

OLYMPIC COAST NATIONAL MARINE SANCTUARY

Navigating the Future

Management Plan Review



Agenda Item E.1.b
Attachment 3
April 2009

PUBLIC SCOPING & ISSUES ANALYSIS

PART 2: TOPICS ANALYSIS REPORT



DECEMBER 2008

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**PUBLIC SCOPING & ISSUES ANALYSIS
PART 2 TOPICS ANALYSIS REPORT**

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I. INTRODUCTION

This document was created to assist Olympic Coast National Marine Sanctuary (OCNMS or Sanctuary) staff, sanctuary Advisory Council (AC) members, Olympic Coast Intergovernmental Policy Council (IPC) representatives, and Office of National Marine Sanctuaries (ONMS) staff in understanding, interpreting and prioritizing the comments received during the Public Scoping & Issues Analysis (scoping) phase of management plan review (*Navigating the Future*) at OCNMS. A companion report, the Scoping Summary report (Part 1), describes how comments received during Olympic Coast National Marine Sanctuary's (OCNMS or Sanctuary) public comment period were reviewed and sorted under 37 topics. This report (Part 2) provides a brief analysis of each of these 37 topics.

The goal of this report is to inform the next step of the scoping process, when OCNMS will work with the AC and IPC to identify priority topics that will be further addressed during management plan review and may be incorporated into the revised management plan for OCNMS.

This report is comprised of analyses for the 37 topics identified as a result of public comment. Each topic analysis has three elements:

- a description of the topic based on public comments with limited interpretation by sanctuary staff,
- a synopsis of public comments related to the topic that emphasizes the focus provided by the public, and
- a summary of findings from the OCNMS 2008 Condition Report and a brief description of OCNMS work related to the topic.

Public Scoping and Issues Analysis

Figure 1 outlines the basic steps OCNMS will take to reach the end goal of the Public Scoping & Issues Analysis phase of *Navigating the Future*: a work plan that outlines how OCNMS will develop action plans for each issue identified as a high priority during scoping. These action plans will form the foundation of the revised management plan for OCNMS. In order to focus the work plan, the topics identified here will be evaluated by the Advisory Council at a workshop in late January 2009. The goals of the workshop will be for AC members to understand and discuss the issues identified through the scoping process, and then to provide the Sanctuary Superintendent with advice on rating and ranking for each topic identified during scoping. If possible, the AC will recommended narrowed-down list of topics to be addressed through *Navigating the Future*. These topics will be evaluated by the IPC, whose guidance will assist the Sanctuary Superintendent in making the final decision on topics to be evaluated through action plans.

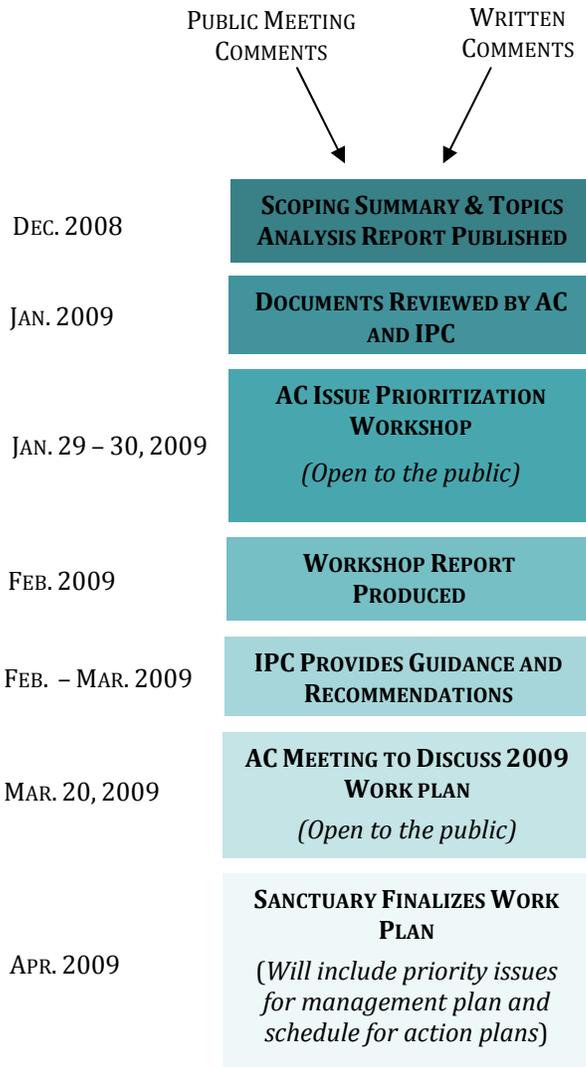


FIGURE 1. Diagram showing activities for remainder of the *Navigating the Future* Public Scoping & Issues Analysis phase at OCNMS.

Sanctuary Budgets

A theme that could have been mentioned in nearly all topic analyses is that funding has limited the progress, accomplishments, and successes of OCNMS over its 14-year history. If budgets had been larger, more work could have been accomplished. Figure 2 shows the growth in OCNMS’ budget relative to its original levels in the 1990s. Comparison between years is complicated because labor was not broken out by major program area prior to 2001. Also, two factors moderate the apparently large increases since 1999: 1) values are not adjusted for inflation, and 2) OCNMS staff increased from 4 to 11 federal employees between 1994 and 2008.

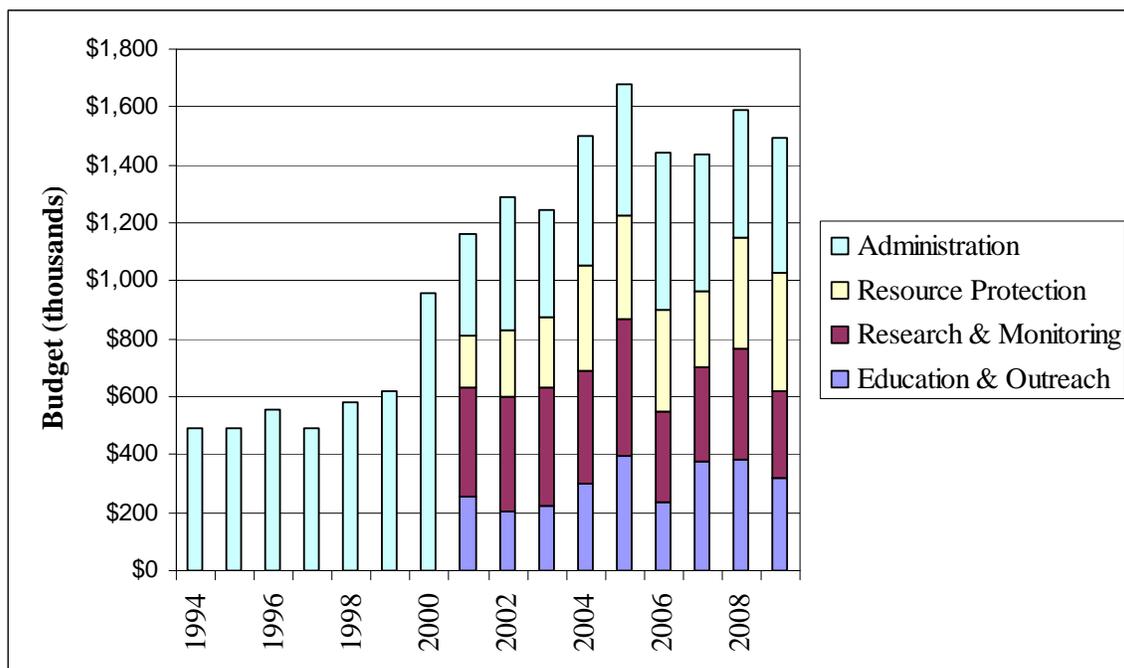


FIGURE 2. OCNMS budget by year

Perhaps more relevant is a breakout of the budget by fixed administrative expenses (i.e., salaries, utilities, rent) and more discretionary expenses such as travel, supplies, equipment, and contracts (primarily equipment leasing and support staff for graphics, data management, vessel skipper, Advisory Council coordination). Figure 3 shows that the majority of the OCNMS budget goes to salaries, utilities, and rent, and that discretionary spending that supports OCNMS programs has been a relatively small portion of the total budget. In recent years, funds available for equipment purchases and program support beyond staff salaries have been limited.

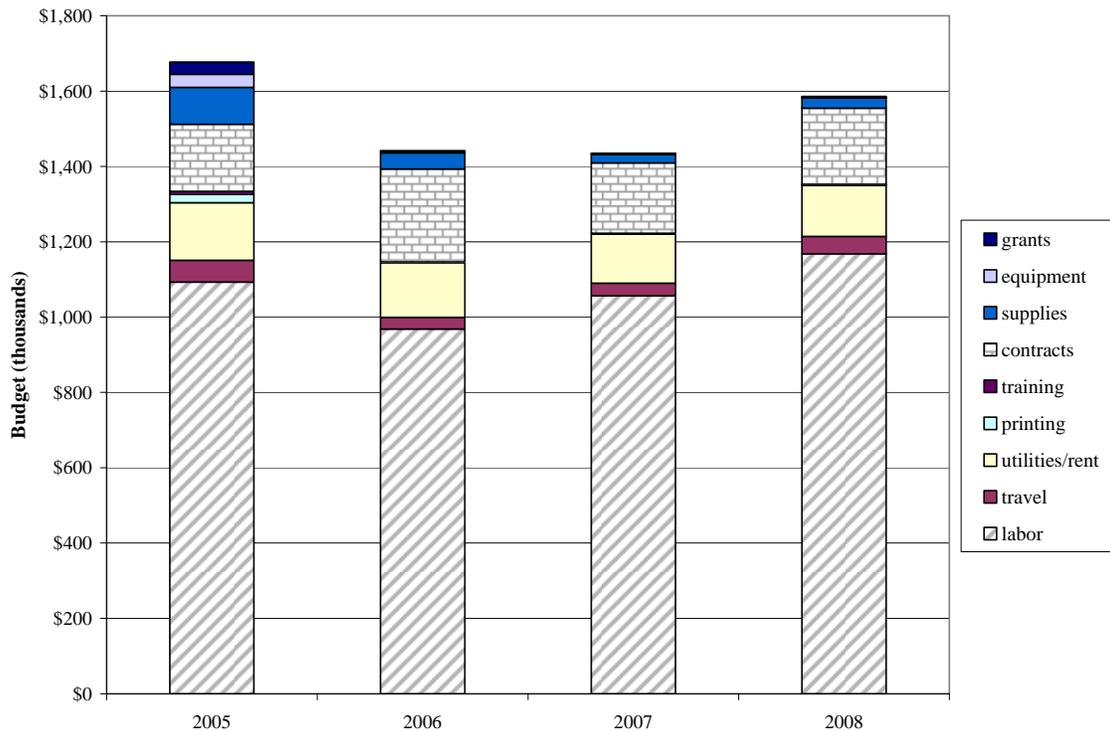


FIGURE 3. OCNMS budget by spending category

Preliminary Priority Topics

In September 2008 in advance of the public scoping period for *Navigating the Future*, OCNMS consulted with the IPC (state of Washington and the Coastal Treaty Tribes who have jurisdiction over resources within OCNMS) to prepare a list of preliminary priority topics for the OCNMS management plan review process. This list was considered by OCNMS and the IPC to represent the most important issues that NOAA should consider in preparation of a new OCNMS management plan. OCNMS and the IPC were interested in hearing public comments on these topics, as well as any other topics of interest to the public or other agencies. These preliminary priority topics were included in the Federal Register announcement of OCNMS management plan review and in public outreach materials for the public scoping period.

This effort appears to have been successful – numerous public comments centered on preliminary priority topics. When appropriate, preliminary priority topic titles and the description language developed by OCNMS/IPC were used as the basis for topic descriptions provided in this document. The following listing indicates the alignment between OCNMS/IPC preliminary priority topics and topics identified through public scoping comment review.

OCNMS/IPC Preliminary Priority Topics

Public Scoping Topics

Improved Partnerships

- Collaborative and Coordinated Management

Characterization and Monitoring

- Ecosystem-level Research
- Habitat Characterization
- Living Resources Monitoring
- Water Quality Monitoring

Spill Prevention, Contingency Planning and Response

- Spill Prevention, Contingency Planning and Response

Climate Change

- Climate Change

Ocean Literacy

- Ocean Literacy

Marine Debris

- Marine Debris – Shoreline Cleanup
- Marine Debris - Abandoned Submerged Equipment

II. SUMMARY ANALYSIS OF TOPICS RAISED DURING THE PUBLIC SCOPING PERIOD

These analyses are intentionally brief and are not intended to provide thorough documentation or extensive discussion. They are concise descriptions of topics as identified in the public comments and interpreted by sanctuary staff. Because they are based on public comments, topic description language, and especially the “focus of comments”, does not necessarily reflect the opinions of sanctuary staff.

1. Administration - Flexibility to Respond to Emerging Issues

Description In an era of rapidly advancing technologies, intense human pressures on the regional and global environment, and improved understanding of ecosystem interactions and resiliency, issues are likely to arise that are not anticipated during management plan review. A framework that guides OCNMS’ responses to emerging issues would help to address these issues more thoughtfully and effectively. While the Sanctuary’s revised management plan will direct actions on defined priority topics, it may also limit management flexibility to assess and respond to emerging issues that arise between management plan review cycles.

Focus of comments Comments suggest the Sanctuary could be an area for testing and research on environmental impacts of developing technologies or a

control area for these studies; should employ adaptive management techniques; and should have an interim, public evaluation or a flexible process by which it can assess and respond to emerging issues that arise between management plan review cycles.

Status Administrative issues were not addressed in the 2008 OCNMS Condition Report, which assessed natural and cultural resources. The Sanctuary occasionally confronts new issues that were not envisioned at the time of sanctuary designation. When a new activity has been proposed with potential to impact sanctuary resources or conflict with a prohibited activity, it has been addressed through the permitting process and consultation with state/federal/tribal partners. On occasions where a new resource management concern has been raised, it has been addressed through changes in staff assignments, expenditures, and/or annual operating plans.

2. Administration - Infrastructure

Description Expanding sanctuary operations and programs with additional funding and infrastructure would improve sanctuary staff's abilities to meet the current research, education, outreach and resource protection needs. Sanctuary operations and programs need to be expanded and supported with appropriate funding and infrastructure. The responsibility for administering the Sanctuary falls to the Sanctuary Superintendent who is responsible for developing an annual budget and operating plan, as well as promoting capital improvement projects.

Focus of comments Comments suggest that the Sanctuary should replace the *RV Tatoosh* and move OCNMS offices. Other comments recommended that OCNMS establish visitor and research centers or facilities near the coast adjacent to the Sanctuary, and establish a telephone "hotline" for reporting incidents and observations.

Status Administrative issues were not addressed in the 2008 OCNMS Condition Report, which assessed natural and cultural resources. Since designation the Sanctuary has continually reviewed its infrastructure needs, including vessels, moorage, warehouse, office and interpretive spaces. In 1998 the Sanctuary created a master plan for interpretive facilities, including coastal interpretive signs and the Olympic Coast Discovery Center, which guided the use of Procurement, Acquisition and Construction funds. A long range master plan for facilities was completed in 2002 and has been partially implemented. In 2006, a small boat requirements study identified 2008 as an estimated replacement date for the *RV Tatoosh*.

However, vessel replacements and facilities construction are dependent on appropriation levels and internally defined priorities across the sanctuary system, with needs routinely exceeding appropriations levels.

3. Administration - Sanctuary Goals & Objectives

Description	OCNMS' goals and objectives, as articulated in the 1994 management plan, should be updated based on new priorities identified through the management plan review process.
Focus of comments	Comments suggest that the Sanctuary's highest priorities should be conservation of biodiversity, protection of the ecosystem and habitats, and resource conservation. Also, OCNMS should better define its roles and authorities, support collaborative planning and management, assess accomplishments relative to the original 1994 goals and objectives, promote sustainable harvest, but not be involved in fisheries management.
Status	Administrative issues were not addressed in the 2008 OCNMS Condition Report, which assessed natural and cultural resources. While the Sanctuary has not officially changed its goals and objectives as of December 2008, priorities are evaluated on an ongoing basis as part of annual operating plan development and annual programmatic priorities established by the Office of National Marine Sanctuaries (ONMS) and the ONMS <i>Strategic Plan 2005-2015</i> .

4. Boundary Adjustment

Description	The current boundaries of the Sanctuary were determined during the designation process to represent a distinct ecosystem, informed by the best available science at the time. Adjustment of sanctuary boundaries could be considered in the future.
Focus of comments	Comments suggest that current boundaries be re-examined to consider expansion east into the Strait of Juan de Fuca to include rich kelp beds, south to Grays Harbor, and/or west to include deep canyons. Others suggested that OCNMS should cover the entire Washington coast or encompass a more complete ecosystem.
Status	The need to adjust of sanctuary boundaries was not assessed in the 2008 OCNMS Condition Report, which assessed natural and cultural resources. The Sanctuary has not evaluated any boundary adjustment options since its designation in 1994. OCNMS has worked

collaboratively on wide-scale regional initiatives, such as the Northwest Straits Commission and the Washington State Ocean Policy Working Group, and regional biological assessments, such as California Current Large Marine Ecosystem studies, which might inform a future evaluation of boundary modification options.

5. Climate Change

Description Ongoing changes to the climate and marine ecosystem have been documented, yet there is considerable uncertainty about current and future consequences at local, ecosystem and oceanic scales. Increased coordination and cooperation among resource management agencies would improve planning, monitoring and adaptive management to address this phenomenon. Monitoring data can serve as a baseline from which to assess changes in the coastal ecosystem that may occur as a result of climate change.

Focus of comments Comments suggest there should be an assessment of vulnerabilities, predictive modeling, and identification of key species susceptible to impacts and/or appropriate for monitoring. Baseline and long-term monitoring should be conducted and focused on climate change; partnerships improved to expand monitoring and research efforts. Paleoshoreline studies could provide historical context for resource use and inform studies of impending shifts in species abundance.

Status The 2008 OCNMS Condition Report noted early evidence of environmental changes in the region linked to human-influenced climate change, but that some linkages are uncertain. This is a rapidly developing body of knowledge (e.g., the December 2008 paper by Wootton et al. on ocean acidification at Tatoosh Island). OCNMS has contributed to long-term monitoring including kelp, intertidal and subtidal invertebrates and macroalgae, seabird and marine mammal abundance, distribution, and mortality rates, and since 2000 has studied nearshore water quality and movement. In general, these programs have not been analyzed specifically for their utility to support climate change research; however this work contributes to programs that do examine climate change.

6. Collaborative and Coordinated Management

Description A collaborative and coordinated approach is essential to effective management of OCNMS. Active partnerships provide a more transparent and inclusive structure for management of Olympic Coast marine resources within tribal, local, state, federal and international jurisdictions.

Focus of comments Comments suggest that this collaborative approach needs to be developed on an international scale through partnership with Canada, as well as on a regional and state level through partnership with the Olympic Coast Intergovernmental Policy Council (IPC), and involvement in implementation of the Washington Ocean Action Plan and the West Coast Governors Agreement on Ocean Health. Additionally, the Sanctuary needs to strengthen its relationships with the four coastal treaty tribes and other local communities by working on collaborative research, education and stewardship programs, and supporting community-based coastal and marine management efforts, such as the establishment of Outer Coast Marine Resources Committees.

Status The Sanctuary’s management approach was not addressed in the 2008 OCNMS Condition Report, which assessed natural and cultural resources. Since designation, OCNMS has actively worked toward collaborative and coordinated management, seeking partnerships with various governments and communities, including Canada. This is a fundamental element of our programming; there are few activities or programs that the Sanctuary does independent of partnerships. The Sanctuary has had an active and ongoing Advisory Council since 1996, sponsored international symposia on the Big Eddy system, and most recently signed a Memorandum of Agreement with the four coastal treaty tribes and the state of Washington to form the Olympic Coast Intergovernmental Policy Council.

7. Community Outreach

Description Involvement of local and regional communities in sanctuary programs is vital. It is important that people on the Olympic Peninsula and in the region are aware of the Sanctuary’s presence and management goals, and have meaningful opportunities to be involved in sanctuary programs. This will foster a sense of marine stewardship.

Focus of comments Comments suggest that the Sanctuary’s outreach program should have a strong focus in regional communities, use partnerships and modern outreach technology (e.g., social networking sites, internet videos and widgets), produce publications, regularly update the web site, and provide stewardship, volunteer and learning opportunities to engage the local public of all ages.

Status The 2008 OCNMS Condition Report, which assessed natural and

cultural resources, did not address community outreach. OCNMS regularly conducts outreach at annual community events (e.g., Makah Days, Grays Harbor Shorebird Festival, Beachcombers Fun Fair, Port Townsend Sea Kayak Symposium etc.), provides periodic presentations on education and research programs to local service groups, maintains an information-rich web site (containing information on sanctuary resources, background documents, profiles of staff and programs and archives of public domain images), and assists with organization of the annual beach cleanup that brings hundreds of volunteers to the Sanctuary's shore. OCNMS also manages the citizen science Coastal Observation and Seabird Survey Team (COASST) beached bird program along the sanctuary coastline, for which more than 60 volunteers conduct monthly surveys for dead birds and marine mammals, marine debris and unusual events (e.g., mortalities of any species).

8. Ecosystem Impacts of Fishing

Description	Uncertainty exists related to ecosystem-level impacts from physical disturbance to seafloor habitats and effects of biomass removal from fishing within the sanctuary area. An ecosystem-based management approach that considers potential impacts of fishing can promote sustainable fisheries.
Focus of comments	Comments suggest that the Sanctuary should promote ecosystem-based fisheries management, prohibit fishing practices that damage seafloor habitats from all or portions of the Sanctuary, protect biogenic habitats where they are located, and protect rockfish populations that appear to be in decline.
Status	The 2008 OCNMS Condition Report notes that information on past and present locations of biogenic habitats within the Sanctuary is sparse. Because bottom trawl and longline fisheries can damage biogenic habitat and have been practiced widely throughout the Sanctuary, the report assumes habitat damage has been widespread. Reduction of fish biomass has led to some depleted species, but recovery plans and management practices have led to recovery of some overfished stocks. Poor understanding of ecological processes makes it difficult to determine the ecosystem level impacts of these practices. In association with its habitat mapping and characterization program, OCNMS conducts surveys to identify locations of habitat-forming corals and sponges that are vulnerable to physical disturbance, and documents species-habitat associations (including fish) and collects information on physical disturbance to seafloor habitats. Survey effort for this expensive work has been

limited by funding and generally requires grant funding beyond the sanctuary budget.

9. Fisheries Stock Assessment

Description	Stock assessments provide important information about the health of fish populations and serve as the foundation for many fisheries management decisions. Some believe that current assessments of groundfish stocks off Washington are inadequate for management of groundfish on a regional basis, and that improved fisheries stock assessments for the Washington coast will assist fisheries management decisions.
Focus of comments	Numerous public comments request the involvement of the Sanctuary in fisheries stock assessment work and specifically note that current assessments of groundfish stocks off Washington are data poor and inadequate for regional management of the fishery (as opposed to coast-wide).
Status	The 2008 OCNMS Condition Report notes indications that some groundfish stocks off Washington have a relatively high biomass. However, existing data for most targeted groundfish species have not been analyzed to determine if stocks off Washington are more abundant than those off Oregon and California. As background, when the Sanctuary was designated in 1994, NOAA determined that, at that time, existing fishery management authorities were adequate to address fishery resource issues. Thus, OCNMS has not been involved in assessing the status of fish stocks, work that is currently conducted by Northwest Fisheries Science Center. OCNMS has been mapping seafloor habitats and documenting fish use of different habitat types. Sanctuary staff and fisheries managers have initiated discussions to identify how OCNMS' research programs can collect data to support fisheries management needs.

10. Habitat Characterization

Description	The Sanctuary and its partners have made progress mapping habitats in the Sanctuary, but much work remains to be done. There is a need to complete characterization of seafloor habitats and identify species-habitat associations to effectively inform management decisions.
Focus of comments	Comments included the need to complete seafloor mapping work as a means to characterize benthic habitat, its condition, and associated species. This should be a high priority, with focus on habitat forming species (deep sea coral and sponge communities). Goals

should include accessing existing data collected by the Navy and sharing data with partners.

Status The 2008 OCNMS Condition Report notes that intertidal habitats of the outer Olympic Coast are fairly well characterized. Nearshore habitats remain poorly characterized except for the distribution of kelp. Since 2001, OCNMS with assistance from our federal/state partners has conducted approximately 20 high resolution acoustic surveys in support of our seafloor habitat characterization efforts, mapping an estimated 25% of the Sanctuary. This continues to be a major emphasis for the Sanctuary. Three research cruises have included efforts to collect information on benthic communities and species associations. Although the condition of seafloor habitats was not documented before large-scale commercial activities began, video surveys have been conducted in limited areas and provide evidence of disturbance to physical structure and biological communities.

11. Habitat Protection

Description In seeking to balance human use of the Sanctuary with conservation goals, habitat protection should be a priority. The Sanctuary needs to develop a holistic approach to conservation and management of the marine ecosystem(s) within its boundaries, including a plan to protect seabed, water column, and biogenic habitats and habitats that support marine mammals and seabirds.

Focus of comments Comments called for protection of habitats and water quality that support marine mammals, seabirds, larval dispersal. Biogenic seafloor habitats (deep sea corals and sponges), estuaries, kelp beds, and deep sea canyons were identified as priority habitats for protection. Zoning was noted as a tool to mitigate habitat damage from bottom contact fishing gear and intertidal harvest.

Status The 2008 OCNMS Condition report reviews habitat characterization efforts, a critical first step to habitat protection. Human impacts to sanctuary habitats were discussed in relation to bottom contact fishing gear, intertidal visitation, marine debris, and underwater noise pollution. Surveys and monitoring conducted by OCNMS and federal/state partners informs management actions related to habitat protection through identification of habitat impacts and trends in species abundance and diversity. Existing OCNMS regulations provide some protection of habitats (i.e., low overflight restrictions; prohibitions on discharges and seafloor disturbance). Regulations implemented by the Coastal Treaty Tribes, national wildlife refuges,

national park, and NOAA Fisheries complement these protections. OCNMS has briefed the Pacific Fisheries Management Council on recent deep sea coral and sponge findings. OCNMS also has a seat on the Council's Essential Fish Habitat (EFH) review committee that reviews existing and new proposals for EFH designations.

12. Invasive Species

Description	While invasive species are not currently known to cause significant harm in the Sanctuary, there are ecological and socioeconomic risks, often severe, associated with a compromised ecosystem if invasive species are introduced and spread over wide areas. Monitoring for introductions of non-native and invasive species should be proactive and routine to mitigate or prevent establishment of invasive species.
Focus of comments	Comments recommend aggressive, proactive monitoring efforts in coordination with partners for early detection of invasive species, and eradication programs when appropriate.
Status	The 2008 OCNMS Condition Report reviewed findings from survey work supported by the Sanctuary. Relatively few non-indigenous species have been identified, and, of those, only a few are invasive. OCNMS has sponsored intensive, short duration surveys of intertidal areas conducted by taxonomic experts to develop a comprehensive list of species and to search for non-indigenous invertebrates and macroalgae. OCNMS has collaborated on studies of invasive tunicates and settlement of non-indigenous larvae in nearshore areas, and also conducts routine monitoring for the invasive green crab. To date, no eradication plans have been implemented because a significant problem has not been identified.

13. Living Resource Conservation

Description	OCNMS hosts abundant and diverse wildlife communities that are threatened by an array of human activities. In particular, acoustic and visual disturbances may have physical and behavioral impacts on wildlife. OCNMS should be proactive in promoting wildlife conservation and mitigating the numerous activities (e.g., recreational, commercial, military etc.) that can impact wildlife.
Focus of comments	Comments advise that conservation of biodiversity and protection of all wildlife species should be a primary focus for OCNMS. Recommendations included protection of depleted, threatened, and vulnerable species, minimization of wildlife disturbance (from human activities), and consideration of noise pollution in the marine

environment.

Status The 2008 OCNMS Condition Report, noted the need to locate, study and protect vulnerable habitat forming species on the seafloor; identified overexploitation of some groundfish species as having led to wide area closures to rebuild fish stocks and negative impacts to biodiversity; hypothesized that depletion of high-order predators may have altered ecosystem dynamics; reported on reduced populations of key species (Common Murres, sea otters, several rockfish species); and provided an improving trend in living resources with decreased commercial and recreational fishing pressure. To protect wildlife populations and their habitats, OCNMS regulations contain several prohibitions, including take or possession of any marine mammal, sea turtle or seabird and flying motorized vehicles below 2000 feet altitude within one mile of shore, with exceptions consistent with tribal treaty rights. Ongoing monitoring and ecosystem-level research by OCNMS and partners informs wildlife management decisions. OCNMS has conducted targeted outreach on overflight regulations at regional air shows and has promoted “ocean etiquette” to minimize wildlife disturbance at kayak symposia, during COASST training, and in response to marine mammal strandings.

14. Living Resources Monitoring

Description Long-term monitoring of biological resources is critical to the successful management of the Sanctuary. Long-term and collaborative monitoring is required to assess the current status (abundance) and condition (health) of key species in the Sanctuary, as well as seasonal and multi-year trends.

Focus of comments Comments support continuation of existing long term monitoring work, as well as monitoring biodiversity and the status and condition of key species, specifically high order predators, threatened or endangered species, seabirds, salmon, larval fish, and kelp. Recommendations included year round monitoring, increased use of technology, focus on collaborative efforts, and monitoring for impacts of climate change.

Status The 2008 OCNMS Condition Report reviews living resource monitoring supported by the Sanctuary and its partners in the context of biodiversity, extracted, non-indigenous, and key species, and impacts of human activities. In collaboration with multiple partners, OCNMS has contributed to long-term monitoring of kelp, invertebrates and macroalgae, and seabird and marine mammal abundance, distribution, and mortality rates, ranging from intertidal

areas to the deep seafloor.

15. Local and Customary Knowledge

Description	The Sanctuary needs to develop a holistic, ecosystem-based management approach that incorporates tribal and non-tribal knowledge about the ecology of sanctuary resources. The Sanctuary needs to work with tribal and non-tribal communities to catalogue this knowledge and use it to inform management decisions.
Focus of comments	Comments included the importance of collecting oral histories, the need to inform the scientific process with traditional knowledge, and the value of local knowledge to sanctuary research.
Status	The Sanctuary has connected with tribal members, local communities and fishers on a number of sanctuary initiatives on a case by case basis. Sanctuary work with the Makah Cultural and Research Center has focused on interpreting Makah cultural understanding of marine environment and hosts about 45,000 visitors annually.

16. Marine Debris – Abandoned Submerged Equipment

Description	Marine debris in subtidal areas injures wildlife and marine habitats, and is a persistent problem for which removal and reduction efforts are necessary. Partnerships and regional efforts should be fostered to identify locations of derelict vessels, abandoned fishing gear, and other materials, develop methods for their removal, and educate all area users about environmental impacts of abandoned submerged equipment.
Focus of comments	Comments emphasized the importance of collaborative efforts to fund survey, cleanup, and prevention work to address abandoned submerged equipment. Unfished crab pots were noted as a problem.
Status	The 2008 OCNMS Condition Report reviewed efforts supported by OCNMS to assess and remove marine debris, identified habitat degradation as an impact of marine debris, and noted unfished crab pots as a management issue. In 2005, OCNMS partnered with the Makah Tribe to assess the extent of and remove derelict fishing gear in waters off the Makah Reservation. OCNMS documents the presence of derelict fishing gear during seafloor surveys, and has sought partnerships with tribal fisheries managers and the state of Washington to address the problem of abandoned crab pots. OCNMS works with partners to mitigate impacts of derelict vessels and remove them when feasible. For example, in 2007, OCNMS

worked with the U.S. Coast Guard (USCG) and responsible party to require the stabilization and salvage of a 72' fishing vessel that sank with approximately 2,500 gallons of fuel aboard.

17. Marine Debris – Shoreline Cleanup

Description	Marine debris on the shore injures wildlife and marine habitats, degrades the wilderness aesthetic of outer coast beaches, and is a persistent problem for which removal and reduction efforts are necessary. This can be addressed through a comprehensive, collaborative shoreline cleanup program that includes regular debris removal, monitoring of debris types, and outreach efforts focused on volume reduction and explanation of environmental impacts of plastics and other debris on our shores.
Focus of comments	Comments recommended continued partnerships to characterize and remove debris from shorelines. Education and source reduction programs were emphasized, as well as the need for multiple efforts throughout the year.
Status	The 2008 OCNMS Condition Report reviewed efforts supported by the Sanctuary to assess and remove marine debris, and identified habitat degradation as an impact of marine debris. Since the first effort in 2000, OCNMS has supported the annual spring beach cleanup along the Olympic Coast. OCNMS was instrumental in developing a five year strategic plan for coastal cleanups, and in 2007 was a founding partner in Washington Clean Coast Alliance that now coordinates this event. Currently, sanctuary staff leads work groups that focus on monitoring, recycling and outreach elements of Alliance efforts. In addition, OCNMS encourages COASST volunteers to collect data on shoreline debris to support the EPA/Ocean Conservancy Marine Debris Program, which focuses on plastics. These data will be useful in development of source reduction programs.

18. Maritime and Environmental Safety - Harbors of Refuge

Description	Maintaining both maritime and environmental safety is a common goal of marine industry and governments with authority in the region. Harbors of refuge are areas where disabled vessels can shelter while repairs are made. The lack of such harbors along the Olympic Coast was identified as a concern.
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Focus of comments Comments identified a need for additional harbors of refuge between Grays Harbor and Neah Bay, and development of formalized agreements for their use.

Status Harbors of refuge were not addressed in the 2008 OCNMS Condition Report, which assessed natural and cultural resources. Although a systematic analysis has not yet been conducted, it appears that the exposed and rocky nature of the Olympic Coast may make it a poor candidate for locating a harbor of refuge within OCNMS .

19. Maritime and Environmental Safety – Navigation

Description Maintaining both maritime and environmental safety is a common goal of marine industry and governments with authority in the region. Improvements to navigational aids and nautical charts can improve marine safety and reduce the risk of environmental impacts from oil spills.

Focus of comments Comments requested improved NOAA charts for the area, and specifically the need for a navigational aid on Duntz Rock.

Status Navigation issues, other than vessel management and monitoring, were not addressed in the 2008 OCNMS Condition Report, which assessed natural and cultural resources. The Sanctuary actively notifies the Office of Coast Survey when navigational hazards are identified in the Sanctuary. Habitat mapping data collected on Office of Coast Survey vessels is also used for charting purposes. OCNMS does not have responsibility for navigational aids but could work with others within NOAA and the USCG on navigation issues.

20. Maritime and Environmental Safety - Vessel Management

Description OCNMS is co-located with the entrance to the inland water ports of Seattle, Tacoma and Vancouver, British Columbia, and the marine route to major regional oil refining facilities. Maintaining both maritime and environmental safety is a common goal of marine industry and governments with authority in the region. Vessel traffic in the Sanctuary is managed through a system of reporting, communications, traffic lanes, monitoring and an Area To Be Avoided (ATBA). Improvements to this system could be considered to further reduce risk of release of hazardous cargo.

Focus of comments Comments included recommendations to study coastal barge towing practices, continue monitoring the ATBA, make the ATBA mandatory, work in partnerships especially with the USCG, conduct

an analysis of vessel traffic to identify potential risk reduction measures, and focus on smaller vessels that are most often the source of oil spills.

Status The 2008 OCNMS Condition Report summarized large vessel traffic management and trends at the entrance to the Strait of Juan de Fuca, and discussed improved ballast water and cruise ship discharge management practices in the context of water quality. The Sanctuary has been active in maritime issues since prior to designation, with its major contribution being the designation and continued monitoring of and modifications to the ATBA.

21. Maritime and Environmental Safety - Weather Forecasting

Description Maintaining both maritime and environmental safety is a common goal of marine industry and governments with authority in the region. Large portions of the Washington outer coast do not have National Weather Service doppler radar coverage. Expanded radar coverage would improve marine safety on the outer Washington coast.

Focus of comments Comments specifically requested extension of doppler radar coverage to areas where it is lacking on the outer Washington coast.

Status Weather forecasting was not addressed in the 2008 OCNMS Condition Report, which assessed natural and cultural resources. Although the Sanctuary does not have any weather forecasting programs, it recognizes the need for improved forecasting capabilities and could raise this concern with NOAA's Weather Service.

22. Maritime Heritage -Cultural Resource Management

Description Characterizing and protecting maritime archaeological and cultural resources is an important role of the Sanctuary. Currently, these resources are inadequately characterized within the Sanctuary.

Focus of comments Comments suggest that emphasis should be placed on partnering with volunteers and other organizations to conduct surveys for shipwrecks and monitor their status, and seeking funding beyond the Sanctuary budget to support survey efforts.

Status The 2008 OCNMS Condition Report concludes that maritime archaeological resources are not being effectively managed, primarily because funding has limited survey efforts. OCNMS has

conducted remote sensing for shipwrecks in five nearshore areas and conducted numerous surveys of the shipwreck *Austria* at Cape Alava. In 2008, volunteer divers, supported by the Sanctuary, surveyed portions of the *Andalusia*.

23. Maritime Heritage - Living Cultures

Description	Within the Sanctuary system OCNMS is unique in that it is entirely encompassed by the usual and accustomed fishing areas of the Hoh, Makah, and Quileute tribes and the Quinault Indian Nation. OCNMS needs to expand its knowledge of and improve its communication messages about the Native American cultures that have lived along Washington's Outer Coast for thousands of years, as well as the more recent history of non-tribal residents and fishers.
Focus of comments	Comments recommend efforts to collect oral histories associated with maritime activities, engage the public in maritime history through outreach efforts, protect maritime heritage and sacred sites, and pursue archaeological and paleoshoreline research that reveals how past generations used the marine environment.
Status	Living cultures were not addressed in the 2008 OCNMS Condition Report, which assessed natural and cultural resources. OCNMS has provided support for and helped document Tribal Journeys (an annual tribal canoe expedition) and has conducted cooperative projects with the Makah Cultural and Research Center to investigate a paleoshoreline site on the Makah Reservation and prehistoric sites on Tatoosh Island.

24. Military Activities

Description	The U. S. Navy conducts operations within OCNMS, with military training, warning and operating areas, as well as equipment research and development in the Quinault Underwater Test Range (QUTR). Sanctuary regulations contain a number of exemptions related to these activities. The U.S. Navy is currently conducting environmental analyses of these activities and plans to expand the QUTR as well as increase training and other operations in OCNMS. To minimize impacts of Naval operations on natural and cultural resources, a better understanding of the types of activities and their potential impacts to sanctuary resources and qualities is needed.
Focus of comments	Comments called for OCNMS to collaborate with the Navy in the assessment of impacts of military activities, with resource protection the primary consideration of OCNMS. Comments specifically raised

concerns about impacts to wildlife, particularly disturbance and injury to marine mammals from sonar. Some opposed expansion of the QUTR; some recommended elimination of all Navy testing and training in OCNMS.

Status The 2008 OCNMS Condition Report reviews naval activities in OCNMS and ongoing environmental reviews, and notes the potential for impacts related to noise, seafloor disturbance, and release of chemical contaminants. OCNMS has communicated regularly with the U.S. Navy on new activities being proposed within OCNMS or on collaborative projects. However, security concerns have limited information available to the sanctuary about the nature and extent of exempted military activities in OCNMS. Recent draft environmental impact statements published by the Navy have provided an outline of proposed future naval activities.

25. Non-point Source Pollution

Description Runoff from upland sites may contain pollutants, including toxins and pathogens. Understanding of the types and sources of non-point source pollution is essential to OCNMS' ability to address potential impacts to sanctuary resources.

Focus of comments Comments focused on linkages between upland activities, particularly land clearing, and erosion, runoff of sediment and toxins into OCNMS.

Status The 2008 OCNMS Condition Report mentions a suspected but indefinite link between increased sediment and turbidity contributions from freshwater systems and declines in kelp beds near river mouths. Improved land management may have reduced impacts, but this has not been monitored. Historic practices (e.g., roads and culverts) continue to impact freshwater systems entering OCNMS. Atmospheric sources of contaminants are identified as a growing concern. OCNMS contributed to a comprehensive study of sea otter health that analyzed pollutants and pathogens levels in otters and their prey, and investigated potential routes for pathogen exposure, including a linkage between pathogens in domestic cats and sea otters. In 2003, OCNMS participated on U.S. Environmental Protection Agency's Environmental Monitoring and Assessment Program that sampled sediment, water, and fish tissue samples from the West Coast, including stations in OCNMS, for contaminants. NOAA's Status and Trends program has long term data for mussel tissue concentrations of chemical pollutants.

26. Ocean Literacy

Description	Enhancing the public’s awareness and appreciation of natural and cultural resources is a cornerstone of the sanctuary’s mission. Recent regional initiatives and modern technology developments offer opportunities for OCNMS to expand educational efforts, reach a larger audience, and provide experiential learning to youth and adults alike.
Focus of comments	Comments suggest that the sanctuary’s education program should connect people with the ocean, provide opportunities for citizen science (such as monitoring programs), reach people of all ages but have a strong emphasis on experiential learning, youth, and local communities, have a regular newsletter, and use modern technology to engage the public.
Status	The 2008 OCNMS Condition Report, which assessed natural and cultural resources, did not address ocean literacy. Since 1994, OCNMS has developed programs in areas of formal and non-formal education. These programs have included targeted experiential education, formal classroom education and interpretive programs operated cooperatively with partners. In addition, OCNMS has used a wide variety of media, including print, electronic, web content, exhibits and visitor centers to deliver Ocean Literacy content to many audiences. Currently, OCNMS is the lead NOAA partner to Seattle Aquarium on a multi-year Ocean Literacy grant, “Ocean Science,” bringing ocean science subject expertise to teacher training programs for 4 th and 5 th grade teachers in regional schools. Sanctuary staff regularly speaks at local meetings of civic organizations and interest groups.

27. Public and Private Resource Use - Commercial Development

Description	Commercial development in coastal waters has potential to harm resources and qualities of OCNMS, yet it often involves technologies for which environmental impacts have not been thoroughly evaluated. Commercial development also has potential to create area-use conflicts. Improved understanding of potential environmental impacts of ocean technologies will help OCNMS determine if project siting can be compatible with sanctuary goals and objectives and existing use. A sanctuary permitting process that allows for technologies that provide essential services for human society may be recommended or required.
Focus of	Comments varied considerably from promoting a ban on commercial

comments development, especially aquaculture, to suggesting OCNMS be an area where new technologies and their impacts on natural resources are evaluated. A continued ban on oil and gas development was supported, while others asked for evaluation of mineral resources and treaty rights for their extraction. Permitting to accommodate development that provides essential services and zoning were recommended as tools.

Status The 2008 OCNMS Condition Report mentions open ocean aquaculture and ocean energy projects as potential concerns in the future. Also, the report identifies environmental and social impacts associated with submarine cable installations. While sanctuary regulations allow for activities that are not otherwise specifically prohibited, most commercial development activities that could occur in OCNMS likely would require a permit that requires both an assessment of potential impacts to sanctuary resources and whether or not the use is consistent with sanctuary goals and objectives. To date, commercial development proposals have been evaluated through the sanctuary permitting process.

28. Public and private resource use - Compatibility Analysis

Description The National Marine Sanctuaries Act allows for public and private uses of sanctuary resources, as long as those uses are not prohibited by other authorities and are compatible with the primary mandate of resource protection. This makes compatibility determination a key function of sanctuary management. The best available science and precautionary principle should be used to inform decision-making about compatibility and cumulative impacts of activities within OCNMS, while acknowledging that humans are part of our coastal and marine ecosystems.

Focus of comments Comments included recommendations that the Sanctuary define which activities are compatible with its mission and with different habitat types, and conduct science to support compatibility analysis.

Status Compatibility analysis was addressed in the 2008 OCNMS Condition Report in the context of pressures and impacts of various existing uses in the sanctuary. Recently, OCNMS acted as a community partner to a group of University of Washington students working on an Environmental Management Keystone Project, "Evaluating approaches for determining compatible uses that foster ecosystem-based management in the Olympic Coast National Marine Sanctuary".

29. Public and private resource use - Recreational Opportunities

Description	Recreational opportunities in OCNMS need to be maintained and enhanced. The living resources that recreational users come to see and enjoy need to be protected.
Focus of comments	Comments suggested that tourism related to watchable wildlife and SCUBA diving should be encouraged, with protections provided to the most popular locations.
Status	Recreational opportunities were not addressed in the 2008 OCNMS Condition Report, which assessed natural and cultural resources. OCNMS in the past has had programs aimed at supporting ecotourism, promoting ocean etiquette, and educating pilots on wildlife disturbance issues and the sanctuary overflight regulation. No active programs beyond outreach at local fairs and symposia (Beach Combers Fair, kayak symposia) are currently in place, but outreach to the various recreational communities occurs on an ad-hoc basis.

30. Public and Private Resource Use - Socioeconomic Values & Human Use

Description	Resource management should support socioeconomic values and human use, and value human beings as part of Washington's coastal and marine ecosystems. Protection of living resources, habitats and water quality, as well as sustainable use that supports local economies and cultures should be management priorities.
Focus of comments	OCNMS received comments emphasizing that 1) socioeconomic values of local communities along Washington's coast need to be respected and taken into consideration when making sanctuary management decisions, and 2) human use of the resources should be allowed to continue and OCNMS should help, not hinder, the survival of local economies and traditional fishing cultures. Additional themes include striking a balance between public use and resource protection, and zoning for different uses.
Status	In the 2008 OCNMS Condition Report, socioeconomic values and human use were discussed in the context of pressures on natural and cultural resources during the assessment of the condition of those resources. OCNMS recognizes the value of sanctuary resources for societal and economic reasons, in addition to inherent natural and cultural values. Sanctuary staff believes these are not mutually necessarily exclusive values and in reality are integral to its primary goal of resource protection. Examples of existing zoning in OCNMS

include the ATBA and overflight restrictions to minimize disturbance to seabird colonies.

31. Regulations, Permitting & Enforcement

Description	When OCNMS was designated in 1994, NOAA promulgated regulations to protect sanctuary resources. These regulations outline the requirements of the sanctuary's permitting program, through which permits can be issued to conduct an otherwise prohibited activity for a limited number of reasons. The responsibility for enforcing these regulations falls primarily to NOAA's Office of Law Enforcement. Potential improvements to OCNMS regulations, permitting process, and enforcement program should be considered.
Focus of comments	OCNMS received a number of comments related to potential changes in regulations and permitting. Some asked for no sanctuary involvement in fishery management; others asked for bans on all motorized boats, fishing, whaling, cruise ship discharges, Navy exercises, and use of the Copalis Beach airstrip.
Status	The 2008 OCNMS Condition Report, which assessed natural and cultural resources, did not directly address regulations, permitting and enforcement in OCNMS. In 2002, Olympic Coast sanctuary conducted an internal review of their <i>Enforcement and Voluntary Compliance Programs</i> . ONMS is currently working on a program-wide enforcement strategy and needs document. OCNMS' current status and needs will be reviewed in the context of this program-wide initiative. OCNMS currently benefits from a NMFS enforcement agent stationed on the Olympic Peninsula and a MOA with the USCG regarding enforcement

32. Research to Support Ecosystem Management

Description	Improved understanding of ecosystem processes and functions will benefit OCNMS by informing management decisions. A scientific research program that focuses on ecosystem-level processes, species-habitat associations, and interspecies interactions and is conducted in collaboration with partners is essential.
Focus of comments	Comments suggest that OCNMS collaborate in and coordinate research efforts, identify and study key indicators of ocean health, use historic information to assess long term ecosystem changes, improve understanding of human and other apex predators influences on the system, study all life stages of organisms, monitor for

biodiversity, research linkages between physical, chemical, and biological ocean processes, and study interspecies dynamics. In the context of ecosystem based management, sanctuary research also could inform regional fisheries management efforts.

Status The 2008 OCNMS Condition Report addresses many elements of ecosystem health and discusses research findings relevant at the ecosystem level. However, the report acknowledges that species-habitat associations, trophic level interactions, and connections between oceanic processes and biological productivity are not well understood. Seafloor habitat and benthic species surveys, nearshore oceanographic monitoring, COASST surveys for dead birds and marine mammals, and marine mammal and seabird surveys supported by OCNMS and federal/state partners all improve our understanding of ecosystem-level processes, yet there is ample opportunity to augment these studies to improve our understanding of ecosystem processes. In addition, OCNMS has collaborated in ecosystem-level studies of the California Coastal Current system and has co-sponsored regional workshops on the Big Eddy ecosystem.

33. Spill Prevention, Contingency Planning and Response

Description While advances in maritime safety have been made since the Sanctuary was designated, the potential for a catastrophic spill remains as a significant threat to marine resources. Oil spills cause immediate and potentially long-term harm to marine resources, as well as socioeconomic impacts to coastal communities. Involvement in regional planning efforts to strengthen prevention and response capabilities, including evaluating impacts of alternative response technologies, encouragement of equipment deployment drills off the outer coast, training staff, and protection of cultural resources and shoreline habitats are all important aspects of sanctuary management.

Focus of comments Comments called for year-round funding for the rescue tug, enhanced response equipment, and focus on prevention programs and response planning. Recommendations included staff training, analysis of water column impacts of dispersed oil, regular conduct of unannounced drills in the Sanctuary.

Status The 2008 OCNMS Condition Report analyzed vessel traffic management and characterized oil spills as having low probability but high risk. The lack of a major oil spill off Washington's outer coast since 1991 precluded assessment of real impacts of an oil spills on natural and cultural resources. OCNMS worked on designation of the Area To Be Avoided (ATBA) in 1994 and improvements to the

ATBA and vessel traffic lanes in 2002. OCNMS routinely monitors ATBA compliance to reinforce high compliance rates for this voluntary measure. OCNMS also has sponsored periodic meetings and trainings of outer coast trustees, participated in regional preparedness and response planning and drills, facilitated involvement of cultural resources specialists in 2008 NPREP drill, developed sanctuary-specific spill response documents to support response efforts and natural resource damage assessment, and participated in regional and national evaluations of alternative response technologies.

34. Treaty Trust Responsibility

Description	The Sanctuary's relationship with federally recognized tribes is unique within NOAA's Office of National Marine Sanctuaries. Tribal treaties along with associated federal statutes, Executive Orders, and court rulings have established a unique legal relationship, an overarching federal trust responsibility of the United States to Indian tribes. This trust responsibility establishes legal obligations of the United States to Indian tribes, including the protection of treaty fishing rights. The trust responsibility of the Sanctuary to the Makah, Quileute, and Hoh tribes and Quinault Indian Nation is articulated in several judicial decisions, OCNMS regulations and in Executive Order 13175 of November 6, 2000, Consultation and Coordination With Indian Tribal Governments. The Sanctuary must honor its treaty trust responsibilities.
Focus of comments	Comments emphasize the importance of the Sanctuary's treaty trust responsibility and request that the Sanctuary not infringe on the treaty rights, particularly fishing rights, of the coastal tribes. Sanctuary staff should understand the implications of treaty rights to their work.
Status	Treaty trust responsibility was not addressed in the 2008 OCNMS Condition Report, which assessed natural and cultural resources. Since designation, the Sanctuary has worked with the four coastal treaty tribes through research and outreach collaborations, permitting and policy discussions, and government to government consultations. In 2007, the Olympic Coast Intergovernmental Policy Council was established and has been supported through sanctuary funding to facilitate consultation, discussion and collaboration between the Sanctuary, treaty tribes and the state of Washington.

35. Visitor Services

Description	The Sanctuary visitor experience could be enhanced through more interpretive signage and experiential, field-based interpretive programs on the outer coast. Modern outreach technology (e.g., social networking sites, internet videos and widgets) can be used to engage the public and inform a wider audience about the Sanctuary.
Focus of comments	Comments suggest that the Sanctuary should update the Olympic Coast Discovery Center exhibits, establish visitor and/or research centers on the Washington coast, support ecotourism in the Sanctuary, enhance coastal signs with sanctuary messages, and make sanctuary outreach materials available at a wider variety of locations.
Status	Visitor services were not addressed in the 2008 OCNMS Condition Report, which assessed natural and cultural resources. The Sanctuary has sponsored visitor services programs over the years, including installation of interpretive signs on the outer coast and a visitor center in Neah Bay. OCNMS also led a cooperative interpretive program, through which the Sanctuary provided training and support for interpreters that worked for Washington State Parks, Olympic National Park and the Makah Tribe. Due to financial constraints, the Makah program is the only one currently active. Currently, our most active program is the Olympic Coast Discovery Center in Port Angeles which hosts about 17,000 visitors annually. Development of new video offerings called “Secrets of the Deep” is underway for opening in 2009.

36. Water Quality Monitoring

Description	Biological resources and their dependent uses, as well as human health, can be impacted by degraded water quality. Water quality monitoring off the Washington coast should involve collaborative efforts that should focus on improving understanding of physical and chemical processes, assessing potential degradation of water quality, monitoring ecological impacts, and improving data sharing.
Focus of comments	Comments recommended collaborative monitoring of biological, chemical, and physical oceanographic parameters, with focus on harmful algal blooms and depleted oxygen. Improved use of remote sensing and citizen science was called for, as well improved data sharing.
Status	The results of water quality monitoring informed the 2008 OCNMS Condition Report, which assessed natural and cultural resources. In

general, water quality in the Sanctuary received a good/fair rating, with pressures based on low oxygen, naturally occurring harmful algal blooms, and the threat of an oil spill. Since 2000, OCNMS has deployed instrumented oceanographic moorings in the nearshore on a seasonal basis to monitor biological, physical and chemical parameters of marine waters. In recent years, OCNMS has collaborated in regional monitoring programs and has added instrumentation to monitor for depleted oxygen (hypoxia). OCNMS collects baseline water quality data along fixed transects on periodic research cruises, supports monitoring programs conducted by others, and has contributed to studies of harmful algal blooms and pathogens in nearshore species.

37. Water Quality Protection

Description	Unimpaired water quality is essential to the health of the marine ecosystem. In seeking to balance human use of the Sanctuary with conservation goals, water quality protection should be a priority.
Focus of comments	Comments expressed concern about threats to water quality from cruise ship discharges (e.g., treated sewage) and from large vessel discharges of ballast water, as well as storm water runoff.
Status	The 2008 OCNMS Condition Report, which assessed natural and cultural resources, discussed improvements to water quality protection in the context of monitoring programs, the ATBA and oil spill prevention, and minimization of vessel discharges. To protect water quality, OCNMS regulations prohibit discharge of any material (with limited, defined exceptions) within sanctuary boundaries or adjacent to OCNMS if the discharge harms sanctuary resources. Water quality monitoring conducted by OCNMS and others informs management for water quality protection. In 2004, discharge of residual solids (biosolids) from cruise ship wastewater treatment systems was banned in the Sanctuary through a voluntary agreement with the Port of Seattle and Washington Department of Ecology.

III. NEXT STEPS

Sanctuary staff is not at the point of deciding what actions will be taken on particular issues. The next step in the *Navigating the Future* process is to identify a subset of topics from public scoping that will be priority issues to be addressed in the revised OCNMS management plan. In addition to being available to the public, the Scoping Summary & Issues Analysis reports will be provided 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. This AC meeting 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 a short list of priority issues it would like to see addressed in the revised management plan. The results of the workshop will be summarized in a report that will be available on the OCNMS website (Table 3). Following this, the IPC will consider the three OCNMS reports that summarize public scoping and provide guidance and recommendations to the Sanctuary Superintendent for the priority topics to be addressed in a revised management plan for OCNMS.

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. During action plan development, all of the suggested actions provided in public comments will be compiled and provided to relevant workgroups. 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