

Olympic Coast National Marine Sanctuary

2012 Management Plan Implementation Report: Year 1



January 2013

I. Introduction

This document is the second annual report on implementation of Olympic Coast National Marine Sanctuary's 2011 management plan. The first annual report can be found at http://olympiccoast.noaa.gov/management/managementplan/mgmtpln_implement2011.pdf.

Annual management plan implementation reports are based on the federal government's fiscal year (FY). This report covers FY 2012, the period from October 1, 2011 through September 30, 2012. In 2008 Olympic Coast National Marine Sanctuary (OCNMS or sanctuary) began work to update the original 1994 management plan. The [OCNMS Final Management Plan](#) was approved in September 2011, and related regulations were finalized on November 1, 2011 ([76 FR 67348](#)), becoming effective on December 1, 2011. Starting in FY 2011, OCNMS began basing its Annual Operating Plans on the action plans in the revised management plan and began implementation on the non-regulatory parts of the management plan prior to its final approval. FY 2011 was classified as "Year Zero" of the management plan implementation, with FY 2012 being the first official year of implementation, or "Year One" of the revised management plan.

Management Plan Background

Three years of planning, consultation, and writing went into the development of the sanctuary's 2011 management plan and revised regulations. This included public scoping sessions initiated in 2008, issue prioritization and development of action plans with the close involvement of the OCNMS Advisory Council (AC) and the Olympic Coast Intergovernmental Policy Council (IPC), compliance with the National Environmental Policy Act requiring the development of draft and final environmental assessment documents, consideration of public comments, numerous consultations with other agencies and the Coastal Treaty Tribes, and a federal rulemaking process requiring the publication of Proposed and Final Rules (regulations). The results are a comprehensive final management plan and a revised set of sanctuary regulations published in November 2011.

The 2011 Final Management Plan and Environmental Assessment contains information about the sanctuary's environment and resources, priority management issues and the programs and actions proposed to address them. The management plan includes twenty action plans to guide sanctuary management in the years ahead. The action plans are grouped under these priority issues:

- Achieve effective collaborative and coordinated management
- Conduct collaborative research, assessments and monitoring to inform ecosystem-based management
- Improve ocean literacy
- Conserve natural resources in the sanctuary
- Understand the Sanctuary's cultural, historical and socioeconomic significance

A sixth priority issue, treaty trust responsibility is a standalone chapter in the Final Management Plan. Each action plan contains strategies, which identify a specific subject area and related activities. The management plan also identifies eight outcomes with associated performance measures, which are the focus of this report.

II. Implementation Highlights

FY 2012 is “Year One” for the implementation of OCNMS’ new management plan. Important progress has been made on plan implementation, with several notable accomplishments during the year. Significant implementation accomplishments and challenges are discussed below, while the table “**Implementation by Action Plan**” outlines progress made on all action plans and strategies.

Coastal Peoples Address Climate Change at the First Stewards Symposium

The Hoh, Makah, Quileute Tribes and the Quinault Indian Nation hosted a symposium in Washington D.C. from July 17-20. The symposium brought together four regional panels addressing the West Coast states, Alaska, the U.S. Pacific states and territories; and the Great Lakes/Northeast/Mid-Atlantic/Southeast/Gulf of Mexico states. Each day included opening and closing cultural ceremonies and regional panel discussions. The entire symposium was recorded and is available at <http://www.firststewards.org>. A resolution has been drafted by the newly incorporated First Stewards and sent to the U.S. Congress and President Obama requesting formal recognition of the coastal indigenous people and their expertise in understanding and adapting to changes in their natural systems. The resolution asks for the federal government to “consult with our tribal governments and indigenous communities for guidance in all policies that affect our way of life and to support our management efforts, which will strengthen America’s resiliency and ability to adapt to climate change.” The Office of National Marine Sanctuaries was a partner for the symposium providing staff support to the IPC in planning the event.

Intergovernmental Policy Council Memorandum of Agreement Approved by Department of Commerce

In January 2007 the Department of Commerce, the Hoh Tribe, Makah Tribe, Quileute Tribe, the Quinault Indian Nation and the state of Washington signed a Memorandum of Agreement (MOA) for the purpose of supporting the Olympic Coast Intergovernmental Policy Council (IPC). The original MOA expired in 2012 and has been updated and approved by the IPC members and the Department of Commerce. The new MOA will be valid through September 30, 2017. The MOA recognizes the role of the IPC in providing an effective and efficient forum for communication and exchange of information and policy recommendations regarding the management of the marine resources and activities within the boundaries of OCNMS.

NOAA Releases Olympic Coast National Marine Sanctuary Management Plan

On November 11, 2011, NOAA released the Final Management Plan/Environmental Assessment and Final Rule for Olympic Coast National Marine Sanctuary. The environmental assessment supports a new regulation prohibiting wastewater discharge from cruise ships within the sanctuary. Updates to other regulatory language have been made to ensure clarity and consistency with the National Marine Sanctuaries Act. The Olympic Coast National Marine Sanctuary Management Plan Review Team was recognized as a winner of the Biennial ONMS award for exemplary teamwork. The management plan review (MPR) for OCNMS has been the first sanctuary to achieve the OMB Program Assessment Rating Tool (PART) performance measure of decreasing the average length of time to complete a final management plan.

Updated Regulations Lead to OCNMS Overflight Restriction Being Posted on FAA Charts

After many years of discussions with the Federal Aviation Administration (FAA), the Office of National Marine Sanctuaries revised the wording of overflight regulations for four West Coast sanctuaries. This revised regulatory wording resulted in a change in FAA policy that will allow them to publish information on overflight regulations for Olympic Coast National Marine Sanctuary and other sanctuaries on revised aeronautical charts. The new FAA charts depict existing overflight zones that have been in place for many years. NOAA has worked with the FAA to ensure clear notation of sanctuary regulations on aeronautical charts, which provides appropriate notice to pilots and supports the protection of resources under NOAA's stewardship. This will greatly facilitate NOAA's efforts to improve regulatory compliance and improve protection of wildlife from harassment caused by low overflights.

University of Michigan Report on Institutional Relationships

The first strategy listed under the Collaborative and Coordinated Management Action Plan was to seek an external evaluation of OCNMS' institutional relationships. A team of graduate students from the University of Michigan School of Natural Resources and Environment, advised by Dr. Julia Wondolleck and ONMS staff, completed "An Assessment of Institutional Relationships at the Olympic Coast National Marine Sanctuary". The assessment was conducted by four graduate students and took place over an 18 month period. The final report was based on a literature review on collaborative and institutional networks, interviews with 34 individuals with interests in OCNMS management, and a web based survey sent to 95 members of agencies, tribal governments, and organizations involved with OCNMS.

NOAA Completes a Facility Strategy for Olympic Coast National Marine Sanctuary

NOAA's Office on National Marine Sanctuaries (ONMS) has completed an update to OCNMS' 2002 Facilities Plan. This was a strategy documented in OCNMS' recently revised management plan. The 2012 updated plan provides recommendations for both the administrative offices in Port Angeles and for facilities on the outer coast. Port Angeles recommendations include investigating the potential for participating in the creation of an ocean-centric campus on the Port Angeles waterfront. Outer coast recommendations include a range of options for interpretive efforts in the southern sanctuary and new or upgraded facilities and vessel support in Neah Bay and La Push. OCNMS has begun taking action on one of the key recommendations from the report. Staff from ONMS, OCNMS, Feiro Marine Life Center, and the City of Port Angeles began a pre-design study on a potential joint marine campus in Port Angeles, WA.

OCNMS Reports on Status of Deep Sea Coral and Sponge Communities

OCNMS completed several reports on investigations into deep sea coral and sponge communities and associated habitats and submitted reports to the Deep Sea Coral Research and Technology Program, the Pacific Fishery Management Council's Groundfish Essential Fish Habitat Review Committee and the Olympic Coast Intergovernmental Policy Council. These reports document both remotely operated vehicle and high resolution bathymetry surveys that have been conducted in the sanctuary for the purpose of characterizing deep-sea coral and sponge communities on the continental shelf and canyons.

Olympic Coast National Marine Sanctuary Deploys Oceanographic Moorings

The sanctuary deployed, maintained and recovered a network of near-shore oceanographic moorings. In the 2012 season 10 moorings were deployed from the R/V *Tatoosh* between Makah Bay and Cape Elizabeth. The moorings were serviced every 6 weeks to collect data used to monitor water quality, currents and ocean productivity in support of investigations into climate change, ocean acidification, hypoxia, harmful algal blooms and other aspects of nearshore ecology in the sanctuary. Oceanographic characterization of Washington's outer coast, including OCNMS, is limited by relatively low levels of historic monitoring efforts. The sanctuary's nearshore mooring program has generated a data set covering the past 12 years (late spring thru early fall) that can be used to evaluate phenomena such as coastal upwelling, cycles of primary productivity and harmful algal blooms, hypoxic events, ocean acidification.

OCNMS Partners with University of Washington to Recruit and Train Citizen Scientists

The University of Washington COASST (Coastal Observation and Seabird Survey Team) program in partnership with OCNMS hosted training for twenty-four new and returning volunteers who will monitor beaches in OCNMS and along the Strait of Juan de Fuca. Each team of volunteers monitors an assigned beach monthly to tag and record dead seabirds and check for evidence of oil spills. Marine debris surveys are also conducted by some COASST volunteers.

Interns support Research, Resource Protection and Education programs.

Nancy Foster Scholar Katie Wrubel completed four weeks of research collaboration with OCNMS as part of her graduate scholarship. She analyzed 90,000 m² of ROV video for fish habitat associations with physical habitat and deep sea corals and sponges. Her summary report, which includes protocols and best practices for analyzing and documenting fish and invertebrate observations, will be posted on the sanctuary website. Katie also presented to OCNMS and ONMS HQ staff describing her research to date and the future of her graduate research, with her master's thesis (based on this OCNMS data) completion date projected for spring 2013.

As part of a nine-week internship, Hollings Scholar Maria Tarduno developed and facilitated three Junior Oceanographer's camps including a Remote Operated Vehicle camp for middle and high school students, a camp focused on exploration through the five senses for kindergarten through third graders, and a camp focused on movement for fourth through sixth graders. She researched the goals of NOAA, OCNMS, and the National Marine Sanctuaries Act, reviewed Ocean Literacy Principles and Washington State Learning Standards to develop activities reaching the larger goal of stewardship and increased environmental literacy. She was awarded First Place for Outstanding Oral Presentation for NOAA Resilient Coastal Communities and Economies Goal during the 2012 Student Science & Education Symposium in Washington D.C.

Douglas Parks, an Olympic Peninsula resident attending University of North Carolina, Wilmington, contributed over 150 hours to OCNMS Resource Protection Program as part of an informal internship. Douglas analyzed marine debris data and assisted with intertidal monitoring activities. Douglas has been a volunteer with OCNMS since 2008.

Hannah McNabb completed over 300 hours of work as a Student AmeriCorps Intern with OCNMS through the North Olympic Peninsula Skills Center. Hannah worked on projects

including education and outreach activities, CTD (Conductivity, Temperature, Depth) data processing and Washington Coast Cleanup. As a result of her internship, she will receive an educational reward, three high school credits, as well as valuable career experience.

OlympicCoast.NOAA.GOV Version 3.0 Released

Olympic Coast National Marine Sanctuary released a new website OlympicCoast.NOAA.Gov in 2012. The website is the sanctuary's third website developed since designation. The website incorporates Office of National Marine Sanctuaries design standards, improved usability for browsers, new content that features a broader range of sanctuary activities and improved access to data and reports and streamlined access to sanctuary photography, video and visual products. In structural terms, the website mirrors the new sanctuary management plan and incorporates recommendations made during management plan scoping. The website editor is Robert Steelquist, Education and Outreach Coordinator; design and coding is by Carey Floyd, Graphic Designer. OCNMS can also be found on Facebook. Since September 2010, over 700 Fans from 20 different countries "Like" the site, <http://www.facebook.com/usolympiccoastgov>. As of September 2012, over 243,500 unique "Fans" and "Friends of Fans" have been exposed to the posts which include news and events, calendar items, updates from the field, ocean facts, photos and videos relevant to OCNMS, NOAA, NOS and our partners. OCNMS also has content on Google Earth and You Tube.

Ocean Science Completes Six Years of Bringing the Ocean to Local Schools

Olympic Coast National Marine Sanctuary, in partnership with Seattle Aquarium and Feiro Marine Life Center completed the sixth year of Ocean Science programming for Washington's outer coast communities. Approximately 500 third, fourth, fifth and sixth grade students participated in classroom activities, field trips to Feiro Marine Life Center and Seattle Aquarium, and beach field investigations. Data collected by students during beach trips are submitted to Washington NatureMapping and NOAA Marine Debris citizen science programs. Twenty-two teachers and nearly 100 parents also participated in 2011-2012 Ocean Science trainings and activities. Schools include Ocosta, Simpson, Ocean Shores, Pacific Beach, Taholah, Lake Quinault, Forks, Quileute, Neah Bay and Clallam Bay. Ocean Science was selected to receive a 2011 Coastal America Partnership Award for outstanding efforts to restore and protect the coastal environment. This award recognizes the importance of our partnerships, and will enhance opportunities for future support of the program.

North Olympic Watershed Program Reaches More than 1,600 Students

The North Olympic Watershed Program, a joint partnership between Feiro Marine Life Center, Olympic National Park, NOAA's Pacific Northwest Bay-Watershed and Training (PNW B-WET) Grants Program and Olympic Coast National Marine Sanctuary, finished another successful season serving fourth and fifth grade classes from six school districts. Fourth grade students observe, touch and learn about live, local, marine life as well as collect and observe plankton with staff from Feiro Marine Life Center. The fourth grade students also learn how to pack a waste-free lunch from marine sanctuary staff. Fifth grade students walk the Peabody creek watershed learning about what makes a healthy watershed from Olympic National Park and Feiro Marine Life Center staff and then learn more from marine sanctuary staff about watersheds, ocean currents, and marine debris by dissecting albatross boluses. All the students discuss how we can decrease marine debris and tour the Olympic Coast Discovery Center where

the beauty of natural history, maritime heritage and technology combine to educate students and visitors about a variety of ocean topics.

Sanctuary, Sea Grant and UW Partner on Climate Scenario

Washington Sea Grant, University of Washington's Climate Impact Group, and OCNMS staff have begun work on a climate change site scenario for OCNMS using funds provided by NOAA's Climate Program Office. The report will describe the state of knowledge of a suite of climate-related physical parameters that may influence the management of marine resources and OCNMS over the next 50-100 years and summarize sources of vulnerability and relevant adaptation strategies. This is the first step in implementing OCNMS' climate action plan and will eventually lead to certification as a Climate Smart Sanctuary.

2012 Washington Coast Cleanup Huge Success

Over 1400 volunteers celebrated Earth Day this year by turning out for the annual Washington Coast Cleanup. Working at beach locations along Washington's entire Pacific coast, from Cape Flattery to the Columbia River, volunteers hauled away an estimated 33 tons of plastic water bottles, household trash, lost fishing gear, and other marine debris. The coastal cleanup generated considerable media interest given the recent concerns about Japanese tsunami marine debris reaching the West Coast of the United States. Many items collected, including multiple floats and buoys were suspected to have originated from the devastating March 2011 Japanese tsunami. Experts believe that the majority of the tsunami debris will show up on the Pacific Northwest coast in 2013 and beyond, while more buoyant items may have already reached the area during winter of 2011-2012. OCNMS staff, with assistance from Clallam County AmeriCorps, organized registration stations and coordinated volunteers at the Makah and Hoh tribal reservations and Olympic National Park's Kalaloch Beach. Volunteers gathered at afternoon barbecues, hosted by Surfrider Foundation, Grass Roots Garbage Gang, and Aramark Industries, to share stories, socialize and refuel.

Shoreline Debris Monitoring Initiated

Sanctuary volunteers initiated a scientific monitoring program for shoreline debris at 6 locations in May-June 2012. The number of monitoring locations will be expanded over time in collaboration with county-based marine resources committees and other partners. Specific indicators of Japan tsunami debris will be incorporated into monitoring as indicators are identified. This monitoring will provide quantitative data for amounts and types of marine debris useful for analysis of trends and informing management responses. Similar monitoring programs have been implemented in Hawaii, Alaska, Oregon and British Columbia.

Planning for Tsunami Marine Debris Response on the Washington Coast

Sanctuary staff has been actively engaged in regional efforts associated with the tsunami debris. Sanctuary staff led the monitoring break out group at the multi-agency workshop in April focused on response plan development and wrote this section of the draft response plan. Sanctuary staff participated in a regional workshop in July which led to development of a protocol for response to tsunami debris as potential vectors for invasive species. OCNMS was awarded a small grant to initiate quantitative monitoring of shoreline debris with a focus on outer coast beaches. OCNMS has been involved with engaging and updating outer coast Marine Resource Committees on marine debris issues, and assisted with a grant that was awarded to

Discover Your Northwest to support the Washington Clean Coast Alliance, which coordinates the annual CoastSavers beach cleanup. In the absence of a partnership coordinator, OCNMS has led recent planning efforts of the Washington Clean Coast Alliance. OCNMS has been an active partner in development of a proposal led by The Nature Conservancy, with Coastal Treaty Tribe and outer coast Marine Resources Committee support and partnerships, to fund derelict gear assessment and removal efforts. OCNMS has provided letters of support for several marine debris and derelict gear removal project proposals addressing the outer coast. Sanctuary staff presented a review of Japan tsunami marine debris actions and issues to the Sequim Sunrise Rotary Club. In addition, the sanctuary education-outreach team has integrated marine debris into their education and outreach programs and engaged students and the public in personal actions to reduce marine debris.

FY 2012 Challenges

The budget process and extended continuing resolution continued to make program planning difficult in FY 2012. The sanctuary did not receive a final budget until February 2012, half way through the 2nd quarter. While this was a significant improvement from FY 2011 it still represented a challenge for implementation of management plan action plans. The lack of access to the NOAA fleet continued this year, with OCNMS needing to depend solely on the R/V *Tatoosh* to support operations. Mid-season mechanical difficulties with the R/V *Tatoosh* decreased operational efficiency.

III. Performance Measures

Performance evaluation is an integral component of Office of National Marine Sanctuaries (ONMS) efforts to improve sanctuary management. Performance measures identified in the 2011 OCNMS management plan are designed to serve three purposes: 1) to better understand OCNMS' ability to meet its objectives; 2) to track OCNMS' success in addressing the issues identified in the 2011 management plan; and 3) to identify tangible examples of how OCNMS is contributing to both the performance targets developed for the ONMS and achievement of the purposes of the National Marine Sanctuaries Act.

As the 2011 management plan is implemented, OCNMS staff will monitor these performance measures over time and collect data on progress towards their achievement. One management plan strategy, OPS 10 addresses management plan implementation reporting and includes activities that call for:

- Reporting on implementation of the management plan on an annual basis, particularly on performance measure achievement
- Annual reporting on OCNMS' response to emerging issues
- Annual documentation of clarifications, enhancements or recommended changes to existing strategies and activities

Eight outcomes and associated performance measures identified in the 2011 OCNMS management plan are listed below, and a status summary table is provided to address progress during FY 2012.

OUTCOME 1: OCNMS is recognized by its partners and constituents as an organization that effectively seeks and considers information and opinions from external sources in its management and decision making.

Performance Measure 1: Maintain undiminished or improve ratings of OCNMS' effectiveness as evaluated by key partners and constituents through a brief annual survey (e.g., using a web survey tool) designed to assess their involvement in sanctuary management processes and the perceived effectiveness of this involvement in sanctuary management processes over the past year. This survey should use the same survey questions each year so that results can be compared over time.

Status: The University of Michigan School of Natural Resources and Environment and the Office on National Marine Sanctuaries supported a team of four graduate in an external assessment of its institutional relationships. The external assessment addressed both strategy CCM1 and Performance Measure 1. The 18-month assessment included interviews and a survey of key individuals within OCNMS's institutional network.

The report found that OCNMS has built a strong foundation for collaboration and that partners are mostly satisfied with their relationship with OCNMS. It also found that differing expectations of what constitutes collaborative and coordinated management among different partners represented a challenge to OCNMS management.

The full report can be found at: <http://www.snre.umich.edu/ecomgt/pubs/projects.htm>.

OCNMS is reevaluating the utility of developing a web survey tool for this effectiveness evaluation and the value of conducting annual surveys with a limited sample size.

OUTCOME 2: Increased involvement of communities on the Olympic Peninsula in sanctuary management issues and ocean conservation.

Performance Measure 2: Demonstrate an increase in 1) individual public attendance at OCNMS-hosted public meetings and events (e.g., open houses, Advisory Council meetings), and 2) volunteer hours in OCNMS-led education, stewardship and research efforts (e.g., Discovery Center, COASST, intertidal monitoring). This measure will be evaluated on an annual basis.

Status: Year One showed an increase in hours, from the previous year, by both the Advisory Council and by volunteers.

1) In FY 2012 Olympic Coast National Marine Sanctuary hosted a total of five Advisory Council meetings with 31 individuals from the public participating in one or more meetings. Meeting locations were Forks, Ocean Shores, Neah Bay, Hoquiam, and Port Angeles. Advisory Council members and members participating in Advisory Council working groups contributed an estimated cumulative total of 3,320 hours in support of OCNMS in FY 2012. This significant increase is due in part through the significant contributions made to the Climate Change Site Scenario Report.

OCNMS also conducted two public meetings on the development of their long-term facilities strategies, with 27 members of the public participating in one or more meetings.

2) Volunteers contributed 17,614 hours towards Olympic Coast National Marine Sanctuary programs for Education and Outreach, Research, and Resource Protection. The estimated dollar value of OCNMS volunteer activity is \$380,815 (calculated at \$21.62/hour according to AARP Bulletin <http://www.aarp.org/giving-back/volunteering/info-12-2011/value-of-volunteers.html>). See below for volunteer hours for each program and estimated value of volunteer activity:

- Olympic Coast Discovery Center/Education and Community Outreach – 1,078 hours. Estimated value of \$23,306
- COASST (dead seabird surveys) – 4,980 hours. Estimated value \$107,668
- *R/V Tatoosh* Field Operations and Research- 406 hours. Estimated value \$8,778
- Washington Coastal Cleanup – 10,966 hours. Estimated value \$237,085
- OCNMS Clerical Assistance – 184 hours. Estimated value \$3,978

Outcome 2 was also supported by active OCNMS participation as an ex-officio representative on outer coast marine resources committees meetings, planning sessions, and community forums. A primary goal of these marine resources committees is to engage local citizens in marine stewardship, education, and science efforts.

OUTCOME 3: Increase the area of sanctuary seafloor where efforts to map, groundtruth, characterize, and/or analyze habitats have been completed.

Performance Measure 3: Map, groundtruth, characterize, and/or analyze 300 square nautical miles of sanctuary seafloor each year.

Status: Three major seafloor mapping and characterization activities were completed by OCNMS in 2012:

1. 331.5 square nautical miles of benthic habitat ground truthing that included sediment collection, grain size analysis, areal video analysis and habitat classification. Report generation and web deliverables are in progress.
2. 1.3 square nautical miles of new seafloor mapping data from 1st Beach and Quillayute Needles immediately south of La Push, including multibeam sonar and backscatter data processing. Collection of seafloor sediment samples and analysis, habitat classification, report generation, and web deliverables are scheduled for FY2013.
3. 2 square nautical miles of re-imaged and re-processed multibeam data, including backscatter and bathymetry processing, documenting 13 mooring sites for future analysis.

The FY 2012 areal coverage of habitat mapping efforts was 334.8 square nautical miles, surpassing the OCNMS annual performance goal of 300 square nautical miles. This year OCNMS added a video drop camera to the Smith-McIntyre sediment grab and added video sediment analysis to the ground truthing protocol. This step improves the sediment analysis quality, but it increases the amount of time required to process data.

OUTCOME 4: OCNMS will support collaborative and coordinated management through timely sharing of data collected by OCNMS.

Performance Measure 4: On an annual basis, track the progress made analyzing and distributing each data set that OCNMS collects. For each data set, report on 1) the date(s) the data were collected, 2) the expected annual and ultimate end product(s), 3) data sharing methods, 4) the time taken to analyze the data, 5) the time to disseminate the data, and 6) if necessary, when OCNMS anticipates completing a final analysis, report and dissemination.

Status: OCNMS collected data or performed field support services in six research areas in 2012: seafloor mapping, oceanographic moorings, intertidal monitoring, coral and sponge communities, seabirds, and marine mammals. In addition, significant effort was expended organizing data from historic research and monitoring activities.

Seafloor Mapping: Multibeam sonar mapping of 1st Beach and the Quillayute Needles near La Push, re-imaging and re-processing multibeam data for 5 mooring sites, and ground truthing 334.8 square nautical miles of previously mapped seafloor were conducted in FY2012. Multibeam bathymetry and backscatter data are being processed;

sediment samples and video imagery are being processed; and reports are in progress. Ground truthing comprises a significant step toward accurate habitat classification for surveys from 2008, 2010, and 2011. This project is considered 75% complete.

Oceanographic Moorings: Oceanographic moorings from 2012 were deployed and monitored, and data are being processed. Web posting of oceanographic data for 2012 is pending. This project is considered 90% complete.

Intertidal Monitoring: Annual surveys of biota at rocky and sand intertidal sites on the Makah and Quinalt Indian Reservations were completed by OCNMS. During winter months, data will be entered in the MARINE data base (Multi-agency Rocky Intertidal Network) and OCNMS data base. This project is 50% complete.

Coral and Sponge Communities: OCNMS completed several reports on investigations into deep sea coral and sponge communities and associated habitats and submitted reports to the Deep Sea Coral Research and Technology Program, the Pacific Fishery Management Council's Groundfish Essential Fish Habitat Review Committee and the Olympic Coast Intergovernmental Policy Council.

Seabirds: Two of the four anticipated seabird surveys were conducted in FY2012. The other two surveys were not undertaken because the RV TATOOSH was non-operational. Summary data from the surveys have been compiled and will be posted on the OCNMS web page. This project is 90% complete.

Marine Mammals: Two marine mammal projects were conducted in FY2012. OCNMS staff participated as land observers for the annual sea otter census and also provided GIS support for a National Marine Mammal Lab/Makah Tribe initiative to build a database of historic whale sightings. Both projects were completed successfully; however the data are not managed by OCNMS. Projects are 100% complete and their descriptions are on the OCNMS web site.

Data Management: The end goal is to make all data collected by OCNMS available for public download. Efforts in FY 2012 were focused on OCNMS web publishing of oceanographic data from 2000-2011, historic survey and cruise data from 2010 and current data from 2012 research and monitoring activities. The 2012 data are not ready for web publication because of insufficient staff time. This project is 75% complete.

Performance Measure 4 Reporting Table

Performance Measure 4 Reporting	Data Collection Dates	Product	Data Sharing Places	Time to Analyze Data	Time to Disseminate Data	Final analysis, report and dissemination
MAP1 Regional Coordination	June 1-15, 2012	Seafloor Mapping Consortium for collaborative CMSP mapping; Seafloor Mapping Cooperative for capacity building among OCNMS, tribes and partners.	SM Consortium has been shared with WA DNR for CMSP; SM Cooperative has been shared with IPC, NWIFC, and WA DNR.	WA DNR and IPC are considering the value of these regional coordination proposals.	N/A	These two coordination proposals will be made public if approved by WA DNR and IPC.
MAP2 Seafloor Habitat Ground Truthing	August 1-30, 2012	Sediment sampling from 90 sites (over 330 nm ²) with video enhancement;	OCNMS web, GIS library	30 days	60 days	March 2013 – 3 reports
MAP2 Imagery, bathymetry and backscatter for 1 st Beach and Quillayute Needles	August 1-30, 2012	Seafloor area and characterization of 1.3 nm ²	OCNMS web, GIS library	60 days	60 days	pending
MAP2 Multibeam bathymetry and backscatter for 5 mooring sites	August 1-30, 2012	Updated multibeam data for oceanographic mooring placement.	OCNMS web	60 days	60 days	pending
OCEO1 Oceanographic Mooring Data	April-October, 2012	Data from 10 seasonal oceanographic moorings	OCNMS web	pending	pending	pending
ECO2 Intertidal Monitoring	June 2-3, July 30, and August 1, 2012	Data from the Kydikabbit Point, Sooes Beach, Pt. Grenville and Grenville Beach entered in the MARINE database.	Data are kept on MARINE database; project is reported on OCNMS web	120 days	pending	pending
ECO3 Coral and Sponge Communities	2006, 2008, 2010, 2011 surveys	Site Characterizations from post-processed ROV video	Characterizations submitted to IPC, CRCP and PFMC EFH Review Committee & OCNMS Web	multiyear	multiyear	Peer reviewed comprehensive report planned in 1-2 years

Performance Measure 4 Reporting Table (continued)

Performance Measure 4 Reporting	Data Collection Dates	Product	Data Sharing Places	Time to Analyze Data	Time to Disseminate Data	Final analysis, report and dissemination
ECO5 Pelagic Seabird Survey Trip Results	July 21 and August 18, 2012	Seabird observation counts	OCNMS web	10 days	60 days	pending
ECO6 Annual multi-agency Sea Otter Census of WA coast	July 10-12, 2012,	Annual ground census data for sea otters at Norwegian Point	OCNMS web for local data (OCNMS web has link to 2012 WA data)	10 days (local monitoring)	30 days (local monitoring)	September 30, 2012
DAT1 Report on data sharing	October 1, 2011 - September 30, 2012	Completed reporting on FY2011-2012 seafloor mapping, oceanography, deep sea coral and sponge, marine mammal, and coastal habitats research and monitoring	OCNMS web	12 months	12 months	2

OUTCOME 5: Determine the effectiveness of sanctuary Ocean Literacy programs whose audiences include sanctuary users, students, teachers, volunteers and partner organizations.

Performance Measure 5: Track progress made during each year toward improving the quality of Ocean Literacy programs and their impacts on participants in improving their understanding of ocean processes and resources and enhancing their commitment to act as stewards.

Status: The following is a summary of program output data.

OCNMS staff supported regional professional development workshops and trainings, including:

- OCNMS staff conducted volunteer training for seven students. Trained volunteers gained significant knowledge regarding Ocean Literacy and OCNMS history, management, research, and ocean issues. Test scores from the volunteer training increased dramatically from 30% (pre-test) to 82% (post-test) overall.

- OCNMS, in partnership with Seattle Aquarium, presented “Trash Free Seas: Following Trash from Watershed to Sea” teacher professional development workshop. Fourteen teachers from Washington’s outer coast communities participated in this workshop, which focused on nearshore monitoring and stewardship activities. Makah tribal experts provided presentations and led discussions on the connections between Western science and traditional knowledge. Participants ranked the training approximately 4.85 out of 5 (with five being the highest score) regarding course content, instructors' knowledge and teaching methods, and overall impact.
- Marine Geographer Nancy Wright conducted an in-service training at Olympic National Park NatureBridge for 26 teachers from Kitsap and Clallam counties, focusing on the use of Geographic Information Systems (GIS) for coastal oil spill response and seafloor mapping. She provided the teachers with a curriculum for a GIS oil spill response module developed by Pacific Education Institute in partnership with OCNMS.
- OCNMS staff spent two days with eight Olympic National Park seasonal interpretive rangers providing them information about the sanctuary. These two days were part of the ranger’s annual two-week training program.
- OCNMS, in coordination with Olympic National Park, conducted Washington Coast Cleanup Beach Coordinator training for 14 Clallam County AmeriCorps members. Beach Coordinators assist with the Earth Day cleanup event by providing direction, general information, encouraging trash removal, and serving as point of contact at beach locations.

OCNMS staff provided hands-on place-based education to nearly 3,000 K-12 students including:

- OCNMS, in partnership with Seattle Aquarium and Feiro Marine Life Center completed the sixth year of *Ocean Science* programming for Washington’s outer coast communities. Approximately 500 third, fourth, fifth and sixth grade students participated in classroom activities, field trips to Feiro Marine Life Center and Seattle Aquarium, and beach field investigations. Data collected by students during beach trips are submitted to Washington *NatureMapping* citizen science program. Twenty-two teachers and nearly 100 parents also participated in 2011-2012 *Ocean Science* trainings and activities. Schools include Ocosta, Simpson, Ocean Shores, Pacific Beach, Taholah, Lake Quinault, Forks, Quileute, Neah Bay and Clallam Bay.
- Educators from OCNMS and Seattle Aquarium conducted hands-on activities for 140 Neah Bay Elementary School students during their annual Beach Day event
- The North Olympic Watershed Program, a joint partnership between Feiro Marine Life Center, Olympic National Park, and OCNMS, reached 1,646 elementary school students from Port Angeles, Sequim and Crescent school districts. Fourth grade students observe, touch and learn about live, local, marine life, collect and observe plankton, and learn how to pack a waste-free lunch. Fifth grade students walk the Peabody creek watershed learning about what makes a healthy watershed, learn about ocean currents, and marine debris by dissecting albatross boluses. All the students discuss how we can decrease marine debris and tour the Olympic Coast Discovery Center.
- OCNMS staff participated in the 4th Annual Franklin Elementary Science Night in Port Angeles. Microscopes, cameras, video screens and sand samples from the sea floor and beaches around the world were available for children and their families to investigate

OCNMS's exhibit "Secrets of the Sand". Over 400 people from the community attended the event.

- OCNMS mentored two high school students from Olympic Peninsula Skills Center. Loren Henry and Jordan Fickas, spent a semester or more working with OCNMS mentors.
- Hannah McNabb completed 300-plus hours of work as a Student AmeriCorps Intern with OCNMS. Hannah worked on projects including education and outreach activities, data processing and the Washington Coast Cleanup. As a result of her internship, she will receive an educational reward, three high school credits, as well as valuable career experience.
- OCNMS, in partnership with Feiro Marine Life Center, conducted four Jr. Oceanographer's camps for 75 youths. Camps included a Remote Operated Vehicle camp for students in grades seven through nine, two camps for students in grades Kindergarten through third, and a camp for students in grades fourth through sixth.

OCNMS staff provided supervision and support to regional higher education initiatives, including:

- OCNMS staff provided support for Feiro Marine Life Center marine science lecture series, including "Climate Change: Implications for the Pacific Northwest" by Nick Bond, principal research scientist with the Joint Institute for the Study of the Atmosphere and Ocean (JISAO).
- Nancy Foster Scholar Katie Wrubel completed four weeks of research collaboration with OCNMS as part of her graduate scholarship. She analyzed 90,000 m² of archived ROV video for fish habitat associations with physical habitat and deep sea corals and sponges. Her report, which included protocols and best practices for analyzing and documenting fish and invertebrate observations, will set the standard for future OCNMS analysis. Katie also presented to OCNMS and ONMS HQ staff describing her research to date and the future of her graduate research.
- As part of a nine-week internship, Hollings Scholar Maria Tarduno developed and facilitated three Jr. Oceanographer's camps. She researched the goals of NOAA, OCNMS, and the National Marine Sanctuaries Act as well as referred to the Ocean Literacy Principles and Washington State Learning Standards to develop activities to reach the larger goal of stewardship and increased environmental literacy. Maria was awarded First Place for Outstanding Oral Presentation for NOAA Resilient Coastal Communities and Economies Goal during the 2012 Student Science & Education Symposium in Washington D.C.



 Schools participating in Olympic Coast National Marine Sanctuary K-12 Education Programs (Sequim, Port Angeles and Crescent School Districts, Clallam Bay, Neah Bay, Quileute Tribe, Forks, Queets/Clearwater, Lake Quinault, Taholah, Pacific Beach, Ocean Shores, Ocosta and Simpson elementary schools)

OUTCOME 6: Communicate the importance of the sanctuary and its unique resources, and the unique role of NOAA and Olympic Coast National Marine Sanctuary as a marine resource manager using a wide variety of media and methods to reach broad audiences.

Performance Measure 6: Track effort and outputs of outreach programs, using tools appropriate for the media, communication methods and audiences.

Status: OCNMS staff expands community awareness of the sanctuary, sanctuary resources, volunteer programs and other community involvement activities using multiple communication techniques.

OCNMS uses the following **media and social networking tools:**

- Website - OCNMS website was launched at end of FY11. In FY2012, OCNMS website had 158,866 visits.
- Facebook – the NOAA OCNMS Facebook page was created in September 2010. By end of FY 2012, the page had doubled its fans from 356 fans in 2011 to over 700 fans in 2012.
- Google Ocean, NOAA Media Library and YouTube accounts contain OCNMS provided resources.

- OCNMS staff provides media information (interviews, releases and advisories) for review and distribution for emerging issues, critical events, research and education activities and other newsworthy developments.

OCNMS uses the following tools for **outreach**:

- Olympic Coast Discovery Center - OCDC served 7,491 visitors in 2012, an increase of more than 475 from 2011. The center was open daily Memorial Day weekend through Labor Day weekend, and at other times by appointment.
- Festivals and Events – OCNMS staff participated in Makah Days, Dungeness Crab and Seafood Festival, Seattle Aquarium’s Family Science Weekend, Franklin Family Science Night, Ocean Shores Beachcomber’s Fun Fair, Grays Harbor Shorebird Festival, and Ocean and River Resources Fair. Public attendance at these events totaled nearly 25,000.
- Over 1,400 volunteers celebrated Earth Day this year by turning out for the annual Washington Coast Cleanup. Volunteers hauled away an estimated 20 tons of plastic water bottles, household trash, lost fishing gear, and other marine debris from Washington’s outer coast. OCNMS staff and family members, with assistance from Clallam County AmeriCorps, organized registration stations and coordinated volunteers at the Makah and Hoh tribal reservations and Kalaloch Olympic National Park. In addition, eleven volunteers and friends from the Olympic Coast Discover Center picked up marine debris on Port Angeles beaches in support of the first annual Klallam Earth Day.
- OCNMS supported a fall cleanup in coordination with Olympic National Park on Public Lands Day. This targeted cleanup focused on the shore between the Ozette River and Yellow Banks (around Cape Alava and Sand Point). 30 volunteers cleaned approximately 400 pounds of debris and 23 pounds of recyclables (mostly plastic bottles) from the beach.

OUTCOME 7: OCNMS is prepared for an oil or hazardous spill in or near the sanctuary.

Performance Measure 7: On an annual basis, 1) summarize and evaluate OCNMS participation in regional response planning efforts and spill drills, and 2) confirm that all OCNMS staff that have completed their assigned oil spill response training plan on an annual basis.

Status: *Participation in regional response planning efforts and spill drills* - Regional Response Team (RRT): OCNMS participated in the annual RRT summit in September 2011 and has registered to participate in the next annual summit in December 2012. Work groups established at the 2011 summit made limited progress during the year, but OCNMS was unable to participate in workgroup meetings.

Washington Department of Ecology Contingency Rule Advisory Committee: OCNMS participated as an “invited observer” in this advisory committee and attended meetings in person or via teleconference. In October, OCNMS submitted a letter to Ecology with detailed comments on the draft rule.

Strait of Juan de Fuca Ecosystem Recover Network Oil Spill Working Group (a Puget

Sound Partnership-supported group): OCNMS provided review comments on working group documents with direct relevance to the sanctuary area but did not have sufficient staff availability to attend meetings.

OCNMS reviewed the RRT drills calendar to identify one or more drills useful for staff training. During FY 2012, OCNMS was short on staff, which decreased staff availability for training and other engagement opportunities. Specifically, a staff member with responsibility for some spills issues was away for FY2012 on a Coast Guard Reserve assignment. As a result, sanctuary staff were not able to participated in a drill event during FY2012.

OCNMS staff training - The assigned training for spill response preparedness is an 8-hour refresher HAZWOPER class. Work demands in the field and office (understaffed for much of FY 2012) led to lowered priority for this training. In addition, HAZWOPER classes hosted by the Coast Guard and Marine Spills Response Corporation and planned for outer coast communities in FY 2012 were cancelled. As a result, no sanctuary staff maintained their HAZWOPER certifications in FY 2012, which would limit their ability to participate in some field operations but not Incident Command. The appropriate HAZWOPER certifications will be part of the OCNMS 2013 training plan.

OUTCOME 8: The condition of water quality, habitat and living resources in the sanctuary is maintained or improved.

Performance Measure 8: Every five years, evaluate if the condition of sanctuary resources has been maintained or improved, as assessed through an OCNMS Condition Report.

Status: Data management, sharing and reporting improved the general awareness of the status of OCNMS resources and the Sanctuary's overall ecological health in preparation for an OCNMS Condition Report in Year 5 of the Management Plan (FY17). Documentation of the results of OCNMS research and monitoring provides the basis for an evaluation of water quality, habitat and living resources as a result of Sanctuary management measures.

IV: Year One Management Plan Implementation Status by Action Plan/Strategy

Whereas the outcomes and performance measures provide assessment of progress on specific and, in some cases, quantifiable aspects of Olympic Coast National Marine Sanctuary accomplishments, many strategies identified in the management plan are not addressed by performance measures. The table below presents an assessment of progress made in year one (2012) OCNMS management plan strategies and activities.

Table Explanation

Action Plans/Strategies – The titles and numbering scheme relate to the structure of the 2011 Olympic Coast National Marine Sanctuary Final Management Plan and Environmental Assessment.

MP Priorities – Level Funding: Scenario 1 – Implementation ratings are assigned as “high” (H), “medium” (M) and “low” (L) to indicate expected progress. These ratings are taken from the Final Management Plan Implementation Table. This table was created by taking combined input from both OCNMS staff and the Advisory Council. The table included three different funding scenarios (level funding, moderate increase, and substantial increase). The implementation rankings shown below represent the level funding scenario.

FY12 AOP Status – The FY 12 AOP Status column shows the annual progress for the reporting year’s Annual Operating Plan (AOP) activities. The symbols used to describe the implementation status are: Not initiated or planned (○); Initiated and 1-25% completed (◉); Initiated and 26-50%; completed (◐); Initiated and 51-75% completed (◑); or Completed (●).

In several cases an additional explanation of the meaning of these scores may be needed.

Example 1: In the case that an activity was not specifically mentioned in the AOP, it would be given a score of “Not initiated or planned (○)” even if work did occur. However, that work would be summarized under status.

Example 2: Many strategies could be considered ongoing and will never be completed. There are many examples in the Collaborative and Coordinated Management Action Plan. Many of the strategies have to do with partnerships, which hopefully will be ongoing. As an example strategy “CCM3 Olympic Coast Intergovernmental Policy Council”, the status of “Completed (●)” refers to the completion of activities planned in FY 2012 and not the completion of the overall strategy, which will be ongoing.

Status – A brief summary of the activities that took place in the reporting period.

Implementation by Action Plan Table

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY12 AOP Status	Table Legend	
			Implementation Ranking: H – High M – Medium L – Low	Reporting Status for FY 2011 Activities: ○ – Not initiated or planned ◐ – Initiated 1-25% ◑ – Initiated 26-50% ◒ – Initiated 51-75% ● – Completed
			Status	
A1. Collaborative and Coordinated Sanctuary Management Action Plan				
CCM1 External Evaluation	L	●	The University Of Michigan Masters Project completed a baseline evaluation of OCNMS' institutional relationships.	
CCM2 Coastal Treaty Tribes	H	○	No activities were specifically planned for FY12; however, this is an ongoing priority for the sanctuary and the following activities did occur. Worked on a number of collaborative efforts and proposals, including a habitat mapping cooperative proposal with a specific role for tribes and a joint proposal to a private foundation to support training tribal staff on post-processing remotely operated vehicle video data collected by OCNMS. Supported a tribal member's efforts to start an ecotourism venture. Supported the First Stewards Symposium on climate change. Consulted on proposed regulatory changes and permitting requests.	
CCM3 Olympic Coast Intergovernmental Policy Council	H	◑	Supported 3 IPC meetings. A fourth planned joint with OCNMS Advisory Council was cancelled. Due to the IPC's involvement in the First Stewards conference the annual meeting with the ONMS Director was rescheduled for early FY13. OCNMS staff met with the IPC Science Panel to discuss a joint proposal to a private foundation to support training tribal staff on post-processing remotely operated vehicle video data collected by OCNMS. Processed 4 cooperative agreements with Coastal Treaty Tribes to support IPC.	
CCM4 Washington State	H	●	Consulted with the Washington State Ocean Caucus on how OCNMS could support the state's efforts in implementing CMSP. Facilitated CMSP training and submitted a proposal on habitat mapping. Worked with WSDOT Aviation Division on the status of the Copalis Beach Airport and the revised OCNMS overflight recommendations. Worked with WA Emergency Management Division on Japanese Tsunami Marine Debris planning efforts. Participated as ex-officio member of North Pacific Coast Marine Resources Committee and attended annual outer coast MRC Summit.	
CCM5 Department of Interior	H	●	Participated in Olympic National Park seasonal interpretive training. Coordinated with ONP and others on annual April beach cleanup. Technical staff consultation and collaboration on several issues, including intertidal monitoring, Quillayute River dredge spoils management and marine debris issues. Collaborated with USFWS on a pilot proposal to utilize a NOAA UAVS (Unmanned Aircraft Vehicle System) to monitor seabird colonies.	
CCM6 US Coast Guard	H	◐	Worked with USCG on ATBA monitoring and IMO proposal for ATBA modification. Worked with USCG on eight vessel incidents. Collaborated with USCG on a number of OCNMS enforcement patrols. Technical staff negotiated a revised MOA document, which is undergoing concurrent agency review.	
CCM7 US Navy	H	●	OCNMS staff met with representatives from US Navy Northwest Region on December 13, 2011 to discuss Navy and sanctuary activities of mutual concern for 2011 and identify areas of potential collaboration for 2012.	
CCM8 NMFS	M	◐	While a planned formal meeting did not occur OCNMS did discuss issues of mutual interest, with NMFS NWR.	
CCM9 Office of National Marine Sanctuaries	H	●	Participated in national and regional meetings and conference calls. Responded to agency requests for data and information. Locally implemented national and regional initiatives.	
CCM10 Canadian Government	L	○	While no AOP activities were identified, OCNMS continued to work with the Canadian Coast Guard to identify a new data retrieval mechanism for ATBA data.	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY12 AOP Status	Table Legend	
			Implementation Ranking: H – High M – Medium L – Low	Reporting Status for FY 2011 Activities: ○ – Not initiated or planned ◉ – Initiated 1-25% ◐ – Initiated 26-50% ◑ – Initiated 51-75% ● – Completed
			Status	
A2. Community Involvement in Sanctuary Management Action Plan				
COM1 Advisory Council	H	◑	Prepared for, coordinated and conducted 5 out of 6 planned Advisory Council meetings, the joint meeting with the IPC was cancelled. Agendas, meeting materials, presentations and meeting minutes were posted on the OCNMS website. To facilitate and augment the Sanctuary Superintendent's regular briefings to the AC, OCNMS continues to draft office reports documenting activities that occurred since the last AC meeting. Revised the AC charter, adding seats for the USGS and outer coast MRC. Participated in quarterly National Advisory Council Coordinator's conference calls. Provided staff support for AC working groups on data management and moorings.	
COM2 Marine Resource Committees	M	●	Attended 9 North Pacific Coast Marine Resources Committee (NPC MRC) meetings. Provided review comments on various draft NPC MRC documents, and ratings on grant applicants. Drafted 2 articles for NPC MRC newsletter. Through revision of Advisory Council Charter, added MRC seat to Advisory Council. Facilitated presentation to AC by Surfrider Foundation representatives addressing citizen science, outer coast MRCs, and development of a coastal partnership. Attended Grays Harbor E3 Collaborative Workshop. Attended annual NPC MRC meeting with marine debris display. Attended annual joint MRC meeting. Assisted with development of NOAA Marine Debris grant through MRCs for derelict gear removal.	
COM3 Non-government Organizations	H	●	Participated in numerous planning meetings and implementation of the Washington Clean Coast Alliance volunteer beach cleanups on the outer coast. Coordinated logistics, materials distribution, recruitment and conducted trainings for volunteers. Over 1,300 volunteers participated, hauling away an estimated 20 tons of plastic water bottles, household trash, lost fishing gear, and other marine debris. Assisted The Nature Conservancy in development of grant for derelict gear removal. Presented at Surfrider sponsored community forum (Port Angeles) on marine debris.	
A3. Sanctuary Operations Action Plan				
OPS1 Vessel Infrastructure and Operations	H	◑	Completed routine end of field season maintenance. Conducted a noise audit on both vessels. Projects supported in FY12 included mooring program, volunteer cruise, habitat mapping, pelagic sea bird survey. Supported NOAA PMEL and NANOOS on an ad-hoc basis. Late season engine failure precluded completion of planned habitat mapping efforts. Total days at sea in FY12: 41- <i>Tatoosh</i> , 2- <i>RHIB</i> .	
OPS2 Facilities	H	●	Completed a five-year Facility Strategy and began work with partners on a pre-design study for a Port Angeles Marine Campus.	
OPS3 Annual Planning	H	●	FY12 AOP submitted and approved, quarterly reports submitted; oversaw budget, contracting and acquisitions.	
OPS4 Safe Operations	H	●	Implemented and drilled the new Emergency Notification System. Conducted monthly safety inspections of facilities and vessels. Staff completed required training and drills.	
OPS5 Staffing	H	◑	OCNMS added a second Deputy Superintendent, separating administration and operations duties from program implementation. A number of FTE and contract positions are currently unfilled due to uncertainty on the budget. Implemented contract for non-federal support services.	
OPS6 Volunteer Program	M	●	Coordinated volunteer activities, resulting in approximately 17,614 volunteer hours contributed to OCNMS programs. Organized volunteer enrichment programs and hosted volunteer appreciation events. Planned and hosted spring volunteer training for 7 new volunteers. Supervised a Port Angeles High School student on a Natural Resource Internship with AmeriCorps and North Olympic Peninsula Skills Center, who completed 300 hours supporting OCNMS programs.	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY12 AOP Status	Table Legend	
			Implementation Ranking: H – High M – Medium L – Low	Reporting Status for FY 2011 Activities: ○ – Not initiated or planned ◉ – Initiated 1-25% ◐ – Initiated 26-50% ◑ – Initiated 51-75% ● – Completed
			Status	
OPS7 Permitting and Consultation	H	●	Issued 10 OCNMS permits and contributed to 4 West Coast multi-sanctuary permits including 1 as lead organization. Participated in the national Permit Coordinator's quarterly calls. Due to limited availability of key staff, no progress was made on a National Historic Preservation Act Section 106 Programmatic Agreement.	
OPS8 Voluntary Compliance	M	◉	Overflight Outreach materials were completed, but not yet distributed. Outreach to the Cruise Ship Industry was completed. A federal register notice on the upcoming 12/1/2012 ATBA changes was completed.	
OPS9 Enforcement	L	◉	Conducted biannual TAC meetings. Worked with USCG to schedule C-130 enforcement flights. Consulted with NOAA Office of Law Enforcement on a number of incidents. Conducted overflight observation training with ONP rangers.	
OPS10 Implementation Reporting	H	●	Finalized OCNMS regulatory changes, which was the final step in the MPR process. Completed the first Management Plan Implementation Report for FY2011.	
B1. Habitat Mapping and Classification Action Plan				
MAP1 Regional Coordination	H	○	No specific goals were identified for 2012, however regional coordination proposals included: 1) Seafloor Mapping Consortium, to consolidate mapping efforts by agencies and universities; 2) Seafloor Mapping Cooperative, to develop capacity building and educational opportunities for agencies and tribes.	
MAP2 Seafloor Habitat Mapping	H	●	The FY12 multibeam survey season was limited due to engine trouble on the <i>RV Tatoosh</i> . In coordination with Quileute Tribe and WADNR we conducted a 1.3 nm ² survey of 1 st Beach and Quillayute Needles. Multibeam data for both initiatives have been processed.	
MAP3 Habitat Classification	H	●	Sediment analysis and data processing from 90 seafloor samples covering 331.5 nm ² has been conducted using a grab-mounted video camera that provides enhanced habitat classification capability. This ground truthed provides habitat classification parameters for 2008 <i>Okeanos Explorer</i> survey, 2010 <i>Fairweather</i> survey, and 2011 <i>Pacific Storm</i> survey.	
MAP4 Mapping Products	H	●	OCNMS met its FY12 objective of mapping 300 nm ² of the sanctuary through ground truthing, new multibeam data collection, and report generation. Reports include: " <i>Habitat Classification of Five Sites in the Northern OCNMS</i> "; " <i>Multibeam Mapping of Potential Deep-Sea Coral Habitats around Olympic 2 EFH</i> "; " <i>History of Seafloor Mapping in OCNMS 2000-2011</i> ". Three additional reports are in progress.	
B2. Physical and Chemical Oceanography Action Plan				
OCEO1 Coastal Mooring Program	H	●	Inventoried, replaced and calibrated moorings sensors. Prepared hardware and sensors for deployment, conducted servicing and data downloads with the <i>R/V Tatoosh</i> . Moorings retrieval and data compilation will occur early in FY 2013. Support for the NANOOS/APL mooring continues, which has included deployment of the UW glider that is linked to the NANOOS array, from the <i>R/V Tatoosh</i> and assisting with maintenance of PMEL's sensors. Participated on NANOOS governing council and attended annual meeting Continued discussion for having NANOOS serve as OCNMS data portal for oceanographic mooring data. Processing of archived sensor data completed for 2000-2011.	
OCEO2 Hypoxia	M	●	Hypoxic conditions were noted during mooring servicing, which led to intensified sampling effort to map extent. Updates of findings were provided to regional partners. Alerts were distributed to coastal partners to report unusual events for fish and inverts on beaches – fortunately none reported.	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY12 AOP Status	Table Legend	
			Implementation Ranking: H – High M – Medium L – Low	Reporting Status for FY 2011 Activities: ○ – Not initiated or planned ◐ – Initiated 1-25% ◑ – Initiated 26-50% ◒ – Initiated 51-75% ● – Completed
			Status	
OCEO3 Ocean Acidification	H	●	Participated in planning efforts for 2012 monitoring effort and continued participation on the West Coast Ocean Acidification Task Force to develop draft research and monitoring plans. Continued collection of nearshore oceanographic data that will be used with PMEL's algorithm for general OA trends. Recommended OCNMS be considered as an example for the sentinel site program for OA. Sent out inquiries to other groups to inventory other OA research/monitoring efforts within or adjacent to OCNMS. Provided OA presentations and educational resources at teacher workshops. Presented "Understanding Ocean Acidification" hands-on activities at Seattle Aquarium Family Science Weekend, an event that reaches nearly 9000 visitors. Attended Ocean in a High CO2 World International Symposium and Effective Practices in Communicating Ocean Acidification	
OCEO4 Harmful Algal Blooms	M	●	Continued participation in Olympic Region Harmful Algal Bloom (ORHAB) and assisted with monitoring and water sampling during mooring servicing.	
B3. Populations, Communities and Ecosystems Action Plan				
ECO1 Water Column Communities	L	○	No activities identified for FY12	
ECO2 Intertidal	M	●	Conducted intertidal monitoring at Grenville (Quinault reservation) and Kydikabbit and Sooes (Makah reservation). Completed entry of 2008-2010 data into MARINE database. Completed 2010 sand grain size analysis.	
ECO3 Subtidal	L	○	No activities identified for FY12	
ECO4 Benthic	M	●	No CRCP funding nor NOAA ship time precluded ROV surveys in 2012. However processing of DSC video data continued with additional site characterizations reports completed.	
ECO5 Fish	L	○	No field activities identified for FY12, though a Nancy Foster scholar began quantifying fish-habitat associations with archived OCNMS video data.	
ECO6 Marine Birds	M	◑	June and July pelagic seabird surveys off the <i>R/V Tatoosh</i> were completed with assistance of experienced volunteers. Vessel repairs precluded surveys in August and September. Continued working with WDFW for their spring-summer nearshore boat surveys for marbled murrelets and discussion on conducting year-round aerial surveys. Continued coordination of COASST citizen scientists along the outer coast.	
ECO7 Marine Mammals	M	●	Two marine mammal activities were conducted: 1) Participated in the FY12 annual sea otter census. 2) Created a modeling and mapping approach for grey whale observations to determine primary habitat usage from 10 years of Makah/NMML spatial data; produced 20 maps for publication by Makah biologists.	
ECO8 Stranding Network	L	●	Continued involvement with the Northwest Marine Mammal Stranding Network. Co-led with NMFS and USFWS a June stranding network training attended by ONP, WDFW and tribal staff. Served as interim lead (during the absence of the USFWS coordinator) for state-wide sea otter stranding hotline monitoring. . Attended annual stranding network meeting	
ECO9 Ecosystem Processes	M	◐	No projects were identified for FY12.	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY12 AOP Status	Table Legend	
			Implementation Ranking: H – High M – Medium L – Low	Reporting Status for FY 2011 Activities: ○ – Not initiated or planned ◉ – Initiated 1-25% ◐ – Initiated 26-50% ◑ – Initiated 51-75% ● – Completed
			Status	
B4. Data Management, Sharing and Reporting Action Plan				
DATA1 Data Quality Control and Management	H	◉	The data management process developed by OCNMS in 2011 and approved by the AC Data Management Working Group has been maintained. Lack of adequate staff time has slowed the summarizing of research and monitoring from historic years.	
DATA2 Data Distribution	H	◉	As a result of the data management protocols, FY12 data distribution included: 1) web-based sharing of 10 research and/or monitoring activities for 2011; 2) web-based sharing of 9 research and/or monitoring activities for 2010; 3) analyzing and summarizing 6 surveys from 2009; 4) analyzing and summarizing 13 surveys from 2008; 5) analyzing and summarizing 10 surveys from 2012; 6) development and sharing of web site providing critical information on OCNMS oceanographic mooring program including maps, data, and mooring sensor descriptions. Lack of adequate staff has slowed the process of summarizing and reporting current and historic data.	
DATA3 Adaptive Management	L	○	No activities were identified for FY12, however regular reports on data management and reporting progress were sent to the AC and IPC.	
DATA4 Condition Report	M	○	No activities identified for FY12	
C1. K-12 Education Action Plan				
ED1 K-12 Partnerships	H	●	OCNMS worked with regional education organizations to leverage resources for K-12 Ocean Literacy Programs. (see ED2 – Place Based Education) OCNMS and Seattle Aquarium completed the 6th year of Ocean Science. Staff also conducted NOW Science Program field trips at OCDC in partnership with Feiro for 4th-5th grade students. Education staff delivered a teacher workshop for 14 teachers from Clallam, Jefferson and Grays Harbor counties in partnership with the Seattle Aquarium, Makah Cultural and Resource Center, Feiro Marine Life Center and North Pacific Coast Marine Resource Committee. Marine Geographer conducted an in-service training at the Olympic National Park NatureBridge for 26 teachers from Kitsap and Clallam Counties. Education and Outreach Coordinator administers Pacific Northwest B-WET Grants, furnishing approximately \$180K to sanctuary partners in Washington coastal communities adjacent to OCNMS and \$180K to partners serving Oregon communities.	
ED2 Place-Based Education	M	●	OCNMS worked collaboratively with rural schools and tribal communities within the region adjacent to the Sanctuary to develop place-based education opportunities for K-12 students. Through a partnership with OCNMS and Seattle Aquarium, approximately 500 third, fourth and fifth grade students participated in Ocean Science classroom activities, field trips and field investigations. Twenty-two teachers and nearly 100 parents participated in 2011-2012 Ocean Science trainings and activities. Schools include Ocosta, Simpson, Ocean Shores, Pacific Beach, Taholah, Lake Quinault, Forks, Quileute, Neah Bay and Clallam Bay. Staff also conducted field trips at OCDC in partnership with Feiro Marine Life Center for 1646 4th-5th grade students, and summer "Jr. Oceanographer" programming for 72 students ages 5-12. Staff participated in the 4th Annual Franklin Elementary Science Night (exhibits and hands on science activities served over 500 children and parents of the Port Angeles community). Staff mentored two Port Angeles High School students with their Senior Culminating Projects regarding beach monitoring. .	
ED3 Regional Initiatives	L	●	OCNMS staff attended The 3rd International Symposium on the Ocean in a High CO2 World and Effective Practices for Communicating Ocean Acidification Workshop in Monterey, CA. OCNMS staff administer Pacific Northwest Bay-Watershed Education and Training Grants, awarding over \$360K to promote programs for K-12 students in watershed and Ocean Literacy education.	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY12 AOP Status	Table Legend	
			Implementation Ranking: H – High M – Medium L – Low	Reporting Status for FY 2011 Activities: ○ – Not initiated or planned ◉ – Initiated 1-25% ◐ – Initiated 26-50% ◑ – Initiated 51-75% ● – Completed
			Status	
ED4 Using Technology	L	●	OCNMS launched a new website http://olympiccoast.noaa.gov/ , including a section on Ocean Literacy. OCNMS uses its Facebook page http://www.facebook.com/usolympiccoastgov to promote the new website and topics of ocean literacy.	
C2. Higher Education Action Plan				
HED1 Internship Development	L	●	Three Interns (graduate and undergraduate students) supported Research, Resource Protection and Education programs.	
HED2 Volunteer Positions	L	●	Supervised Student AmeriCorps Intern through North Olympic Skills Center Natural Resources II class. As a result of completing 300-plus hours of work, the student receives an educational reward, three high school credits, as well as valuable career experience.	
HED3 College Partnerships	L	●	OCNMS staff provides ongoing support of Feiro Marine Life Center marine science lecture series.	
C3. Visitor Services Action Plan				
VISIT1 Visitor Experience	L	●	OCNMS operated the Olympic Coast Discovery Center (OCDC) to educate visitors and visiting school groups. Seven new volunteers participated in OCDC Volunteer Training. OCDC opened Memorial Day Weekend and was open daily 10-5 until Labor Day. A total of 1,646 students visited the OCDC and Feiro Marine Life Center during the 2011-2012 school years. OCDC had a total of 7,491 visitors in 2012, an increase of more than 475 from 2011. OCNMS hosted 8 ONP seasonal interpretive rangers for two days as part of the ranger's annual training program. OCNMS funded a grant to the Makah Cultural and Research Center to provide interpretive services at the Cape Flattery overlook on the Makah Reservation.	
VISIT2 Long-Range Interpretive Plan	M	◉	OCNMS staff and Advisory Council education representatives conducted an internal long-range interpretive workshop to review interpretive themes for the Long-Range Interpretive Plan. Significant progress was made on the development of whale trail signs.	
VISIT 3 New Technology	L	●	OCNMS launched a new website http://olympiccoast.noaa.gov/ . NOAA OCNMS Facebook page was created in September 2010, http://www.facebook.com/usolympiccoastgov and by the end of FY 2012 had over 700 fans from 25 different countries.	
C4. Community Outreach Action Plan				
OUT1 Stewardship and Citizen Science	L	●	OCNMS provided training and staff support to Coastal Observation and Seabird Survey Team (COASST), Washington CoastSavers, and other volunteer programs in the Sanctuary. Staff participated in planning for the Washington Clean Coast Alliance volunteer beach cleanups, conducted Beach Captain Training for fourteen Clallam County AmeriCorps members, and organized registration stations and coordinated volunteers at the Makah and Hoh Tribal reservations and Olympic National Park Kalaloch Beach. Staff initiated National Public Lands Day Ozette Cleanup in partnership with Olympic National Park. Staff provided regular COASST trainings at Hobuck Beach. Staff tracked and reported COASST volunteer time and data. Staff attended the North Pacific Coast Marine Resources Committee annual event, <i>Ocean and River Resources Fair</i> , and presented displays on marine debris, COASST and Ocean Science programs.	
OUT2 Staff Presence on Outer Coast	L	○	No activities identified for FY12.	
OUT3 Community Events	M	●	OCNMS staff maintained a presence at community events and meetings in the Sanctuary region. Major public events included Makah Days, Dungeness Crab and Seafood Festival, Seattle Aquarium's Family Science Weekend, Ocean Shores Beachcomber's Fun Fair, Grays Harbor Shorebird Festival and Ocean and River Resources Fair. OCNMS supported Feiro Marine Life Center speaker series.	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY12 AOP Status	Table Legend	
			Implementation Ranking: H – High M – Medium L – Low	Reporting Status for FY 2011 Activities: ○ – Not initiated or planned ◉ – Initiated 1-25% ◐ – Initiated 26-50% ◑ – Initiated 51-75% ● – Completed
			Status	
OUT4 Community-Based Efforts	L	●	OCNMS staff maintained a presence at community events and meetings in the Sanctuary region. Major public events included Makah Days, Dungeness Crab and Seafood Festival, Seattle Aquarium's Family Science Weekend, Ocean Shores Beachcomber's Fun Fair, Grays Harbor Shorebird Festival and Ocean and River Resources Fair. OCNMS supported Feiro Marine Life Center speaker series. OCNMS supported coastal cleanups including Washington Clean Coast Alliance events, Clallam County Earth Day and National Public Lands Day Ozette Coast beach cleanups. OCNMS staff participated in numerous MRC meetings (see COM2).	
D1. Spills Prevention, Preparedness, Response and Restoration Action Plan				
SPILL1 ATBA Management, Compliance and Monitoring	H	●	OCNMS continued working with the Canadian CG on difficulties with access to ATBA monitoring data. Reviewed, streamlined and implemented new outreach procedures using Marine Exchange AIS data. Completed the 2011 ATBA compliance analysis and submitted to WDE for inclusion in their annual VEAT report. OCNMS drafted a federal register notice on the IMO expansion of the applicability of the ATBA from vessels 1600 gross tons down to 400 gross tons. The changes are effective on 12/1/2012.	
SPILL2 Regional Vessel Management Forums	L	○	No activities identified for FY12.	
SPILL3 Regional Planning and Training Exercises	H	◐	No annual meeting of the NW Area Committee occurred in FY12. Participated in Ecology's Contingency Plan Advisory Group and provided comments on draft rule. Limited staff availability prevented participation in regional training exercises.	
SPILL4 Outer Coast Trustees Working Group	M	○	No activities identified in FY12. Authored article in NPC MRC newsletter on importance of local spill response assets and training.	
SPILL5 OCNMS Organizational Response Plan	H	◉	Met with Gulf of the Farallones NMS staff to review organizational response plan format, but further development of a cultural and natural resource database tool for OCNMS was not advanced.	
SPILL6 Damage Survey and Assessment Protocols	H	○	No activities identified for FY12.	
D2. Climate Change Action Plan				
CLIM1 Climate Smart Sanctuary Program	L	◉	OCNMS continued working with Washington Sea Grant and an expert working group to produce a climate change document for the Olympic Coast. Work on a carbon foot print audit was planned, but was not initiated.	
CLIM2 Sanctuary as Sentinel Site	M	○	No activities identified for FY12	
CLIM3 Resilient Ecosystems	L	○	No activities identified for FY12	
CLIM4 Communicating Climate Change	L	◉	Worked with NOAA Fisheries Science Center to present "Understanding Ocean Acidification" hands on activities at Seattle Aquarium Family Science Weekend, with nearly 9,000 children and adults in attendance. Presented on ocean acidification to 30 Washington state instructors attending a weekend workshop on climate change. OCNMS staff attended The 3rd International Symposium on the Ocean in a High CO2 World and Effective Practices for Communicating Ocean Acidification Workshop in Monterey, CA.	
D3. Marine Debris Action Plan				
MD1 Submerged or Floating Debris	H	●	Assisted with development of an outer coast MRC proposal led by The Nature Conservancy for derelict gear removal. Participated in a regional meeting to develop an invasive species response plan for Japan tsunami debris.	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY12 AOP Status	Table Legend	
			Implementation Ranking: H – High M – Medium L – Low	Reporting Status for FY 2011 Activities: ○ – Not initiated or planned ◉ – Initiated 1-25% ◐ – Initiated 26-50% ◑ – Initiated 51-75% ● – Completed
			Status	
MD2 Beach Debris	H	●	With partners, planned and implemented April 2012 beach cleanup; updated site plans for coordination of activities and staffed registration stations at Neah Bay, Hoh Reservation, and Kalaloch. Worked on team to facilitate recycling of waste materials collected during the beach cleanup. Led a breakout session at regional workshop and drafted a section of the state tsunami debris response plan on shoreline debris monitoring. Awarded funding from NOAA Marine Debris Program and initiated quantitative shoreline debris monitoring for WA state. Partnered with Sea Grant and WWU in proposal (funding was awarded) for analysis of historic shoreline debris monitoring data. Obtained funding from ONMS for beach cleanup support (disposal fees) in collaboration with local communities.	
D4. Wildlife Disturbance Action Plan				
WD1 Outreach on Wildlife Disturbance	L	○	Some activities were identified in FY2012, but were not implemented due to lack of resources.	
WD2 Overflight Restriction Zone	L	◐	Overflight regulations were updated and included on FAA aeronautical charts. Overflight outreach materials were drafted, but not yet distributed. Web materials on overflights were updated. Trained Olympic National Park rangers on overflight observations.	
WD3 Marine Mammal Disturbance	M	○	No activities identified for FY12.	
D5. Water Quality Action Plan				
WQP1 Vessel Discharges	H	●	At the annual NWCCA MOA meeting, OCNMS briefed the cruise ship industry on new OCNMS regulations.	
WQP2 Contaminants	L	●	Assisted with Mussel Watch sampling at Cape Flattery with WA Department of Fish and Wildlife and North Pacific Coast Marine Resources Committee. Assumed responsibility for coordination of future Mussel Watch sampling efforts.	
D6. Habitat Protection Action Plan				
HP1 Threat Assessment and Mitigation	M	○	No activities identified for FY12	
HP2 Habitats of Special Importance	H	◉	Continued participation on the Pacific Fishery Management Council's (PFMC) Essential Fish Habitat (EFH) Review Committee. Reviewed and commented on the draft Phase I EFHRC report.	
HP3 Invasive Species	M	○	No activities identified for FY12	
D7. Regional Ocean Planning Action Plan				
MSP1 Marine Spatial Planning	L	◐	Consulted with the Washington State Ocean Caucus on how OCNMS could support the state's efforts in implementing CMSP. Facilitated CMSP training and submitted a proposal on habitat mapping.	
E1. Maritime Heritage Action Plan				
MH1 Cultural Resource Conservation	L	○	While no activities were identified for FY12, we conducted high resolution bathymetric surveys of 5 mooring sites to evaluate the potential for impact to historical resources.	
MH2 Local and Customary Knowledge	L	○	No activities identified for FY12.	
MH3 Public Understanding of Treaty Rights	L	○	No activities identified for FY12.	
E2. Socioeconomic Values of Sanctuary Resources Action Plan				
SV1 Existing Socioeconomic Information	L	○	No activities identified for FY12. Presentations provided to the AC on regional socioeconomic studies and ONMS projects.	
SV2 New Socioeconomic Information	L	○	No activities identified for FY12.	