

Olympic Coast National Marine Sanctuary

2015 Management Plan Implementation Report: Year Four



November 2015

Cover Photo: Participants in the Hoh Tribal Watershed Adventure Camp play in the ocean surf on the Hoh Reservation, adjacent to Olympic Coast National Marine Sanctuary (OCNMS 2015).

I. Introduction

This document is the fifth annual report on implementation of Olympic Coast National Marine Sanctuary's 2011 management plan. The four previous annual reports can be found at <http://olympiccoast.noaa.gov/management/management101.html#effectiveness>. Annual management plan implementation reports are based on the federal government's fiscal year (FY). This report covers FY 2015, the period from October 1, 2014 through September 30, 2015. In 2008 Olympic Coast National Marine Sanctuary (OCNMS or sanctuary) began work to update the original 1994 management plan. The [OCNMS Final Management Plan and Environmental Assessment](#) 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 Plan on the action plans in the revised management plan and began implementation of 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. FY 2015 is the fourth official year of implementation or "Year Four" under 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 work 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 that required 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 OCNMS 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

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

II. Implementation Highlights

FY 2015 is “Year Four” for implementation of OCNMS’ management plan. Significant accomplishments, organized by management priority issues, are summarized below, while the table entitled “Implementation by Action Plan” summarizes progress made on all action plans and strategies.

FULFILL TREATY TRUST RESPONSIBILITY

Permit Consultation Protocol Established with Makah Tribe

Following a government-to-government meeting with the Makah Tribe in January 2015, Olympic Coast National Marine Sanctuary finalized a protocol that establishes a cooperative and timely process for consulting with the tribe on sanctuary permit requests and issuance. The sanctuary regularly issues permits for regulated activities that occur within the usual and accustomed fishing grounds of Native American treaty tribes. Most sanctuary permits support research and educational efforts. Whereas the sanctuary completes an assessment of impacts to natural and cultural resources associated with each permit request, the federal government’s fiduciary responsibility for treaty tribes requires consideration of potential impacts of permitted activities to tribal interests. The Makah Tribe is recognized as the most appropriate entity to make the determination of their interests. This permit consultation protocol established a standardized process that defines expectations for notification, document sharing, timeframes for response, and points of contact so that both parties have a common understanding, and effective consultation can proceed in an efficient manner.

ACHIEVE EFFECTIVE AND COORDINATED MANAGEMENT

Sanctuary and Intergovernmental Policy Council Collaborate on Habitat Framework

The Habitat Framework is a joint effort by the IPC and OCNMS to build a comprehensive catalog of marine and coastal data that will improve management initiatives such as ecosystem-based management, marine spatial planning, habitat protection and contribute to integrated ecosystem assessments. Moreover, the Habitat Framework – based on the NOAA Coastal and Marine Ecological Classification Standard (CMECS) – can help identify knowledge gaps and coalesce multi-agency partners with shared priorities and available resources to address timely research and management issues. OCNMS is providing technical support and linkages with state and federal agencies and academic institutions. To date, OCNMS and the IPC have held focus group meetings where academic and agency experts provided observed and modeled data. Seafloor sediment data have also been classified using the CMECS scheme, bringing current and historic ocean bottom surveys into the Habitat Framework. More than 25 unique data sets have been identified for shoreline, nearshore, shelf, and offshore classification in CMECS. Since the Habitat Framework is one of the most significant applications of CMECS since its approval by the Federal Geographic Data Committee in 2012, OCNMS is currently networked with NOAA’s National Marine Fisheries Service and Office of Coastal Management for ongoing support through the development, implementation, and distribution phases of the project.

Strong Partnership between OCNMS and U.S. Coast Guard (USCG) 13th District Continues

OCNMS leadership and staff met with RADM Gromlich, Commander of 13th District USCG and his staff to discuss collaboration across multiple aspects of our respective organization's mission and operations. As governed by a Memorandum of Agreement, the two organizations meet annually to review progress and identify future strategic priorities including vessel traffic monitoring, operational protocols, investigations of incidents within OCNMS, enforcement patrols and reporting, and USCG participation on the OCNMS Advisory Council. OCNMS has enjoyed a good working relationship with USCG 13th District, with strong support from the highest levels of command, which is especially critical as USCG staff rotate out every two to three years.

Sanctuary Participates in Washington CoastSavers Cleanups and Strategic Planning

Olympic Coast National Marine Sanctuary staff joined an annual meeting of Washington CoastSavers to define strategic priorities for future program sustainability, growth, and impact. Washington CoastSavers coordinates two annual beach cleanup events that engage more than



Figure 1: Some of the 1,500 Washington Coast Cleanup volunteers

1,000 volunteers in the marine stewardship work of removing debris from hundreds of miles of Washington's shoreline. The Strategic Plan will be refined at a workshop planned for November 2015. Program growth in recent years includes significant expansion of geography covered and public engagement in a new Rivers & Oceans-themed film festival and a Trashion fashion show with outfits made from marine debris. Sanctuary staff provided support to the CoastSavers' Hobuck Beach registration station for April and September cleanups and lead teams that target debris removal from remote locations on the Makah reservation.

CONDUCT COLLABORATIVE RESEARCH, ASSESSMENTS AND MONITORING TO INFORM ECOSYSTEM-BASED MANAGEMENT

Sanctuary Continues Ongoing Oceanographic Monitoring While Looking to the Future

Olympic Coast National Marine Sanctuary continued its near-shore oceanographic mooring program during the 2015 summer field season with the deployment of instrumented buoys between Makah Bay and Cape Elizabeth. Ten mooring buoys were positioned in nearshore waters at 15 and 42 meters depth at five locations. The mooring buoys were deployed from the sanctuary's research vessel, *R/V Tatoosh*, in late May. They were regularly serviced for cleaning, examination, battery replacement and data download and were recovered in early October before harsh winter ocean conditions develop. Unfortunately, OCNMS was unable to recover the two southernmost moorings in October. This program was initiated in 2000 to monitor water quality and currents, plankton density (including harmful algal blooms), upwelling and low oxygen events that affect marine life, as well as human health in the region. Data collected includes

ocean temperature, conductivity (salinity), current velocity and direction, dissolved oxygen, fluorescence (a proxy for plankton) and turbidity.

The Advisory Council's Oceanographic Monitoring Group (OMG) was tasked with assessing the deployment of the sanctuary moorings under various budget scenarios in order to identify recommendations to maximize the efficiency of the sanctuary mooring array and to identify the most useful and relevant data to be collected by the moorings. Recommendations included:

- 1) Mooring locations that would provide the longest time series was of vital importance, with the deeper (42m) moorings being a priority. If more than five moorings can be deployed, the priority would be to continue the shallower (15m) moorings starting in the south part of the sanctuary;
- 2) Key parameter to be measured, with existing instrumentation, are temperature/salinity/dissolved oxygen - the triplet of parameters used in aragonite saturation models;
- 3) If increased funding becomes available, program development should focus on obtaining newer, better sensors to directly measure total alkalinity and dissolved inorganic carbon; and
- 4) It was decided that no major changes should be made to the current mooring design in order to ensure consistency with the long term dataset.

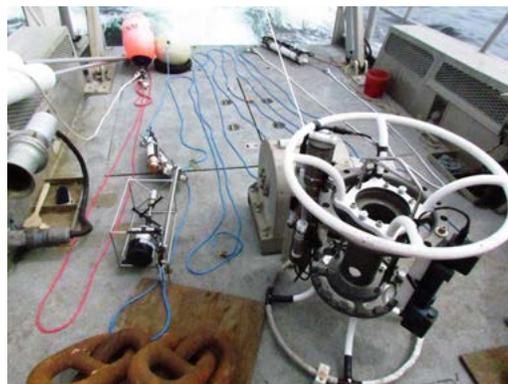


Figure 2: Mooring laid out for deployment on R/V Tatoosh deck

Ocean Acidification a Major Concern for the Washington Coast

On June 26, sanctuary staff attended a 2015 Science Symposium hosted by the University of Washington's Ocean Acidification Center. The day-long symposium focused on presentations by regional experts, with results of field observations, biological experiments, modeling and forecasting and other research relevant to ocean acidification in Washington's waters. Presentations were followed by a plenary discussion of emerging science and critical information gaps. The symposium provided a great opportunity to identify potential collaborations for better monitoring ocean acidification within the sanctuary.

The Sanctuary Advisory Council's Climate Change Working Group reviewed the sanctuary's Climate Change Action Plan and identified priorities and recommendations for updating and implementing the plan. A priority recommendation of the working group was to "Work with partners to propose to NOAA leadership that OCNMS be designated as a NOAA Sentinel Site for ocean acidification and/or sea level rise." OCNMS is an ideal candidate to serve as a sentinel site for ocean acidification (OA) in the Pacific Northwest, as the effects of OA strongly impact the outer coast and can be detected prior to entering the Strait and Puget Sound.

NOAA Collaboration on Surveys to Assess Sea Otter Effects on Nearshore Habitats

Two teams of NOAA scientists joined forces to complete subtidal dive surveys in nearshore waters of Washington's outer coast. Survey transects replicated work completed in past decades to evaluate changes associated with re-introduction and expansion of the sea otter population along the outer coast of Washington. The northern sea otter (*Enhydra lutris kenyoni*) was hunted to local extinction in the early 1900s as a result of the fur trade. The current sea otter population has grown from 59 individuals introduced in 1969 and 1970, to approximately 1,600 individuals.



Figure 3: NWFSC Dive Team in OCNMS

Washington's sea otters now occupy a primary range north of Cape Elizabeth to Tatoosh Island, with some venturing into the Strait of Juan de Fuca and Salish Sea. Sea otters are a well-documented keystone species, with feeding habits that have a significant influence on nearshore marine communities. This research is a collaboration between OCNMS and NOAA Fisheries' Northwest Fisheries Science Center, which provided staff time and expertise from its scientific dive team. OCNMS also hosted a NOAA Nancy Foster Scholar, Jessica Hale, a graduate student studying sea otter foraging patterns. In addition to Jessica's sea otter work she has assisted the sanctuary in a review of ecosystem indicators relevant to a future sanctuary Condition Report.

Advances in Seafloor Mapping

The past year saw significant gains in seafloor mapping off the coast of Washington. Building on many years of hard work the sanctuary and partners consolidated past surveys and prioritized future efforts. A Washington Outer Coast Seafloor Atlas was developed through a partnership between OCNMS, Washington State Department of Natural Resources and Oregon State

University (OSU). Thirty-five OCNMS surveys conducted over 15 years were re-processed and edge-matched by the OSU Active Tectonics Lab. The Atlas covers 900 square miles of the northern extent of the sanctuary. It is currently being prepared for web access and download by the public. The atlas will be updated as new surveys are completed.

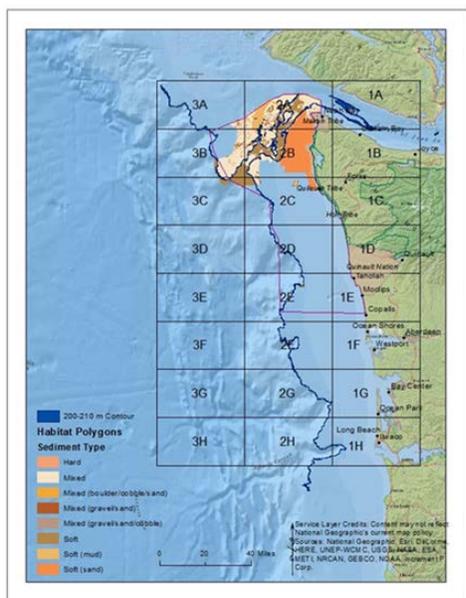


Figure 4: Washington Seafloor Atlas

University (OSU). Looking to these future surveys, OCNMS participated in a Seafloor Mapping Prioritization Workshop in support of the Washington State Marine Spatial Planning Process. OCNMS Geographer was part of the technical team that planned the workshop. Regional resource managers and technical staff from 18 agencies were briefed on a process for prioritizing different areas for mapping based on management needs. The results of the Seafloor Mapping Prioritization Workshop demonstrated the importance of the Outer Coast Seafloor Atlas geography for multiple management issues.

IMPROVE OCEAN LITERACY

Hoh Tribal Adventure Camp Focuses on Climate Change and Tribal Treaty Rights

OCNMS education staff joined Hoh Tribe Natural Resources staff and Hoh Tribe Youth Support Services to conduct a four-day rafting and overnight Watershed Adventure Camp for 20 Hoh Tribal members ages 5-19.

The Adventure Camp started at the Hoh Rainforest in Olympic National Park and finished at the mouth of the Hoh River and OCNMS. The camp focused on connecting tribal culture, treaty rights, harvesting traditional resources and climate change issues on resource sustainability and resilience. Cultural expert and anthropologist Jay Powell, fluent in Quileute, and his wife, Vickie Jensen, participated in the four-day journey, teaching participants their Quileute language, as well as identifying important and traditional resource harvesting sites within the tribe's usual and accustomed areas. Activities included traditional songs, prayers and story-telling, harvesting of native berries and plants with traditional uses, rafting 30 miles down the Hoh River, comparing western science and watershed management to traditional relationships with the Hoh River watershed, exploring the intertidal areas at Kalaloch Beach 4 and OCNMS, and preparing a community feast.



Figure 5: Hoh youth raft 30 miles down the Hoh River

NOAA Pacific Northwest B-WET Program Awards \$450,238 for Environmental Education

NOAA's Pacific Northwest Bay Watershed Education and Training (B-WET) program announced \$450,238 in awards to Washington and Oregon organizations to assist with community-based environmental education programs. The grants support standards-based, hands-on education activities that promote greater understanding about watersheds, the ocean and protected areas like NOAA's Olympic Coast National Marine Sanctuary. The 2015 Pacific Northwest B-WET recipients include The Nooksack Salmon Enhancement Association, Mid-Columbia Fisheries Enhancement Group, Seattle Aquarium, Port Townsend Marine Science Center, Pacific Education Institute, Feiro Marine Life Center, Suquamish Tribe, Oregon Department of State Lands and Oregon State University. The Pacific Northwest B-WET regional program is managed by NOAA's Office of Education and NOAA's Olympic Coast National Marine Sanctuary.



Figure 6: Ocean Science Students conduct Intertidal Investigations

Students Explore A Sense of Place and Learn about Local Watersheds

Approximately 1,400 4th-5th grade students participated in hands-on, inquiry-based science activities related to their local watershed through Ocean Science and North Olympic Watershed (NOW) Science programs. Students received classroom preparation, followed by a full day of experiential learning, field investigations at their local watershed or beach, water quality data collection, observation and marine debris

stewardship activities. Participating schools include Clallam Bay, Quileute Tribal School, Queets Clearwater, Lake Quinault, Taholah, Pacific Beach, Ocosta, Ocean Shores, Simpson and all Port Angeles and Sequim elementary schools. Ocean Science is a collaborative effort between Feiro Marine Life Center, OCNMS and Seattle Aquarium supported by NOAA Marine Debris, North Pacific Coast and Grays Harbor marine resources committees. NOW Science is a collaborative effort with Feiro Marine Life Center, OCNMS, Olympic National Park and City of Port Angeles, supported by Haller Foundation, Port Angeles School District, and Washington Department of Fish and Wildlife ALEA program.

Teachers, Students and Community Audiences Learn the Ocean's Recipe for Success

OCNMS provided ocean acidification (OA) education to teachers, students, and community audiences from around the Pacific Northwest region, adding to the growing OA literate community. Sixth-seven teachers from Washington, Oregon and Idaho participated in teacher professional development workshops supported by OCNMS in partnership with NatureBridge Olympic and Oregon State University. Teachers performed engaging hands-on activities, experiments and games, and were provided OA resources, including the Oceans Recipe for Success curriculum, to be implemented in their classrooms. Additionally, OCNMS provided OA education to over 100 students, introducing them to national marine sanctuaries, and then leading them through Ocean's Recipe for Success activities. Students conducted experiments representing ocean pH and the changing ocean environment, and investigated potential OA impacts to marine organisms. OCNMS staff and trained volunteers also provided OA outreach to approximately 10,000 visitors at the annual Dungeness Crab and Seafood Festival, as well as to guests of Olympic Coast Discovery Center. OA education and outreach activities culminated in positive discussions on actions we can take to help mitigate the impacts of a more acidic ocean environment.

Seattle's Pacific Science Center Features Olympic Coast NOAA Kiosk

OCNMS is now featured at Seattle's Pacific Science Center with a newly installed NOAA National Marine Sanctuary Interactive Touch Screen Kiosk. The kiosk offers a high-impact visual and auditory showcase of all the treasures the sanctuary has to offer. With the click of a button, users learn about the various activities of the sanctuary, including: educational and outreach programs, research projects and resource protection programs as well as extensive information about species, habitats, history and culture. Visitors can also use the kiosk for up-to-the-minute reports on weather and ocean conditions. Pacific Science Center ranked as one of the Top Ten Science Centers worldwide with visitation at 1.6 million people. Two additional NOAA National Marine Sanctuary kiosks are planned for Olympic Peninsula locations in 2016, including Kalaloch Lodge in Olympic National Park and Forks Visitor Center. Both locations were identified through the Sanctuary Advisory Council working group as the most favorable and appropriate sites to install the educational kiosks.



Figure 7: OCNMS Kiosk at Pacific Science Center

Olympic Coast National Marine Sanctuary Engages the Public through Tourism

OCNMS focused on tourism related activities throughout the region. Working with West Coast Region National Marine Sanctuaries, OCNMS developed and distributed a travel writer's brochure that was made available at the International Press Conference showcasing the many destination opportunities of west coast sanctuaries. Other efforts to promote visitation along Olympic Coast included Get Into Your Sanctuary Day "Healthy Ocean – Healthy You!" at Kalaloch Lodge, with yoga on the beach, a beach clean-up with Surfriders Foundation and a presentation on our southern resident orca whales by Lynne Barre with NOAA Fisheries. Olympic Culinary Loop contributed to Get Into Your Sanctuary Day by offering sustainable seafood menu specials throughout Olympic Peninsula. OCNMS staff also attended monthly meetings with Olympic Peninsula Tourism Commission (OPTC), attended the OPTC Tourism Summit and supported efforts to reach travel writers coming through the Olympic Peninsula. Connecting with local tourism groups had an additional benefit of bringing an individual with their finger on the pulse of area tourism onto the Sanctuary Advisory Council as the Tourism and Recreation seat.

CONSERVE NATURAL RESOURCES IN THE SANCTUARY

Sanctuary Hosts Interagency Consultation on Navy Activities in Northwest Region

OCNMS was joined by the Office of National Marine Sanctuaries' Conservation Science and Policy and Planning division and NOAA General Counsel in consultations with regional and national Navy and NOAA Fisheries representatives on Navy activities in sanctuary waters off Washington State. The Navy has finalized an environmental impact statement covering a wide variety of training and testing activities, which occur over broad areas of the Pacific Coast between northern California and Washington, as well as Puget Sound and Alaska. NOAA Fisheries plans to issue an authorization on the taking of marine mammals associated with Navy activities. Interagency consultation is required under section 304(d) of the National Marine Sanctuaries Act if a federal agency is undertaking actions likely to injure sanctuary resources. The Navy and NOAA Fisheries completed a joint Sanctuary Resource Statement, a document that narrows the analysis to activities and potential impacts specifically to sanctuary waters and associated resources. In response, the Sanctuary Superintendent provided recommendations to the Navy and National Marine Fisheries Service for measures to reduce injury to marine mammals and improve information available for future assessment through reporting and monitoring. The sanctuary's rationale included consideration for or avoidance of portions of sanctuary waters where impacts to marine mammals are potentially greater.

Sanctuary Updated Incident Response Protocols

Olympic Coast National Marine Sanctuary (OCNMS) drafted an Incident Response Plan (plan) to update existing procedures. The plan is primarily a job aid for OCNMS staff during initial stages of an incident within the sanctuary and provides guidance on immediate actions that should be taken when notified of a vessel incident, spill or marine mammal stranding. The plan defines staff functions, provides online resources, and includes OCNMS 2015 training plan. Recommendations are provided on how OCNMS staff would support responses conducted under the Northwest Area Contingency Plan, the official oil spill response plan for Washington,

Oregon and Idaho. OCNMS' plan is designed to be updated annually based on existing staff resources and training requirements.

Sanctuary Investigates Report of Ocean Dumping

The Office of National Marine Sanctuaries authorized the investigation of reported ocean dumping in the vicinity of Cape Flattery within both the Makah Tribe's usual and accustomed fishing area and sanctuary boundaries. In 2013, a Makah fisherman pulled up several crushed cars in his trawl net. A survey utilizing side-scan sonar and a remotely operated vehicle (ROV) was conducted to locate and document the debris on the seafloor. OCNMS and the Makah Tribe observed the survey, which successfully located and documented debris. NOAA is currently examining the collected information and determining a course of action.



Figure 8: ROV operations off Cape Flattery

Maritime Industry and US Coast Guard Support Sanctuary Protective Measure

OCNMS released its annual report on estimated compliance in its Area to be Avoided (ATBA), which was established to protect sanctuary resources. Designated in 1994 by the International

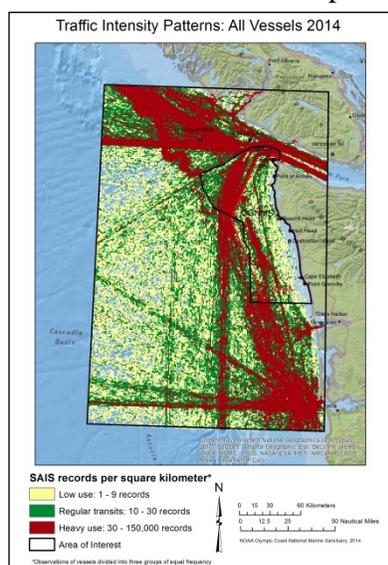


Figure 9: Vessel Monitoring Product

Maritime Organization, the ATBA is a voluntary vessel-routing measure that requests all vessels 400 gross tons (GT) and above transiting the area to stay a safe distance offshore, thereby mitigating the potential impact from spills and allowing more time for assistance to disabled vessels. OCNMS monitoring estimates 2014 compliance at 98 percent. Monitoring data show 4,676 transits of vessels over 400 GT through the sanctuary, with 104 vessels passing through the ATBA. The sanctuary works with the Canadian and U.S. Coast Guards to conduct outreach to non-compliant vessels to seek future compliance. OCNMS staff also met with the U.S. Coast Guard (USCG) Sector Puget Sound Commander and the Chief of the Prevention Department to discuss joint ATBA monitoring and outreach efforts. OCNMS briefed USCG on the above results of 2014 monitoring and the USCG shared ideas on further improving the excellent compliance record. The annual report can be found online at: http://olympiccoast.noaa.gov/protect/incidentresponse/2014_aix.pdf.

UNDERSTANDING THE SANCTUARY'S CULTURAL, HISTORICAL AND SOCIOECONOMIC SIGNIFICANCE

Socioeconomic Profiles of Recreation Users of the Outer Coast of Washington

NOAA's National Centers for Coastal Ocean Sciences (NCCOS) partnered with the Office of National Marine Sanctuaries (ONMS) to address the socioeconomic research needs of OCNMS.

This NOAA collaboration expanded a Washington State supported Point97/Surfrider study, documenting recreational use of the outer coast to inform Washington's marine spatial planning initiative. Additional data was collected to support both the efforts of both NOAA and Washington State. The NOAA expansion of Washington's sponsored study was intended to estimate the non-market economic value of natural resources on the outer coast, as well as gather other important information for OCNMS, including demographic profiles, recreational activity profiles, expenditure profiles, economic impact and contribution expenditures on local area economies, importance-satisfaction ratings for natural resources, facilities and services, user preferences for common wildlife species and index of the "environmental worldview" of recreational users from Washington. Findings from this study are presently being summarized and published for use by OCNMS and other interested resource management agencies.

FY 2015 Challenges

The budget process and extended continuing resolution continued to make program planning difficult in FY 2015. The overall ONMS budget has remained level funded for a number of years while fixed costs have continued to rise. This has resulted in less and less 'discretionary' funding for OCNMS programs. OCNMS was able to temporarily overcome this in FY15 due to labor savings from the retirement of a Research Coordinator. However, this also resulted in remaining staff taking on additional duties until a new research coordinator can be hired.

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. The *R/V Tatoosh* suffered a number of failures this field season (engine/clutch issues, etc.) resulting in approximately 30 lost days-at-sea during the field season.

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 2015.

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.

Management Plan Year	Survey activity
FY 2011 – year zero	no activity
FY 2012 – year one	survey completed
FY 2013 – year two	no activity
FY 2014 – year three	no activity
FY 2015 – year four	no activity

Status: In FY 2012 the University of Michigan School of Natural Resources and Environment and the Office of National Marine Sanctuaries supported a team of four graduates in an external assessment of its institutional relationships. The external assessment addressed both Strategy

CCM1: External Evaluation and Performance Measure 1. The 18-month assessment included interviews and a survey of key individuals within OCNMS's institutional network. The report is available for download at <http://www.snre.umich.edu/ecomgt/pubs/projects.htm>.

OCNMS staff considered the utility of developing a Web survey tool for this effectiveness evaluation and the value of conducting annual surveys with a limited sample size, and concluded that resources are not available to conduct this on an annual basis. While the importance of this stated outcome has not changed, OCNMS currently is not able to report on this performance measure. In FY 2016 OCNMS will begin investigating the possibility of repeating a similar study and evaluation in FY 2017.

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.

Management Plan Year	Public Attendance	AC & Volunteer Hours
FY 2011 – year zero	28	17,603
FY 2012 – year one	31	20,934
FY 2013 – year two	38	18,958
FY 2014 – year three	63	22,085
FY 2015 – year four	43	22,603

Status: Year Four showed an increase in volunteer hours and decrease in public attendance at hosted events.

- 1) In FY 2015 OCNMS hosted a total of six Advisory Council meetings with 43 individuals from the public participating in one or more meetings. Meeting locations were La Push, Port Angeles (twice), Fork, Neah Bay, and Taholah. Advisory Council members and individuals participating in Advisory Council working groups contributed an estimated cumulative total of 2,162 hours in support of OCNMS in FY 2015. Estimated hours include the efforts of two working groups and two subcommittees (compared to two working groups from the previous year). Advisory Council resolutions and recommendations are posted at: http://olympiccoast.noaa.gov/involved/sac/sac_actions.html. The number of public attendees decreased possibly due to a council action to discontinue the Youth Participation Program, a trial initiative in FY14 that involved invited high school students to participate in, or observe, meetings.

In FY15 a joint Intergovernmental Policy Council and Sanctuary Advisory Council meeting was conducted (November 2014 in La Push), the first time in two years.

In FY15 a national sanctuary advisory council Chairs Summit was not conducted, but one is planned for FY16.

2) Volunteers contributed 20,441 hours towards OCNMS programs for Education and Outreach, Research, and Resource Protection. The estimated dollar value of OCNMS volunteer activity is \$441,934.42 (calculated at \$21.62/hour according to AARP Bulletin <http://www.aarp.org/giving-back/volunteering/info-12-2011/value-of-volunteers.html>). Volunteer hours for each program and the estimated value of volunteer activity are:

- Olympic Coast Discovery Center/Education and Community Outreach – 1,182 hours. Estimated value of \$25,555
- COASST (dead seabird surveys) and NOAA Marine Debris shoreline monitoring – 3,925 hours. Estimated value \$84,858.50
- *R/V Tatoosh* Field Operations and Research –78 hours. Estimated value \$1,686
- Washington and International Coastal Cleanups – 15,085 hours. Estimated value \$326,138
- OCNMS Clerical Assistance –98 hours. Estimated value \$2,119

Outcome 2 was also supported by active OCNMS participation as an ex-officio representative on an outer coast marine resources committee, including attendance and presentations at 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, ground-truth, characterize, and/or analyze habitats have been completed.

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

Management Plan Year	Mapping nm ²	Ground-truthing nm ²	Characterization nm ²
FY 2011 – year zero	130	86.4	128
FY 2012 – year one	16.1	331.5	86.4
FY 2013 – year two	3.9	5.2	162.4
FY 2014 – year three	3*	0	230.0
FY 2015 – year four	10	0	900.8

Status: Significant effort was invested in fine-tuning the multibeam mapping hardware and software for the *R/V Tatoosh* in 2015. The Applanix POS MV Inertial Movement Unit and Reson 8101 mapping system was reviewed by the OCNMS field crew and consultants from Seahorse Geomatics to provide the highest level of accurate mapping available from the *R/V Tatoosh*. Upgraded 2015 Hypack, CARIS, and ArcGIS software packages were applied to the data collection and processing of new fine-scale multibeam data. The time and effort spent improving the multibeam data quality reduced the number of mapping days on the water. Nevertheless, approximately 10 square miles of rocky sub-tidal between the Quillayute Needles and the Giants Graveyard, south of La Push, were mapped.

The most significant effort for 2015 was the completion of the West Coast Seafloor Atlas, a mapping project co-funded by Oregon State University, WA Dept. of Natural Resources, and OCNMS. Thirty-five sidescan and multibeam sonar surveys from 2000-2014 were edge-matched, and 900 nm² of seafloor habitats were characterized using both the Greene et al. and

CMECS classification schemes. In addition, the projects produced greater than 1000 nm² of backscatter data, valuable for the characterization of marine geophysics. Characterization of the backscatter will be undertaken in future years.

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.

Management Plan Year	Data set collected	Prior year not yet disseminated	Disseminated
FY 2011 – year zero	3 Seafloor Mapping 1 Deep Sea Coral 4 Wildlife Research 1 Coastal Habitats 1 Oceanography	pre FY11 datasets are not covered in this table	FY11 datasets have been disseminated except 1 Deep Sea Coral
FY 2012 – year one	2 Seafloor Mapping 4 Wildlife Research 1 Coastal Habitats 2 Oceanography	1 Deep Sea Coral-FY11	FY12 datasets have been disseminated, except 1 Seafloor Mapping
FY 2013 – year two	3 Seafloor Mapping 1 Wildlife Research 2 Coastal Habitats 1 Oceanography	1 Deep Sea Coral-FY11 1 Seafloor Mapping-FY12	FY13 processing is in process
FY 2014 – year three	3 Seafloor Mapping* 1 Wildlife Research 2 Coastal Habitats 1 Oceanography	1 Seafloor Mapping–FY13	FY 11 Deep Sea Coral disseminated. FY14 data processing is in progress. All seafloor mapping is with OSU Seafloor Atlas Project
FY 2015 – year four	2 Seafloor Mapping 2 Wildlife Research 2 Coastal Habitats 4 Oceanographic	None, all FY11-14 data has been disseminated	FY15 field data processing is in progress. Seafloor Atlas is complete and prepared for web.

Status of 2014 Data: In 2014 OCNMS collected data or performed field support services in five research areas: shipwreck surveys, seafloor mapping, oceanographic moorings, marine debris monitoring, and intertidal monitoring. Some of the data processing and dissemination started in 2014 continued in 2015.

Performance Measure 4 Reporting Table for 2014 (2015 status updated)

Performance Measure 4 Reporting 2014	Data Collection Dates	Product	Data Sharing Places	Time to Analyze Data	Time to Disseminate Data	Final analysis, report and dissemination
MAP4: Development of Seafloor Atlas	2000-2013	Seafloor Atlas of sidescan and multibeam seafloor maps of OCNMS	OCNMS, WADNR, WCODP and others	2015 Completed	2015 Completed	2015 Completed
OCEO1 Oceanographic Mooring Data	April-Oct, 2013	Data from 10 seasonal moorings	OCNMS website	2015 Completed	2015 Completed	2015 Completed

Status of 2015 Data: In 2015 OCNMS collected data or performed field support services in ten research areas: seafloor mapping, oceanographic moorings and data collection, marine debris monitoring, intertidal monitoring, and wildlife research projects.

Performance Measure 4 Reporting 2015	Data Collection Dates	Product	Data Sharing Places	Time to Analyze Data	Time to Disseminate Data	Final analysis, report and dissemination
MAP2	August 1-September 10	Mapping from Quillayute Needles to Giants Graveyard	Edge matched to WA Seafloor Atlas and posted on OCNMS web	60 days	60 days	January 2016
MAP4 Seafloor Report	2014-2015	Washington Outer Coast Seafloor Atlas	OCNMS web, WA MSP Portal	1 year	60 days	January 2016
OCEO1 Oceanographic Mooring Data	May-Oct. 2015	Data from 10 seasonal moorings	OCNMS web page	30 days	30 days	January 2016
OCEO1 Glider Deployment	July 2015	Support OOI in deployment of oceanographic glider	OCNMS web page and link to source	30 days	30 days	January 2016
OCEO4 HABS	August 2015	Collect data to support HAB research coast wide	OCNMS web page and link to source	30 days	30 days	January 2016
OCEO1 Acoustic Mooring	July 2015	Support NMFS with acoustic mooring recovery	OCNMS web page and link to source	30 days	30 days	January 2016
ECO2 Intertidal Monitoring	July 2015	Quinault Reservation	MARINE database and OCNMS web	60 days	30 days	January 2016
OCEO2 Hypoxia	Summer 2015	Water samples for Vera Trainer's Lab	OCNMS web page and link to source	Not an OCNMS task	Not an OCNMS task	January 2016
ECO7 Marine Mammals	June 23-25, 2015	Sea Otter census from Bluff Point. Land based census added to coastal and aerial count.	OCNMS web and link to source	Complete	Complete	January 2016
ECO7 Marine Mammals	Aug 3-7, 2015	Coastal subtidal dive surveys to evaluate habitat changes due to sea otter population expansion	OCNMS web summary	90 days	90 days	Spring 2016

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.

Management Plan Year	Professional Development (# workshops) # teachers	K-12 (# programs) # students	Interns supported	AmeriCorps supported
FY 2011 – year zero	(3) 79	(3) 2,526	2	
FY 2012 – year one	(2) 40	(4) 2,361	1	
FY 2013 – year two	(3) 61	(5) 1,705	3	
FY 2014 – year three	(4) 55	(8) 1,400+	3	
FY 2015 – year four	(6) 97	(12) 1,900+	4	1

OCNMS staff supported a total of six professional development workshops and trainings, reaching 97 teachers, in partnership with regional education organizations including Pacific Education Institute, Feiro Marine Life Center, NatureBridge Olympic and Oregon State University.

OCNMS staff provided hands-on, place-based education to over 1,900 K-12 students including:

- Supported NOW Science Program providing watershed experiential education activities to over 1,000 4th and 5th grade students, in partnership with Feiro Marine Life Center;
- Led Ocean Science Trash Free Seas! Program activities, including classroom activities, field trips to Feiro Marine Life Center, Seattle Aquarium, and beach field investigations, for over 400 3rd, 4th and 5th grade Olympic Coast students;
- Led tidepool exploration and marine debris activities at Neah Bay Elementary Beach Day for 164 students and their families;
- Conducted a four-day rafting and overnight Hoh Watershed Adventure Camp, in partnership with Hoh Tribe, for 20 Hoh Tribal members;
- Provided hands on activities for 60 Makah Tribal youth at Hidasubac Summer Youth Program;
- Supported six week-long summer camps in partnership with Feiro Marine Life Center, including Junior Oceanographer (ages 5-12) and Marine Tech (ages 13-15) camps for 72 students;
- Provided instructional presentations for 221 students at NatureBridge Olympic.

OCNMS staff mentored four summer interns, including three Hollings Scholars and one Nancy Foster Scholar from NOAA's Office of Education (OED). In addition, OCNMS hosted their first Washington Service Corps AmeriCorps member who served nine months with Olympic Coast National Marine Sanctuary supporting education, outreach and stewardship programs.

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.

Management Plan Year	Web site visits	Facebook fans	Twitter	OCDC visits	Outreach events
FY 2011 – year zero	194,308	356		7,015	7
FY 2012 – year one	140,175	700		7,491	7
FY 2013 – year two	181,011	1,058		5,390	7
FY 2014 – year three	234,418	2,473		5,400	11
FY 2015 – year four	292,383	6,803	301	5,479	17

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

OCNMS media and social networking tools:

- Web site - statistics for the sanctuary website show an increase from 234,418 in FY14 to 292,383 in FY15 according to reports from the National Ocean Service. This represents a 24.7% percent increase in web browsing.
- Facebook – the NOAA OCNMS Facebook page was created in September 2010. The page increased its fans from 2,473 fans in 2014 to 6,803 in 2015.
- Twitter – the NOAA OCNMS Twitter page was created in July 2014 and has 301 followers.
- 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 outreach tools:

- Olympic Coast Discovery Center – OCDC served 5,479 visitors in 2015. 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 17 outreach events, including Dungeness Crab and Seafood Festival, Seattle Aquarium’s Sea Otter Awareness Weekend, Seattle Aquarium’s Family Discover Science Weekend, Underwater Dreams at Peninsula College, Franklin Elementary School Science Night, University of Washington Environmental Career Fair, Port Angeles Library Celebrate STEM Career Fair, CEETEP Earthquake and Tsunami Community Preparedness night, Grays Harbor Shorebird Festival, Ocean Shore’s Beachcombers Fun Fair, Peninsula College Career Fair, Ocean and Rivers Festival, Celebrate the Salmon of Lake Ozette, Kids Day at Dungeness National Wildlife Refuge, Get Into Your Sanctuary Day, Makah Days and Dungeness River Festival.
- Provided speakers at 10+ community events, including Feiro Speakers Series -

Washington CoastSavers Jon Schmidt “It’s a Small World” and Nancy Foster Scholar Jessica Hale “Washington Sea Otters: A Success Story”; Seattle Aquarium Sea Otter Awareness Weekend with OCNMS Research Coordinator Ed Bowlby; Earthquake and Tsunami Survival and Preparedness event by OCNMS Education Specialist Nicole Harris; Southern Resident killer whales presentation at Get Into Your Sanctuary Day event at Kalaloch Lodge with NOAA Marine Mammal Program Coordinator Lynne Barre; and five marine debris outreach presentations at Forks Chamber of Commerce Revitalize Port Angeles, Clallam Bay, Port Angeles and Sequim Lions Club and Rotary Club meetings with OCNMS Washington Service Corps AmeriCorps Member Danny Palmer; as well as various staff presentations at community meetings.

- Over 1,500 volunteers celebrated Earth Day this year by turning out for the annual Washington Coast Cleanup organized by Washington CoastSavers. Volunteers hauled away more than 19 tons of plastic water bottles, household trash, lost fishing gear, and other marine debris from Washington’s outer coast. OCNMS staff assisted with overall event coordination and organized the registration station and coordinated volunteers working on the Makah tribal reservation and Shi Shi Beach.
- OCNMS staff assisted with coordination of the International Coastal Cleanup and led registration on Makah tribal reservation and Shi Shi Beach. This was the third year that CoastSavers collaborated in this international shoreline cleanup sponsored by Ocean Conservancy, which is held in late September. On September 19, 338 volunteers removed six tons of debris from Olympic Coast and Strait of Juan de Fuca beaches.

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.

Management Plan Year	Regional planning	Drills	Training
FY 2011 – year zero	RRT/NWACP scoping meeting RRT technology working group	0	Completed by some, not all staff
FY 2012 – year one	NW Area Committee summit WDE contingency rule committee	0	Completed by some, not all staff
FY 2013 – year two	Comments on Ecology’s Contingency Rule; NW Area Committee summit; Shoreline Cleanup Assessment Team task force; PS/BC Oil Spill Task Force summit.	0	Completed by some, not all staff
FY 2014 – year three	NW Area Committee summit; Shoreline Cleanup Assessment Team task force; Environmental Sensitivity Index mapping effort.	0	Completed for all key staff
FY 2015 – year four	NW Area Committee summit; Best Available Protection from Oil Spills workshop	0	Completed by some, not all staff

Status: No relevant, regional drills were identified for staff participation in FY2015. Reviewed and commented on the Northwest Area Contingency Plan (NWACP) and participated in the 4th Annual NWACP Summit and a workshop on Best Available Protection from oil spills, sponsored by the Coast Guard and Washington Department of Ecology. Staff drafted an OCNMS Incident Response Plan (IRP) that updated existing procedures and incorporated annual planning goals. The plan is primarily a job aid for OCNMS staff during the initial stages of an incident in the sanctuary. Planned staff training on the IRP was rescheduled to after the field season, early in FY 2016.

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.

Management Plan Year	Evaluation
FY 2011 – year zero	no activity
FY 2012 – year one	no activity
FY 2013 – year two	no activity
FY 2014 – year three	no activity
FY 2015 – year four	no activity

Status: OCNMS has no plans to draft a new Condition Report in FY 2016. The Advisory Council’s Science Working Group provided preliminary recommendations for indicators of ecosystem health, specifically key metrics, or indicators, linked to Condition Report questions, and then recommended that further efforts wait for ecosystem indicators under development by NOAA’s Northwest Fisheries Science Center for the state’s marine spatial planning process.

IV: Year Four 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 Four (FY 2015) on 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 were 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.

FY15 AOP Status – The FY14 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 we hope will be ongoing. Using as an example strategy “CCM3 Olympic Coast Intergovernmental Policy Council”, the status of “Completed (●)” refers to the completion of activities planned for FY 2015 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	FY15 AOP Status	Table Legend	
			Implementation Ranking: H - High M - Medium L - Low	Reporting Status for FY 2014 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	○	No activities identified for FY 2015.	
CCM2 Coastal Treaty Tribes	H	●	Following a government-to-government meeting with the Makah Tribe in January 2015, OCNMS finalized a protocol that establishes a cooperative and timely process for consulting with the tribe on sanctuary permit requests and issuance. OCNMS staff briefed tribal staff on permit requests and research activities. OCNMS conducted education programs in partnership with all the Coastal Treaty Tribes.	
CCM3 Olympic Coast Intergovernmental Policy Council	H	◑	OCNMS worked with each of the four Coastal Treaty Tribes and the National Marine Sanctuary Foundation to identify support for IPC meetings. OCNMS provided direct staff support, and identified additional NOAA support, for the IPC's priority project to establish a Habitat Framework for the Olympic Coast. OCNMS supported briefings to both the Pacific Fisheries Management Council and the Sanctuary Advisory Council. Scheduling difficulties caused a delay in the annual meeting with the ONMS director, which is scheduled for early FY 2016.	
CCM4 Washington State	H	●	OCNMS supported Washington State Marine Spatial Planning through support for the development of a Washington Marine Atlas, a Non-market Recreational Study, Vessel Traffic Summaries, and provided Information on sanctuary permitting and allowable uses.	
CCM5 Department of Interior	H	◑	Leadership from Olympic National Park, Washington Maritime National Wildlife Refuge Complex and OCNMS met to discuss topics of mutual interest including programs and initiatives on climate change, upcoming special events such as the 100th anniversary of USFWS, and other major projects for the area. OCNMS and ONP staff coordinated on a number of projects including marine debris, ocean literacy and public outreach. OCNMS support provided training and on the water orientation for a number of ONP staff.	
CCM6 US Coast Guard	H	●	Conducted the annual meeting and briefed the Commander of 13th District. Reported on the implementation of the NOAA-USCG MOA. Discussed strategic priorities including vessel traffic monitoring, operational protocols, investigations of incidents within OCNMS, enforcement patrols/reporting, and USCG participation on OCNMS Advisory Council.	
CCM7 US Navy	H	●	Met with the Navy on the process for consulting on the Northwest Training and Testing EIS.	
CCM8 NMFS	M	◑	Met with NMFS regional leadership to discuss ways for west coast sanctuaries to better collaborate with the newly reorganized NMFS West Coast office. Worked with NMFS on key issues such as reviewing Essential Fish Habitat for groundfish, education and outreach on joint habitat and at risk species such as killer whales, enforcement and consultation under NMSA Section 304(d).	
CCM9 Office of National Marine Sanctuaries	H	●	Attended West Coast Region Leadership Team retreat to discuss FY16 strategic priorities and progress on FY15 priorities including tourism, enforcement, and resource protection. Attend National Leadership Team meeting to address national level priorities and development of national strategic plan, with a particular focus this past year on creating a process to consider new sanctuaries.	
CCM10 Canadian Government	L	○	While nothing had been planned, OCNMS met with Canadian Parks and Wilderness Society to discuss strategic priorities for moving forward on Big Eddy Ecosystem Initiative, conducted internal assessment of transboundary messaging priorities, and	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY15 AOP Status	Table Legend	
			Implementation Ranking: H – High M – Medium L – Low	Reporting Status for FY 2014 Activities: ○ – Not initiated or planned ◉ – Initiated 1-25% ◐ – Initiated 26-50% ◑ – Initiated 51-75% ● – Completed
			Status	
			pursued options for designating Big Eddy as a shared seascape of interest for joint project with Canadian Parks.	
A2. Community Involvement in Sanctuary Management Action Plan				
COM1 Advisory Council	H	●	Six AC meetings conducted, all open to public participation (La Push, Port Angeles, Forks, Neah Bay, and Taholah); recruitment of new AC members, AC 2015 Work Plan implementation, including work by the Youth Seat and Educational Kiosk Subcommittees, and Oceanographic and Climate Change Working Groups.	
COM2 Marine Resource Committees	M	●	Attended NPC MRC meetings in October, November, January, and September. Provided regular briefings on marine debris cleanup and OCNMS Advisory Council meetings. Provided presentations on outer coast vessel traffic and spills risk, and Natural Resource Damage Assessment coordination; assisted with annual summit planning. Shared information and opportunities distributed by the Grays Harbor MRC.	
COM3 Non-government Organizations	H	●	Assisted Washington CoastSavers in the planning, promotion and coordination of Washington Coast Cleanup (WCC) and International Coastal Cleanup (ICC). Sponsored and supported education and outreach programs for Washington CoastSavers. OCNMS Washington Service Corps AmeriCorps provided support with recruitment, planning, promotion and coordination of cleanup events, as well as provided education and outreach to schools and community groups. OCNMS staff provided guidance to Washington CoastSavers Coordinator and representation on Executive Steering Committee. 2000+ volunteers of the WCC removed approximately 22 tons of debris; ICC - 338 Volunteers collected 6.8 tons of marine debris.	
A3. Sanctuary Operations Action Plan				
OPS1 Vessel Infrastructure and Operations	H	●	Completed a successful yard period focused on preventative maintenance on the <i>R/V Tatoosh</i> installed new spot light, replaced horn, removed and replaced aftercoolers, conducted blow-by checks on both engines, replaced all zincs (internal and external), replaced belts, inspected seacocks, conducted valve lash adjustments, replaced 2 of 4 engine batteries, touched up bilge paint, restored bottom paint, etc. This maintenance ensured the <i>R/V Tatoosh</i> remained in working order throughout the FY15 field season. Completed troubleshooting on mulltibeam, modifying as necessary, resulting in quality data being collected. FY15 emergency repairs included replacing both drive shafts, replacing starboard clutch, replacing starboard flex-coupling with flex plate, modifying engine mounts and realigning both engines, replacing port engine alternator, replacing starboard starter, and replacing the port turbo.	
OPS2 Facilities	H	●	Participated in numerous workshops and meetings with Feiro and the City of Port Angeles to discuss the feasibility of a Port Angeles Marine Education and Visitor's Center on the City Pier, actively supporting Fiscal Analysis of this approach. Revised the NOAA space requirements, and developed language to accompany revised requirements, as part of partnership with Feiro and the City of Port Angeles. Collaborated with NOAA Real Property Division regarding next steps for acquiring facility space that meets OCNMS needs as our current lease expires in two years.	
OPS3 Annual Planning	H	●	Prepared and executed FY 2015 OCNMS budget and ensured efficient obligation of funds in support of identified management plan priorities. Budget was planned/executed according to the FY15 ONMS guidance, and was based largely on continuing existing projects, supporting projects with partner support, as well as feedback from the AC and IPC on the "Draft FY 2015 Olympic Coast National Marine Sanctuary Management Plan Implementation Priorities" document. Managed and executed other funds including funds from the NOAA Marine Debris Program, the B-WET program, and ONMS West Coast Region. All of these funds were utilized in support of OCNMS programs and priorities.	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY15 AOP Status	Table Legend	
			Implementation Ranking: H – High M – Medium L – Low	Reporting Status for FY 2014 Activities: ○ – Not initiated or planned ◉ – Initiated 1-25% ◐ – Initiated 26-50% ◑ – Initiated 51-75% ● – Completed
			Status	
OPS4 Safe Operations	H	●	Regularly updated and maintained the OCNMS Continuity of Operations Plan (COOP) resulting in both OCNMS and HQ having the most up-to-date information readily available in case of an emergency. Successfully participated in NOAA-wide Emergency Notification System test. Conducted monthly safety inspections of facilities and vessels. Staff completed required training and drills. Addressed all issues identified in 2014 NOAA Safety and Environmental Compliance Office inspection of OCNMS facilities in Port Angeles.	
OPS5 Staffing	H	●	Implemented multiple contracts for non-federal support services. Hired new Education & Outreach Coordinator. Worked on Research Coordinator recruitment. Filling FTE vacancies is dependent both upon budgets and NOAA HR workload. Confirmed that current NOAA Corps officer will stay on through August, 2016 - ensuring an overlap of the field season with the new NOAA Corps Officer, who arrives in January, 2016. Successfully acquired an Americorps volunteer for the second year in a row. Replaced server and a few old computers, ensuring IT services are adequate to support staff and program needs.	
OPS6 Volunteer Program	M	●	Supported Washington CoastSavers by assisting in the planning, promotion and coordination of Washington Coast Cleanup (WCC) and International Coastal Cleanup (ICC). WCC - 2000+ volunteers removed approximately 22 tons of debris; ICC - 338 Volunteers collected 6.8 tons of marine debris. Hosted Washington Service Corps AmeriCorps volunteer member to support Education, Outreach and Stewardship activities. Recruited and trained four volunteers for Olympic Coast Discovery Center, new volunteers for COASST and NOAA Marine Debris monitoring and other volunteer programs. Conducted six spring volunteer training workshops including 2 field trips. Tracked volunteer hours, which totaled 20,441 hours among all programs (not including SAC). Conducted volunteer exchange with Monterey Bay NMS. Began a Draft OCNMS Volunteer Handbook and updated individual scopes of work for volunteer positions. Conducted two volunteer appreciation cruises aboard <i>R/V Tatoosh</i> .	
OPS7 Permitting and Consultation	H	●	Issued 3 OCNMS permits and 3 permit amendments in FY2015; reviewed project descriptions and completed consultations on project not requiring a permit. Participated in all quarterly Permit Coordinators conference calls; provided quarterly permit action summaries for ONMS. Drafted briefings on permit activity for the bi-monthly Office Report to the Advisory Council. Maintained up-to-date records in the OSPREY database. Finalized permit consultation agreement and procedures with the Makah Tribe.	
OPS8 Voluntary Compliance	M	○	No activities identified for FY 2015.	
OPS9 Enforcement	L	●	The enforcement Law Enforcement Technical Advisory Committee (LETAC) conducted two bi-annual meeting in November 2014 and April 2015. At the meetings the status of investigations were reviewed, and a planned analysis of sunken and grounded vessels was discussed. Reviewed the NOAA Office of Law Enforcement (OLE) Joint Enforcement Agreement with Washington State. OLE presented to the Advisory Council on sanctuary enforcement issues.	
OPS10 Implementation Reporting	H	●	The sanctuary completed the 2014 Management Plan Implementation Report, documenting progress on action plans and reporting on performance measures. The implementation report and a draft FY 2015 priorities document were provided to the AC and IPC as background documents. The AC was briefed on these documents at the November 2014 AC meeting. These two documents were meant as a package that would allow the AC and IPC to participate in OCNMS planning in a meaningful manner.	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY15 AOP Status	Table Legend	
			Implementation Ranking: H – High M – Medium L – Low	Reporting Status for FY 2014 Activities: ○ – Not initiated or planned ◉ – Initiated 1-25% ◐ – Initiated 26-50% ◑ – Initiated 51-75% ● – Completed
			Status	
B1. Habitat Mapping and Classification Action Plan				
MAP1 Regional Coordination	H	●	Participated in WA State's Spatial Prioritization Workshop as contributing member of the technical team; assisted in the development of habitat mapping priorities for WA outer coast; reviewed final report as precursor to future OCNMS seafloor mapping activities.	
MAP2 Seafloor Habitat Mapping	H	◐	Seafloor mapping was completed from Quillayute Needles to Giants Graveyard. Data have been processed but weather did not permit groundtruthing for habitat analysis.	
MAP3 Habitat Classification	H	●	A Seafloor Atlas of Sonar Data Mapped by OCNMS from 2000-2013 was produced under contract with Oregon State University, Active Tectonics and Seafloor Mapping Lab. Funded by WA DNR and OCNMS, this product is the foundation of future mapping efforts of OCNMS and partner agencies.	
MAP4 Mapping Products	H	●	The OCNMS Seafloor Atlas, produced by OSU Active Tectonics and Seafloor Mapping Lab, includes layers of seafloor habitat, bathymetry, backscatter and groundtruthing. It has been designed for web application, for data download, for application to MSP, and for application to components of the IPC Habitat Framework.	
B2. Physical and Chemical Oceanography Action Plan				
OCEO1 Coastal Mooring Program	H	●	Successfully deployed seasonal 10-buoy mooring network in May, 2015. Servicing/data downloads occurred approximately every 4-6 weeks. Post-processing of sensor data underway. Oceanographic Monitoring Group (OMG) developed recommendations to successfully guide the oceanographic mooring program to deploy the mooring arrays in the most useful and efficient manner under a variety of budget scenarios. Successfully applied for NANOOS funding to supplement mooring program in an effort to improve long-term monitoring of ocean acidification (OA) by implementing water sampling protocols to augment current mooring data.	
OCEO2 Hypoxia	M	●	Continued monitoring hypoxia through OCNMS moorings program. Provided notification to the WA-OR Hypoxia network on low oxygen levels recorded on CTD casts.	
OCEO3 Ocean Acidification	H	●	All mooring data provided to PMEL in support of algorithm development. NANOOS funding opportunity will precipitate new collaborations with the WA OA Center regarding water sampling (DIC, TA, pH) to accompany mooring data. Attended the State's Marine Resources Advisory Council (MRAC) meetings to stay current on OA initiatives and research in Washington State.	
OCEO4 Harmful Algal Blooms	M	●	Provided a letter of support for a UW proposal to enhance harmful algal bloom warning systems on the Washington coast with real-time assessments using an automated imaging flow cytometer - a technological advance in HAB monitoring. Supported NWFSC efforts to monitor harmful algal blooms in the sanctuary.	
B3. Populations, Communities and Ecosystems Action Plan				
ECO1 Water Column Communities	L	○	No activities identified for FY 2015.	
ECO2 Intertidal	M	◉	Applied for permissions from Quinault and Makah for intertidal research; received approval from Quinault Nation and completed rocky intertidal monitoring (MARINE); unable to complete Quinault sand site monitoring due to scheduling conflicts. Approval was not granted by Makah Tribe and no monitoring on Makah shores was completed in 2015. Completed data entry and QC review through 2014. Completed research summaries for OCNMS web. Provided letter of support for Makah proposal to BIA for intertidal resource inventory. Joined MARINE and ONP crews in field for methods review.	
ECO3 Subtidal	L	●	Collaborated with NOAA Northwest Fisheries Science Center (NWFSC) scientific dive team to complete historic subtidal surveys	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY15 AOP Status	Table Legend	
			Implementation Ranking: H – High M – Medium L – Low	Reporting Status for FY 2014 Activities: ○ – Not initiated or planned ◉ – Initiated 1-25% ◐ – Initiated 26-50% ◑ – Initiated 51-75% ● – Completed
			Status	
				to document sea otter influence on nearshore communities. Collaborated with University of Chicago researcher and WDNR on proposal for study of kelp beds as ocean acidification refugia. Initiated planning for biodiversity monitoring installation by NWFSC researcher.
ECO4 Benthic	M	◉		<p>Recruited NCCOS scientists to complete in FY16 the historic analysis and reporting on PC-1 cable habitat and benthic community analysis (see HP1). Consulted with NMFS and Quinault Nation about FY16 or future surveys of Quinault Canyon. Initiated permit renewal discussions with PC-1 cable owners to which future funding for seafloor habitat surveys is tied.</p> <p>OCNMS has been worked with NOAA Deep Sea Coral Research and Technology Program (DSCRTP) and the National Center for Coastal Ocean Science (NCCOS) Deep-Sea Coral Ecology Laboratory to archive both the video and the analysis from several years of deep sea coral and sponge surveys. Many hours of digital video, numerous images, and survey reports will be transferred to the Deep Sea Coral Research and Technology Program's national data archive, which will serve for video backup storage and a portal for public access to the video.</p>
ECO5 Fish	L	○		While no activities were planned for FY 2015, data on fish was collected during nearshore subtidal surveys (see ECO3).
ECO6 Marine Birds	M	◐		UAS testing was not pursued because camera optics proved to be sub-optimal in previous field tests and were not improved. Initiated discussions with NMFS/NWFSC and Olympic Audubon scientists to re-institute monthly pelagic seabird surveys from the <i>R/V Tatoosh</i> in FY16. Provided support for COASST seabird monitoring. Provided NCCOS and NOAA/ORR with OCNMS seabird survey to support hotspots modeling and Environmental Sensitivity Index mapping for spill response planning. Assisted with review of NCCOS seabird report. Completed annual meeting notes for ad-hoc coastal seabird group. Consulted with WDFW about feasibility of collaboration on winter and offshore surveys.
ECO7 Marine Mammals	M	◑		Provided NCCOS with data from OCNMS marine mammal surveys and review comments on draft hotspots report. Assisted annual sea otter surveys at field site near Norwegian Memorial. Coordinated acoustic mooring siting discussions with NMFS and commercial fishers.
ECO8 Stranding Network	L	●		Attended annual meeting of West Coast Marine Mammal Stranding Network. Updated OCNMS stranding response policy statement. Worked with regional partners to improve reporting from outer coast beaches. Provided stranding response training to ONP rangers and interpretive staff. Facilitated transfer of dead harbor porpoise to Makah biologist for necropsy. Served as liaison between public and Stranding Network for response to incidents.
ECO9 Ecosystem Processes	M	●		Hosted Nancy Foster scholar on collaboration to review WA MSP indicators report and link with sanctuary Condition Report questions and metrics. Joined CINMS scientists in meeting with NMFS/NWFSC scientists in meeting to discuss future collaborations on various indicator development, monitoring and reporting efforts.
B4. Data Management, Sharing and Reporting Action Plan				
DATA1 Data Quality Control and Management	H	●		2014 field reports were collected, analyzed, summarized, compiled and shared by the January, 2015 Advisory Council meeting. These reports included research and monitoring activities from moorings, seafloor mapping, marine mammal and seabird studies, intertidal monitoring, glider and drone deployment, HAB monitoring, citizen science, and support of OCNMS partner research.
DATA2 Data Distribution	H	●		The existing Research and Monitoring database was maintained.

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			Status	
DATA3 Adaptive Management	L	◉	New Science Needs document completed for Human Dimensions/Socioeconomics. Additional document updates were not completed due to work load and intent to incorporate WA MSP indicators into revisions to existing Science Needs document.	
DATA4 Condition Report	M	●	Reviewed the Ecological Indicators for WA State's Outer Coastal Waters (Andrews et al.) to identify linkages with Habitat Framework and Condition Report questions.	
C1. K-12 Education Action Plan				
ED1 K-12 Partnerships	H	●	Coordinated NOAA Pacific Northwest B-WET program, providing nine awards in Washington and Oregon totaling \$450,238.00. Initiated and coordinated Ocean Guardian School Program, providing 4 awards to support teacher projects in Washington totaling \$15,195. Supported N.O.W. Science and Ocean Science classroom activities, field investigations, and field trips for approximately 1500 students in partnership with Feiro Marine Life Center and Seattle Aquarium. Supported a total of six professional development workshops, reaching 97 teachers, in partnership with regional education organizations including Pacific Education Institute, Feiro Marine Life Center, Nature Bridge Olympic and Oregon State University.	
ED2 Place-Based Education	M	●	Supported the following place-based education programs, reaching more than 1900 students; Supported NOW Science Program providing hands-on watershed experiential education activities to over 1000 4th and 5th grade students, in partnership with Feiro Marine Life Center; Led Ocean Science beach field trips and classroom activities for over 400 3rd, 4th and 5th grade Olympic Coast students; Led tidepool exploration and marine debris activities at Neah Bay Elementary Beach Day for 164 students and their families; Conducted a four-day rafting and overnight Hoh Watershed Adventure Camp, in partnership with Hoh Tribe, for 20 Hoh Tribal members; Provided hands on activities for 60 Makah Tribal youth at Hidasubac Summer Youth Program; Supported six week-long summer camps in partnership with Feiro Marine Life Center, including Junior Oceanographer (ages 5-12) and Marine Tech (ages 13-15) camps for 72 students; Provided instructional presentations for 221 students at NatureBridge Olympic.	
ED3 Regional Initiatives	L	●	Attended E3 Strategic Planning meeting with other regional education organizations; Hosted B-WET workshops in Seattle, WA and Newport, OR.	
ED4 Using Technology	L	○	While no activities were planned, OCNMS worked with other west coast sanctuaries to develop a deep sea online curriculum (planned to be released in October 2015).	
C2. Higher Education Action Plan				
HED1 Internship Development	L	●	Supported 4 interns including Nancy Foster Scholar (graduate) Jessie Hale (Ecosystem indicators and metrics; Sea Otter research) and Hollings Scholars (undergraduate) Billie Case (Junior Oceanographer summer camps), Courtney Knox (Marine Tech summer camps) and Kathryn Hobart (marine debris data analysis). Sanctuary staff mentored graduate students at San Francisco State University and Northeastern University.	
HED2 Volunteer Positions	L	●	Provided training, supervision and support to 2014-15 AmeriCorps member who implemented North Olympic Watershed (NOW) Science Program and supported WA CoastSavers initiatives. Supported recruitment and training of ONP Student Conservation Association marine debris removal project. Awarded 2015- 16 AmeriCorps through Washington Service Corps completeive process.	
HED3 College Partnerships	L	●	Participated in 3 career fairs, including University of Washington College of the Environment career fair, reaching more than 300 students; Peninsula College/Olympic Natural Resources Center career fair, reaching 300 eighth to twelfth grade students; Port	

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			Status	
			Angeles Library Celebrate STEM Career Fair reaching over one hundred Port Angeles fifth grade students. Hosted four post-secondary interns and one AmeriCorps member (see C2 HED1 and HED2) Sanctuary staff participated in a career panel held for Dr. Ian Miller's Oceanography class at Peninsula College, Port Angeles, WA. Hosted students in Dr. Ian Miller's Oceanography class at Peninsula College for a marine sampling trip aboard the sanctuary's research vessel <i>R/V Tatoosh</i> . OCNMS Geographer Nancy Wright and GFNMS Physical Scientist Tim Reed instructed a graduate level course in Geographic Information Systems (GIS) to 24 students from the Three Seas program of Northeastern University, Boston. Provided professional development workshops and clock hours to 97 teachers during six workshops.	
C3. Visitor Services Action Plan				
VISIT1 Visitor Experience	L	●	Olympic Coast Discovery Center (OCDC) was open daily 10am - 5pm from memorial Day weekend through Labor Day and then weekends only through October 11; also open for cruise ship visits - 5,600 OCDC visits. Trained 4 new volunteer docents and provided sanctuary overview/tour for Port Angeles Chamber of Commerce Visitor Center and Feiro Marine Life Center volunteers. Participated in Olympic Peninsula Tourism Commission monthly meetings and annual tourism summit. Promoted Get Into Your Sanctuary Day with Kalaloch Lodge. Promoted voluntourism during International Coastal Cleanup. Provided sanctuary overview and training to 100+ ONP staff. Developed West Coast National Marine Sanctuaries Regional Press Writers brochure and West Coast National Marine Sanctuaries visitor centers rack card.	
VISIT2 Long-Range Interpretive Plan	M	◉	Installed kiosk at Pacific Science Center. Worked with SAC working group to identify preferred locations for two additional kiosks -- at Kalaloch Lodge and Forks Visitor Center - installation planned for early 2016. Provided sanctuary 3D relief map exhibit and marine debris sculpture display with related signage to the Clallam Bay Visitor Center. Researched and developed concept plan for Sanctuary on Wheels - mobile visitor center.	
VISIT 3 New Technology	L	●	292,383 web site visits. Maintained OCNMS Facebook page, posting 3-5 times per week, increasing page "Likes" from 2,501 on October 1, 2014 to 6,803 total likes on September 29, 2015. Became active on Twitter in April 2015 and grew to ~300 followers.	
C4. Community Outreach Action Plan				
OUT1 Stewardship and Citizen Science	L	●	Provided office space for COASST employee. Assisted with development of COASST marine debris protocols. Continued coordination of volunteers on shoreline debris monitoring.	
OUT2 Staff Presence on Outer Coast	L	○	No activities identified for FY 2015.	
OUT3 Community Events	M	●	Attended 17 regional events including Dungeness Crab and Seafood Festival, Seattle Aquarium's Sea Otter Awareness Weekend, Seattle Aquarium's Family Discover Science Weekend, Underwater Dreams at Peninsula College, Franklin Elementary School Science Night, University of Washington Environmental Career Fair, Port Angeles Library Celebrate STEM Career Fair, CEETEP Earthquake and Tsunami Community Preparedness night, Grays Harbor Shorebird Festival, Ocean Shore's Beachcombers Fun Fair, Peninsula College Career Fair, Ocean and Rivers Festival, Celebrate the Salmon of Lake Ozette, Kids Day at Dungeness National Wildlife Refuge, Get Into Your Sanctuary Day, Makah Days and Dungeness River Festival. Provided speakers at 10+ community events, including Feiro Speakers Series - Washington CoastSavers Jon Schmidt "It's a Small World" and Nancy Foster Scholar Jessica Hale "Washington Sea Otters: A Success Story"; Seattle Aquarium Sea Otter Awareness Weekend with OCNMS Research Coordinator Ed Bowlby; Earthquake and Tsunami Survival and Preparedness event	

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			by OCNMS Education Specialist Nicole Harris; Southern Resident killer whales presentation at Get Into Your Sanctuary Day event at Kalaloch Lodge with NOAA Marine Mammal Program Coordinator Lynne Barre; and five marine debris outreach presentations at Forks Chamber of Commerce Revitalize Port Angeles, Clallam Bay, Port Angeles and Sequim Lions Club and Rotary Club meetings with OCNMS Washington Service Corps AmeriCorps Member Danny Palmer; as well as various staff presentations at community meetings.	
OUT4 Community-Based Efforts	L	●	Supported Olympic Coast marine resource committee (MRC) opportunities for community-based education, stewardship and research programs. Used OCNMS website (Calendar of Events, etc.), e-mail listserv, social media and other media to communicate the efforts of community-based organizations working on ocean issues in the sanctuary region.	
D1. Spills Prevention, Preparedness, Response and Restoration Action Plan				
SPILL1 ATBA Management, Compliance and Monitoring	H	●	OCNMS completed a 2014 ATBA compliance report and posted on its website. In order to better track industry changes in the shipping of oil products, we added Articulated Tug Barges (ATB) as a separate vessel type. OCNMS worked with Washington State to provide summary vessel monitoring data in a format that will support their marine spatial planning efforts.	
SPILL2 Regional Vessel Management Forums	L	●	OCNMS provided comments on the 2014 Marine & Rail Oil Transportation Study, and provided updates on the study to the North Pacific MRC and the AC. OCNMS participated in the Salish Sea Vessel Oil Spill Risk Assessment and Management Workshop in Bellingham, WA co-sponsored by Washington Department of Ecology and Puget Sound Partnership.	
SPILL3 Regional Planning and Training Exercises	H	◐	Reviewed and commented on the Northwest Area Contingency Plan (NWACP) and participated in the 4th Annual NWACP Summit and a workshop on Best Available Protection from oil spills, sponsored by the CG and WDE. No drills were available for staff participation.	
SPILL4 Outer Coast Trustees Working Group	M	○	No activities identified for FY 2015.	
SPILL5 OCNMS Organizational Response Plan	H	◐	Drafted an OCNMS Incident Response Plan (IRP) updating existing procedures. The plan is primarily a job aid for OCNMS staff during the initial stages of an incident in the sanctuary. Planned staff training was rescheduled to after the field season.	
SPILL6 Damage Survey and Assessment Protocols	H	○	While no activities were planned, OCNMS completed a number of preliminary damage assessment reports on vessels abandoned in the sanctuary, which were forwarded to NOAA Office of Law Enforcement.	
D2. Climate Change Action Plan				
CLIM1 Climate Smart Sanctuary Program	L	●	The Climate Change Working Group reviewed the Climate Change Action Plan and developed seven priority recommendations for implementing climate-related activities including "Engage in Office of National Marine Sanctuary revisions to the Climate Smart Certification process. Continue to pursue Climate Smart Certification as the revised standards become finalized. Ensure information compiled for Climate Smart Sanctuary certification is widely distributed to OCNMS partners and the public."	
CLIM2 Sanctuary as Sentinel Site	M	◐	The Climate Change Working Group reviewed the Climate Change Action Plan and developed seven priority recommendations for implementing climate-related activities including "Work with partners to propose to NOAA leadership that OCNMS be designated as a NOAA Sentinel Site for Ocean Acidification and Sea Level Rise." Provided input to ONMS Sentinel Site web page. Reviewed ecosystem indicators developed during the State's Marine Spatial Planning process.	
CLIM3 Resilient Ecosystems	L	○	While not activities were planned, the Climate Change Working Group reviewed the Climate Change Action Plan and developed seven priority recommendations for implementing climate-related activities including determining what climate-related work has	

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			already been done, or is on-going, and then "Conduct gap analysis to determine areas where the sanctuary can play an active role, then work with the Advisory Council to prioritize and maximize efficiency of sanctuary efforts."	
CLIM4 Communicating Climate Change	L	●	Conducted classroom activities and teacher professional development workshops focused on ocean acidification with Neah Bay High School, NatureBridge Olympic and Oregon State University. Prioritized Ocean Acidification in PNW B-WET federal funding opportunity and presented resource demonstrations at PNW B-WET informational workshops. Conducted a 4-day Hoh Watershed Adventure Camp, in partnership with Hoh Tribe, focused on connecting Hoh Tribal participants with their culture, treaty rights, traditional resources and harvesting, and climate change and its effects on their resource sustainability. Provided ocean acidification outreach at Dungeness Crab and Seafood Festival (event draws 10,000 - 15,000 people). Implemented ocean acidification cart in Olympic Coast Discovery Center and trained new and existing docents on the topic and related activities.	
D3. Marine Debris Action Plan				
MD1 Submerged or Floating Debris	H	◐	Facilitated permitting for TNC/Quileute Tribe collaboration for derelict crab gear removal efforts. Reported to WDFW derelict gear finds from the field. Updated OCNMS Incident Database documenting abandoned vessels - ongoing effort.	
MD2 Beach Debris	H	●	Participated in CoastSavers event planning and assisted with organizing strategic planning meeting. Coordinated Hobuck Beach registration station for April and September CoastSavers cleanup events. Served on CoastSavers Executive Team and led coordinator performance review. Provided CoastSavers with funding to facilitate WCC debris removal from remote areas. Led teams to remote beaches for April and September cleanup events. Provided SCA project leader with logistical advice, debris loading information, and equipment for remote area cleanup efforts. Continued citizen science program on shoreline debris monitoring, including data entry and volunteer outreach and training. Hosted Hollings intern working on debris data synthesis, analysis and reporting.	
D4. Wildlife Disturbance Action Plan				
WD1 Outreach on Wildlife Disturbance	L	○	No activities planned for FY 2015.	
WD2 Overflight Restriction Zone	L	○	While no activities were planned, OCNMS did brief ONP staff on overflight regulations, and the reporting of observations.	
WD3 Marine Mammal Disturbance	M	○	While no activities were planned, OCNMS investigated partnership opportunities to access the risk of ship-strikes in the sanctuary.	
D5. Water Quality Action Plan				
WQP1 Vessel Discharges	H	○	While no activities were planned, OCNMS attended the Department of Ecology (ECY) hosted Annual Cruise Ship MOU meeting. OCNMS consulted with ECY on discharge violation reporting in the sanctuary.	
WQP2 Contaminants	L	○	No activities identified for FY 2015.	
D6. Habitat Protection Action Plan				
HP1 Threat Assessment and Mitigation	M	◉	Completed assessment of remaining work for historic PC-1 habitat recovery analysis and reporting; initiated collaboration with NCCOS scientists to complete (in FY16) the historic analysis and reporting on PC-1 cable habitat and benthic community analysis (see ECO4). Completed review of 2008 post-remediation video for habitat characterization.	
HP2 Habitats of Special Importance	H	●	Presented a status report on Habitat Framework work to PFMC and AC in September 2015. Focus Groups were held for oceanography and biotic components; data acquisition was initiated. Links with OCM were established through OCM-IPC meeting.	

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			Data repository is proposed for NMFS EFH data server and web. Supported seabird and marine mammal hotspots analysis through provision of OCNMS survey data and review of draft reporting products (see ECO6 and ECO7).	
HP3 Invasive Species	M	●	Joined WDFW AIS team on reconnaissance visit to Misawa (Japan) dock grounding site to look for non-native species. Provided information on select biofouled objects to WDFW AIS team and shared their contact information and reports with citizen science volunteers and regional partners.	
D7. Regional Ocean Planning Action Plan				
MSP1 Marine Spatial Planning	L	●	OCNMS participated in the Washington State marine spatial planning efforts by supporting the seafloor mapping prioritization process, the development of a seafloor atlas, socioeconomic studies, coastal vessel traffic characterization, and through discussions on future regional planning efforts.	
E1. Maritime Heritage Action Plan				
MH1 Cultural Resource Conservation	L	◐	OCNMS developed an outline for a Sanctuary Cultural Resource Management Plan, which could include the historical context of the sanctuary, a maritime heritage resource inventory, summary of applicable laws and regulations, permit and consultation procedures. The outline has been shared with key partners and is meant as the starting point for further discussion.	
MH2 Local and Customary Knowledge	L	○	No activities had been planned in FY 2015; however, OCNMS did join Hoh Tribe Natural Resources and Hoh Tribe Youth Support Services to support a four-day adventure camp for Hoh youth. Among other activities was the identification of important and traditional resources harvesting sites, and comparing western science and watershed management to traditional relationships with the Hoh River watershed.	
MH3 Public Understanding of Treaty Rights	L	○	While no activities were planned for FY 2015, OCNMS staff had the opportunity to provide a briefing on the importance of treaty rights and the associated responsibilities for federal employees, to participants in the NOAA Leadership Competencies Development Program (LCDP).	
E2. Socioeconomic Values of Sanctuary Resources Action Plan				
SV1 Existing Socioeconomic Information	L	○	No activities planned for FY 2015.	
SV2 New Socioeconomic Information	L	●	Two NOAA studies are planned for 2015; one of the two was funded. In 2014-2015, the State of Washington sponsored a survey to document recreational use of the Outer Coast. The survey collected information on residents' use of the region using a mapping tool and questionnaire. The final report for this study, published by Point97/Surfrider, summarized demographics, recreational activity profiles and maps, and expenditures. In FY2015, NOAA's National Centers for Coastal Ocean Sciences (NCCOS) partnered with the Office of National Marine Sanctuaries (ONMS) to expand Washington's study to estimate the non-market economic value of natural resources on the Outer Coast, as well as gather other important information for OCNMS, including: demographic profiles; recreational activity profiles; expenditure profiles; economic impact and expenditures; importance-satisfaction ratings for natural resources, facilities and services; user preferences for common wildlife species; and an index of the "environmental worldview" of recreational users from Washington.	

NATIONAL MARINE SANCTUARY SYSTEM



Scale varies in this perspective. Adapted from National Geographic Maps.

- National Marine Sanctuary
- ▲ Marine National Monument
- Proposed National Marine Sanctuary

National marine sanctuaries are America's underwater treasures. Within these waters, whales breed and bear young, corals flourish, and shipwrecks tell stories of our marine history. Sanctuary habitats include beautiful coral reefs, lush kelp forests, whale migrations corridors, spectacular deep-sea canyons, and underwater archaeological sites. These special places also provide homes to thousands of unique or endangered species and are important to America's cultural heritage. Varying in size from less than one to almost 140,000 square miles, each of these special places serve as natural classrooms, cherished recreational spots and valuable commercial industries - marine sanctuaries are many things to many people.