

## Olympic Coast National Marine Sanctuary

# 2014 Management Plan Implementation Report: Year Three



October 2014

Cover Photo: In the summer of 2014 there was a large bloom of *Verella verella* sighted along the Washington Coast. An Olympic Coast National Marine Sanctuary (OCNMS) volunteer sent in a photo of *V.verella* in sanctuary waters that was posted to the OCNMS Facebook page. The photo was an instant hit, and over a few days, the photo went viral. *V. verella* is a relative of jellyfish and coral, and is a free floating hydrozoan. It is common for them to wash onto beaches or congregate in currents, and is subject to going where the wind takes them, as their common name "by the wind sailors" suggests. There have been many sightings of *V. verella* up and down the Pacific Coast in California, Oregon and Washington. While *V. verella* washing ashore is not an unusual event, the high numbers that we are seeing this year does appear to be somewhat unusual.

## I. Introduction

This document is the fourth annual report on implementation of Olympic Coast National Marine Sanctuary's 2011 management plan. The three 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 2014, the period from October 1, 2013 through September 30, 2014. In 2008 Olympic Coast National Marine Sanctuary (OCNMS or sanctuary) began work to update the original 1994 management plan. The [OCNMS Final Management Plan](#) was approved in September 2011 and related regulations were finalized on November 1, 2011 ([76 FR 67348](#)), becoming effective on December 1, 2011. Starting in FY 2011, OCNMS began basing its Annual Operating Plan on the action plans in the revised management plan and began implementation on the non-regulatory parts of the management plan prior to its final approval. FY 2011 was classified as "Year Zero" of the management plan implementation. FY 2014 is the third official year of implementation or "Year Three" 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 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, which 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 2014 is “Year Three” 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**

#### **Sanctuary Training on NOAA Consultation Policy**

On November 12, 2013, NOAA finalized their procedures for complying to Executive Order 13175, “Consultation and Coordination with Indian Tribal Governments.” These procedures are documented in a hand book, “NOAA Procedures for Government-to-Government Consultation with Federally Recognized Indian Tribes and Alaska Native Corporations”. The NOAA 13175 Policy requires that all NOAA personnel directly involved with outreach, consultation, and operations with tribal governments receive appropriate training so that they can act consistently with the procedures and policies set forth in this Handbook. In compliance with this requirement, OCNMS staff developed and conducted their own training. Training included a general overview of treaties, review of the NOAA hand book, and examples of how OCNMS has worked with the coastal treaty tribes since the 1994 designation of the sanctuary. OCNMS plans to develop a more detailed training that provides more specific background on the history, culture and governance of the four coastal treaty tribes.

### **ACHIEVE EFFECTIVE AND COORDINATED MANAGEMENT**

#### **Washington Marine Spatial Plan Efforts of Interest to Sanctuary**

Recognizing the significance of the process to the management of coastal resources, sanctuary staff have been observing and actively supporting Washington State’s efforts to develop a Marine Spatial Plan (MSP) for Washington’s Pacific Coast. Noting past coordination between the sanctuary and the state in the development of the state’s 2006 Ocean Action Plan and the 2011 sanctuary management plan, OCNMS provided recommendations to continue that level of coordination and cooperation. Recommendations included the integration of the sanctuary management plan in to the MSP and that OCNMS be included within the geographic scope of the MSP. Sanctuary staff participated on the Washington Coast Marine Advisory Council (WCMAC) technical committee and supported work on sector analyses, worked to enhance the recreational use study, supported a joint habitat mapping project, and are supporting the planned Spatial Mapping Prioritization Initiative.

#### **Withdrawal of Essential Fish Habitat Proposal Leads to New Habitat Framework Process**

In 2013, OCNMS and Washington State Department of Fish and Wildlife (WDFW) jointly responded to a Request for Proposals from the Pacific Fishery Management Council as part of its five-year review of Groundfish Essential Fish Habitat (EFH) along the west coast. The OCNMS/WDFW submission “Options for Potential Modifications to Olympic 2 Groundfish Essential Fish Habitat Conservation Area in Washington State” contained three options to

increase protection of sensitive biogenic and rocky reef habitats both within and adjacent to the existing Olympic 2 Conservation Area. Based on subsequent discussions with tribal representatives and the Intergovernmental Policy Council (IPC), an alternative process was agreed upon, and the proposal was withdrawn. The current proposal is for OCNMS and the IPC to develop a collaborative habitat framework for the outer coast of Washington. The framework would establish criteria for identifying important habitat types, identify the location of such habitats and associated species, and identify priorities for management. A scope of work has been adopted and next steps identified including the formation of a technical working group. The IPC includes Coastal Treaty Tribes and the State of Washington and is an important forum established to inform and cooperate in the management of Olympic Coast National Marine Sanctuary.

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

### **Oceanography is a Major Focus for Sanctuary Research**

Physical oceanographic measurements provide the foundation for understanding the dynamic ecological processes in the sanctuary. In 2014 oceanographic monitoring included our own mooring program, as well as new initiatives from partners. The 2014 OCNMS maintained ten oceanographic monitoring moorings measuring water temperature, conductivity, dissolved oxygen, chlorophyll, and currents. Sanctuary staff also assisted NOAA's Cooperative Observer Program (COOP) with the deployment of an acoustic doppler current profiler (ADCP) instrument off Cape Elizabeth, and the University of Oregon for inspection of their Integrated Ocean Observing buoy near the southern sanctuary boundary. In the process of evaluating a sanctuary permit request, OCNMS consulted with tribal and non-tribal commercial fishing sectors, including mid-water and bottom trawl and fixed gear, to identify a site for an Ocean Noise Reference Station Network mooring to characterize the ambient sound environment off Washington. Several alternative mooring locations were proposed and evaluated by fishing representatives. Resolution was reached with a mooring location that meets the science needs for the project, minimizes conflict with commercial fisheries, and reduces risk to the mooring's instrumentation.



Figure 1 OCNMS assists COOP with mooring recovery

### **OCNMS Vessel RV *Tatoosh* Gets Technical Upgrade for Seafloor Mapping**

OCNMS began seafloor mapping from the RV *Tatoosh* in 2010 but has needed to lease some components of its multibeam sonar system. This year OCNMS received navigational components from NOAA's Navigational Response Branch that were installed permanently on the sanctuary's vessel. The RV *Tatoosh* equipment was then professionally surveyed for accurate placement and calibrated by NOAA Pacific Hydrographic Branch technicians. This upgrade improves the quality of sonar data produced from RV *Tatoosh* during seafloor surveys. During

the 2014 field season the RV *Tatoosh* field crew mapped three sunken ships in order to evaluate potential salvage options and the extent of natural resource damage. Continued mapping of the Quillayute Needles was postponed due to required equipment repairs that prevented further mapping this field season.

### Sanctuary Program Monitors Vessel Traffic

Some sanctuaries, including OCNMS, have Areas to be Avoided (ATBA) where ships are advised to transit around designated areas. While OCNMS' ATBA reduces risk of spilled oil reaching the shore, others are concerned with vessel speeds in areas of high whale concentrations. Monitoring vessel traffic is time consuming and requires a unique set of software, hardware and computer expertise. Several sanctuaries are independently monitoring vessels using different technical solutions. OCNMS staff has been supporting the Office of National Marine Sanctuaries (ONMS) in evaluating the efficacy of a sanctuary-wide enterprise solution for vessel traffic monitoring. OCNMS also continued its ATBA Monitoring and Outreach Program. In 2013, the estimated compliance rate for the ATBA was 97% for all vessels over 400 gross tons, with the compliance higher for large commercial vessels. In the 2013 report, OCNMS has provided, for the first time, vessel density maps for 5 different vessel classes for the entire coast of Washington.

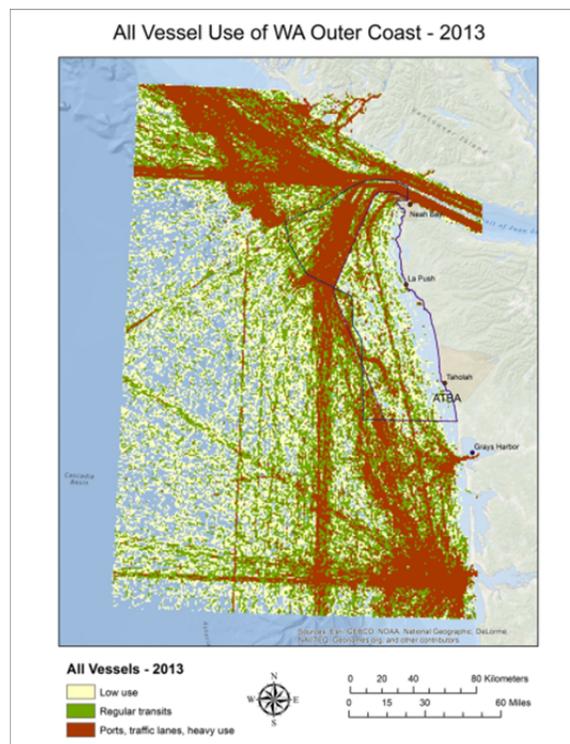


Figure 2 New OCNMS Vessel Traffic Monitoring Product

### Washington Department of Natural Resources Initiates OCNMS Seafloor Atlas Project

OCNMS has been conducting seafloor habitat mapping since 2000 and has 30 surveys in its library of benthic imagery and bathymetry. In addition, it has hundreds of seafloor substrate ground-truthing points from its various research projects. These surveys form a “patchwork” of the seafloor because they have been conducted over a period when mapping hardware and software technology was rapidly developing, the use of backscatter data from sonar was in its early stages, and habitat classification was becoming standardized. To create a seamless seafloor atlas from the existing patchwork of surveys, the Washington Department of Natural Resources has contracted with the Oregon State University Seafloor Mapping Lab. OCNMS and the West Coast Regional Office of ONMS have also supported this initiative. The Seafloor Atlas will be available in June 2015.

## IMPROVE OCEAN LITERACY

### Five Hundred Olympic Coast Students Participate in Ocean Science Activities

OCNMS, in partnership with Feiro Marine Life Center and Seattle Aquarium, completed the eighth year of Ocean Science programming for Washington's outer coast communities.



Figure 3 Students explore local beaches

Approximately 500 third, fourth, fifth and sixth grade students participated in classroom activities, field trips to Feiro Marine Life Center and Seattle Aquarium, and beach field investigations. Twenty-five teachers and 65 parents also participated in 2013-2014 Ocean Science trainings and activities. Participating schools include Ocosta, Simpson, Ocean Shores, Pacific Beach, Taholah, Queets-Clearwater, Quileute, Neah Bay and Clallam Bay. Ocean Science is designed to integrate NOAA ocean literacy concepts and principles into western Washington formal and informal educational programs. Ocean Science is supported by the North Pacific Coast and Grays Harbor marine resource committees.

### Education Programs in Tribal Communities

OCNMS supported a number of education programs in Makah and Quileute tribal communities. OCNMS staff supported the Makah Tribe's summer school for 3rd to 5th graders with tidepool exploration and marine debris education. Tidepooling took place on Strawberry Rock, a traditional gathering location for the Makah Tribe. Tidepool activities included organism identification, along with traditional gathering of intertidal organisms by tribal members. The students were provided with field guides then explored the Strawberry Rock intertidal area. Sanctuary staff also led a marine debris education presentation, enhanced with albatross bolus dissection and discussions on marine debris sources, as well as positive actions for debris reduction in our ocean. OCNMS staff supported the Quileute Tribe's summer school for kindergarten through sixth grade students at a one-day Ocean Health program. A combination of presentations, games and crafts engaged the students on local marine mammals, sources of marine debris and its effects on our ocean, and how our ocean's health affects us. The students loved being able to see skulls and skins of some of our local marine mammals, and enjoyed the crafts and games which supported the ocean health theme.

### Sanctuary Provides Learning Opportunities for Young Adults

Through a number of programs, including the NOAA Hollings Scholarship Program, Peninsula College, AmeriCorps, and Makah Tribe's Summer Intern Program, sanctuary staff provided learning opportunities for young adults interested in careers in marine sciences. OCNMS hosted two NOAA Hollings Scholars, Jessica Lindner and Emma Rice. The NOAA Hollings Scholarship is designed to support undergraduate studies in oceanic and atmospheric science, research, technology, and education,



Figure 4 OCNMS staff working with Makah interns

to increase public understanding and support for stewardship of the ocean and atmosphere and improve environmental literacy, as well as recruit and prepare students for public service careers with NOAA. Jessica assisted with data collection, organization, and analysis associated with the sanctuary's long term intertidal monitoring projects. Emma's project at OCNMS involved coordinating the Junior Oceanographer and Junior Explorers ROV (Remotely Operated Vehicle) summer camps in partnership with Feiro Marine Life Center. OCNMS also supported Peninsula College intern Jaedyn Joers who completed a final project on citizen science for sanctuary outreach. OCNMS welcomed Washington Service Corps AmeriCorps member, Danielle (Danny) Palmer. Danny supports marine stewardship volunteer programs and North Olympic Watershed (NOW) Science Programs. OCNMS provided support for the Makah Summer Intern Program. The Makah Tribe hosts a summer intern program for high school students that assist professionals on natural resource management projects. The program's goal is to encourage Makah youth to pursue higher education in fisheries and environmental sciences and return to their tribal lands to be managers and scientists for the tribe. OCNMS provided funding assistance for an intern, with a focus on marine debris. The interns organized a community beach cleanup and tested new marine debris monitoring protocols, and assisted sanctuary biologists with intertidal monitoring and data analysis.

### **Increased Use of Social Media**

In 2014 OCNMS made significant improvements in its use of social media. Web statistics for OCNMS website [olympiccoast.noaa.gov](http://olympiccoast.noaa.gov), which was overhauled in 2012 and 2013, showed an increase from 140,175 visits in FY12 to 181,011 in FY13, to 234,418 in FY14. This represents a 67 percent increase in website browsing in two years. The overhaul was one of the action items from the 2011 OCNMS Management Plan to establish a website structure to better match programmatic elements of the management plan as well as to adopt the official template of the Office of National Marine Sanctuaries. The website's companion Facebook page has also gathered additional attention, more than doubling "friends" in the past year. One Facebook photo went viral. As reports poured in of *Verella verella* (by-the-wind sailor) sightings along the Washington Coast, an OCNMS volunteer's photo of *V.verella* in sanctuary waters was posted to OCNMS Facebook page. The photo was an instant hit, and over a few days, the photo went viral, bringing our weekly total reach to 996,133 people (up 5,000% from the previous week). The photo grabbed the attention of several national media outlets including ABC News, the Huffington Post, The Weather Channel and Peninsula Daily News, as well as First News, an international kid's magazine produced in the UK.

### **OCNMS Celebrates 20th Anniversary with Concert on the Pier Event in Port Angeles**



OCNMS celebrated its 20th anniversary on Wednesday, July 16, as the stage sponsor for the City of Port Angeles's Concert on the Pier. Superintendent Carol Bernthal spoke of OCNMS's mission and programs and presented the award for the sanctuary's 2013 Volunteer of the Year to Karsten Turrey. OCNMS displayed sanctuary banners and hosted an information booth with orca fan-making activity for participants. "Sanctuary Sam," the ONMS sea lion mascot, greeted and

Figure 5 Sanctuary Superintendent introduces Sanctuary Sam

danced with guests while youth participants of ROV Explorers summer camp demonstrated their ROV creations and skills. Two marine debris sculptures and a life-sized inflatable orca (“Mike J26”) were also on display as educational tools. Four OCNMS partners participated in the event with educational booths and hands-on activities: CoastSavers, Feiro Marine Life Center, Olympic National Park and U.S. Fish and Wildlife Service. Monterey Bay National Marine Sanctuary (MBNMS) volunteers were in town participating in a volunteer exchange program and helped support the event.

## CONSERVE NATURAL RESOURCES IN THE SANCTUARY

### OCNMS Continues Efforts to Address Marine Debris

Sanctuary staff and partners continued to address the ongoing challenge of marine debris on the Olympic Coast. Volunteer shoreline cleanup efforts are coordinated by Washington CoastSavers, for which sanctuary staff are active on the Steering Committee, comprised of all CoastSavers partners, provided additional assistance with grant applications and outreach efforts, and coordinated the volunteer registration station at Hobuck Beach (Neah Bay) at cleanups in April (Earth Day) and September (International Coastal Cleanup). Sanctuary staff also coordinated Washington Conservation Corps (WCC) Veterans Crews that focused debris removal from remote areas not accessed by CoastSavers volunteers. Between October 2013 and September 2014 WCC crews worked 11 weeks and hauled out over 4,000 pounds of debris for recycling and disposal. With technical and financial support from NOAA’s Marine Debris Program, OCNMS also coordinated citizen science volunteers who conduct monthly monitoring of shoreline debris at 20 sites along the Strait of Juan de Fuca and outer Washington coast. These data are entered into a national marine debris database.



Figure 6 Debris removal from wilderness beaches can be challenging

### Citizen Science with Coastal Observation and Seabird Survey Team (COASST)



Figure 7 Volunteer identifies bird carcass

Coastal Observation and Seabird Survey Team (COASST) hosted several volunteer training opportunities on the western Olympic Peninsula. COASST is a citizen science project of the University of Washington dedicated to involving volunteers in the collection of high quality data on the status of coastal beaches, and trends of seabirds. COASST volunteers systematically count and identify bird carcasses that wash ashore along ocean beaches from northern California to Alaska. OCNMS Citizen Science Coordinator supported this program on the Olympic Peninsula. COASST is currently developing a marine debris protocol which will emphasize identifying indications of harm to wildlife.

## **UNDERSTANDING THE SANCTUARY'S CULTURAL, HISTORICAL AND SOCIOECONOMIC SIGNIFICANCE**

### **NOAA Supports Tribal Cultural Landscape Project**

NOAA's Marine Protected Areas Program, Office of National Marine Sanctuaries Maritime Heritage Program and Olympic Coast National Marine Sanctuary supported a Tribal Cultural Landscapes Project. The project was funded by the Bureau of Ocean Energy Management (BOEM) as a collaboration between BOEM, NOAA, the Confederated Tribes of Grand Ronde, the Yurok Tribe and the Makah Tribe. The goal of the project is to provide a methodology where indigenous communities can collect their own information, summarize results and concerns and work with agencies to apply them in a culturally sensitive and relevant manner for planning and regulatory compliance. While BOEM's interest is in how this guide can assist in offshore renewable energy siting, the application of the guide is intended to be much broader.

### **Improvements in Cultural Resource Management**

OCNMS staff and the ONMS Maritime Heritage Director conducted a number of meetings with key partners to discuss maritime heritage in the sanctuary. Meetings were held with Washington Department of Archeology and Historic Preservation (DAHP), Grays Harbor Historical Seaport Authority, Olympic National Park and the Makah Cultural and Research Center. Cultural resource education and management were discussed, as well as a proposal in Congress to designate a Washington Maritime National Heritage Area. Specific actions were taken to update the OCNMS Maritime Heritage Database to improve permit review related to NOAA's obligations under the National Historic Preservation Act and the National Marine Sanctuaries Act. Through an extensive review 197 records were updated and reviewed for location reliability. A new database and spatial data layers were created and provided to the Washington State Department of Archeology and Historic Preservation.

### **FY 2014 Challenges**

Due to a lapse in annual appropriations the fiscal year started with a shutdown furlough. The office was closed and staff was not able to work from October 1<sup>st</sup> through October 16, 2013, a loss of eleven work days. There was one exception, OCNMS asked for emergency permission from the Undersecretary of Commerce to recover our oceanographic moorings. The operation was approved and conducted on the 10<sup>th</sup> and 11<sup>th</sup> of October, recovering \$170,000 of government property, prior to predicted fall storms.

The budget process and extended continuing resolution continued to make program planning difficult in FY 2014. The sanctuary received a final budget in February 2014. While this was a considerable improvement from FY 2013, it still represented a challenge and the delay of making programming decisions. Prior to this time OCNMS received spending authority based on projections on a month by month basis.

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. Technical difficulties with a newly installed survey system precluded habitat mapping efforts for 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 2014.

**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

**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. It is hoped that a similar study and evaluation can be completed at some point in the future, preferably prior to the next management plan review.

**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

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

1) In FY 2014 OCNMS hosted a total of six Advisory Council meetings with 63 individuals from the public participating in one or more meetings. Meeting locations were Forks, Lacey, Neah Bay, Port Angeles (twice), Aberdeen, , and La Push. Advisory Council members and individuals participating in Advisory Council working groups contributed an estimated cumulative total of 2,315 hours in support of OCNMS in FY 2014, a decrease from FY 2013 due to fewer working groups. Estimated hours include the efforts of two working groups (compared to four from the previous year), which may include non-council members. Advisory Council resolutions and recommendations, are posted at : [http://olympiccoast.noaa.gov/involved/sac/sac\\_actions.html](http://olympiccoast.noaa.gov/involved/sac/sac_actions.html). OCNMS hosted a well-attended 20<sup>th</sup> anniversary celebration in conjunction with a City of Port Angeles's Concert on the Pier event. Public attendance figures are not included as it was not solely a sanctuary event.

2) Volunteers contributed 19,770 hours towards Olympic Coast National Marine Sanctuary programs for Education and Outreach, Research, and Resource Protection. The estimated dollar value of OCNMS volunteer activity is \$ 427,859.80 (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 –1,303 hours. Estimated value of \$28,171
- COASST (dead seabird surveys) – 5,477 hours. Estimated value \$118,413
- *R/V Tatoosh* Field Operations and Research –254 hours. Estimated value \$ 5,491
- Washington and International Coastal Cleanups – 12,600 hours. Estimated value \$272,412
- OCNMS Clerical Assistance – 136 hours. Estimated value \$2,940

Outcome 2 was also supported by active OCNMS participation as an ex-officio representative on outer coast marine resources committees, including 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 <sup>2</sup>	Ground-truthing nm <sup>2</sup>	Characterization nm <sup>2</sup>
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

**Status:** Significant time, money, and effort were invested in multibeam mapping hardware upgrades for the *Tatoosh* in 2014. An Applanix POS MV Inertial Movement Unit with dual antenna was integrated with the Reson 8101 multibeam system for better mapping accuracy. Unfortunately the antenna bases broke during use and the data were degraded.

- One nautical mile around each of three sunken ships was mapped for natural resource incident reports. The Koprino (2012), Fjord Mist (2013), and La Pietra (2014) were all mapped to locate their final disposition and potential for further seafloor disturbance. These sites will be remapped in 2015 with new antenna\*.
- The *Multibeam Mapping survey of Potential Deep Sea Coral Habitat, 2011-2014* was completed, with habitat classification, and posted on [olympiccoast.noaa.gov](http://olympiccoast.noaa.gov)
- The underwater video camera used for ground-truthing multibeam sonar was enhanced with a high-definition video recorder to improve the quality of seafloor stills and videos

Although the full target for this performance measure was not met in 2014, the significance of the season was found in acquiring sophisticated ancillary equipment to augment the multibeam mapping work conducted by OCNMS, and in developing a supportive relationship with NOAA's Office of Coast Survey.

**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	FY14 data processing is in progress. All seafloor mapping is with OSU Seafloor Atlas Project

**Status:** At the time the 2012 Management Plan Implementation Report was completed, not all of the reported data had been disseminated on the OCNMS website, see <http://olympiccoast.noaa.gov/science/surveyscruises/surveyscruises.html>. We have updated the 2012 table to show the status of data previously reported as pending.

**Performance Measure 4 Reporting Table – 2012 Data (2014 status updated)**

Performance Measure 4 Reporting	Data Collection Dates	Product	Data Sharing Places	Time to Analyze Data	Time to Disseminate Data	Final analysis, report and dissemination
MAP2 Seafloor Habitat Ground Truthing	August 1-30, 2012	Sediment sampling from 90 sites (over 330 nm <sup>2</sup> ) with video enhancement	OCNMS website, GIS library	30 days	60 days 1 completed 2 pending	Integrated with Seafloor Atlas due June 2015
MAP2 Imagery, bathymetry backscatter for 1 <sup>st</sup> Beach and Quillayute Needles	August 1-30, 2012	Seafloor area and characterization of 1.3 nm <sup>2</sup>	OCNMS website, GIS library	60 days	60 days Pending	Integrated with Seafloor Atlas due June 2015

ECO3 Coral and Sponge Communities	2006, 2008, 2010, 2011 surveys	Site Characterizations from post- processed ROV video	Characterizations submitted to IPC, CRCP and PFMC EFH Review Committee & OCNMS website	multiyear	multiyear	Peer reviewed comprehensive report planned in 2015
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**Status (continued):** In 2013 OCNMS collected data or performed field support services in six research areas: hydrographic surveying, seafloor mapping, oceanographic moorings, Unmanned Aircraft System (UAS) marine debris identification test, UAS seabird identification test, and intertidal monitoring.

**Performance Measure 4 Reporting Table – 2013 Data (2014status update)**

Performance Measure 4 Reporting	Data Collection Dates	Product	Data Sharing Places	Time to Analyze Data	Time to Disseminate Data	Final analysis, report and dissemination
OCE01 Oceanographic Mooring Data	April-Oct, 2013	Data from 10 seasonal oceanographic moorings	OCNMS website	Completed in 2014	Completed in 2014	Complete: OCNMS website

**Status (continued):** 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.

**Performance Measure 4 Reporting Table for 2014**

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
MAP2 Shipwreck survey: Koprino, Fjord Mist, La Pietra	May 16-25, 2014	Multibeam data acquisition and processing. Broken antenna resulted in low quality data.	Poor quality data; will not be shared	Data has been processed, analyzed and rejected.	N/A	N/A
MAP4 Seafloor Report	June-July 2014	Completion of <i>Multibeam Mapping Survey of Potential Deep Sea Coral Habitat, 2011-2014</i>	OCNMS website, GIS library, reports	12 months from multibeam data collection	6 months from groundtruth data collection	June 2014
MAP4: Development of Seafloor Atlas	2000-2013	Seafloor Atlas of sidescan and multibeam seafloor maps of OCNMS	OCNMS, WADNR, WCOOP and others	Complete by June 2015	Complete by 2015	2015
OCE01 Oceanographic Mooring Data	April-Oct, 2013	Data from 10 seasonal oceanographic moorings	OCNMS website	Pending staff time for data analysis	Pending data analysis	Pending data analysis

<b>ECO2 Intertidal Monitoring</b>	June –July, 2014	Rocky intertidal data in MARINE database. Sand data in OCNMS database.	MARINE website; OCNMS website.	Completed	Pending data entry in MARINE	Pending
<b>ECO7 Marine Mammals</b>	July 7-10, 2014	Sea otter census from Norwegian Point. Land-bases census of sea otters to be added to coastal and aerial count	OCNMS website and WA state web sites.	Completed	Completed	Completed
<b>MD2 Beach Debris</b>	Year-round	Marine debris collected by citizen science volunteers from 1-meter collection areas on select beaches	NOAA marine debris website	Ongoing	Ongoing	Periodic

**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
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

OCNMS staff supported regional professional development workshops and trainings, including: "The Ocean's Recipe for Success" at PEI Grays Harbor Ocean Acidification Workshop hosted by Grays Harbor College, and also at Seattle Aquarium's Otters, Ecosystems and Ocean Acidification in Washington Waters Workshop hosted at Clallam Bay School for a total of 35 educators. Staff also provided ocean acidification presentations and resources to twenty K-12 teachers from California, Oregon and Washington during Nature Bridge's week-long NOAA funded teacher workshop.

OCNMS staff provided hands-on, place-based education to over 1,400 K-12 students including: the eighth year of Ocean Science program (which included classroom activities, field trips to Feiro Marine Life Center, Seattle Aquarium, and beach field investigations); the North Olympic Watershed Science Program (N.O.W.), a joint partnership between Feiro Marine Life Center, Olympic National Park, and OCNMS; Beach Day tidepool investigations with Neah Bay Elementary School students; Quileute Marine Summer School; Neah Bay Summer Camp; three Junior Oceanographer weekly camps in partnership with Feiro Marine Life Center.

OCNMS hosted two Hollings Scholars from NOAA's Office of Education (OED) and one Peninsula College intern over the summer.

**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	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

**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, which was overhauled in 2012 and 2013, show an increase from 181,011 in FY13 to 234,418 in FY14 according to reports from the National Ocean Service. This represents a 29.5% percent increase in web browsing.
- Facebook – the NOAA OCNMS Facebook page was created in September 2010. The page increased its fans from 1058 fans in 2013 to 2,473 fans in 2014. One post went viral, leading to a total weekly reach of 996,133 individuals.
- Twitter – the NOAA OCNMS Twitter page was created in July 2014 and has 100 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 5446 visitors in 2014, an increase of 56 visitors from FY2013. The center was open daily Memorial Day weekend through Labor Day weekend, and at other times by appointment.
- Festivals and Events – OCNMS staff did not participate in the 2013 annual Dungeness Crab and Seafood Festival due to the government shut down, but did participate in Seattle Aquarium's Sea Otter Awareness Weekend, Ocean Shores Beachcombers Fun Fair, Grays Harbor Shorebird Festival, Franklin Family Fun Night, University of Washington Career Fair, Peninsula College Earth Day Event, Get Outdoors Day, Get Into Your Sanctuary Day, OCNMS 20<sup>th</sup> Anniversary Concert on the Pier Celebration and Makah Days.

- 1118 volunteers celebrated Earth Day this year by turning out for the annual Washington Coast Cleanup organized by Washington CoastSavers. Volunteers hauled away an estimated 11.5 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 second year that CoastSavers collaborated in this international shoreline cleanup sponsored by Ocean Conservancy, which is held in late September. Over 500 volunteers removed over three tons of debris from Washington's outer 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 digital mapping effort.	0	Completed for all key staff

**Status:** No relevant, regional drills were identified for staff participation in FY2014. Sanctuary-specific comments on the NW Area Contingency Plan were provided at the annual summit in December. Sanctuary staff participated in the Shoreline Cleanup Assessment Team task force serving the Area Committee. OCNMS provided a comment letter for project scoping of oil terminal development in Grays Harbor. Sanctuary staff was briefed on development of a regional ERMA (Emergency Response Management Application) under development by NOAA/Office of Response and Restoration. Sanctuary staff provided guidance and several data sets in support of the ongoing Environmental Sensitivity Index digital mapping effort. A spills response training plan was updated for FY2014, and all key staff completed recommended training.

**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

**Status:** The OCNMS Advisory Council established a Science Working Group to provide recommendations for indicators of ecosystem health and promotion of the sanctuary as a sentinel site for climate change research. The working group identified key metrics, or indicators, for Condition Report questions and recommended that OCNMS wait for indicators under development by NOAA’s NW Fisheries Science Center for the state’s marine spatial planning process. OCNMS has no plans to draft a new Condition Report in the near future.

#### **IV: Year Three 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 Three (FY 2014) 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.

**FY14 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 2014 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	FY13 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	
<b>A1. Collaborative and Coordinated Sanctuary Management Action Plan</b>				
CCM1 External Evaluation	L	○	No activities identified for FY 2014.	
CCM2 Coastal Treaty Tribes	H	●	Drafted a preliminary staff training presentation on government to government consultations. Presented at a staff meeting and held a discussion on how a more detailed training could be developed and presented in the future. Shared draft training with other regional NOAA staff. Conducted informal discussions with tribal staff on proposed social science survey. Briefed Makah Tribe on situation with abandoned debris in their U&A. Worked with Makah Tribe on permit consultation procedures.	
CCM3 Olympic Coast Intergovernmental Policy Council	H	◉	OCNMS participated in February and July 2014 IPC meetings. Annual meeting with ONMS director cancelled. Discussed the development of a Habitat Framework for the Olympic Coast with the IPC.	
CCM4 Washington State	H	●	While OCNMS has not met with the full Washington State Ocean Caucus, sanctuary and state staff have been in frequent contact on collaborating on a number of activities. WA state presented to the AC with a focus on coordination with OCNMS.	
CCM5 Department of Interior	H	●	Conducted an OCNMS-ONP joint staff meeting in April. Staff has met with ONP, attended public meetings and provided input on the WSP.	
CCM6 US Coast Guard	H	◉	Briefed new 13th CGD Commander RADML Gromlich on sanctuary. Planning for annual meeting in progress.	
CCM7 US Navy	H	●	Annual meeting with the USN held.	
CCM8 NMFS	M	●	OCNMS and NMFS Northwest Region conducted substantive consultations related to the joint OCNMS and WDFW Olympic 2 proposal and EFH process in 2014. NWFSC staff consulted with OCNMS on a number of initiatives.	
CCM9 Office of National Marine Sanctuaries	H	●	2015 funding levels allowed for a number of National and West Coast Region coordination meetings for the Leadership Team, Maritime Heritage, Resource Protection, Education and Research teams.	
CCM10 Canadian Government	L	○	No activities identified for FY 2014.	
<b>A2. Community Involvement in Sanctuary Management Action Plan</b>				
COM1 Advisory Council	H	●	Advisory Council meetings were held as planned in November 2013, and January, March, May, July, September 2014. An annual work plan was completed and adopted, and it is used routinely for meeting agenda development.	
COM2 Marine Resource Committees	M	●	Attended NPC MRC meetings in November, January-May, and September. Provided briefings on marine debris cleanup and monitoring efforts, OCNMS Advisory Council meetings, and oil spill issues. Unable to attend community fair as it fell on day of large beach cleanup. Facilitated NPC MRC funding of video highlighting underwater wonders off Washington coast. Regularly reviewed GH MRC meeting agendas; did not attend because of travel distance and lack of sanctuary-specific agenda items.	
COM3 Non-government Organizations	H	○	Drafted letter of support for The Nature Conservancy derelict crab gear removal project. Hosted visits by Surfrider regional chapter coordinator. Continued support for CoastSavers beach cleanup and debris outreach work. Served as invited speaker for Olympic Climate Action forum and St. Andrews Episcopal Church Earth Day service.	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY13 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	
<b>A3. Sanctuary Operations Action Plan</b>				
OPS1 Vessel Infrastructure and Operations	H	●	Completed preventative maintenance on the R/V <i>Tatoosh</i> including servicing drive shafts, installation of fixed firefighting system, replaced all running lights, masthead light, repaired hydraulic system, installed multibeam transducer system and antennas, replaced the life raft, restored bottom paint, etc.. This maintenance addressed all deficiencies identified in the annual inspection and ensured the R/V <i>Tatoosh</i> remained in working order though out the FY14 field season. Installed new habitat mapping equipment. Unfortunately there were some issues with the quality of data coming in, and troubleshooting the problem will carry into FY15.	
OPS2 Facilities	H	●	Finalized tripartite MOU among OCNMS, the City of Port Angeles and the Feiro Marine Life Center (Feiro) outlining programmatic responsibilities and formalizing partnerships to address shared priorities. Worked closely with partners to develop a shared vision and to identify shared priorities for a Port Angeles Marine Campus. Collaborated closely to finalize space requirements to better inform development of options for moving forward with implementing a marine campus.	
OPS3 Annual Planning	H	●	Successfully prepared and executed FY 2014 OCNMS budget and ensured efficient obligation of funds in support of identified management plan priorities. Budget was planned / executed according to the new FY14 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 2014 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, the ONMS West Coast Region and Channel Islands National Marine Sanctuary. All of these funds were utilized in support of OCNMS programs and priorities.	
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. Began addressing 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. A number of FTE positions are currently unfilled due to recent retirements and a backlog with NOAA HR in processing recruitment actions. Recruitment of these FTE vacancies is dependent both upon budgets and NOAA HR workload.	
OPS6 Volunteer Program	M	●	Actively recruited for Olympic Coast Discovery Center (OCDC), COASST, marine debris monitoring and other volunteer programs using traditional media and new technologies to advertise volunteer opportunities. Spring OCDC volunteer docent training completed during April - May 2014; Conducted COASST classroom training and regularly offered field refresher courses; Conducted COASST Oil Spill Preparedness class and COASST Citizen Science training. Serve on steering committee for WA CoastSavers. Hosted volunteer exchange for 8 volunteers and one staff member from Monterey Bay National Marine Sanctuary. Coordinated key activities for WA Coast Cleanup and International Coastal Cleanup, including coordination of volunteer registration at Neah Bay. Tracked monthly volunteer hours.	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY13 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	
OPS7 Permitting and Consultation	H	●	Issued 6 OCNMS permits in FY2014, provided revisions for reissue of OCNMS Superintendent's permit, and provided review comments on one multi-sanctuary permit. Facilitated consultations, including with multiple fishing sectors for placement of a Noise Reference Monitoring Network acoustic mooring. Created a permit tracking spreadsheet to document permit compliance with special conditions, especially reporting. Participated in all quarterly Permit Coordinators conference calls; provided quarterly permit action summaries for ONMS. Completed a summary of tribal consultation procedures and provided to Makah tribe to refine optimal consultation procedures. Drafted briefings on permit activity for the bi-monthly Office Report to the Advisory Council. Maintained up-to-date records in the OSPREY database.	
OPS8 Voluntary Compliance	M	○	Nothing to report	
OPS9 Enforcement	L	●	Enforcement Technical Advisory Committee conducted two bi-annual meeting in December 2013 and April 2014, reviewing changes to USCG training, conducted a demonstration of AIS tools, and reviewed ongoing investigations. Established new procedures for conducting assessments of damages resulting from sanctuary violations, concentrating on sunken vessels. A meeting with NOAA Office of Law Enforcement and NOAA General Counsel discussed ways to improve OCNMS enforcement activities.	
OPS10 Implementation Reporting	H	●	The sanctuary completed the 2013 Management Plan Implementation Report, documenting progress on action plans and reporting on performance measures. The implementation report and a draft FY 2014 priorities document were provided to the AC and IPC as background documents. The AC was briefed on these documents at the November 2013 AC meeting. The IPC discussed 2014 priorities at their February 2014 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.	
<b>B1. Habitat Mapping and Classification Action Plan</b>				
MAP1 Regional Coordination	H	○	Participated in preliminary Washington State Spatial Prioritization Workshop and phone conferences. Participated in preliminary Habitat Framework meeting of IPC to determine if NOAA's Coastal and Marine Ecological Classification Standard (CMECS) is a possible classification tool for development of WA outer coast marine ecological data.	
MAP2 Seafloor Habitat Mapping	H	◉	Worked with NOAA Pacific Hydrographic Branch and NOAA Navigational Response Branch to outfit the <i>Tatoosh</i> with improved technology for seafloor mapping. Upgraded system was successfully surveyed to Office of Coast Survey standards. A subsequent system failure precluded planned field work. Staff worked with software vendors Hypack and CARIS to determine errors related to data acquisition and processing. Retrofitted systems are in testing and shakedown as of close of FY14.	
MAP3 Habitat Classification	H	○	Seafloor data processing and habitat classification are postponed, awaiting resolution of data errors from software vendors. No smooth sheets were developed. New habitat classification will be developed with Seafloor Atlas.	
MAP4 Mapping Products	H	○	Maps were made for resource protection, permitting, education, citizen science, cultural resources, ATBA, seafloor mapping, and the ESI. All data from 2000-2013 were sent to OSU for processing into a Single Atlas.	
<b>B2. Physical and Chemical Oceanography Action Plan</b>				
OCEO1 Coastal Mooring Program	H	●	Moorings were deployed in May with servicing/data downloads approximately every 4-6 weeks. Moorings will be retrieved in early October. Post-processing of sensor data underway.	
OCEO2 Hypoxia	M	○	Provided notification to the WA-OR Hypoxia network on low oxygen levels recorded on CTD casts.	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY13 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	
OCEO3 Ocean Acidification	H	○	Presented on local impacts of ocean acidification to a community forum organized by Olympic Action Network	
OCEO4 Harmful Algal Blooms	M	○	Net tows for HABS conducted during monthly servicing of moorings and relayed to ORHAB.	
<b>B3. Populations, Communities and Ecosystems Action Plan</b>				
ECO1 Water Column Communities	L	○	No activities identified for FY 2014.	
ECO2 Intertidal	M	●	Completed sand and rocky intertidal monitoring at established sites. Recruited and hosted a Hollings intern to assist with field, lab and data work. Completed sieving of sand samples from 2012, 2013 and 2014. Completed sand data entry for past years and preliminary exploration, visualization and analysis of sand data. Website updates are pending. Engaged Makah Summer interns in field work and data analysis. Established MARINE vertical transect at Makah rocky intertidal site.	
ECO3 Subtidal	L	○	No activities identified for FY 2014.	
ECO4 Benthic	M	◉	Fiber optic cable monitoring data reviewed and plans initiated to assess completeness in FY2015.	
ECO5 Fish	L	○	No activities identified for FY 2014.	
ECO6 Marine Birds	M	◑	Completed data management for past OCNMS surveys and provided data to NCCOS for regional hotspot modeling effort. Attended meeting of outer coast seabird researchers to review ongoing efforts and identify data gaps and opportunities.	
ECO7 Marine Mammals	M	○	OCNMS participated in annual sea otter surveys.	
ECO8 Stranding Network	L	○	Fielded reports of dead and stranded marine mammals, provided guidance for self-reporting, and passed appropriate reports to the NW Marine Mammal Stranding Network.	
ECO9 Ecosystem Processes	M	◉	Continued work with the SAC Science Working Group but deferred development of ecosystem indicators till Washington State indicator's report is completed.	
<b>B4. Data Management, Sharing and Reporting Action Plan</b>				
DATA1 Data Quality Control and Management	H	●	Field reports from 2013 were collected, analyzed, summarized, compiled and shared by spring, 2014. Reviewed GIS data library holdings to see if data and metadata was current. Manage changes to GIS software and license location. Staff updated skills to match GIS ELA standards. Initiated new or edited versions of ATBA database, Incident database, Maritime Heritage database, and CRAM database	
DATA2 Data Distribution	H	●	Validated functionality of research/monitoring database for summarizing and reporting on OCNMS surveys in a timely manner. Data for 2014 is in development for posting to the OCNMS website. Some previous years' data were posted. Presented seafloor mapping information to IPC; gray whale data to Makah Tribe; CMECS data to IPC; and coordinated NOAA mapping initiative to Quinault Tribe.	
DATA3 Adaptive Management	L	○	No activities identified for FY 2014.	
DATA4 Condition Report	M	○	No activities identified for FY 2014.	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY13 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	
<b>C1. K-12 Education Action Plan</b>				
ED1 K-12 Partnerships	H	●	<p>Participated in an annual strategic planning meeting to coordinate K-12 efforts with educational partners (Seattle Aquarium, Feiro Marine Life Center and Pacific Education Institute); Provided sanctuary staff to participate on Feiro Marine Life Center Research and Education meetings.</p> <p>Supported Ocean Acidification education, but presenting "The Ocean's Recipe for Success" to K-12 educators at workshops in Grays Harbor and Clallam Bay for a total of 35 educators.</p> <p>Supported Cascadia EarthScope Earthquake and Tsunami Education workshops targeting teachers, park/museum interpreters, and emergency management educators; workshops in Aberdeen, WA (August 11-14) and Forks, WA (October 10-13).</p> <p>Worked with Washington CoastSavers to draft a grant for a traveling exhibit highlighting Olympic Coast National Marine Sanctuary and the issue of marine debris, and to conduct outreach associated with exhibit; Awarded \$16,000, February 2014.</p> <p>Collaborated with Earth Echo to plan ocean acidification film; Include OCNMS science team in a live webcast while filming; Involve local school groups (Filming scheduled in Spring 2015).</p> <p>Collaborated with Olympic National Park (ONP) to include OCNMS content in the ONP Ocean Stewards Activity Book.</p> <p>Completed and was awarded a grant for an AmeriCorps member to serve as coordinator for NOW Science Education and Sanctuary Volunteer Stewardship programs.</p> <p>Provided NOAA resources and staff support for NatureBridge Olympic marine science teacher workshops and student programs.</p>	
ED2 Place-Based Education	M	●	<p>Conducted Ocean Science activities for over 400 3rd - 6th grade students, 25 teachers and 65 parents from Clallam, Jefferson and Grays Harbor counties, involving place-based education near or adjacent to the sanctuary. Supported Feiro Marine Life Center NOW (North Olympic Watershed) Science Program field trips, reaching over 900 students from Port Angeles and Sequim school districts; Provided Hollings Scholar to support Junior Oceanographer and ROV Explorers summer programs; Supported Quileute Family Fun Night, Quileute Marine Summer School and Neah Bay Summer Camp activities, reaching 67 students and 29 adults.</p>	
ED3 Regional Initiatives	L	○	<p>Participated in strategic planning meeting with Pacific Education Institute and Feiro Marine Life Center leadership to discuss opportunities to adapt programs to support Next Generation Science Standards.</p>	
ED4 Using Technology	L	●	<p>Developed new content for OCNMS Ocean Literacy Teacher Resources Web page; Actively promoted regional calendar of events and news stories on OCNMS website; Maintained "NOAA Olympic Coast National Marine Sanctuary" Facebook page since September, 2010; As of September 30, 2014, 2470 Fans from 45 different countries "Like" the site; Managed OCNMS content on Twitter, Google Ocean, Recreation.gov, Yelp and TripAdvisor Web pages.</p>	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY13 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	
<b>C2. Higher Education Action Plan</b>				
HED1 Internship Development	L	●	Recruited and mentored two Hollings scholars for FY2014 to support Junior Oceanographer summer camp (a partnership with Feiro Marine Life Center) and intertidal monitoring programs. Supported Peninsula College student intern conducting citizen science and outreach activities; Recruited Nancy Foster scholar to support FY2015	
HED2 Volunteer Positions	L	●	Completed an extensive grant proposal and was awarded an AmeriCorps member to serve as coordinator for NOW Science Education and Sanctuary Volunteer Stewardship programs.	
HED3 College Partnerships	L	○	Participated in University of Washington Career Fair, along with other NOAA offices; provided opportunities for college students to be involved in marine research (see HED1 Internship Development).	
<b>C3. Visitor Services Action Plan</b>				
VISIT1 Visitor Experience	L	●	Supported the Advisory Council Tourism Working Group efforts to identify opportunities for OCNMS to serve visitors to the Olympic Peninsula; Promoted VolunTourism in the sanctuary; Promoted "Get Into Your Sanctuary Day" campaign; Operated Olympic Coast Discovery Center (OCDC), reaching over 5400 visitors during summer season; Trained nine new docents to support OCDC.	
VISIT2 Long-Range Interpretive Plan	M	●	Long-Range Interpretive Plan completed and waiting approval from regional office; Developed content for NOAA kiosk for Pacific Science Center that will be completed and installed in FY2015.	
VISIT 3 New Technology	L	●	Added 2013 moorings data to OCNMS Science Web page; Developed new content for OCNMS Ocean Literacy Teacher Resources Web page; Actively promoted regional calendar of events and news stories on OCNMS website; Updated web pages for accuracy and provided new content as needed; Maintained "NOAA Olympic Coast National Marine Sanctuary" Facebook page since September, 2010; As of September 30, 2014, 2470 Fans from 45 different countries "Like" the site; Managed OCNMS content on Twitter, Google Ocean, Recreation.gov, Yelp and TripAdvisor Web pages.	
<b>C4. Community Outreach Action Plan</b>				
OUT1 Stewardship and Citizen Science	L	●	Continued support for COASST and transitioned contracted staff from OCNMS to COASST funding. Continued citizen science program for marine debris monitoring, with 20 active monitoring locations; completed data entry into national database; conducted preliminary data analysis and provided a briefing to the OCNMS Advisory Council.	
OUT2 Staff Presence on Outer Coast	L	○	No activities identified for FY 2014.	
OUT3 Community Events	M	●	Participated in outreach activities at Dungeness Crab & Seafood Festival, Beachcombers Fun Fair, Franklin Science Night, University of Washington Career Fair, Grays Harbor Shorebird Festival, Peninsula College Earth Day, Get Outdoor Days and Makah Days; Hosted Port Angeles Concert on the Pier OCNMS 20th Anniversary Celebration; Provided regular briefings to service clubs, local governments, chambers of commerce, tourism organizations, stakeholder groups and others on matters pertaining to the sanctuary	
OUT4 Community-Based Efforts	L	●	Participated in North Pacific Coast MRC; provided briefings; encouraged engagement in and funding for marine conservation. Posted numerous events on OCNMS Facebook. Joined Feiro Marine Life Center in a proposal on microplastics monitoring. Assisted Skills Center Natural Resources classes by supporting their Advisory Board; providing guidance for student projects, serving as a working scientist for class interview. Attended Makah community meeting on natural resources management.	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY13 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	
<b>D1. Spills Prevention, Preparedness, Response and Restoration Action Plan</b>				
SPILL1 ATBA Management, Compliance and Monitoring	H	●	OCNMS completed a 2013 ATBA compliance report and posted on its website. This year's report includes a new vessel density product, which was provided to WA state to support their marine spatial planning efforts. OCNMS developed internal procedures for data processing. OCNMS staff has been participating in evaluating the potential for an ONMS-wide vessel monitoring effort.	
SPILL2 Regional Vessel Management Forums	L	○	OCNMS staff has been tracking recent developments related to changes in the energy sector that may lead to changes in shipping of petroleum products through the sanctuary.	
SPILL3 Regional Planning and Training Exercises	H	◐	Worked with NOAA ORR representatives to provide sanctuary-specific comments on 2014 priorities and in-situ burning policy language. Participated in the Shoreline Segmentation Task Force. Drafted spills-preparedness training plan for OCNMS staff and identified training opportunities. Met with contractors working on updates to environmental sensitivity index maps and provided data sets to support effort. No appropriate, local drills were identified for OCNMS staff participation.	
SPILL4 Outer Coast Trustees Working Group	M	○	Shared announcements of HAZWOPER training sessions in outer coast communities with tribal staff and MRCs.	
SPILL5 OCNMS Organizational Response Plan	H	◐	An operational draft of the OCNMS Organizational Response Plan has completed and is in review. OCNMS data layers were provided to ORR for incorporation into ERMA. This information will also be used to assist in updating the Environmental Sensitivity Index (ESI).	
SPILL6 Damage Survey and Assessment Protocols	H	○	No activities identified for FY 2014.	
<b>D2. Climate Change Action Plan</b>				
CLIM1 Climate Smart Sanctuary Program	L	●	Deputy Superintendent for Operations successfully completed the <i>Climate Academy</i> - a training course run through the National Conservation Training Center. The training covered numerous aspects of climate change from the scientific basis to adaptation planning and effective communication of climate change impacts. This fulfills Climate-Smart Sanctuary Certification Standards III (climate change training).	
CLIM2 Sanctuary as Sentinel Site	M	◐	Coordinated AC Science working group to identify metrics and indicators for future Condition Report iterations. Climate change indicators will be addresses in revisions to the OCNMS Science Needs document to be completed in calendar year 2014.	
CLIM3 Resilient Ecosystems	L	○	No activities identified for FY 2014.	
CLIM4 Communicating Climate Change	L	●	Conducted public presentations regarding OCNMS Climate Change Site Scenario at Peninsula College and Olympic Peninsula Power Squadron; Participated in outreach to compile an inventory of effective OA education and outreach materials, in partnership with other educators, scientists and citizens; Developed an OA outreach cart for Olympic Coast Discovery Center; Presented "The Ocean's Recipe for Success" at two teacher professional development workshops; Coordinated an OA Newsletter for POET, including contributions from several NOAA experts, as well as an expert from Taylor Shellfish; Participated in and presented at Olympic Climate Action climate change workshop in Port Angeles.	
<b>D3. Marine Debris Action Plan</b>				
MD1 Submerged or Floating Debris	H	○	Provided letter of support for The Nature Conservancy/Quinault Nation proposal for in-water derelict gear removal.	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY13 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	
MD2 Beach Debris	H	●	Provided support for CoastSavers beach cleanup planning and implementation activities. Assisted with grant proposal writing to fund CoastSavers efforts. Hosted Hobuck Beach volunteer registration station at April and September cleanup events. Coordinated efforts for remote beach cleanup by Washington Conservation Corps; connected WCC crews with Olympic National Park and Makah representatives for collaborations and logistical planning. Coordinated marine debris monitoring and gained NOAA Marine Debris Program funding. Provided letters of support for grant applications, including a funded one by Student Conservation Association/Olympic National Park.	
<b>D4. Wildlife Disturbance Action Plan</b>				
WD1 Outreach on Wildlife Disturbance	L	○	No activities identified for FY 2014.	
WD2 Overflight Restriction Zone	L	○	OCNMS, Washington Department of Transportation Aviation Division and Washington State Parks and Recreation conducted a joint site visit to the Washington State Copalis Airport to discuss management issues.	
WD3 Marine Mammal Disturbance	M	○	No activities planned for FY 2014.	
<b>D5. Water Quality Action Plan</b>				
WQP1 Vessel Discharges	H	◉	Reviewed Washington Department of Ecology Cruise Ship Inspection Report format, which includes a section related to discharges in OCNMS.	
WQP2 Contaminants	L	○	No Mussel Watch sampling was completed in FY 2014 because project funding for analysis was lacking with NOAA and WDFW.	
<b>D6. Habitat Protection Action Plan</b>				
HP1 Threat Assessment and Mitigation	M	○	No activities identified for FY 2014.	
HP2 Habitats of Special Importance	H	●	OCNMS and Washington Department of Fish & Wildlife (WDFW) submitted and later withdrew a proposal to modify Olympic 2 Groundfish Essential Fish Habitat (EFH) Conservation Area from the Pacific Fishery Management Council process. The proposal was withdrawn as to proceed with the coastal treaty tribes on a more comprehensive process identifying critical habitat areas for protection.	
HP3 Invasive Species	M	○	No non-native species monitoring or planning was completed in FY 2014. OCNMS staff assisted WDFW and Quinault Nation with clearing of biofouling from a Japanese skiff that grounded near Queets River.	
<b>D7. Regional Ocean Planning Action Plan</b>				
MSP1 Marine Spatial Planning	L	●	OCNMS staff continued to observe or participate in the WCMAC and NPC MRC meetings. Coordinated with WA state on a MSP briefing to the AC. Supported WA efforts in sector analysis, social science and indicator development.	
<b>E1. Maritime Heritage Action Plan</b>				
MH1 Cultural Resource Conservation	L	●	Met with the State Historic Preservation Officer and agreed to begin work on a Cultural Resource Management Plan, a Section 106 Programmatic Agreement and to share data. In preparation for data sharing the West Coast Regional Maritime Heritage Coordinator updated the OCNMS database. This information was evaluated for locational reliability and where appropriate estimated locations were generated to assist in permit review. All updated information was provided to DAHP.	

Action Plans/Strategies	MP Priorities - Level Funding: Scenario 1	FY13 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	
MH2 Local and Customary Knowledge	L	●	Supported three tribal workshops and participated in a Society for American Archaeology panel discussion on the Tribal Cultural Landscapes Project.	
MH3 Public Understanding of Treaty Rights	L	○	No activities identified for FY 2014.	
<b>E2. Socioeconomic Values of Sanctuary Resources Action Plan</b>				
SV1 Existing Socioeconomic Information	L	○	No activities identified for FY 2014.	
SV2 New Socioeconomic Information	L	●	OCNMS has been coordinating with a number of partners on two different social science surveys. The ONMS Economist has been providing technical support to the WCMAC on scoping various socioeconomic studies. Briefed the Advisory Council on the Olympic Coast Social Science Plan, Non-consumptive Recreational Use Study, and Social Values of Ecosystem Services Study. NCCOS and ONMS staff coordinated additional work on non-market values to support the WA state-sponsored Non-consumptive Recreational Use Study. Preliminary meetings on the social values work were held with tribal partners.	