sanctuary. There are species from other places (Columbia River basin, etc) that pass through the sanctuary and the sanctuary should study this occurrence: sanctuary may be critical habitat for certain species passing through, but we don't know that because we don't have the information.
- The sanctuary should support the installation of passive acoustic monitoring of killer whales or other marine mammals, similar to what has been done in Neah Bay.
- Sanctuary should do more in-depth monitoring of the non-native otter population effect on the resident urchin population: current urchin population may not be able to recover due to recent predation by otter population. Need to investigate and assess this issue.
- Sanctuary needs to commit itself to long-term monitoring of important parts of the food web. Should conduct review of protocols that can be conducted year after year so that these programs continue.
- Coordination with other agencies to get a better understanding of roles and responsibilities. Comprehensive understanding of research trends. Analysis of trends that have changed since the sanctuary designation. What improvements have occurred since designation?
- Need a baseline for future monitoring. Sanctuary to help facilitate with agencies, academic, tribes and act as a clearing house. Coordinate a bi-annual symposium of knowledge of the sanctuaries, i.e., recent research results.
- We need to better define the winter distribution of southern killer whales. Acoustic instrumentation on the coast to track the movements needed.
- To better understand the usage by gray whales of feeding areas. Improved characterization of mother-calf pairs during northern migrations.
- Natural Resource Damage Assessment (NRDA) near shore species characterization.
- When to use oil dispersant use matrix for responsible dispersant use
- The sanctuary needs an on-line database where the public can access data and information. This would better educate people about what the sanctuary is doing. It is difficult to access sanctuary data. If data was accessible on-line, it would lead to more transparency.
- Many observers of coastal issues would like to see more research directed to the use of the OCNMS by gray whales. It is especially important to understand the timing of the arrival of mothers and calves to the nearshore areas of La Push and the Makah . . . More information could shed light on how best to minimize disturbance to them by human activities.
- Though they may not yield useful results in the short term, long-term monitoring projects will be essential for OCNMS to understand how climate change affects its resources.
- Over the past 8 years I have had the privilege of working as a COASST volunteer . . . please continue and expand research in the Sanctuary. Track our birds, marine mammals, and sea life. Check our water quality and insure we are not injuring the marine populations . . .
- The Olympic National Marine Sanctuary is a joy to visit both on land and in the water as a diver. With the vast variety of flora and fauna makes this place a haven for both scientists and naturalist. There is a lot of research that needs to be done in this area and it would be very useful if the two would use an equivalent system enabling them both to use each others information for the betterment of the area.
- Provide equal opportunities for people to collect data for research. Provide different skill levels that can be checked and have equivalency with existing programs such as REEF, COASST, National Geographic Dive , Citizen Sciences, and Beach Watchers, However, NOAA, needs set the standard of each skill level that a person can learn with minimal training and then partake in collecting data or assist scientists.
- We must have programs in place that tell us how we are doing in trying to keep our waters clean and the inhabitants healthy so both plants and animals have the ability to live and prosper in a clean environment. There is so much we don't know and having programs like COASST,

- exploring the corals, keeping tabs on whale, otters, seals, birds and other wildlife is vital in helping us to protect these valuable natural resources.
- Continue surveying and monitoring efforts for long-term data sets on marine mammals, seabirds, kelp, etc. Existing monitoring programs need to continue and be identified as high priority items and not be terminated.
 - Marine resource monitoring: although costly, resource monitoring is very important in the protection process . . . Initially this focus should be on baseline studies, species of concern and on indicator species/systems that are key to the overall health of the ecosystem while also measuring global warming.
 - Winter is not a time to ignore the OCNMS. Yes conducting research in the winter is not always pleasant but the returns are important, as there are changes that occur and systems in place during winter that effect the entire year.
 - Continue habitat mapping and baseline inventory of biota.
 - Monitor sanctuary resources, including but not limited to species that are threatened, endangered, in decline, or that have been significantly impacted, and the food chain and physical conditions that support them.
 - NOAA needs to invest in technology that would enable the Sanctuary to efficiently assess the seasonal occurrence of marine organisms in the water column for the development of a dispersant use matrix.
 - Establishing a larval fish assessment monitoring program is also a top priority, as it will provide much needed insight into year-round water column vulnerabilities and can inform an oil spill dispersant decision matrix.
 - Establish a near-shore baseline data monitoring program that includes surveying and quantifying invertebrate, macro-algae and rockfish populations.
 - Design a year-round larval fish assessment protocol that meets the needs of all resource managers by acquiring technology such as In Situ Ichthyoplankton Imaging System (ISIIS) that allows for large coverage area while minimizing analysis time, and that incorporates fishing vessel operator participation where appropriate.
 - Although costly, resource monitoring is very important in the protection process. Understanding the financial constraints of the sanctuary system, monitoring should be streamlined and focused. Initially this focus should be on baseline studies, species of concern and on indicator species/systems that are key to the overall health of the ecosystem while also considering global warming.
 - OCA calls for research on the original natural distribution of kelp forests within OCNMS waters. This research should include documentation of tribal oral histories and examination for evidence of past kelp forests on existing and sediment covered rocky substrates.
 - OCA recommends that the OCNMS increase biodiversity monitoring within the Sanctuary. Our understanding of the diversity of species existing in the biological web of life in the Sanctuary is necessary for an ecosystem management approach, focusing on ecosystem connections. We recommend that OCNMS focus on the lower ratings in the Condition Report.
 - OCA recommends that the OCNMS enhance monitoring of orca and other marine mammals. Sonar buoy monitoring systems would be helpful in establishing marine mammal migration and feeding zones, so that they can be better protected within the Sanctuary.
 - Expand the kelp monitoring program to include sampling designed explicitly to measure and characterize anecdotally observed changes.
 - Begin monitoring the diversity and distribution of the other macroalgae that host the many fish and invertebrate species present in the nearshore.
 - [A]necdotal evidence suggests a reduction in kelp beds near river mouths. The current [kelp] monitoring program does not include a sampling design detailed enough to measure these observed changes. If the kelp forests are indeed beginning to erode in these areas, the Sanctuary should ensure the ability to quantify this change through an adaptation to the monitoring program.

- Currently the only macroalgae that is monitored is kelp. There is an abundance of other macroalgae species including *Gracilariopsis Carcadiotheca (Neoagarhiella)*, *Botroglossum*, *Prionitis*, *Desmerestia*, *Callophyllis*, *Gelidium*, *Gigartina*, *Nerocystic* and *Laminaria* that provide important habitat functions including substrate for the deposition of herring eggs, food and refugia for fish. The productivity and decomposition of macroalgae is important in nutrient cycling and influences nearshore water quality. A program that includes an initial survey to establish a baseline mapping in the density, distribution and diversity of the macroalgae as well as continued monitoring and analysis of changes from this baseline, could be used to assess the status of habitat and water quality at the Sanctuary.
- Expansion of the kelp monitoring program to: 1) capture the site scale changes that have been reported, 2) include a climate change modeling component, and 3) incorporate monitoring of additional macroalgae would significantly strengthen the Sanctuary's management plan. These changes would address two of the five priority topics to be addressed by the revised management plan *Characterization and Monitoring*, and *Climate Change*. Including an expanded macroalgae monitoring program as described above in the OCNMS Management Plan would allow for improved characterization of the Sanctuary resources, and the ability to more effectively respond to acute and long term environmental stressors.
- [Work with Olympic National Park to] inventory and monitor coastal and marine resources within park boundaries, determine baseline conditions, and detect abnormal changes in time to implement remedial actions.
- Many species of seabirds are in decline Washington Marine Waters. It is important to monitor the distribution and abundance of birds in the Sanctuary. What factors are influencing key bird food resources? Are changes in short term (last 10 years) meteorological conditions influencing nutrient dynamics and near shore productivity?
- The marine mammal and seabird surveys conducted in the Sanctuary are vital to understanding the health and dynamics of the area. Additionally, the citizen science Coastal Observation and Seabird Survey Team (COASST) program provides a unique means of monitoring the health of the sanctuary through the study of seabird mortality.

15. LOCAL AND CUSTOMARY KNOWLEDGE

- The sanctuary should preserve personal/oral histories and stories of fishing communities
- Local knowledge from fishermen should be used to help develop sanctuary research.
- The tribes were natural resource managers for thousands of years before, using oral tradition. The tribal knowledge is not an integral part of the scientific process currently used in resource management. Those traditions would greatly inform science if they were included. They are usually remarkably accurate. Example: many tribes have "first salmon" ceremonies where the first salmon is eaten. The whole village has to be clean (public health aspect). All the fish gets to go by and make it all the way to the headwaters to spawn. In current management practices, most fish is taken before they get to the headwaters.
- Honoring and learning the heritage of the people who have lived with the ocean for thousands of years. Traditional ecological knowledge – ways of knowing.
- System-wide – Develop better coordination and appreciation with Sanctuary family and Fisheries family. Fishing is not necessarily bad. Tribal fisheries are doing well. There is a great wealth that comes from the ocean. That is the tribe's existence. Incorporating this traditional knowledge is vehicle for getting to this cooperation issue.
- The tribes and other local communities have a lot of knowledge that the OCNMS should try to use effectively.

16. MARINE DEBRIS – ABANDONED SUBMERGED EQUIPMENT

- Assessment and characterization of marine debris within the sanctuary should be a priority. Take steps to remove it if necessary.

- The sanctuary should identify areas with derelict crab/fishing gear to allow for salvage of this derelict gear once the season is over.
- Clean up seafloor: crab pots, vehicles, containers, tires
- Derelict gear is a term that fishermen don't like and lost gear is ultimately is retrieved. Retrieving gear is expensive but much of it can be brought back. The sanctuary should be a partner, along with the state and industry, in creating a program to retrieve this gear.
- Recommendations are contained within the state ocean policy document and West Coast Governor's agreement. For example, marine debris and derelict fishing gear. The sanctuary should look at those recommendations and find the ways in which it can partner with other entities to further those objectives.
- Marine debris: fishing gear; create partnerships to get money for scoping and removal of marine debris, including derelict fishing gear (Investigate scope of problem; Determine if feasible to remove; Create partnerships to remove gear; Get permits to remove crab gear due to disturbance of sea bottom.
- Plastics - Charlie Moore ship traveling in Pacific cut across Northern Pacific Gyre and saw large amount of plastics. Coastal alliance cleans beaches and lots of plastic found; some fishermen are very aware and careful with not allowing plastics to go in the sea, others are not as concerned – need more education; awareness of impacts of plastics on wildlife.
- Derelict fishing gear removal: ghost fishing is brutal; impacts to wildlife; education; fishermen could be great partners – need to educate to promote stewardship
- Ghost crab pots in Ozette area: in past we could go in 30 fathoms to fish, now we cannot even go in 50 fathoms without losing gear; gear lost from storms - need recovery program to assist fishermen.
- Marine debris understanding of sources onshore vs. offshore. Source control. Identification of debris source for improved management strategies.
- Marine debris (and specifically marine plastics) needs to see more emphasis. Perhaps there should be more focus on prevention of marine debris.
- Identify the sources of marine debris, prevent further releases, and clean up existing debris, especially plastics and derelict fishing gear.
- We urge the Sanctuary to continue its partnerships with the Makah Tribe, other co-managers, Olympic Coast Alliance, and other organizations, to coordinate marine debris clean up activities. We believe the Sanctuary should develop outreach programs and materials for resource users to educate them about the consequences of marine debris. We also think better knowledge of nearshore and offshore ocean currents could enhance debris retrieval.
- Continue marine debris pilot programs utilizing Sanctuary resources.
- Develop outreach programs to educate and to encourage participation from resource users in the prevention and cleanup of marine debris.
- Develop a real time reporting and GIS database of gear loss events and marine debris occurrences.
- Marine debris is becoming more problematic and marine sanctuaries are increasingly affected. OCNMS should address this issue and encourage debris removal. The management plan should demonstrate continued commitment to clean-up efforts and promotion of public awareness on the matter.
- Marine debris should remain a focus of sanctuary efforts, including derelict fishing gear, beach cleanup, and plastics.
- Assess and characterize marine debris within the sanctuary.
- Identify sources and location of marine debris, including known pollutants and derelict vessels and gear (e.g., drift nets), and collaborate with federal and Washington state agencies to conduct removal and clean-up.

17. MARINE DEBRIS – SHORELINE CLEAN-UP

- Assessment and characterization of marine debris within the sanctuary should be a priority. Take steps to remove it if necessary.

- Sanctuary should continue its primary role in annual coastal cleanup – benefits include community outreach and removal of marine debris.
- Beach cleanup. Problem is year-round, not just once a year effort. Sanctuary should publicize and help coordinate.
- The sanctuary should have a program to educate people to not throw debris overboard when on the water -- to improve awareness about the disposal of garbage.
- The sanctuary should continue the participation with the annual coastal cleanup to support removing debris from wilderness beaches, perhaps to expand it – more beaches and more often.
- Continue as good stewards of ocean including beach cleanups in partnership with state.
- Recommendations are contained within the state ocean policy document and West Coast Governor’s agreement. For example, marine debris and derelict fishing gear. The sanctuary should look at those recommendations and find the ways in which it can partner with other entities to further those objectives.
- Continue working with Olympic National Park to remove marine debris annually.
- The Washington Clean Coast Alliance (WCCA) work should be continued on marine debris.
- Plastics- world-wide problem covering beaches: baseline data; Cleanups- trash lasts on beach for long time
- Plastics - Charlie Moore ship traveling in Pacific cut across Northern Pacific Gyre and saw large amount of plastics. Coastal alliance cleans beaches and lots of plastic found; some fishermen are very aware and careful with not allowing plastics to go in the sea, others are not as concerned – need more education; awareness of impacts of plastics on wildlife.
- How do we police these areas of debris with such a hostile shoreline? What are the solutions? Should Sanctuary play a more active role with removal of trash? Hire locals.
- Clean beaches – plastics; Education and other preventative measures
- Marine debris understanding of sources onshore vs. offshore. Source control. Identification of debris source for improved management strategies.
- Marine debris (and specifically marine plastics) needs to see more emphasis. Perhaps there should be more focus on prevention of marine debris.
- Continue debris cleanup efforts
- Continued work and education on ocean debris especially plastics
- Identify the sources of marine debris, prevent further releases, and clean up existing debris, especially plastics and derelict fishing gear.
- Please encourage more people to get actively involved to appreciate our local Puget Sound Region and the OCNMS and help reduce marine debris.
- We urge the Sanctuary to continue its partnerships with the Makah Tribe, other co-managers, Olympic Coast Alliance, and other organizations, to coordinate marine debris clean up activities. We believe the Sanctuary should develop outreach programs and materials for resource users to educate them about the consequences of marine debris. We also think better knowledge of nearshore and offshore ocean currents could enhance debris retrieval.
- Continue coordinating beach clean ups with non-profit organizations.
- Continue marine debris pilot programs utilizing Sanctuary resources.
- Develop outreach programs to educate and to encourage participation from resource users in the prevention and cleanup of marine debris.
- Marine debris is becoming more problematic and marine sanctuaries are increasingly affected. OCNMS should address this issue and encourage debris removal. The management plan should demonstrate continued commitment to clean-up efforts and promotion of public awareness on the matter.
- Marine debris should remain a focus of sanctuary efforts, including derelict fishing gear, beach cleanup, and plastics.
- The negative impacts caused by marine debris on marine species and ecosystems are an enormous issue for the health and integrity of the world’s oceans. Working with coastal communities and conservation organizations to clean up beaches and minimize debris coming from onshore should

be a priority for managing the Sanctuary. In addition, Surfrider Foundation hopes that you will demonstrate support for plastics and Styrofoam bans and that you will invest in understanding where marine debris found in the Sanctuary originates.

- Assess and characterize marine debris within the sanctuary.
- Continue participation in the Washington Coast Clean Up. Support efforts to remove debris from Wilderness beaches.

18. MARITIME AND ENVIRONMENTAL SAFETY - HARBORS OF REFUGE

- Harbors of Refuge: Need two on Washington Coast between Grays Harbor and Neah Bay.
- [We] urge the OCNMS management to consider plans for the use of dispersants in case of a large spill. Dispersants can be one additional response tool when other measures fail. Consideration should also be given to developing formalized agreements for “Harbors or Places of Refuge” for distressed vessels outside vicinity of the OCNMS.

19. MARITIME AND ENVIRONMENTAL SAFETY – NAVIGATION

- Request NOAA and Coast Guard place an Aid to Navigation on Duntze Rock to assure continued safe waterborne commerce.
- Duntze Rock should be marked with a racon and instrumented for meteorological data and acoustic data.
- Would like public access to sanctuary’s maps (e.g., bottom habitats). Would like improved charting for navigation safety. Suggest using sanctuary data to improve National Oceanic and Atmospheric Administration (NOAA) charts.

20. MARITIME AND ENVIRONMENTAL SAFETY - VESSEL MANAGEMENT

- Work with Ecology, industry, the Coast Guard, and other stakeholders to review industry's coastal shipping practices.
- Continue the ATBA research
- The OCNMS should continue to support the Coast Guard’s mission and authority to screen, deny entry, require operational measures including tug escort if necessary and/or require higher risk vessels to submit to inspections before arriving at port or upon arrival.
- In addition to the numerous safeguards, the layered safety net including the monitoring of deep draft ocean-going vessels, other vessel types and operations should be evaluated by OCNMS for spill histories and operations of concern to OCNMS stakeholders.
- NOAA has monitoring resources that could be leveraged for all the Sanctuaries as they share some common concerns about boat traffic and use. . . This cooperation comes by design as part of the Management Plan. Monitoring both Day and Night needs to be factored in as part of the management plan.
- Advance marine vessel safety, underwater noise control, and oil spill preparedness.
- Mandatory ATBA status. To further strengthen the precautionary measure of keeping large, oil-laden vessels away from the pristine resources within the Sanctuary, the Sanctuary could consider supporting the work toward making it mandatory that these vessels avoid entering into the Area to Be Avoided.
- Additional protections for vessels carrying “clingage plus.” The Council could consider working with the oil industry to better define what should be considered “carrying cargo” verses carrying mere “oil clingage,” such that some vessels currently transiting within the sanctuary because they are not fully loaded with oil cargo could (voluntarily perhaps) be treated as being “in cargo status” and consequently transiting outside the sanctuary.
- Require that all vessels containing potentially hazardous materials (including tugs and unladen barges) respect the Area to Be Avoided.
- We would welcome the OCNMS staff and administrators spending more time and effort on quantifying actual oil spills and incidents that have occurred in or close to the Area To Be

Avoided (ATBA) and Sanctuary. A recent request for information on this subject was responded to with a woefully inadequate inventory and assessment of incidents and risks. The list provided had numerous inaccuracies, miss-assigned risk, unclear attributions, and references to incidents that were not close to the Sanctuary. Including reporting information on marine incidents that describes fully the sea state, weather variables, location, closest vessels (particularly those tugboats who are monitored through the International Tug of Opportunity System), and other factors, would give responders a better sense of what, if any, imminent danger is likely and how best to respond. Often high-risk incidents may involve more than one vessel needing assistance at the same time and effective triage demands more consistent and detailed reporting to assess the reality of how best to respond. Therefore, the OCNMS management plan should include timely, consistent, relevant, and detailed reporting of incidents for better planning and response measures.

- Despite the rancor concerning the threat of large commercial vessels in our waters, the majority of actual risk and spill incidents tend to be smaller vessels, with fishing vessels being the most frequent offenders. . . Greater attention should be paid by administrators to developing safety and awareness educational programs for those who operate fishing boats and small craft in the OCNMS region.
- Continue to monitor vessel adherence to the voluntary Area-To-Be-Avoided and provide regular updates and recommendations for enhanced compliance to appropriate authorities.
- The sanctuary should encourage the state and Coast Guard to proceed with their study of coastal towing (losing tows, infringing on the ATBA and interactions with nuclear submarines and the recommended routing in the Strait of Juan de Fuca).
- Point-source pollution (oil spills) should remain a priority. Continued vigilance (monitoring and compliance of the Area to be Avoided) is important. Pushing other regulatory agencies toward stronger prevention measures.
- Towed cargos (barge and tug traffic) and small boat traffic/use should be better characterized, tracked, and assessed for risks. Work with the Coast Guard to understand who is out there, and risks posed by different users.
- Area to be Avoided (ATBA) has provided buffer zone where response time is increased – sanctuary should continue to maintain its ATBA program.
- Non-laden tugs with barges could pose threat to sanctuary. ATBA program should address these vessels also.
- Need continued monitoring of Area to Be Avoided to determine violations and gather data.
- Insure that all vessels containing hazardous materials are respecting the areas to be avoided.
- Improve marine vessel safety beyond Neah Bay tug.

21. MARITIME AND ENVIRONMENTAL SAFETY - WEATHER FORECASTING

- Support Doppler radar installation on the outer coast.
- Doppler radar should be put in place for this area. The outer coast is not covered by current Doppler radar. This is important for navigation safety – need ability to do better forecasting. This is on the table with other groups as well (Weather Service, state). Sanctuary could be an advocate within the National Ocean and Atmospheric Administration (NOAA).
- For example, look into new weather forecasting technology with Dr. Cliff Mast at the University of Washington.

22. MARITIME HERITAGE - CULTURAL RESOURCE MANAGEMENT

- Establish remote sensing, surveying and monitoring of underwater archeological sites.
- Expand archeological studies, monitoring, sampling and analysis to include areas near or adjacent to the sanctuaries. Coastlines have changed over paleo-time so these areas are no longer within the boundaries of the sanctuary.
- Continue research and education about archeological work that has been done. That research should have a public education component.

- After habitat mapping and paleo shoreline study, sanctuary should do in-depth geomorphic assessments to identify land forms and prioritize areas for archeological survey.
- Explore funding opportunities for archeological research from private donors to be channeled through the sanctuary foundation.
- Coordinate remote sensing data with the National Oceanic and Atmospheric Administration Office of Maritime Heritage for prioritizing potential underwater archeological targets.
- Sanctuary should look across spectrum of agencies and organizations to identify resource data gaps.
- The sanctuary needs to identify and map cultural/archeological sites, specifically shipwrecks. It is important to preserve the cultural and historical aspects of the sanctuary.
- Diving in here in the northwest is a bit more of a challenge however the activity is quite active. The agency PADI, NAUI, SSI have some very advance dive specialties such as archeology and technical diving. Set the standard and designate project and provide an equal opportunity. NOAA has these dive programs in other National marine sanctuaries but only recently has a elite set of divers been diving in Washington.
- The ability to build community outside the "science/research" community would be to the OCNMS benefit. . . SHIPWRECKS and the human drama of coming to the Pacific Northwest prior to all our navigational improvements is a story that needs attention.

23. MARITIME HERITAGE - LIVING CULTURES

- The sanctuary should preserve personal/oral histories and stories of fishing communities
- Archeological sites contain information that can be used to understand the ecology of present systems which could help us with resource management (e.g., look at things in the past before management issues such as overfishing were occurring).
- People are also interested in shipwrecks, cultural resources and history. Engage the public in these topics.
- Prioritize the research of cultural history from the period when sea level was low to help in the understanding of long-term change (cultural and natural history components).
- The sanctuary should protect sacred places
- Given the current expectations for global climate change, I believe that it would be a very good idea for the sanctuary to support more paleoenvironmental research. It may be possible to model and plan for possible changes. For example, there are several archaeological sites on the Olympic Peninsula that are associated with a relatively higher sea level than at present. The animal remains (and in one case so far, plant remains) in these archaeological sites can shed light on the nature of the marine environment in the area, when sea level is higher. The human/marine environment interaction can be traced through time, which will shed light on management issues (known archaeological records of more than 4,000 years of interaction). Research in non-archaeological sites (such as lake bottom sediments) can help separate the human and natural factors in the human/environmental interaction.
- I would like to see more attention paid to the protection of cultural resources, public education about both tribal and non-tribal heritage, and continuity of traditional cultural practices. I am glad that the region is receiving attention and protection, but I would like to make sure that research and education opportunities don't focus just on plants and animals, to the exclusion of people.
- OCA calls for research on the original natural distribution of kelp forests within OCNMS waters. This research should include documentation of tribal oral histories and examination for evidence of past kelp forests on existing and sediment covered rocky substrates.

24. MILITARY ACTIVITIES

- Sanctuary should explore potential impacts of military activities. Impacts, particularly the impacts to wildlife, should be transparent to the public.
- There should be mitigating measures for the Department of Defense such as the U.S. Navy activities conducted within the sanctuary, which would be negotiated by the Department of

Commerce. Goal for the sanctuary staff should be to request action by the Department of Commerce.

- The sanctuary should play a key role in working with the Navy (i.e. test range within sanctuary) to coordinate with multiple agencies to identify and mitigate threats of Navy activities. Navy activities can pose threats to marine organisms, e.g., marine mammals. Navy has proposed increasing activities and areas of operations in the sanctuary.
- Concerned about low military overflights (have experienced this).
- Concerned about Navy activity within the Sanctuary (air and sea, including sonar).
- The Navy should not be conducting exercises in the sanctuary.
- Investigate the effects of the proposed expansions and the future expansions of the navy testing range both in geography and the activities being proposed.
- The Navy should not be doing target practice in the sanctuary because it has impacts on birds and marine mammals.
- The apparent ineffectiveness of the existing management plan in protecting the sanctuary resources from 1) the likely expansion of the Navy's test range into the sanctuary, 2) the unknown effects of the experimental wave-energy project, 3) destructive fisheries
- Prohibit the U.S. Navy from expanding its training area in the Sanctuary from 48.3 square nautical miles to 1,840 as proposed.
- The Navy should not train in the sanctuary or in areas near it.
- Although we understand the need for military activities, such activities conducted within the designation of a Sanctuary should not interrupt the goal of resource protection. The burden of proof should be on the military to demonstrate that its activities do not harm these areas of extraordinary biological diversity.
- Identify and appropriately restrict or co-manage military activities affecting the Sanctuary, including sonar/sound impacts to biota, and activities or substances that would alter, degrade, or destroy marine resources.
- The Sanctuary should formally support the findings of the SAC to oppose the Navy's expansion of its operations in the Sanctuary and Olympic National Park unless significant enhancements are made to the proposed mitigations.
- Military activities conducted within the sanctuary should not interrupt the goal of resource protection. The management plan should enable the placement of the burden of proof on the military to demonstrate that its activities do not harm OCNMS' extraordinary biological diversity.
- OCA requests that Sanctuary staff actively participate in the Navy's environmental assessment processes to evaluate potential impacts to Sanctuary resources, investigate alternative sites beyond the OCNMS, identify environmentally safe methods to use in the Sanctuary, and develop appropriate monitoring and protection measures. Sanctuary staff should request funding from the Navy to support such participation.
- OCA requests that the Navy continue consultation with the Quinault Nation on all aspects of test range extension that will affect tribal fishing and ceremonial harvesting. The Navy should look for options that do not include access to Quinault beaches to avoid interference with tribal activities.
- OCA requests that the OCNMS conduct further research to assure that Naval sonar activities do not disrupt the ecosystem of the Sanctuary.

25. NON-POINT SOURCE POLLUTION

- The sanctuary should work on ways to incorporate or be mindful of activities going on upland of the sanctuary.
- Sanctuary should do more baseline monitoring especially in regards to invasive species and upland activities (examples: mineral extraction, logging, coastline development)
- Sanctuary should track and address stormwater runoff, upland erosion, and non-point source runoff pollutants because of their potential to have adverse impacts on the marine ecosystem.
- Near shore study needed to find out what type of land -use practices are used to impact Sanctuary resources: timber; future development; need baseline data.

- Work on land influences on marine ecosystems - the land connection, kelp etc.
- There is considerable deforestation along the south end of the OCNMS. I do not know of the OCNMS being part of the review process for any of this activity or notifying any property owner or subdivision that their actions have impacted the water runoff or water quality of the OCNMS - even in the cases where the trees have been completely removed from an adjacent mountain top or removed from the cliffs directly above the OCNMS.
- We would also like to see OCNMS have the ability to comment on land-based activities that affect the success of the Sanctuary in meeting its goals of ocean stewardship.
- OCA calls for increased research on the impact of Olympic Peninsula logging on sediment accumulation within the OCNMS and how this has affected kelp forests in the past and will affect restoration of kelp forests in the future.
- OCA recommends that the OCNMS increase research on bio-accumulative toxins in the Sanctuary. The deposition of toxins by air, water, and land into the west coast marine environment likely has significant long-term and cumulative impacts to the Sanctuary's biota and on the human populations that harvest Sanctuary resources for food. OCA encourages OCNMS to collaborate with other agencies to increase our knowledge of the build-up of these toxins in the Sanctuary's water and biota.
- OCA recommends that the OCNMS increase research on sediment from terrestrial sources. As outlined in the Kelp and Sea Otter section, monitoring of sediment pollution from terrestrial sources is an important under-researched topic potentially impacting Sanctuary biota and habitats.
- Coordinate with upland managers to assess and minimize impacts from upland activities, including the disruption of natural shoreline processes and stormwater run off.
- Coordinate with upland managers to assess and minimize runoff from roads and coastal development.

26. OCEAN LITERACY

- The sanctuary should develop a program or partner with existing programs/organizations for middle school kids to become involved with some element of the sanctuary (e.g., maritime heritage). This would help to connect the sanctuary to the state (and vice versa).
- The sanctuary should conduct more baseline monitoring within the sanctuary, including more public engagement through citizen science programs.
- Continue research and education about archeological work that has been done. That research should have a public education component.
- Outreach needs to be active and interactive to get kids interested. Take advantage of modern technologies to reach younger audiences, and to help translate science into something that is interesting and publicly digestible.
- The sanctuary should conduct HAZWOPER (Hazardous Waste and Emergency Response) training for its staff and Coastal Observation and Seabird Survey Team (COASST) volunteers.
- Develop programs for taking kids out on to the ocean.
- Human interaction – How do the fishermen impact the wildlife? Is there illegal shooting of wildlife? The sanctuary needs more education for the fishermen.
- Develop relationships and programs utilizing experiential learning with coastal school districts. This includes the Cape Flattery, Quileute, Taholah and Queets/Clearwater school districts. There is currently no interaction between the sanctuary and these school districts.
- The sanctuary should create hands-on activities with teens empowering them to learn more about the marine environment within the coastal school districts.
- The sanctuary should provide ocean science educational programs to the children on the Makah reservation and other schools like Clallam Bay.
- Help kids be more enthusiastic about education on areas such as sailing and fishing, and also visiting the sanctuary. To have practical experiences that can be built upon in back in the classroom.
- To have a good science mentoring program for the children.

- Ocean literacy- Build the future generation of protectors and stewards of our ocean.
- Increase public ocean literacy programs for community and K-12 (action item). Help people to be stewards of the ecosystem (underlying priority).
- Water's value and the connectedness to the ocean, one ocean that connects all of us.
- Water's value and the connectedness to the ocean, one ocean that connects all of us.
- The sanctuary should show that education efforts have had impacts on people's knowledge of the sanctuary. We need to define the metrics/benchmark/performance measures in order to measure effectiveness of education program.
- Use multiple jurisdictions in sanctuary as an opportunity to educate students about ocean governance and policy-making (in addition to science)
- A personal wish is that there was a way to access the stream of research that must be flowing and accumulating continually from the various projects undertaken by sanctuary staff and others. I can visualize the public perusing binders of reports at the public library. It would be a great resource for the high school, the college and the public.
- Please support Feiro Marine Life Center in their work to outreach to K-12.
- Improved education for our area school systems on the values of these areas and how to protect them
- I would also urge, as a part of education and outreach, best management practices for visitors and coastal residents on reducing the spread of invasives, as well as illustrating the impact of potential invasive species.
- I think you should enlist at least one school in each greater Puget Sound and Strait of Juan de Fuca school district, asking them to adopt a beach within their district and a beach within the sanctuary. Have each school set up an ongoing research project aiming to get to know the natural history and ecology of the somewhat pristine environments within the sanctuary and the somewhat altered beaches outside the protection of the sanctuary. A goal of such a plan would be to encourage schools to take actions at a beach within their area, hoping to set aside more public beaches with help from groups such as the Trust for Public Lands, People for Puget Sound, and the Nature Conservancy. You could use their Mudup project as a model for this.
- Another goal would be to help kids learn that even the pristine waters within the Sanctuary are under serious threats due to global climate changes and possible increase in acidity of all ocean waters. If they began monitoring water quality, they might help in this scientific monitoring and find ways of correcting problems at home while encouraging others to take action to save our oceans.
- My main encouragement is to do all you can to enlist the help of kids, not in any distance learning, but in real, hands on experiences within the Sanctuary. A good start would be within the poorest schools in places like Bremerton but also within schools with a high enrollment of Northwest Coast Tribal members so that you could also include First People perspectives in the projects they get involved with.
- As you go through your planning process, I would like to see a special group of coastal educators (local teachers, administrators and students) brought together to assist in this dimension of your new plan . . . It is common knowledge that our coastal school districts are terribly underserved . . . Teachers and administrators must become citizen coastal managers trained in your programs for students to become invested in the sound management of Washington's coast . . . I feel it is imperative that the Sanctuary become a major contributor to the education of our children along the coast.
- Monthly data collecting activities [should] . . . be established with website listing all need to know about various places that provide training, when the data collecting events are, and access to the data . . .
- Please continue OCNMS efforts to "HELP EDUCATE PEOPLE ABOUT THE WONDERS of PUGET SOUND & OCNMS MARINE LIFE and ways to protect that life (including accidental oil spill prevention techniques for ships within the OCNMS & creating MPAs)".

- I would like to see more programs that work directly with the schools so that children are more aware of the special gifts we have here at our local sanctuary.
- I hope the Sanctuary will continue to support marine science education for our tribal students.
- More or better public education could help improve the understanding of what the sanctuary is and what the sanctuary's capabilities are.
- The OCNMS needs to improve its' engagement with the public by coming up with an Ambassador program. Expand/extent the annual training you have for docents to include Ambassadors from your different Partners. . . Having the MEDIA on board will play well when you need the media to explain what is going on.
- The Sanctuary needs to prioritize a public outreach strategy that includes at minimum a quarterly electronic newsletter that is sent to the public as well as to the press, a regularly updated website with information about the latest Sanctuary research findings and education opportunities.
- We believe it is crucial for the Sanctuary to focus on public education. The Sanctuary could better educate the public about all ongoing and prospective programs, as well as provide advance notice of upcoming public engagement and comment opportunities.
- The Sanctuary could begin publishing a newsletter to enhance its public outreach and to provide better accountability of its activities
- Create hands-on activities for teens empowering them to experience while learning more about the marine environment.
- Facilitate improved adult education and interaction between rural and urban user groups.
- Update website to be more readily accessible to the public, providing timely information.
- Develop a Sanctuary newsletter that is published quarterly to expand outreach and education opportunities and account for Sanctuary staff activities.
- The sanctuary should work to improve public literacy of the marine environment.
- [Work with Olympic National Park to] educate visitors about the importance and fragility of marine resources, threats to them, and protection and mitigation measures to reduce impact.
- The Pacific Education Institute (PEI) was asked in 2006 by the Washington State Ocean Caucus to work with partners to develop a plan to strengthen K-20 ocean systems education. . . . PEI found Ocean Systems Curriculum should: 1. Develop ocean systems curriculum using existing, proven curricula resources available from local and national sources 2. Understand stakeholders' roles and responsibilities 3. Include Field Investigations in which students directly measure ocean system health indicators determined by the Oceans Policy Group. 4. Be based on civic participation, including problem solving through systems understanding and inquiry. Students should develop and implement stewardship projects that protect or enhance the marine environment. 5. Follow a performance or outcome based design that reflects what we want students to know and be able to do. The design will include recognized best practice of place-based learning involving inquiry and problem solving through real world projects. 6. Align ocean systems curriculum to state learning standards preparing students for WA Academic Student Learning Standards. 7. Incorporate credible assessments of student ocean systems literacy through curriculum benchmarks. We hope that the Olympic Coast National Marine Sanctuary will continue to work with the State's ocean educational partners on these objectives. Not only would we benefit from the continued involvement of the Sanctuary, but we believe that this partnership leverages the efforts of the OCNMS to reach more students with a deeper impact.
- Outreach offers an excellent opportunity to engage coastal users, organizations and coastal communities, including schools in partnership building efforts while increasing ocean literacy and appreciation for the Sanctuary.
- Develop interactive programs to engage school children that can be used in homes and schools throughout the U.S.
- Utilize modern technologies and social media to reach younger audiences: Utube, facebook, myspace, etc.
- WDFW sponsors programs like Project WILD and *Nature Mapping* in order to provide citizens the training and opportunity to gather data and help increase awareness of the current

environmental health and biodiversity within their communities. The National Project WILD curriculum educates K-20 teachers and students in eco-system health and functions. . . . The Mission of the WA Department of Fish and Wildlife is to protect and sustain fish and wildlife populations and conserve our precious natural resources. Public engagement and support is key in meeting this mission. We believe that the citizens of this state should work with us as co-managers of the WA flora and fauna. Citizen involvement should begin with our youth so they are prepared and empowered to help shape the direction of their communities throughout their lives. We hope that the Olympic Coast National Marine Sanctuary will continue to work with the WDFW and our educational partners in order to support this level of engagement.

27. PUBLIC & PRIVATE RESOURCE USE - COMMERCIAL DEVELOPMENT

- The sanctuary should establish a cable corridor through the sanctuary for allowed use of laying cables. There is so much uncertainty in working with the sanctuary that cables are going in less advantageous areas. The sanctuary and tribes could work together to form a set of regulations for the corridor (and commercial interests could help in research and other management efforts).
- The ban on offshore oil and gas development should be continued.
- In the next 5 to 10 years, the sanctuary should put forth some positions on how it would entertain offshore development in the sanctuary (e.g. wave power, wind, tidal, other alternative energies).
- The sanctuary has to be protective of the resource from the National Oceanic and Atmospheric Administration's promotion of offshore aquaculture in terms of introduced species, diseases, and conflicts with wildlife.
- Research of the impacts of new ocean energy technology (wave energy) should be studied elsewhere before being used in the sanctuary. Those impacts should be explored outside the sanctuary first.
- The sanctuary should research wave energy technology and do the study inside the sanctuary.
- The sanctuary should take a precautionary approach to any alternative energy development proposals within the sanctuary given the significance of the sanctuary – especially since this has never been done in any other sanctuary before – because it could become precedent.
- Sanctuary should prioritize developing a permitting process for exploitive technologies that are emergent and pressing on society. The sanctuary should work with the public to develop such permitting goals.
- Promote alternative energy such as wind and wave (as a fork in the road to offshore to oil and gas development).
- Would like to understand better the compatibility of wave energy projects (alternative energy projects generally) with the mission of the sanctuary. Clearly define criteria in advance of development within the sanctuary. Consider alternatives for commercial development within the sanctuary in environmental analysis.
- The sanctuary should continue looking at research into the impacts and feasibility of wind, wave and tidal energy production.
- The sanctuary should be proactively involved with assessment, monitoring and mitigation of impacts of alternative energy development in the sanctuary, including interfacing with the Federal Energy Regulatory Commission (FERC) and participating in regulatory processes associated with alternative energy development.
- Concerned about wind and wave turbines. The sanctuary should research the impacts of these projects, and understand impacts to users.
- Wind/wave energy projects: concerned about effects on nutrient flows, and effects to sand flow. The sanctuary should address this.
- Grayland fishermen do not want to see offshore wind turbines.
- Concerned about potential loss of area access from wind/wave energy projects.
- Sanctuaries should maintain that no offshore drilling should occur within their boundaries.
- The sanctuary should promote wave-energy research and the capturing of that energy because of current and future energy needs.

- Given climate change, it is important for the sanctuary to be open to the alternative energy industry and the sanctuary needs to engage industries in a continual dialog and find a way to make things work compatibly.
- Tribal council should have had a study done about minerals to see what they were giving up when the sanctuary was created. They need fair representation of what they are giving up if they are not going to be allowed to mine in the ocean. Is there a legal right to the minerals for the tribal members? Do they have minerals to the low tide mark or all the way to the 3-mile state waters limit?
- The sanctuary should support a study to find out how much minerals (lead, mercury, precious metals ...) are present in coastal areas. The tribe needs more knowledge of what is there as resources. What is the sanctuary's position on minerals mining as it relates to the existing regulations?
- Jobs are an issue here – people of Neah Bay need diversification and minerals mining could be one of the ways to do this. The state of Washington is the most prohibitive of the 5 northwest states with respect to minerals extraction because they are over-protective of the fisheries.
- The sanctuary should allow permitting for the exploration and extraction of minerals (such as oil or gas) from areas adjacent from sanctuary, i.e., angular or slant drilling, if it doesn't hurt sanctuary resources.
- The sanctuary should work from a research-based approach to address commercial development impacts such as wave energy.
- The sanctuary should not allow the exploration of minerals, oil and gas if it is going to degrade natural resources within the sanctuary. There is concern that slant drilling or angular drilling could contaminant ground water or other resources, it may be a slow process of contamination over the generations. The sanctuary should consider not only this current generation but the children and their children's generation.
- Research and the potential uses of ocean for energy. Wave energy, other potential alternatives - plusses and minuses of each. Issue – the implications of developing alternative energy compatibility.
- The sanctuary should take the lead in research on harnessing energy from the ocean: ocean energy should be appropriate for the area and the sanctuary should help guiding this issue.
- Recognizing potential for wave and/or energy, and other development. Does it make sense in the sanctuary? Programmatic EIS for wave energy
- What are going to be the cumulative effects of wave energy buoys? How will these buoys affect what lives in the sanctuary?
- The apparent ineffectiveness of the existing management plan in protecting the sanctuary resources from 1) the likely expansion of the Navy's test range into the sanctuary, 2) the unknown effects of the experimental wave-energy project, 3) destructive fisheries
- We encourage the Sanctuary's updated management plan to consider strategies for reducing, mitigating, or preventing ocean development activities that may impact the marine environment and sanctuary resources. Any proposed ocean development activity must be thoroughly evaluated and only proceed if it can be conducted in a manner that is compatible with the resource protection goals of the sanctuary. Evaluation and planning for any proposed ocean development activities should include: Protection of Important Ecological Areas; Representation of the local communities, subsistence and other cultural uses, and their needs; Identification of the best available technology needed to ensure development activities can be conducted without harming the ecosystem or traditional cultural uses; Clear demonstration that development can be conducted without harming the health, biodiversity, or resilience of the ecosystem; Investment in research, monitoring, and technological development and safeguards; Revenue sharing to ensure that local communities benefit from any offshore development activities and that a substantial portion of the revenues are dedicated to science and monitoring; and Adaptive management.

- With increased interest in marine energy generation utilizing wind, wave or tidal options, it will be important to evaluate any such programs from the perspective of preserving Sanctuary resources.
- Evaluate human activities, including proposed development projects for ecosystem wide effects and cumulative impacts.
- If NOAA control of the OCNMS would ever come back to a reasonable approach to submarine cables there would be interest by a few more international cables to route into the Straits of Juan de Fuca. But completely absence of any data or science the managers of the OCNMS have basically eliminated the ability of any cables to transit its area. But it is OK for trawlers to operate there and the Navy to do what it pleases.
- I think it is important to prohibit new industries from endangering the environment, i.e., wind and wave energy devices and oil drilling.
- Prohibit offshore aquaculture in the Sanctuary to protect existing wild fish stocks from disease and genetic pollution from farmed fish escapes.
- No aquaculture farms or operations should be permitted anywhere in or near the sanctuary.
- Wave-energy projects should be allowed if the developers show that they will cause little or no damage to the ecosystem.
- We urge the banning of offshore oil and gas drilling. We also reserve judgment, as should NOAA -- especially in our sanctuary, on other energy projects (wind, wave, tidal, or carbon sequestration), until from "cradle to cradle" these industries demonstrate they are safe for the sanctuary environment, its marine life and the dependant wildlife. Governments overseeing our commons must stop advocating for privatization of the single most essential resource for life on this planet.
- Open-ocean aquaculture should not be allowed in the OCNMS. We are a co-signer on the "International Declaration Against Unsustainable Salmon Fish Farming". (Attached) Therein are well developed reasons for opposing this industry, and particularly within a sanctuary.
- OPA also supports the recommendations of OCA to monitor, regulate, and prohibit energy projects, including alternative energy, oil and gas exploration, or future ideas to generate energy that would conflict with the goals of the Sanctuary to protect its ocean habitat.
- Off-Shore Energy Development: PPF strongly urges banning offshore oil and gas drilling.
- Open-ocean aquaculture should not be allowed in the OCNMS. The polluting impacts of this industry, both processing and environmental and human health impacts, are well cited in the literature. . .
- If suitable locations are not available outside the Sanctuary, consider requests to conduct wave energy and other power generating research only where and to the extent that Sanctuary resources would not be compromised.
- The Sanctuary should formally oppose the citing of offshore aquaculture within the boundaries of the Olympic Coast National Marine Sanctuary. Rearing of high trophic level species requires considerable feed and results in significant amounts of nutrients added to the environment. In addition, large offshore pens serve as an attractive nuisance to marine predators and pose the risk of spreading disease to wild stocks as well as for the potential of biological pollution from escapees.
- Increase transparency of Sanctuary actions which include comments toward proposed industries within our Treaty Area, such as wave energy.
- OCA calls for a permanent ban on offshore oil and gas drilling and any other energy project (wind, wave, tidal, or carbon sequestration) within the Sanctuary that has not been approved as of January 1, 2008. OCA recognizes the need for energy, but also asserts that the OCNMS and its associated ecosystem are too precious for exploitation.
- If a complete ban is not adopted, OCA requests that the OCNMS play a major role in the permitting, siting, and monitoring of any energy facility, up through and including the removal of the project from Sanctuary waters. OCA calls for ecosystem wide review of the impact of any energy project within or adjacent to OCNMS waters.

- If a complete ban is not adopted, OCA calls for bonding of sufficient funding from any energy producer to pay for monitoring, operation, maintenance, removal, and remediation of any energy project within the OCNMS. OCA believes that the land, air, and water within the OCNMS are the property of the public and that bonding funds need to be set aside by energy producers for the true and actual cost of any project, whether it is construction, maintenance, monitoring, or removal. These funds should not come out of the General Fund or special appropriation, and should be paid for on an “up-front” basis by the energy producer.
- If a complete ban is not adopted, OCA calls for a ban on seismic and sonar testing associated with any energy project in or adjacent to the OCNMS. OCA encourages potential energy producers and the federal government to use best available technologies that do not cause harm to mammals or other marine life.
- OCA calls for a ban on all open-ocean aquaculture within or adjacent to the OCNMS.
- Clearly define criteria in advance of permitting alternative energy projects, such as wave energy development within the sanctuary.
- Play a critical role in the siting, design and development of these [alternative energy] projects to ensure that impacts to the ecosystem are minimal.
- Require careful monitoring [of alternative energy projects].
- Require complete removal of all associated [alternative energy] structures by the developers.
- Identify potential effects from any proposed offshore drilling that would affect Sanctuary waters.

28. PUBLIC & PRIVATE RESOURCE USE - COMPATIBILITY ANALYSIS

- Research of the impacts of new ocean energy technology (wave energy) should be studied elsewhere before being used in the sanctuary. Those impacts should be explored outside the sanctuary first.
- The sanctuary should research wave energy technology and do the study inside the sanctuary.
- Sanctuary should establish a process for determining priorities among the multiple uses of the sanctuary.
- Describe and map various human uses that occur within the sanctuary that include commercial and recreational activities, and ultimately regulate what activities are allowed to occur within the sanctuary and where they are allowed to occur.
- Promote site specific sanctuary definitions for compatible human uses in the context of what is sustainable. Is the sanctuary’s mission conservation or is sustainable management achieving conservation? How do we sort out whose mission has priorities when preempting another agencies priorities. How do we determine if it’s needed, how do we determine if it is feasible with other sanctuary mandates and is the expertise in house to do so? Are there other more efficient alternatives to address specific concerns? This needs to be clearly defined through a public process including interagency and intergovernmental engagement.
- Would like to understand better the compatibility of wave energy projects (alternative energy projects generally) with the mission of the sanctuary. Clearly define criteria in advance of development within the sanctuary. Consider alternatives for commercial development within the sanctuary in environmental analysis.
- For ecosystem-based management, the sanctuary should determine compatibility of human activities with habitat types.
- The sanctuary should be very proactive in the review of all permit proposals for wind and wave energy, aquaculture and oil drilling to ensure that the sanctuary resources are protected.
- The sanctuary should work together with the state, counties, port authorities, and the tribes to expand knowledge of habitat characterization. Collecting the data would help other initiatives such as siting of wave energy structures, ecosystem assessments, protection of essential fish habitat, etc ...
- The sanctuary should support best science and research to inform decision-making on the issue of cable laying, drilling, wave and wind energy siting.

- The sanctuary should be part of the decision-making (permitting, etc...) for all of these issues mentioned above even if it can't prohibit/regulate any of them.
- There is an issue of overcrowding of commercial/industrial ocean uses outside of the sanctuary boundaries.
- Ecosystem protection: Assess areas in the sanctuary for commercial development including wave energy projects for risk analysis, however aquaculture also applies.
- The sanctuary should be off limits to corporate interests. What is the purpose of the sanctuary if it allows all types of development?
- Research and the potential uses of ocean for energy. Wave energy, other potential alternatives - plusses and minuses of each. Issue – the implications of developing alternative energy compatibility.
- Recognizing potential for wave and/or energy, and other development. Does it make sense in the sanctuary? Programmatic EIS for wave energy
- It's not clear to me how the National Marine Sanctuary system addresses trade-offs among your many worthy goals. Do you take a multiple-use approach in which all legitimate uses must be balanced against one another? Or do you take a more hierarchical approach to goals, as the National Wildlife Refuge System has taken since 1997? I would like to see an explicitly hierarchical approach to the goals in your planning process. In this approach, ecosystem management goals would take priority, and would have to be met before other goals could be pursued.
- Jointly [identify] important threats to those resources, both operating now and in the likely future due to human and natural impacts
- Jointly [identify] strategies for compatible management and uses in the sanctuary
- The management plan should incorporate the use of spatial planning as a tool to allow human activities to take place in zones where marine life can withstand the resulting human impacts. Zoning prevents user conflicts by separating activities that are incompatible with each other, and protects biodiversity by prohibiting disturbance in vulnerable habitat. The sanctuary should review the experiences of existing zoning efforts, such as Australia's Great Barrier Reef Marine Park, and integrate applicable lessons into the management plan.

29. PUBLIC & PRIVATE RESOURCE USE - RECREATIONAL OPPORTUNITIES

- A combined impact to the OCNMS from vehicles and development is the removal of natural light from the beaches. There are considerable impacts from flood lights, street lights and vehicles on the natural beach environment.
- The beaches of the OCNMS are being impacted by all nature of human activity. There is an effort to allow commercial horse riding companies to use the beaches south of Joe's Creek year round. This means horse manure being churned up in the tidal flows and spread across the beaches. Please take a position to prevent commercial activities of this nature.
- The sanctuary should recognize Neah Bay to Tatoosh Island as that best part of the sanctuary where recreational SCUBA diving does occur. And that the sanctuary should manage that part of the sanctuary to increase population levels of the longer-lived rockfish such as canaries, tigers and China rockfish. Work in cooperation with the Washington Department of Fish and Wildlife (WDFW) and the tribes to promote watchable wildlife.
- Oyster farming, fishing, crabbing... How can we enhance and maintain those commercial and recreational industries within the sanctuary? The sanctuary should be proactive in seeking out issues related to this and help protect those industries.
- I have never been to Neah Bay, But would love to Dive there. I am interested in helping .
- I have been diving since 1971 and Neah Bay is the best diving I've done in the United States. That includes Hawaii and territories like Guam and the Virgin Islands. Please protect the area for us.
- I hope, in managing this resource, that you will take into account the needs of all users and residents in the area. We need only look to the north to Canada, and see how they have cultivated and managed diving resources, and how much enjoyment and education that brings to the diving

community, as well as the millions of dollars of revenue that those divers bring with them. Washington state would do well to manage our resources sustainably, while realizing the many recreational, educational and economic benefits that they bring.

- I would also like to express support for managing the Strait of Juan de Fuca portion of the sanctuary from a Watchable Wildlife perspective for scuba divers, enhancing the recreational and economic (tourism) benefits of these underwater resources.
- WHILE I ONLY HAVE 2 DIVES THERE.THE VARIETY AND AMOUNT OF LIFE THERE IS ASTOUNDING. THE ONLY AREA I CAN COMPARE IT TO WOULD BE QUADRA ISLAND, BC. THE AREA SHOULD BE PROTECTED FOR ALL TO SEE
- I had the opportunity to visit Neah Bay for the first time about 2 months ago. How wonderful to have such an amazing place to dive that is so close! I look forward to many dive-related visits to the Neah Bay area in the future!
- Rockfish, as a major recognizable member of coastal bottom communities, are sought by non-fishing recreational divers. The Makah Tribe can profit by encouraging and catering to this segment of the diving community.
- . . . I enjoy visiting the many dive sites that are within the Olympic Coast National Marine Sanctuary. The ones located within the Strait of Juan de Fuca (and Tatoosh Island and Duncan Rock) are in the only portion of the Sanctuary easily accessible by scuba divers. This is one of the few places in all of Washington State that scuba divers have a good possibility of encountering Tiger, China, Yellowtail, Black, Canary, Yelloweye and Blue Rockfish. The numbers of these fish are declining rapidly and need to be protected and better managed. . . .Please manage this portion of the Sanctuary from a "Watchable Wildlife" perspective. . .
- Please approach management of the Sanctuary (parts of Strait of Juan de Fuca, Tatoosh Island, Duncan Rock...) from a "Watchable Wildlife" viewpoint! Many divers enjoy these areas as a place to view rockfish and other long-lived species. . . this incredible living resource must be protected and managed so that future generations can continue to enjoy what we are so fortunate to have today.
- . . . I enjoy visiting the many dive sites that are within the Olympic Coast National Marine Sanctuary. The ones located within the Strait of Juan De Fuca (and Tatoosh Island and Duncan Rock) are in the only portion of the Sanctuary easily accessible by scuba divers. This is one of the few places in all of Washington State that scuba divers have a good possibility of encountering Tiger, China, Yellowtail, Black, Canary, Yelloweye and Blue Rockfish. The numbers of these fish are declining rapidly and need to be protected and better managed. . . Please manage this portion of the Sanctuary from a "Watchable Wildlife" perspective
- Please include SCUBA divers in your "Watchable Wildlife" management plans as far as safe and secure access along with general conservation interests.
- . . . I enjoy visiting the many dive sites that are within the Olympic Coast National Marine Sanctuary. The ones located within the Strait of Juan De Fuca (and Tatoosh Island and Duncan Rock) are in the only portion of the Sanctuary easily accessible by scuba divers. This is one of the few places in all of Washington State that scuba divers have a good possibility of encountering Tiger, China, Yellowtail, Black, Canary, Yelloweye and Blue Rockfish. The numbers of these fish are declining rapidly and need to be protected and better managed. . . .Please manage this portion of the Sanctuary from a "Watchable Wildlife" perspective
- As one who has done diving in the vicinity of Neah Bay on the mouth of the Strait of Juan De Fuca, there is a concern about the amount of rockfish being taken from those waters. . . Now from recent counts by other divers working with REEF as fish surveyors, the fish count has gotten to a point where these particular fish now need protection. . . This whole marine area is special, as a dive site and as a continuation of our own natural marine heritage. It needs more recognition and respect as being important rockfish habitat. It should be guarded from any mass depletion of fish, whether the fish are being taken by sport divers or by commercial fishing or by sports fishermen.
- I am writing to express my support of management of the Olympic Coast National Marine Sanctuary for wildlife-watching by recreational scuba divers.

- The Olympic Coast National Marine Sanctuary is one of the few places in all of Washington State--and the entire west coast-- that scuba divers have a significant possibility of encountering Tiger Rockfish, China Rockfish, Canary Rockfish and other long-lived rockfish species while diving. Please make it a priority to take a leadership role working with WDFW and the tribes to ensure that rockfish populations within OCNMS are managed appropriately to keep viable populations in the littoral zone (less than 130 feet).
- Please consider ways that OCNMS can partner with WDFW to help Washington State IMPROVE - Environmental Tourism - Nature Tourism - Ecotourism in or near the OCNMS.
- . . . I enjoy visiting the many dive sites that are within the Olympic Coast National Marine Sanctuary. The ones located within the Strait of Juan De Fuca (and Tatoosh Island and Duncan Rock) are in the only portion of the Sanctuary easily accessible by scuba divers. This is one of the few places in all of Washington State that scuba divers have a good possibility of encountering Tiger, China, Yellowtail, Black, Canary, Yelloweye and Blue Rockfish. The numbers of these fish are declining rapidly and need to be protected and better managed . . . Please manage this portion of the Sanctuary from a "Watchable Wildlife" perspective. . . Without protecting these areas in Neah Bay you are removing something that many people are able to enjoy.
- Many species of rockfish (Blues, Blacks, Yellowtails, Chinas, Tigers, Yelloweyes and Canaries) are a big attraction for divers to view underwater. Unfortunately, without some protection, these resources are quickly disappearing. I have serious concerns about the sustainability of these long-lived rockfish species. . . Please protect these species and truly be a SANCTUARY for these fish! Sound management practices can ensure that future populations will be around for both recreational fishermen, as well as "Watchable Wildlife" for divers.
- Consider creating the stretch from Koitlah Point eastward to Cape Flattery a special reserve for Watchable Wildlife.
- . . . I enjoy visiting the many dive sites that are within the Olympic Coast National Marine Sanctuary. The ones located within the Strait of Juan de Fuca (and Tatoosh Island and Duncan Rock) are in the only portion of the Sanctuary easily accessible by scuba divers. This is one of the few places in all of Washington State that scuba divers have a good possibility of encountering Tiger, China, Canary, Yelloweye and Blue Rockfish, as well as other long-lived rockfish species. Divers are also able to view rare hard and soft corals, hydrocorals and unique sponges while diving. Please manage this portion of the Sanctuary from a "Watchable Wildlife" perspective. . .
- . . . I enjoy visiting the many dive sites that are within the Olympic Coast National Marine Sanctuary. The ones located within the Strait of Juan de Fuca (and Tatoosh Island and Duncan Rock) are in the only portion of the Sanctuary easily accessible by scuba divers. This is ONE of the few places in ALL of Washington State that scuba divers have a good possibility of encountering Tiger, China, Yellowtail, Black, Canary, Yelloweye and Blue Rockfish. The numbers of these fish are declining rapidly and need to be protected. Please manage this portion of the Sanctuary from a "Watchable Wildlife" perspective so scuba divers from around the state, nation and world have a place within Washington where these long-lived rockfish , other species of fish and invertebrates can be seen, PHOTOGRAPHED and enjoyed for many years to come.
- I would also urge you to manage the reserve to expand scuba diving opportunities in the area. . . if the communities of Port Angeles and other surrounding areas latched on to providing more services and charters for SCUBA diving- one can only imagine the economic multiplier . . .
- KDA would like to see an accessible shipwreck MPA Underwater Park created within OCNMS for Scuba Diver ECO-TOURISM, similar to what our British Columbia neighbors have done with 366 foot ex-HMCS Canadian Destroyer Escort Shipwreck Parks <http://www.artificialreef.bc.ca/>.
- Tiger, China, Yellowtail, Black, Canary, Yelloweye and Blue Rockfish have been reported as declining rapidly and should be protected within Marine Protected Conservation Areas for Scuba Diver ECOTOURISM within the OCNMS near accessible dive sites (such as Tatoosh Island and Duncan Rock).
- Please manage reasonably accessible scuba diving sites that are within the Olympic Coast National Marine Sanctuary, such as the Strait of Juan De Fuca, Tatoosh Island and Duncan Rock

from a "Watchable Wildlife" perspective so that scuba divers from around the state, nation and world have a place within Washington where long-lived rockfish and other fish and invertebrate species can be seen, photographed and enjoyed for years to come.

- The dive sites located within the Strait of Juan de Fuca (and Tatoosh Island and Duncan Rock) are in the only portion of the Sanctuary easily accessible by scuba divers. This is one of the few places in all of Washington State that scuba divers have a good possibility of encountering Tiger, China, Canary, Yelloweye and Blue Rockfish, as well as other long-lived rockfish species. Please manage this portion of the Sanctuary from a "Watchable Wildlife" perspective so that scuba divers from around the state, nation and world have a place within Washington where these long-lived rockfish and other fish and invertebrate species can be seen, photographed and enjoyed.

30. PUBLIC & PRIVATE RESOURCE USE - SOCIOECONOMIC VALUES & HUMAN USE

- A combined impact to the OCNMS from vehicles and development is the removal of natural light from the beaches. There are considerable impacts from flood lights, street lights and vehicles on the natural beach environment.
- The beaches of the OCNMS are being impacted by all nature of human activity. There is an effort to allow commercial horse riding companies to use the beaches south of Joe's Creek year round. This means horse manure being churned up in the tidal flows and spread across the beaches. Please take a position to prevent commercial activities of this nature.
- What is ecosystem management? Goal should be: Protecting the oceans resources and fisheries while maintaining the fisheries that depend on these resources.
- Describe and map various human uses that occur within the sanctuary that include commercial and recreational activities, and ultimately regulate what activities are allowed to occur within the sanctuary and where they are allowed to occur.
- The sanctuary should have awareness for other activities within the sanctuary other than recreation and commercial, but to include traditional cultural activities. To be more active in public awareness specific to the site.
- How much do we know about resources (species and habitats); what are important resources to local communities? The sanctuary should fill in data gaps and find ways to work collaboratively to manage, protect, and sustain uses on shared priorities.
- Sanctuary should continue its objective of multiple uses within its boundaries. The Office of Marine Sanctuaries should maintain this focus. Diversity of use is important to local communities. It maintains engagement of a greater portion of society with sanctuary program, and has economic benefits (e.g., contributes a significant portion of local economies).
- Concerned about wind and wave turbines. The sanctuary should research the impacts of these projects, and understand impacts to users.
- The sanctuary should acknowledge that the sanctuary is not only a protected area but also where people make a living and an important economic source for local communities. This needs to be reflected better in the information published by the sanctuary.
- The sanctuary itself should remain accessible to the public.
- Fisheries and the sanctuary can co-exist – it is not a negative thing, but a positive thing and this needs to be publicized.
- Like to see protection of traditional fishing (all species) at economically feasible and sustainable level.
- The sanctuary is in unique position to review pitfalls and problems of marine reserve initiatives at California sanctuaries to avoid repeating mistakes. Sanctuary needs to work with all entities involved to develop common goals and objectives, work with PFMC, state, and tribes more effectively.
- Management of sanctuary should be based on the area/community needs not directives from Washington DC.

- Oyster farming, fishing, crabbing... How can we enhance and maintain those commercial and recreational industries within the sanctuary? The sanctuary should be proactive in seeking out issues related to this and help protect those industries.
- What I would like to come out of the management plan is a shared/joint understanding of what the sanctuary should be. As we revise the management plan, we need to be cognizant/respectful/reflective of the specific needs on the WA coast.
- The sanctuary should be protected as much as possible in conjunction with peoples needs. There is a balance that needs to be maintained.
- Economy is not doing very well. Make the peninsula a center for marine oceanography. Need for tourism, kid camps, etc that are focused on marine resources. Promote peninsula for marine research and a center for marine study. If National Oceanic and Atmospheric Administration (NOAA) based in Port Angeles, it would be a great opportunity to promote entire peninsula for marine resources. Need for integrated effort to promote marine research and tourism.
- The needs of the tribes need to be heavily considered especially when it comes to fishing.
- Need balance between protection and fishing rights. Respect fishermen and the economy, and protect natural resources, at the same time.
- Take has always been contemplated statutorily within national marine sanctuaries. The sanctuary is not a reserve; it is not a national park.
- There continues to be considerable use of the beach environs as transportation by motorized vehicles. While it is the policy of the State of WA to designate the beaches as "highways", there is no enforcement, no standard road signs for speed, no protection for pedestrians (four or two legged) from vehicle aggression and any vehicles that get stuck in the sand are left to sink. There are considerable photos of these events and the debris is now bleeding or leaching by-products into the waters of the ONCMS. I have never heard of the State of WA, the OCNMS or any county - issuing any fine or violation of the beach environs by abandonment of vehicles.
- Marine Sanctuaries are vital to supporting and maintaining the animals, plants, and shoreline ecosystems. These ecosystems are necessary to support the habitats, economy and quality of life that we depend on here in the Pacific Northwest. . .
- Educate the public on existing partnerships and how they are envisioned to work, perhaps by starting an outreach campaign and developing public education materials, in coordination with the Tribes, explaining the importance of marine resources for the Coastal Tribes, what is the Trust Responsibility and how the Sanctuary meets and maintains its Trust responsibilities to the Coastal Tribes.
- Develop a better working relationship with commercial fishermen and allow for new economic development opportunities.
- [U]nderstanding baseline conditions, ecosystem functions, and status and trends of biological and socioeconomic resources to effectively inform management should be a priority.
- Assess and monitor human uses within the Sanctuary.

31. REGULATIONS, PERMITTING & ENFORCEMENT

- The sanctuary should weigh in more on state legislation in Olympia – in committee hearings.
- Sanctuary should prioritize developing a permitting process for exploitive technologies that are emergent and pressing on society. The sanctuary should work with the public to develop such permitting goals.
- Sanctuary should offer more protection of anthropological and maritime heritage sites within the sanctuary.
- Use permitting authority to structure and coordinate research.
- The sanctuary should implement an immediate ban on actions that have damaged resources of sanctuary. Protection of resources should be the primary role of sanctuary management, and action should occur immediately. Naval testing and damage to corals are examples where this is needed.
- The sanctuary should be proactively involved with assessment, monitoring and mitigation of impacts of alternative energy development in the sanctuary, including interfacing with the Federal

Energy Regulatory Commission (FERC) and participating in regulatory processes associated with alternative energy development.

- Sanctuary should resolve conflicts based on best available science.
- Enough protection without sanctuary – do prevent oil drilling
- No justification for sanctuary
- Concerned about federal offshore oil and gas moratorium being lifted.
- The sanctuary should be proactive in the issues of cable laying, drilling, wave energy and wind energy siting. These activities should not occur in the sanctuary. This comes from the negative experience with the cable laying in the sanctuary (damages, efforts in fixing the impacts, etc...).
- The sanctuary should be part of the decision-making (permitting, etc...) for all of these issues mentioned above even if it can't prohibit/regulate any of them.
- The sanctuary should be a centralized data gathering body for all research related to the sanctuary. Permits should require researchers to bring their data back to the sanctuary.
- The sanctuary should support a study to find out how much minerals (lead, mercury, precious metals ...) are present in coastal areas. The tribe needs more knowledge of what is there as resources. What is the sanctuary's position on minerals mining as it relates to the existing regulations?
- Permits needed – not just cooperation issue but may be culturally sensitive area
- Need for time to do studies that need to be done before more restrictions are put in place and receive courtesy copies of studies done. More available data sharing: reauthorization bill for the National Marine Sanctuary Act?
- Maintain the ban on offshore drilling.
- In the new management plan, the regulation of fisheries should not be authorized. Continue the same management plan action as the one in 1994 with regards to fishing.
- I am really opposed to whaling in the sanctuary. It is contrary to the sanctuary's mandates. The sanctuary needs to protect marine mammals.
- While it may not want to get involved in helping to determine catches, the Sanctuary should prohibit damaging fishing techniques within its boundaries, such as bottom trawling.
- I am sorry to report that you continue to fail control of the low flying aircraft in the OCNMS. Airplanes and the occasional helicopter regularly turn off the beach environs to the east flying just over our subdivision. It is commonplace to see aircraft fly below the 80' elevation of our home when the flight floor is 3000'. Why do you not set up a monitoring station in the area cliffs? This could be temporary or automated. Does the OCNMS issue regular warnings to airports in Western Washington, Oregon and British Columbia? Why do you not close the Copalis airport that is on the beach, in the OCNMS and has been there since WWII? Low flying aircraft do touch downs right over the spit that is a nesting and habitat area. Why will the Navy not give you access to its radar?
- My primary residence is just South of Pacific Beach, WA. about 1000' feet from the cliffs of the OCNMS and 80' above its waters. Over the past nearly two decades, I have witnessed a tremendous amount of abuse on the Sanctuary and its resources. I feel that the Sanctuary and other U.S. Government agencies could address this issue with coordination.
- On a regular basis there are breaches of the 3000' ceiling that is meant to protect the OCNMS. My home is at 80' in the cliffs and it is common place for small planes and helicopters to fly below the cliffs. While I have called the local law enforcement offices they refer me to the FAA who is not available on the weekends. There are no managers at the airport between Olympia and the beach environs so there is no responsible part to contact. I have yet to hear of any attempt by agencies to shut down the airport. The sanctuary should enforce the flight floor by using monitoring stations, press or notices to airports or pilots, or intervention by radar available from the Pacific Beach Navy Base.
- There continues to be considerable use of the beach environs as transportation by motorized vehicles. While it is the policy of the State of WA to designate the beaches as "highways", there is no enforcement, no standard road signs for speed, no protection for pedestrians (four or two

legged) from vehicle aggression and any vehicles that get stuck in the sand are left to sink. There are considerable photos of these events and the debris is now bleeding or leaching by-products into the waters of the ONCMS. I have never heard of the State of WA, the OCNMS or any county - issuing any fine or violation of the beach environs by abandonment of vehicles.

- Stiff fines for violators causing adverse impacts
- Not sure if it is possible, I imagine it depends on resource issues and safety, maybe allow permits for eco-tourism under certain conditions and only if it doesn't create adverse impacts
- Ban cruise ship discharges, similar to protections adopted in northern California Sanctuaries. Given the increase in harmful algal blooms and dead zones off the Washington coast, this action is critical.
- Increasing the size of the sanctuary and strict enforcement of existing limitations will be the keys to maintaining this area as an educational highlight for the public, divers and non-divers both.
- No motorized boats should be allowed in the sanctuary, other than rescue vessels or cases of emergency. And certainly, no ships should be allowed to discharge into the sanctuary.
- The non-regulatory benefits of enhanced coordination and education due to Sanctuary designation are often promoted as being more important than the regulatory ones. Clearly more can be done to fulfill this basic program mandate in Washington.
- The Olympic Coast Sanctuary should utilize the findings from the recently completed EIS for the Northern California Sanctuaries to similarly ban all vessels greater than 300 gross tons from discharging their grey and black water within Sanctuary waters.
- Improper use of the Copalis Beach aircraft landing area (beyond designated area) is a safety hazard for beach pedestrians and causes disturbance to wildlife. The sanctuary should work with the FAA, WDOT, and WSPRC to regulate the area and restrict beach use by aircraft to the area within 4,500 feet north of the Copalis River. Consider limiting its use to emergency situations.
- Address any changes in resource management as a result of actions taken by the Sanctuary subsequent to the regulations that were part of the initial 1994 designation.
- The MTC insists that fishery regulation authority be retained within existing management processes and not duplicated within the regulatory scope of the Sanctuary. No circumstances have arisen since 1994 that warrant such a change in fishery management authority. The Pacific Fishery Management Council (PFMC) provides an efficient and effective public forum for dealing with ocean fishing management and essential fish habitat issues. This process has proven both responsive and precautionary in dealing with emerging issues.
- OCA calls for regulations that prohibit harvesting of kelp forests within the OCNMS. Additional regulations are also needed to prevent degradation of existing kelp forests from other current and future Sanctuary uses such as fishing, military testing, wave energy generation, and sea floor disturbance.
- OCA requests that there be better monitoring and enforcement of current policies that mandate negligible impact of sound on marine mammals in the OCNMS.
- Additional Sanctuary regulations to reduce risk. The Sanctuary could consider regulating, where appropriate, to reduce risks from vessels operating within the ATBA, such as fishing vessels that could pose the risk of both large-scale spills and chronic small spills.
- The sanctuary should provide consistent regulations with the northern California sanctuaries in regards to the banning of discharges from cruise ships.
- Management plan should incorporate enforcement and surveillance needs.
- Work with other sanctuaries on the West Coast to research cruise ship dumping and pursue other opportunities to reduce this dumping in the Sanctuaries.
- Consistency between west coast sanctuaries with management of cruise ship discharges which may influence water quality.
- The Navy should not be conducting exercises in the sanctuary.
- The Navy should not be doing target practice in the sanctuary because it has impacts on birds and marine mammals.

32. RESEARCH TO SUPPORT ECOSYSTEM MANAGEMENT

- Research within the sanctuary needs to shift. Currently, research is focused on certain charismatic species. Monitoring should occur more on the community level (not just on certain species).
- A priority should be the scientific research and the data collected, including ecosystem parameters that the biological resources rely on, effects of pollutants from Puget Sound; water quality research, oceanic processes, dissolved oxygen and CO₂.
- Archeological sites contain information that can be used to understand the ecology of present systems which could help us with resource management (e.g., look at things in the past before management issues such as overfishing were occurring).
- Prioritize the research of cultural history from the period when sea level was low to help in the understanding of long-term change (cultural and natural history components).
- Reconstruct the trends in ecosystem change and human use over time.
- The sanctuary should consider that habitat mapping data should support other ecosystem objectives, and not just support sanctuary or rockfish needs.
- The sanctuary should initiate a stakeholder process to develop a shared set of species and habitats to be evaluated. Determine the conditions of those species and habitats and jointly develop strategies to protect them. Leverage partnerships and identify gaps.
- A program to monitor the interspecies dynamics of increased abundance warm water species such as tuna and pelican. How are these changes affecting the ecosystem and what are these species eating (stomach contents analysis)?
- The sanctuary should pursue a policy of ecosystem-based management, which should focus on interaction of all elements of ecosystems, including humans as element of the system.
- Monitoring program for near shore buoys should be expanded to record plankton and other water quality parameters at depth. Surface monitoring currently conducted does not fully address data needs, especially to identify issues such as ocean acidification.
- More research on indicators of ocean health. Examples: eelgrass, kelp forests, reefs.
- Need to know more about fishery resources to manage them sustainably.
- Key data needs are oceanographic and biological processes, for example larval transport, sink locations, habitat requirements.
- Fishery stock assessment studies should focus on species-habitat associations and depth preferences and differences in timing, tidal cycles, seasonal factors, etc. Stock assessments as now conducted do not accurately account for these preferences.
- Need to develop long-term monitoring and characterization program for marine resources within sanctuary utilizing ecosystem based management approach – full life cycle of organisms and habitat associations.
- The Pacific Fisheries Management Council (PFMC) and National Marine Fisheries Service (NMFS) northwest fishery science center have long-term research plans. These plans should be reviewed by sanctuary to potentially form partnerships for research. In the past they focused on single species and stock assessment. In the new research plans, they must ask whether there are regional differences in the stocks (where the fish lives, migrates, etc) when doing stock assessment. Now they need to ask “Is there a reason to manage stock differently in different regions?” The sanctuary should make sure that there is communication with fisheries researchers and that resources and data can be pooled together to help further our goals. What makes the sanctuary special may create various habitats for different stocks of fish. The sanctuary can help fisheries managers with refining regional differences within stocks.
- More ecosystem protection assessment of dynamics – impacts by climate change, human interaction, natural variation – create baselines of species, and habitat (coral, kelp)
- Conduct ecosystem inventory and assessment and analysis by the Intergovernmental Policy Council (IPC) and the sanctuary. There is currently a lack of data and data integration.
- Support the development of new technologies to investigate marine ecosystems structure and function.

- The sanctuary should act as a science based advisory panel and not implement belief based policy. Research that will fill data gaps in the transition to ecosystem based fisheries management. Specifics to include monitoring of apex predators, or sea otter-sea urchin dynamics. Conduct research that is mutually beneficial to tribes and the sanctuary. To be collaborators.
- The sanctuary should conduct long-term research projects.
- Encourage the development of an outer coast atlas. Oceanographic currents, biotic resources, habitat mapping, monitoring, near shore cell circulation patterns
- Develop basic knowledge. Better understand basic mechanics of process.
- Cannot manage something that we do not know.
- Develop collaborative research to investigate seabirds as indicator species and indicator of ocean health. Need to better understand seabirds. Great indicator of trophic levels.
- Sanctuary should monitor long-term higher apex predator abundance as bio-indicator of ecosystem health (at least 5 years, but ideally 20 yrs).
- Understanding ecosystems dynamics. Refine a program to focus on physical parameters and biological populations in the near shore areas. Concerns with anoxia, upwelling and plankton-food web connections. Natural disturbance or influenced by anthropogenic influences such as meteorological conditions or climatic conditions. Concerns with effects on fisheries and seabird populations.
- Sanctuary needs to commit itself to long-term monitoring of important parts of the food web. Should conduct review of protocols that can be conducted year after year so that these programs continue.
- Synthesizing and integrating data from fish and wildlife, tribes and the National Marine Fisheries Service. The sanctuary or someone needs to be the integrator.
- Coordination with other agencies to get a better understanding of roles and responsibilities. Comprehensive understanding of research trends. Analysis of trends that have changed since the sanctuary designation. What improvements have occurred since designation?
- Understanding of keystone species and interspecies dynamics in the ecosystem
- Species research that captures trends and status of different types in the sanctuary. Research should focus on habitat conditions and habitat types, i.e., deep corals.
- Continued exploration of different habitats
- Research: there were a lot of question marks in the sanctuary's 2008 Condition Report. It would be a good thing to try and answer those questions/unknowns identified in the Condition Report. In particular, research is needed on the deep-sea trenches. Additional research is needed on the base of the food chain (krill etc.) – especially in light of anticipated effects of climate change.
- I'd like to see the sanctuary do its own independent research (instead of just piggy-backing on other programs). The only independent work seems to be on deep-sea coral.
- The sanctuary needs to do more research to back up its belief system/objective/mission.
- The sanctuary should assist/support fisheries managers by doing research that helps managers (rather than managing fisheries itself). For example, seafloor mapping research could help fisheries managers.
- The sanctuary needs to research the impacts of overabundance of marine mammals. What are the impacts on shellfish populations? What are the impacts on salmonids? What are the ecosystem-wide impacts on ecosystem structure and function?
- There needs to be hypothesis-based research done by the sanctuary.
- Continue research on birds, whales, and pollution
- Data collection and ongoing scientific research programs are important.
- Given the current expectations for global climate change, I believe that it would be a very good idea for the sanctuary to support more paleoenvironmental research. It may be possible to model and plan for possible changes. For example, there are several archaeological sites on the Olympic Peninsula that are associated with a relatively higher sea level than at present. The animal remains (and in one case so far, plant remains) in these archaeological sites can shed light on the nature of the marine environment in the area, when sea level is higher. The human/marine environment

- interaction can be traced through time, which will shed light on management issues (known archaeological records of more than 4,000 years of interaction). Research in non-archaeological sites (such as lake bottom sediments) can help separate the human and natural factors in the human/environmental interaction.
- [Survey] ocean conditions, physical habitats, species and species interactions to better understand what lives where, and how, within the sanctuary
 - Where possible, provide data and information to fisheries management entities to improve stock assessments -- but in so doing, characterize the full life cycle of organisms and their habitat associations - to support sustainable fisheries.
 - In addition to banning cruise ship discharges in the Management Plan the Sanctuary needs to reeducate itself to informing the public about the natural wealth that lies off the coast, enhance our region's ability to prevent and respond to oil spills and conduct research that helps to inform fisheries management rather than including fishing within the scope of regulations as you told the public when the Sanctuary was first designated.
 - We believe that there are several goals and objectives that the Sanctuary, together with its partnering agencies and the Tribes, should work toward. First, we need to gather baseline data to better understand ecosystem interactions and conduct more research on multi-species dynamics, including the assessment of natural processes and human/cultural interactions with the environment.
 - We believe that there are several goals and objectives that the Sanctuary, together with its partnering agencies and the Tribes, should work toward. We . . . need to gather baseline data sufficient to measure change in marine resources within the boundary of the Sanctuary. From this, the Sanctuary can begin to develop an understanding of the distribution and quality of habitats and the role in which they function in the marine ecosystem.
 - Develop a long-term characterization and monitoring protocol in order to fill data gaps (both bottom up and top down) necessary for the development of ecosystem based fisheries management.
 - OCA recommends that the OCNMS increase biodiversity monitoring within the Sanctuary. Our understanding of the diversity of species existing in the biological web of life in the Sanctuary is necessary for an ecosystem management approach, focusing on ecosystem connections. We recommend that OCNMS focus on the lower ratings in the Condition Report.
 - [We recommend that the updated OCNMS Management Plan include] identification of Important Ecological Areas based on ecological criteria and the physical and biological features of the sanctuary (e.g. kelp forests, corals and sponge, rocky shores, critical habitat, and habitats important to marine life for breeding, feeding and shelter).
 - Focus the monitoring program on collecting data that will enable NOAA scientists to answer key questions about the biological health of the Sanctuary. For example, there is a concern about the periodic occurrences of low dissolved oxygen (DO) in near shore waters of the Sanctuary. These occurrences have the potential to impact all aquatic populations as well as bird life. Are these low DO levels a result of natural conditions or from a build up of anthropogenic materials in the area? Are they the result of recent meteorological conditions which were different from long term historical conditions? Are recent meteorological conditions possibly the result of changes due to global climate change? There are many questions. OPAS would like to see NOAA identify the most important questions which relate to the health of the Sanctuary and then focus the monitoring program to collect the data that will allow them the best chance to understand these issues.
 - Many species of seabirds are in decline Washington Marine Waters. It is important to monitor the distribution and abundance of birds in the Sanctuary. What factors are influencing key bird food resources? Are changes in short term (last 10 years) meteorological conditions influencing nutrient dynamics and near shore productivity?
 - Focus on summarizing data from an ecosystem approach. How do meteorological conditions, near shore water quality (including nutrients), and all trophic level biological populations relate to one another.

- Investigate ecosystem dynamics. Continue assessment of habitat types, plus the relationships between habitats, species and biological processes.
- Assess how the system is impacted by human activities, climate change, and natural variation.
- [U]nderstanding baseline conditions, ecosystem functions, and status and trends of biological and socioeconomic resources to effectively inform management should be a priority.

33. SPILL PREVENTION, CONTINGENCY PLANNING & RESPONSE

- Continue to support the stationing of the Neah Bay Response Tug
- Improve infrastructure at Neah Bay to support oil spill response and salvage staging
- Surfrider also supports increased preparedness for contingencies like oil spills in the coastal environment.
- Full annual funding of the Neah Bay Rescue tug is a priority.
- I support year round, permanent funding of the Neah Bay tug.
- Require the Neah Bay Rescue Tug to be on-call year round. The Neah Bay response tug boat has responded to 41 ships in distress since 1999 but its future is in jeopardy because State funding runs out at the end of 2008.
- Require a schedule of emergency drills and exercises for oil spills in the new Plan. This was one of the most important original goals of the previous Sanctuary Management Plan, but there has yet to be a successful emergency oil spill drill conducted in the Sanctuary.
- A rescue tug should be funded to operate out of Neah Bay.
- Improved Documentation of Oil Spills and Incidents: Continuous improvement is dependent on good data and monitoring. Data needs to be accurate and should include detailed information about existing spill prevention regimes to better inform continuous improvement efforts. Additionally, descriptions of responses to incidents should be detailed and accurate in order to better focus on areas for prevention and response improvements. Oil spill data should include detailed information about what types, sources and quantities of oil have spilled in specific incidents as well as spills that occur in areas adjacent to the sanctuary. PMSA has collected this information from agencies and is prepared to assist with the documentation in order to have the best information possible about oil spill incidents.
- We must continue to make spill prevention a priority to minimize the risk of a major incident. The OCNMS should continue to support voluntary compliance that results in ships and oil barges that transit along the coast of Washington staying beyond the ATBA. The desired outcome is compliance and that is being achieved.
- The International Tug of Opportunity System (ITOS) is in place and working. At any given time, more than 100 tugs are located along the coast, in the Strait of Juan de Fuca, around the San Juan Islands and throughout Puget Sound. It is imperative that the OCNMS supports this system and educates stakeholders about its effectiveness in protecting the outer coast as well as Puget Sound.
- In addition to the numerous safeguards, the layered safety net including the monitoring of deep draft ocean-going vessels, other vessel types and operations should be evaluated by OCNMS for spill histories and operations of concern to OCNMS stakeholders.
- Advance marine vessel safety, underwater noise control, and oil spill preparedness.
- NOAA needs to invest in technology that would enable the Sanctuary to efficiently assess the seasonal occurrence of marine organisms in the water column for the development of a dispersant use matrix.
- The Sanctuary needs to formally express its support in writing to Congress and the Washington State legislature for the permanent year-round presence of a multi-mission tug with spill response, fire fighting and salvage capability in Neah Bay to protect the Sanctuary from the devastating impacts of a catastrophic oil spill.
- The Sanctuary needs to work with the Coast Guard, Washington Department of Ecology, oil spill response contractors and coastal tribes to conduct regular oil spill drills and exercises in the

Sanctuary including the tug and to assure that the gear stockpiled along the coast is appropriate for the operating conditions and can be called out in a timely fashion.

- In addition to banning cruise ship discharges in the Management Plan the Sanctuary needs to rededicate itself to informing the public about the natural wealth that lies off the coast, enhance our region's ability to prevent and respond to oil spills and conduct research that helps to inform fisheries management rather than including fishing within the scope of regulations as you told the public when the Sanctuary was first designated.
- Establishing a larval fish assessment monitoring program is also a top priority, as it will provide much needed insight into year-round water column vulnerabilities and can inform an oil spill dispersant decision matrix.
- The Sanctuary should advocate for minimizing the risk from a catastrophic oil spill while supporting safe, efficient and environmentally sound marine transportation. The Sanctuary should work with the Makah Office of Marine Affairs to better understand how federal and state policy, rulemakings and planning processes may impact our Treaty Area and the Sanctuary. The Sanctuary should focus on improving its capacity to perform natural resource damage assessments by working within NOAA to update the outer coast Environmental Sensitivity Index.
- The Makah Tribe strongly recommends the Sanctuary officially recognize the need for a multi-mission emergency towing/rescue tug as a fundamental improvement to our safety regime. This accomplishment would be an essential insurance policy to both assure the flow of waterborne commerce and prevent devastation to Tribal and Sanctuary resources in the event of a major vessel incident.
- The Sanctuary should formally outline its policy on dispersant use, outline procedures for emergency data collection and provide natural resource damage assessment guidelines. We understand the Sanctuary's oil spill contingency plan exists in draft form, and this document could serve as a blueprint for improvements to the Sanctuary's emergency response procedures. If these policies do not exist, a process for achieving them as a part of the goal of mitigating a catastrophic oil spill release should be addressed through the MPR process. The Sanctuary should coordinate with the Coast Guard, Ecology, Navy and the spill response community to schedule and participate in regular spill response exercises and drills within the Sanctuary.
- Support the stationing of an industry-funded multi-mission rescue tug in Neah Bay.
- Support the Makah Office of Marine Affairs by working with the Coast Guard to move the high volume port line from Port Angeles, Washington to Cape Flattery.
- Coordinate with the Coast Guard, Department of Ecology and Makah Office of Marine Affairs to set up an oil spill response exercise and drill schedule for 2009-2014.
- Support the Makah Office of Marine Affairs as it works to ensure that the Department of Ecology regulations making Neah Bay a primary staging area are met by response contractors.
- Assist in coordinating response training for Makah resource managers and their staff.
- Coordinate within NOAA to begin updating the Environmental Sensitivity Index maps for the outer coast.
- Outline policies on dispersant use and initial natural resource damage assessment actions.
- Request the appropriate funding for a larger, cutting edge research vessel capable of performing initial on-water spill assessment and monitoring.
- Install real time surface current detection equipment for the outer coast and western Strait of Juan de Fuca.
- Oil spill prevention and response, and partnerships to further these measures, should remain a priority for the sanctuary.
- If a complete ban is not adopted, OCA calls for bonding of sufficient funding from any energy producer to pay for a "worst case" scenario involving a spill, accident, or other incident that has an adverse impact on the OCNMS ecosystem. The calculus for bonding shall include all costs for necessary and appropriate restoration and remediation of habitat.
- The Council is concerned about the possibility of oil spills impacting the Sanctuary. Large spills pose a huge threat. As the number of transits along the coast increase, and as the capacity of ships

- to hold bunker and oil cargo increases, so does this threat. An oil spill in or near the Sanctuary could leave a devastating and long-term scar on this very place we cherish so greatly. As the Sanctuary works to update and expand its Management Plan, it is imperative to focus on oil spill prevention and response issues.
- Additional protections for vessels carrying “clingage plus.” The Council could consider working with the oil industry to better define what should be considered “carrying cargo” verses carrying mere “oil clingage,” such that some vessels currently transiting within the sanctuary because they are not fully loaded with oil cargo could (voluntarily perhaps) be treated as being “in cargo status” and consequently transiting outside the sanctuary.
 - Rescue tug. The state funded Neah Bay tug has proved to be key asset to oil spill prevention in Washington and is located at the Sanctuary’s northern edge. This tug not only protects state assets along much of Washington’s Coast and the Strait of Juan de Fuca, but also the federal Sanctuary. The Sanctuary could consider acknowledging this protective benefit to the Sanctuary and supporting federal participation in maintaining the tug at Neah Bay.
 - Limited scope of GRPs. This issue addresses the fact that there are too few GRPs and these are pretty much limited to exclusion at river mouths. Also note that almost none of these have been tested. The Sanctuary could consider revisiting the lack of GRPs providing protection to sensitive areas and what is to be used as a strategy for protecting environmentally-sensitive areas (which are many) in place of GRPs.
 - Coordinating with sister agencies. The Sanctuary could consider coordinating with the Olympic National Park regarding access for response efforts.
 - Weather data. The Sanctuary could consider utilizing existing weather data to determine how frequently the deployment of response equipment can take place and (for on-water recovery, GRP deployments, in situ burning, and dispersant use) whether the available equipment is adequate for conditions. The Sanctuary could utilize NOAA buoy data to support an analysis of whether relevant spill responders are prepared for a spill that could threaten the Sanctuary.
 - Appropriate local response equipment. The Sanctuary could take steps to assure that appropriate local response equipment is pre-staged in locations that, considering deployment and arrival times, would be useful in cleaning up an oil spill within the first 48 hours after an oil spill. This evaluation would also include a review of whether locally staged equipment is capable of doing spill response in open ocean conditions.
 - Reviewing oil spill provisions in current Management Plan for their current applicability and for the progress that has been made on them. This review would be to determine what activities the Sanctuary should continue to pursue. Some of the items may no longer be relevant. Additionally, the Sanctuary may have fulfilled its goals on these items. The Council understands, however, due to funding limitations, the Sanctuary has not completed all of the work it had hoped to complete when the existing Management Plan was written. The Sanctuary could renew its commitment to accomplishing the items that have not been completed and remain relevant.
 - [T]he management plan should include the Sanctuary’s current management focus on spill and dumping preventative measures, including relocating ship traffic lanes offshore, tracking ships, enhancing spill response assets, reducing waste discharge from ships, and water quality monitoring (OCNMS 2008 Condition Report at 4).
 - NOAA should also focus on how to best protect the Marine Sanctuary and its biological populations from oil spills and other potential stresses. NOAA should maintain close liaison with existing hazardous spill response entities (Puget Sound vessel traffic service (USCG)), Tofino traffic control center (Canada), Spill management contractors- such as MSRC, and Washington State Department of Ecology). NOAA should monitor the evolution of critical planning documents: The Washington State Maritime Cooperative Oil Spill Contingency Plan and the Washington Department of Ecology Outer Coast Geographical Response Plan (especially Chapter 4). These plans undergo constant revision, and directly affect the Marine Sanctuary.
 - While it is probably out of the scope of the Sanctuary program, any support that NOAA can exert on finding a stable source of funding for the rescue tug station at Neah Bay is important. This will probably take legislation at the Federal level.

- Develop a functional communications system between offshore, nearshore, and shore based locations. The Olympic coast creates very challenging communications conditions, including cell phone service blackout on most of the shoreline and near coast. In order to coordinate activities, it is imperative that a functional communications system be developed, tested, and deployed prior to the occurrence of an oil spill.
- Enabling and conducting proper oil spill trajectory modeling. Unfortunately, this modeling is severely hindered or not possible for major regions of the coast because of a lack of surface current data. While the OCNMS seasonally deploys several mooring buoys from April to October to profile surface currents, these buoys are not deployed from November through March, and therefore adequate data on surface currents for trajectory analysis are not available for these areas. Note that November through March is the most critical time for adequate modeling as it is a period of strong and frequent storms, substantially increasing the threat of an oil spill. Without adequate trajectory modeling, oil spill response can be severely impacted. The Sanctuary should develop plans to deploy current monitoring buoys throughout the year so that adequate oil spill trajectory modeling can be done.
- Coordinate contingency plans with relevant agencies, including the National Park Service.
- Ensure that response equipment is ready and tested in multiple locations up and down the outer coast.
- Organize and participate in drills to test preparedness.
- Support efforts to the greatest extent possible to establish a permanent funding source for a year round rescue tug at Neah Bay.
- Coordinate with the Oil Spill Advisory Council, implement recommendations from the Council when relevant to the Sanctuary and share research and information pertaining to preventing, preparing and responding to spills.
- [We] urge the OCNMS management to consider plans for the use of dispersants in case of a large spill. Dispersants can be one additional response tool when other measures fail. Consideration should also be given to developing formalized agreements for “Harbors or Places of Refuge” for distressed vessels outside vicinity of the OCNMS.
- Support efforts to obtain funding for a permanent emergency response tug at Neah Bay.
- Preventing and aggressively responding to point-source pollution (oil spills) within the Sanctuary should remain a priority. Sanctuary staff should be a catalyst to ensure appropriate and timely action is taken by other responsible regulatory agencies.
- Support emergency response planning by providing sanctuary staff with basic Incident Command System training and ensure active participation in drills and exercises.
- Support conducting oil spill drills along the outer coast, ensuring coordination and involvement with local stakeholders.
- Research the need for additional oil spill response equipment caches for local stakeholders to enhance rapid protection of sensitive resources and early response capability.
- Support development of the dispersant use matrix to establish a comprehensive baseline of biological data.
- Develop memorandums of understanding with oil spill response trustees to assist in natural resource damage assessments by developing ephemeral data collection plans, training Sanctuary staff, and making sanctuary resources available.
- Has the sanctuary acted on the November 10, 2006 letter from the SAC in support of the Neah Bay tug? If not, the sanctuary should.
- The sanctuary should call for the Navy to mitigate their current and proposed expansion of operations in the Quinault range through the stationing of spill response and salvage equipment along the coast.
- It is important that the sanctuary support funding/requirement (year round) for the Neah Bay tug.
- It is important that the sanctuary support development of the dispersant use matrix (this would help lead to establishing a comprehensive understanding of baseline biological data).

- The original scoping meetings for the sanctuary's Draft Environmental Impact Statement in 1991 were well-attended (by over 500 people) who have not been kept in touch with over the 14 years since designation (1994), and who called for improved capabilities to protect the resources from oil spills having occurred in the winter of '88 and summer of '91 with Exxon in '89 in between. To this date, there has yet to be a successful no-notice equipment deployment oil spill drill in the sanctuary despite specific identification in the current management plan to do so. The Condition Report's identification of the fact that there has been no major spills in the sanctuary since designation fails to acknowledge the 41 times the Neah Bay tug has been called out to respond to ships in distress since 1991 and the fact that funding for the tug ends this year.
- The sanctuary should work with other partners in the federal government to help prevent oil spills. Reevaluate memorandums of understanding for prevention and response to spills.
- Push for Spill of National Significance exercise. Request annual worst case scenario oil spill response drill off the Washington Coast.
- Integration of cultural information with oil spill response activities to prevent damage by spill response workers to cultural resources.
- Point-source pollution (oil spills) should remain a priority. Continued vigilance (monitoring and compliance of the Area to be Avoided) is important. Pushing other regulatory agencies toward stronger prevention measures.
- The sanctuary should do more research on baseline levels of water column plankton larval fish and forage fish species. This data is needed for oil spill response and natural resource damage assessment.
- The sanctuary should collaborate with the working parties in understanding the implications and effects of oil dispersants.
- The sanctuary should conduct HAZWOPER (Hazardous Waste and Emergency Response) training for its staff and Coastal Observation and Seabird Survey Team (COASST) volunteers.
- The sanctuary should research facts to support an intergovernmental policy agreement for quicker oil spill response times and increased capacity. The sanctuary should work with the tribes, and other state and federal agencies. Consider participating in the Regional Response Team. The sanctuary should be a strong voice for the needs for these response mechanisms. And that the threat comes from more than just the oil carriers but should include all commercial shipping carriers.
- To develop Memorandums of Understanding with oil spill response trustees to make available sanctuary resources (boats, volunteers, etc) to assist with natural resource damage assessment.
- The sanctuary should identify certain areas along the coast that are key for larval dispersal for a prioritized oil spill response to reduce impacts to critical habitats. Primarily identifying critical intertidal habitats.
- Oil spill prevention and response are important priorities for sanctuary.
- Sanctuary should support year-round funding of Neah Bay rescue tug.
- Faster or more readily available spill response equipment (cleanup)
- Want a year-round rescue tug available at Neah Bay.
- Westport/Grays Harbor area is important for increased tug services given increased ship traffic due associated with biodiesel plant; add rescue staging area in Grays Harbor for spill response (for tugs, boom, equipment, etc.)
- Investigate spill response resources available at La Push.
- The sanctuary should continue to keep concern about oil development and oil spills as a high priority issue.
- Continue efforts for oil spill prevention.
- Spill protection response programs need to be coordinated. We are in good shape but we cannot take it for granted; we need to keep ourselves ready for when it happens.
- Make it a priority to get the funding for a permanent rescue tug
- Having response equipment available up and down the sanctuary and conduct response drills.
- Keep tug.

- The sanctuary should support continuous training for members in communities adjacent to the sanctuary for response to catastrophic events, for example oil spills and tsunamis.
- Pollution Response and Prevention
- One of the 4 goals in the original designation document was to do no-notice drills for oil spill prevention. There has not been a successful no-notice drill in the past 14 years. There should be at least one done annually. The Makah have been leaders in oil spill prevention. There should be better partnership between the sanctuary and the Makah to inform rulemaking (under OPA 90) and to advocate oil spill prevention locally. This would help fulfill goals from the original designation document.
- Pollution Response – oil; Will the tug be here in years to come to protect our national marine environment?
- The sanctuary should set up a monitoring program to help with oil spill prevention that would monitor larval stages of rockfish and other groundfish species. To date, there is mainly risk assessment info on near shore species but no or little monitoring to assess damage to groundfish species, migratory species, recruitment, etc. Monitoring should be seasonal or even monthly.
- There has never been a successful no-notice equipment oil spill exercise. They should be conducted regularly.
- Reaffirm sanctuary support for the Neah Bay rescue tug. No official sanctuary statement. There is a proven value of the tug to prevent oil spills
- Update ESIs (Environmental Sensitivity Index) for coast shoreline
- Natural Resource Damage Assessment (NRDA) near shore species characterization.
- When to use oil dispersant use matrix for responsible dispersant use

34. TREATY TRUST RESPONSIBILITY

- The sanctuary should continue to develop its partnership with the coastal tribal governments, and recognize the tribes as the equal powers/partners that they are. We are partners in protecting treaty resources; resources in the sanctuary are co-managed (they are not exclusively sanctuary property). As compared to the other sanctuaries in the national system, the relationship between the tribes and Olympic Coast National Marine Sanctuary (OCNMS) is a unique one. The sanctuary should embrace this relationship not from a top down management style, but from the ground up. The sanctuary should continue to develop its understanding of the physical/spiritual connection between the tribal peoples and the environment. It is important for the sanctuary to combine its understanding of trust responsibilities and tribal values with strong science. The sanctuary needs to continue to improve its relationship with the coastal tribes (this a mutual obligation).
- The sanctuary staff and volunteers should have training on the overlapping responsibilities and roles of the individual governments; tribes, state agencies, and federal agencies that have roles within the boundaries of the sanctuary.
- Relationship between coastal tribes and sanctuary has developed through the Intergovernmental Policy Council (IPC), but areas for potential conflict exist. The sanctuary's priority for protection of resources should outweigh treaty rights of Native American tribes.
- Respect rights of indigenous populations to utilize the ocean for their livelihood. They were here before the sanctuary was created and have the right to pursue their subsistence and harvest rights and the right to management of those resources.
- When sanctuary volunteers are trained, they need to be trained about tribal treaty rights. The volunteers are representing the sanctuary.
- The sanctuary should not take away from native rights (in particular the right to harvest food).
- Olympic Coast is the only sanctuary that encompasses the treaty areas of recognized tribes. We need a different management approach compared to other sanctuaries. Sanctuary needs to capture the spirit of working with the tribes not just as co-managers of the fisheries resources but also in designing management processes that are mutually beneficial and cooperative. The IPC was a

starting point, but more work should be done to capture the spirit of the treaties in a broader management perspective.

- The sanctuary was not supposed to interfere with treaty rights (supreme law of the land). The tribes work with geoducks but they need to disturb the sand to do so. They have right to gather geoducks but they are not allowed to disturb the sand – this is a problem.
- The sanctuary should be careful not to engage in regulation of Makah fishing rights. Leave issue to regulators such as the Pacific Fisheries Management Council (PFMC).
- Fisheries management to benefit the tribe. What impact is this park going to have on Fisheries? Marine mammals are part of the fisheries here. What benefit will this Sanctuary be for the indigenous people that have lived here for the millennium?
- The needs of the tribes need to be heavily considered especially when it comes to fishing.
- The management plan should take a balanced approach to address tribal concerns but not to the detriment of all other communities.
- I am really opposed to whaling in the sanctuary. It is contrary to the sanctuary's mandates. The sanctuary needs to protect marine mammals.
- The sanctuary needs to recognize all treaty rights (whaling, fishing, hunting, etc.), and recognize that its mandates to protect resources do not supersede treaty rights.
- Take has always been contemplated statutorily within national marine sanctuaries. The sanctuary is not a reserve; it is not a national park.
- Sustainable harvest of fish and other marine resources should certainly be part of OCNMS goals, with priority to tribal treaty rights.
- The Olympic Coast National Marine Sanctuary should be expanded and have increased protections. It should be a true sanctuary that bans all hunting and fishing. The Makah whale hunt should not be allowed!
- Continued work with tribes to minimize impacts from their fishing and harvesting including closures when needed
- [The sanctuary should place an] emphasis on shared understanding and joint management decisions that respect cultural traditions, rights, and ecological conditions and constraints.
- Educate the public on existing partnerships and how they are envisioned to work, perhaps by starting an outreach campaign and developing public education materials, in coordination with the Tribes, explaining the importance of marine resources for the Coastal Tribes, what is the Trust Responsibility and how the Sanctuary meets and maintains its Trust responsibilities to the Coastal Tribes.
- Increase transparency of Sanctuary actions which include comments toward proposed industries within our Treaty Area, such as wave energy.
- The Sanctuary should advocate for minimizing the risk from a catastrophic oil spill while supporting safe, efficient and environmentally sound marine transportation. The Sanctuary should work with the Makah Office of Marine Affairs to better understand how federal and state policy, rulemakings and planning processes may impact our Treaty Area and the Sanctuary. The Sanctuary should focus on improving its capacity to perform natural resource damage assessments by working within NOAA to update the outer coast Environmental Sensitivity Index.
- OCA requests that the Navy continue consultation with the Quinault Nation on all aspects of test range extension that will affect tribal fishing and ceremonial harvesting. The Navy should look for options that do not include access to Quinault beaches to avoid interference with tribal activities.

35. VISITOR SERVICES

- There are a lot of people in the state who don't know that there is a marine sanctuary on the coast. There is a big awareness gap and this should be addressed in the sanctuary's education programs. The sanctuary needs to connect to the major population areas in the state (e.g. more connections with the aquarium and other groups throughout the state).
- The sanctuary should make better use of the web and public media to get its message out to the public.

- The sanctuary needs to be better known on the Peninsula as well as in the metropolitan areas.
- The sanctuary should have more outreach on the goals of the sanctuary.
- The sanctuary should have awareness for other activities within the sanctuary other than recreation and commercial, but to include traditional cultural activities. To be more active in public awareness specific to the site.
- Increase public awareness of marine conservation issues.
- Conduct more outreach about the sanctuary in regional communities.
- Sanctuary outreach materials (such as those used at the scoping meeting) should be made available to the general public in places where they visit (e.g., Seattle Aquarium, schools, etc.).
- Investigate ways to use social media (facebook, myspace, etc.).
- Make sanctuary sound bites and downloadable videos available to the public.
- Interactive web programming (e.g., species identification game).
- Develop a widget for the sanctuary. Idea: vessel operation highlights.
- People are also interested in shipwrecks, cultural resources and history. Engage the public in these topics.
- Increased interpretive signage, staff presence and/or center for educational programs primarily during the summertime. Develop cooperative with local entities such as the Olympic National Park, the tribes and local business.
- The sanctuary should organize ecotourism events.
- Media outreach and film series to promote the sanctuary for regional communities. Even consider a nationwide audience.
- The sanctuary should study who is the target audience for education programs, i.e., is it K-12 relative to the specific objective? Be strategic in determining the target audience considering funding is limited.
- The sanctuary should also seek to understand further who is coming to the coast and why (or alternative would be to determine who is not coming to the coast and why). Target to increase visits or education based on this information.
- Sanctuary should take lead in educating public especially with marine mammals and improvements to whale watching operations. Whale watching is main way for public to interact with marine mammals.
- Would like to see an educational/visitors center (“south coast discovery center”) developed by the sanctuary in Westport/Grayland area. Could promote tourism, involve local schools and Grays Harbor College, and provide general public education.
- The sanctuary should have a program to educate people to not throw debris overboard when on the water -- to improve awareness about the disposal of garbage.
- There is more need for general information about the sanctuary that is more accessible to the public, not just limited to the web.
- Provide information to public so people understand the problem of low oxygen better.
- Promote the sanctuary to allow and permit tours of the sanctuary be it marine wildlife. When people are in the sanctuary they can be more appreciative of the resources. This is not currently happening.
- The sanctuary should partner more with the Feiro Marine Science Center to collaborate with the educational service districts on programs aimed at creating programs that are transportable to the field.
- The sanctuary is of concern to the rest of the nation, because it is a national treasure.
- The sanctuary advisory council needs to be more publicized and emphasized as a means of communication between the sanctuary and the public.
- The education goal in the present management plan “to foster involvement by encouraging feedback on the effectiveness of education programs ...” needs to have action plan that details the program that are in place to meet that goal. This action plan should be easily accessible through the website.

- Continue underwater research and integrate information into existing education programs in coordination with Olympic National Park and others. Understanding resources helps the public value the sanctuary.
- Public Education/Outreach: it is important for the sanctuary to focus on public education in coastal communities/schools regarding the environment.
- Communication: we need to communicate what our goals and objectives are.
- The sanctuary needs to flesh out the way it represents the tribes to the public. The sanctuary needs to update the representation of the tribes; the tribes are more than just their heritage. The tribes are involved in modern technology and current management processes. The tribes are only portrayed in an 1855 cast, and that leads to misunderstandings among the public.
- More/better public education could help improve the understanding of what the sanctuary is and what the sanctuary's capabilities are.
- Communities are remote here on the peninsula. Newsletters could be distributed through the Makah Access Portal in order to reach local communities. A quarterly e-newsletter would be useful (for example like the one at Channel Islands).
- Plastics - Charlie Moore ship traveling in Pacific cut across Northern Pacific Gyre and saw large amount of plastics. Coastal alliance cleans beaches and lots of plastic found; some fishermen are very aware and careful with not allowing plastics to go in the sea, others are not as concerned – need more education; awareness of impacts of plastics on wildlife.
- Economy is not doing very well. Make the peninsula a center for marine oceanography. Need for tourism, kid camps, etc that are focused on marine resources. Promote peninsula for marine research and a center for marine study. If National Oceanic and Atmospheric Administration (NOAA) based in Port Angeles, it would be a great opportunity to promote entire peninsula for marine resources. Need for integrated effort to promote marine research and tourism.
- Use education to share pristine environment with others.
- Increase public education. What is it, why do we need it, what have we done thus far, how can people get involved, where do we want to be in five years? Ask person on street; most will not know what the sanctuary is.
- Education/outreach is key and should be done with existing entities to expand the current outreach capacity: outreach should be expanded from children to more adult communities; Should create an opportunity for weekend city dwellers to interact more with local residents.
- Disappointing at this is the first newsletter from the sanctuary since it was designated. Should have had (or have) better flow of information. Many web-based opportunities. Sanctuary appears to be a stealth operation. Need to let public know the resource exists, what the sanctuary is doing. Present early results. What are the trends, baselines, etc? Must be communicated.
- The sanctuary needs to improve signage at highway pull-outs. There needs to be more interpretive signage. The sanctuary needs to better inform people as they drive on the coast that they are looking out on a marine sanctuary. There needs to be more signage for travelers on 101.
- The Olympic Coast Discovery Center (OCDC) has stagnated. The OCDC needs to be updated and needs to evolve continually. Volunteers have been saying the same messages over and over for years. The center needs to change messages more frequently. The OCDC needs to be more dynamic. There needs to be more signage for the OCDC. So many people pass by and don't know that they went through a marine sanctuary.
- The sanctuary should do more to utilize new technology on the internet to improve its website. There could be more interactive aspects of the website. This is something that should be implemented across the sanctuary program. The purpose/goal of this would be to improve education and outreach.
- The sanctuary needs to make the public more aware of the IPC and their roles.
- OCDC need improved public visibility and periodic changes to exhibits
- Provide interpretive materials to public for sale with profits going for the area's management, would love to see/have DVD or book of this sanctuary

- Not sure if it is possible, I imagine it depends on resource issues and safety, maybe allow permits for eco-tourism under certain conditions and only if it doesn't create adverse impacts
- The first nation people of the area would make the best guides of the area since they are from the land. This also allows them to tell their story first hand.
- Instead of the center at Port Angeles provide 3 research/marine Center for the public that are located along the coast. These centers will support research, education and naturalist tours. . . This will provide education and awareness for the public more data for research and employment for 1st nation people, help with research and marine center for the public that are located along the coast.
- Increase visibility and public awareness of the OCNMS.
- The Sanctuary should strive to keep its website updated and to reformat information into a more user-friendly format.
- Olympic Coast National Marine Sanctuary and the Makah Tribe have worked collaboratively in education and outreach for over 8 years. Each year, Makah tribal members conduct education program at Cape Flattery and at the Makah Cultural and Research Center's Makah Museum. Staff funding and training are provided by the Sanctuary, with program administration by the Makah Cultural and Research Center (Makah Museum).
- [Work with Olympic National Park to] educate visitors about the importance and fragility of marine resources, threats to them, and protection and mitigation measures to reduce impact.

36. WATER QUALITY MONITORING

- A priority should be the scientific research and the data collected, including ecosystem parameters that the biological resources rely on, effects of pollutants from Puget Sound; water quality research, oceanic processes, dissolved oxygen and CO₂.
- Expand upon current physical and biological parameter monitoring using remote ocean sensing devices (buoys) to provide baseline data and early warnings (e.g., harmful algal blooms). Integrate current deployments into Coastal Ocean Observing Systems, and partner with them.
- Improve data acquisition, data management, and data sharing. Implement the Sanctuary Integrated Monitoring Network (SIMoN) at Olympic Coast National Marine Sanctuary.
- NOAA should use all of its observation assets (e.g., satellites) to the benefit of the national marine sanctuaries. Make this part of the management plan.
- Data collected by the sanctuary needs to be available to concerned parties in an electronic format – especially Geographic Information System (GIS) data. Data also needs to be processed and analyzed in a timely manner. Cooperative agreements could help insure the analysis gets done.
- Monitoring program for near shore buoys should be expanded to record plankton and other water quality parameters at depth. Surface monitoring currently conducted does not fully address data needs, especially to identify issues such as ocean acidification.
- Make funding available to organizations that conduct water quality testing. Example: Surfrider program for testing water quality.
- Local knowledge from fishermen should be used to help develop sanctuary research.
- Monitoring oxygen levels is important, as well as early notification of low levels. Work with local fishermen to enhance early reporting.
- Utilize local charter or commercial vessel operators for monitoring of baseline conditions. Create two-way communication process (e.g., email) to inform of changes in environmental conditions.
- Dead zones: O₂ levels effect crab, fish, and other habitat. Work with fishermen to improve knowledge, map affected areas, get information to/from fishermen.
- There is a strong need to provide sanctuary data in a timelier manner and we need to identify the impediments that inhibit these reports from being produced and made available to other agencies and organizations.
- Conduct and/or support those conducting analyses of existing data and identify data needs.
- Continue studies on ocean conditions on causes of oxygen depletion.

- Need monitoring using remote sensing. More work with partnerships; agencies, tribes, non government organizations, and research institutions. To monitor physical changes and biological changes in the water of the sanctuary (e.g., harmful algal blooms - HABs).
- The sanctuary should develop data standards that provide for data and interpretation of the data to be translatable and available to resource managers in a timely fashion.
- The sanctuary should make its data/research more accessible to the public and others.
- Research and monitor the deposition of airborne pollutants from Asia and marine vessel traffic.
- Develop and adhere to a standard to making existing data translatable and available in a reasonable time period to inform resource management.
- Low oxygen problem. Need continued focus, improved understanding of oceanographic and climate change linkages.
- Need a baseline for future monitoring. Sanctuary to help facilitate with agencies, academic, tribes and act as a clearing house. Coordinate a bi-annual symposium of knowledge of the sanctuaries, i.e., recent research results.
- The sanctuary needs to find a way to fund “spiders” on existing buoys that monitor ocean acidification. The degree of ocean acidification is extremely important to monitor.
- The sanctuary needs additional near shore monitoring buoys. That way, the sanctuary can get a bigger data set with which to assess ocean conditions.
- The sanctuary needs an on-line database where the public can access data and information. This would better educate people about what the sanctuary is doing. It is difficult to access sanctuary data. If data was accessible on-line, it would lead to more transparency.
- There is a new report on ecological conditions of coastal ocean waters along the U.S. western continental shelf, inclusive of the five west coast National Marine Sanctuaries. One of the major take-home messages of this report is that NOAA’s five NMSs along the West Coast of the U.S., including OCNMS, appeared to be in good ecological condition, based on the measured indicators, with no evidence of major anthropogenic impacts or unusual environmental qualities compared to nearby non-sanctuary waters. I am writing to bring your attention to this new report and to encourage you to make use of the results in your efforts to finalize the Sanctuary's management plan.
- Outreach occurs when you get partners that are in industry. Industry has resources that you can't afford and a desire to try them out to gain a competitive advantage. . . I see from page 24 of your Condition Report 2008 that vessel traffic is running the edge of the OCNMS and what an ideal chance to partner and outreach. Have sensors on the ships and have the ship lines as part of your team.
- My point is the citizen scientists can be partners. If salmon season is closed it is more fun to be out on a boat gathering data than sitting in port. Have a sampling rally.
- Advance the study, knowledge, and awareness of oxygen depletion - its causes, locations, consequences, and future threats.
- Study deposition and impacts from airborne pollutants.
- Sanctuaries should be places where basic long-term natural resource monitoring is done as a consequence of designation. At a minimum NOAA should be archiving their own satellite data to track seasonal changes in temperature and primary productivity in the nation’s 13 Sanctuaries, but this is not done. These data will enable the Sanctuary program to provide an archive of the impacts global climate change is having on our nation’s marine habitats.
- Increase monitoring capacity, through adding a NANOOS buoy within the Sanctuary, via in situ and satellite sensors to monitor the ocean's physical and biogeochemical properties, including carbon, nitrogen, current patterns, sea surface and sub-surface temperature, salinity, and acidity.
- Ocean acidification could be detrimental to calcifying organisms and potentially have ecosystem-altering effects, but the extent of ocean acidification is not being monitored in the sanctuary. With monitoring infrastructure already in place for many aspects of the sanctuary’s oceanographic conditions, the management plan should look into including the monitoring of pH changes in the sanctuary’s ongoing research program.

- [W]e encourage the sanctuary to continue monitoring water quality using mooring stations and to collect data to better understand global climate change induced impacts such as ocean acidification, temperature changes and hypoxic events.
- Continue to build partnerships for comprehensive monitoring and research on the issue of hypoxic events in the northern California Current. There is a clear need for near real-time data results to be readily available and useful to the research community.

37. WATER QUALITY PROTECTION

- Ban cruise ship discharges, similar to protections adopted in northern California Sanctuaries. Given the increase in harmful algal blooms and dead zones off the Washington coast, this action is critical.
- No motorized boats should be allowed in the sanctuary, other than rescue vessels or cases of emergency. And certainly, no ships should be allowed to discharge into the sanctuary.
- With more than 200 cruise ships traveling through the OCNMS every year, and each cruise ship having the capability to discharge hundreds of thousands of gallons of sewage, graywater, blackwater, or ballast water every day, these ships represented a significant threat to the water quality and the health of the marine life living within the OCNMS. . . currently there exists no legally binding, enforceable, regulation that prohibits graywater, blackwater, or ballast water discharge inside the sanctuary boundary.
- Although the 1994 establishment of the Area to be Avoided (ATBA) that prohibits cruise ship (and other large vessels) from traveling through a majority of the sanctuary has been highly successful (more than 98% compliance in 2007), there is little enforcement and no financial consequences that can be levied against cruise lines for non-compliance. Additionally, as the ATBA does not include the entire OCNMS boundary, more than 30% of the sanctuary can still be traversed by cruise ships. Even assuming that the cruise ships comply with the ATBA, the Clean Water Act (CWA) only prohibits the dumping of sewage within the sanctuary boundary. It does not include any provisions for the other discharge water types.
- [Cruise ship] ballast water can contain plants, animals, and bacteria, among other biological organisms. Ballast water can, and often does, contain non-native, invasive species that that can cause extensive harm to sensitive ecosystems, such as those found with OCNMS.
- OCNMS must require the regulation and enforcement of all discharges coming from cruise ships within the sanctuary boundary.
- In the absence of a federal law prohibiting or regulating harmful cruise ship discharges within the sanctuary boundary, it is recommended that NOAA work with the Coast Guard and the Washington State Department of Ecology to strengthen the limitations on cruise ship discharges within the entire boundary of the OCNMS, enacting guidelines that are legally binding with enforceable fines for illegally dumping any non-authorized water supplies. . . As an example of how regulations needs to be put in place and managed by the OCNMS, focus on how cruises ship discharge is managed in the Monterey Bay National Marine Sanctuary (MBNMS).
- Identify and clean up threats to water quality, such as nearshore dumpsites, marine vessel discharges, land-based sewage discharges, and potential discovery of hazardous materials.
- The increasing frequency of cruise ships with their significant levels of grey and black water discharges in Sanctuary waters needs to be addressed in the Management Plan.
- The Olympic Coast Sanctuary should utilize the findings from the recently completed EIS for the Northern California Sanctuaries to similarly ban all vessels greater than 300 gross tons from discharging their grey and black water within Sanctuary waters.
- It is our belief that you could simply adopt the findings of the California Sanctuary's EIS on their vessel discharge ban and apply it to the Olympic Coast given that the length of transit is shorter in Washington than California.
- Consider a complete prohibition on all cruise ship discharges within the Sanctuary boundary.
- OCA recommends that the OCNMS increase research on bio-accumulative toxins in the Sanctuary. The deposition of toxins by air, water, and land into the west coast marine environment

likely has significant long-term and cumulative impacts to the Sanctuary's biota and on the human populations that harvest Sanctuary resources for food. OCA encourages OCNMS to collaborate with other agencies to increase our knowledge of the build-up of these toxins in the Sanctuary's water and biota.

- The revised Sanctuary management plan must include strategies for reducing, mitigating and eliminating sources of ocean pollution including, human waste, noise, trash, toxins, hydrocarbons, and even carbon dioxide and greenhouse gases. If unmonitored and unabated, these various sources of pollution may result in severe impacts to the Sanctuary environment and resources.
- The Sanctuary's revised management plan should also include local, regional and national efforts to reduce, mitigate and eliminate sources of pollution. These efforts should include collaboration with the U.S. Environmental Protection Agency (EPA) and Washington State in monitoring and controls necessary to protect Sanctuary resources.
- Work with other Sanctuaries on the west coast to assess the impact from cruise ship dumping and pursue opportunities to prevent this dumping within Sanctuary boundaries.
- [Non]-point source pollution, untreated sewage, and runoff have been demonstrated as much greater sustained threats to our waters than commercial vessels –despite the lack of fanfare these threats produce. The management plan should given these harmful purveyors of pollution the kind of attention they deserve. As an example, after years of complaints, the City of Victoria, Canada still is without a primary treatment system for its sewage. Staff should determine if this is a greater risk to the Sanctuary than the secondary treated sewage from transiting cruise vessels.
- Ban all discharges from cruise ships within the sanctuary.
- Sanctuary should track and address stormwater runoff, upland erosion, and non-point source runoff pollutants because of their potential to have adverse impacts on the marine ecosystem.
- A priority should be to maintain existing resources (living and non-living) – with focus on biodiversity, water quality, habitats. Research, education, partnerships, and preparing for change are ways to approach this.
- Vessel traffic levels decreasing, especially sport and commercial fishing traffic. Commercial shipping stable levels, but cruise ship traffic increasing. Vessel discharges within or adjacent to sanctuary waters may be increasing. To protect water quality and shellfish health, sanctuary should work towards developing agreement(s) to address the threats posed by these discharges.
- Water pollution from land ends up in ocean. Sanctuary should do more work preventing pesticides, chemicals, human waste from reaching the ocean.
- Work with other sanctuaries on the West Coast to research cruise ship dumping and pursue other opportunities to reduce this dumping in the Sanctuaries.
- Continue to promote a healthy ecosystem in the sanctuary, using the best science to promote a healthy habitat for sea life, good water quality.
- There was a crane that fell a few years ago, and there may be possible pollution as a result (smelt populations have decreased).
- There need to be proper bathrooms along the beach to protect water quality.
- Close and remediate solid waste dumpsites along shoreline (action item). Runoff, water quality (underlying priorities).
- Address cruise ships, Victoria about discharge and water quality issues.
- Cruise ships and incoming shipping traffic should not be allowed to dump bilge and garbage in the sanctuary, and this should be enforced by the coast guard. Monitoring instances of such dumping would be helpful in enforcing the regulations.

Proposed Rules

Federal Register
Vol. 73, No. 179
Monday, September 15, 2008

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

15 CFR Part 922

Initiation of Review of Management Plan/Regulations of the Olympic Coast National Marine Sanctuary; Intent To Prepare Draft Environmental Impact Statement and Management Plan; Scoping Meetings

AGENCY: Office of National Marine Sanctuaries (ONMS), National Ocean Service (NOS), National Oceanic and Atmospheric Administration (NOAA), Department of Commerce (DOC).

ACTION: Initiation of Review of Management Plan/Regulations; Intent to Prepare Environmental Impact Statement; Scoping Meetings.

SUMMARY: Olympic Coast National Marine Sanctuary (OCNMS or sanctuary) was designated in May 1994. It spans 3,310 square miles of marine waters off the rugged Olympic Peninsula coast, covering much of the continental shelf and the heads of several major submarine canyons. The present management plan was written as part of the sanctuary designation process and published in the Final Environmental Impact Statement in 1993. In accordance with Section 304(e) of the National Marine Sanctuaries Act, as amended, (NMSA) (16 U.S.C. 1431 *et seq.*), the Office of National Marine Sanctuaries (ONMS) of the National Oceanic and Atmospheric Administration (NOAA) is initiating a review of the OCNMS management plan, to evaluate substantive progress toward implementing the goals for the Sanctuary, and to make revisions to the plan and regulations as necessary to fulfill the purposes and policies of the NMSA. NOAA will conduct public scoping meetings to gather information and other comments from individuals, organizations, tribes, and government agencies on the scope, types and significance of issues related to the

Sanctuary's management plan and regulations. The scoping meetings are scheduled as detailed below.

DATES: Written comments should be received on or before November 14, 2008.

Scoping meetings will be held on:

- (1) September 29, 6–9 p.m., Peninsula College Longhouse, South Campus, Port Angeles, WA.
- (2) September 30, 6–9 p.m., Makah Marina Conference Center, Bayview Ave, Neah Bay, WA.
- (3) October 1, 6–9 p.m., A-Ka-Lat Center, La Push Road, La Push, WA.
- (4) October 2, 6–9 p.m., Ocean Shores Convention Center, 120 W Chance a La Mer, NW., Ocean Shores, WA.
- (5) October 3, 6–9 p.m., Westport Maritime Museum, 2201 Westhaven Drive, Westport, WA.
- (6) October 4, 2–5 p.m., Governor Hotel, Washington Room, 621 S. Capitol Way, Olympia, WA.
- (7) October 5, 7–10 p.m., Seattle Aquarium, Pier 59, 1483 Alaskan Way, Seattle, WA.

ADDRESSES: Written comments may be sent to the Olympic Coast National Marine Sanctuary (Management Plan Review), 115 Railroad Ave. East, Suite 301, Port Angeles, WA 98362, or faxed to (360) 457-8496. Electronic comments may be sent to ocnmsmanagementplan@noaa.gov.

Comments will be available for public review at the street address mentioned above. All comments received are a part of the public record. All Personal Identifying Information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information or otherwise sensitive or protected information. NOAA will accept anonymous comments. Attachments to electronic comments will be accepted in Microsoft Word, Excel, Wordperfect, or Adobe PDF file formats only.

FOR FURTHER INFORMATION CONTACT: George Galasso, 360.457.6622 Ext. 12, ocnmsmanagementplan@noaa.gov.

SUPPLEMENTARY INFORMATION: The proposed revised management plan will likely involve changes to existing policies of the Sanctuary in order to address contemporary issues and challenges, and to better protect and manage the Sanctuary's resources and qualities. The review process is

composed of four major stages: (1) Information collection and characterization; (2) preparation and release of a draft management plan/environmental impact statement, and any proposed amendments to the regulations; (3) public review and comment; (4) preparation and release of a final management plan/environmental impact statement, and any final amendments to the regulations. In the event that the potential impacts of new actions described in the management plan do not warrant the need for an Environmental Impact Statement, NOAA will publish the appropriate environmental analysis and notify the public. NOAA anticipates completion of the revised management plan and concomitant documents will require approximately thirty-six months.

Preliminary Priority Topics

NOAA, in consultation with the Intergovernmental Policy Council (State of Washington and the Coastal Treaty Tribes who have jurisdiction of resources within the sanctuary), has prepared a list of preliminary priority topics. This list represents our best professional judgment of the most important issues NOAA should consider in preparation of a new OCNMS management plan. We are interested in the public's comments on these topics, as well as any other topics of interest to the public or other agencies. It is important to note that this list does not preclude or in any way limit the consideration of additional topics raised through public comment, government-to-government consultations, and discussions with partner agencies.

Improved Partnerships—Recent initiatives for regional ocean management, including the formation of the Olympic Coast Intergovernmental Policy Council (IPC), the Washington Ocean Action Plan and the West Coast Governors Agreement on Ocean Health, provide the sanctuary with new opportunities to strengthen partnerships, particularly with the four coastal treaty tribes and the state of Washington in their role as governments. The sanctuary will work in active partnership to provide a more transparent, cooperative and coordinated management structure of Olympic Coast marine resources within tribal, state and federal jurisdictions.

Characterization and Monitoring—There is a need to develop an understanding of baseline conditions of marine resources within the sanctuary, ecosystem functions, and status and trends of biological and socioeconomic resources to effectively inform management. OCNMS, in conjunction with IPC and other entities, will work to resolve these needs.

Spill Prevention, Contingency Planning and Response—The risk from vessel traffic and other hazards remains a significant threat to marine resources. The potential for a catastrophic oil spill remains a primary concern and while advances in maritime safety have been made since the sanctuary was designated, better coordination is needed for response to these threats. Oil spills cause immediate and potentially long-term harm to marine resources as well as socioeconomic impacts to coastal communities.

Climate Change—Climate change is widely acknowledged, yet there is considerable uncertainty about current and future consequences at local, ecosystem and oceanic scales. Increased coordination and cooperation among resource management agencies is required to improve planning, monitoring and adaptive management to address this phenomenon.

Ocean Literacy—Enhancing the public's awareness and appreciation of marine, socio-economic, and cultural resources is a cornerstone of the sanctuary's mission. Recent regional initiatives offer opportunities for the sanctuary, in conjunction with IPC and other entities, to expand educational contributions and reach a larger audience.

Marine Debris—Coastal marine debris is a persistent and poorly diagnosed problem within the sanctuary that negatively impacts natural and socioeconomic resources and qualities.

Condition Report

In preparation for management plan review, NOAA has produced an Olympic Coast National Marine Sanctuary 2008 Condition Report. The Condition Report provides a summary of resources in OCNMS, pressures on those resources, the current condition and trends, and management responses to the pressures that threaten the integrity of the marine environment. Specifically, the Condition Report includes information on the status and trends of water quality, habitat, living resources and maritime archaeological resources and the human activities that affect them. The report serves as a supporting document for the Management Plan Review Process, to

inform constituents who desire to participate in that process.

Additionally, the Olympic Coast Intergovernmental Policy Council (IPC) has requested that an IPC authored addendum be distributed with the Condition Report. The IPC is composed of the state of Washington, the Hoh, Makah, Quileute Indian Tribes and Quinault Indian Nation, and was formed to provide a forum for resource managers to exchange information, coordinate policies, and develop recommendations for resource management within the sanctuary.

The Hoh, Makah, Quileute Indian Tribes and Quinault Indian Nation signed treaties with the U.S. government and exist as domestic sovereigns. Since the affirmation of treaty fishing rights in *U.S. v. Washington*, tribal, state and federal governments developed a unique management approach for fisheries in western Washington. This addendum explains this co-management approach, its underlying legal framework, and Washington Coastal Treaty Tribes' historic and present use of marine resources.

The condition report and the IPC addendum will be made available to the general public in advance of scoping meetings and on the Internet at: <http://sanctuaries.noaa.gov/science/condition/welcome.html>.

Scoping Comments

Scoping meetings provide an opportunity to make direct comments to NOAA on the management of the sanctuary's natural and cultural resources, including administrative programs. We encourage the public to participate and welcome any comments related to the sanctuary. In particular, we are interested in hearing about the public's view on:

- The sanctuary's potential management priorities for the next five to ten years.
- Effectiveness of the existing management plan in protecting sanctuary resources.
- Sanctuary programs, activities and needs, including but not limited to resource protection programs, research and monitoring programs, education, volunteer, and outreach programs.
- Implementation of regulations and permits.
- Adequacy of existing boundaries to protect sanctuary resources.
- Assessment of the existing operational and administrative framework (staffing, offices, vessels, etc.).

Authority: 16 U.S.C. 1431 et seq. (Federal Domestic Assistance Catalog Number 11 429 Marine Sanctuary Program).

Dated: September 4, 2008.

Daniel J. Basta,
Director for the Office of National Marine Sanctuaries.

[FR Doc. E8-21489 Filed 9-12-08; 8:45 am]

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ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 52

[EPA-R04-OAR-2008-0593-200818b; FRL-8714-6]

Approval and Promulgation of Implementation Plans Alabama: Volatile Organic Compounds and Open Burning

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: EPA is proposing approval of revisions to the Alabama State Implementation Plan (SIP), submitted by the Alabama Department of Environmental Management on January 8, 2008. The revisions include modifications to Alabama's Volatile Organic Compounds and Control of Open Burning and Incineration regulations, found at Alabama Administrative Code Chapters 335-3-1 and 335-3-3, respectively. This proposed action is being taken pursuant to section 110 of the Clean Air Act.

This SIP revision also contains a letter addressing the requirements of section 110(a)(2)(D)(i), which EPA will consider separately.

DATES: Written comments must be received on or before October 15, 2008.

ADDRESSES: Submit your comments, identified by Docket ID No. "EPA-R04-OAR-2008-0593," by one of the following methods:

1. www.regulations.gov: Follow the on-line instructions for submitting comments.
2. *E-mail:* harder.stacy@epa.gov.
3. *Fax:* 404-562-9019.
4. *Mail:* "EPA-R04-OAR-2008-0593," Regulatory Development Section, Air Planning Branch, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW., Atlanta, Georgia 30303-8960.
5. *Hand Delivery or Courier:* Ms. Stacy Harder, Regulatory Development Section, Air Planning Branch, Air, Pesticides and Toxics Management Division, U.S. Environmental Protection Agency, Region 4, 61 Forsyth Street, SW., Atlanta, Georgia 30303-8960. Such deliveries are only accepted during the