



OLYMPIC COAST NATIONAL MARINE SANCTUARY

Navigating the Future

Management Plan Review



OCEAN LITERACY STRATEGIES AND ACTIVITIES

*Recommended for inclusion in the revised management plan
by the OCNMS Advisory Council on January 22, 2010*

I. INTRODUCTION

Throughout Olympic Coast National Marine Sanctuary's (OCNMS) management plan review process, the topic of Ocean Literacy has emerged repeatedly as a high priority for OCNMS to address in its revised management plan. OCNMS received a significant number of public comments related to the importance of promoting and improving ocean literacy among children, young adults and adults here in the Olympic Peninsula region and nationwide. Moreover, both the OCNMS Advisory Council (AC) and the Olympic Coast Intergovernmental Policy Council (IPC) have emphasized the importance of addressing the topic of ocean literacy in the revised management plan.

During its Issue Prioritization Workshop in January 2009, the OCNMS AC grouped the topics of community outreach, visitor services and educational programs together under the umbrella of Ocean Literacy. Then in July 2009, OCNMS staff, the AC and the IPC agreed that it would be valuable to host a one-day workshop on how to address the topic of ocean literacy in the revised management plan. Meredith Parker (Neah Bay Chamber of Commerce and AC Chamber of Commerce/Tourism/Recreation Representative) and Ellen Matheny (University of Washington Olympic Natural Resources Center and AC Education Representative) were the AC leads on the workshop; Bob Steelquist (OCNMS Education and Outreach Coordinator) was the OCNMS staff lead.

The workshop was held on November 12, 2009 at the University of Washington Olympic Natural Resources Center in Forks, Washington. Workshop invitations were sent to 148 people involved with marine education, outreach, visitor services and stewardship activities on the Outer Coast. Forty people, including OCNMS staff, attended the workshop.

Workshop participants included (in alphabetical order):

Lauren Bennett (OCNMS)

Carol Bernthal (OCNMS)

Jenny Betts (student)

Nancy Bluestein-Johnson (Western Washington University Huxley College on the Peninsula)

Les Bolton (Grays Harbor Historical Seaport)
Dean Butterworth (Olympic National Park)
Kent Chapple (Olympic Park Institute)
Craig Cornell (Marine Spill Response Corporation)
George Galasso (OCNMS)
Jennifer Hennessey (Washington Department of Ecology)
John Hunter (Quillayute Valley School District, Forks High School)
Justine Janguilla (student)
Janet Lamont (OCNMS)
Jacqueline Laverdure (OCNMS)
Dan Lieberman (North Olympic Skills Center)
Judy Lively (Olympic National Park)
Lorena Marchant (Grays Harbor College)
Ellen Matheny (OCNMS AC member and Olympic Natural Resources Center)
Karen Matsumoto (Seattle Aquarium)
Nancy Messmer (retired educator and Olympic Coast Discovery Center (OCDC) volunteer)
Deborah Moriarty (Feiro Marine Life Center)
David Morris (Feiro Marine Life Center)
Roy Morris (OCNMS AC member)
Debbie Preston (Northwest Indian Fisheries Commission)
Karen Rasmussen (North Beach School District, Ocean Shores, Washington)
John Richmond (Hoh River Residents Association)
Hannah Robbins (OCNMS)
Beth Rockey (North Beach School District, Ocean Shores, Washington)
Shannon Serrano (Surfrider Foundation)
Sarah Shaw (Grays Harbor College)
Bob Steelquist (OCNMS)
Kathy Steichen (Olympic National Park)
Randall Walz (Olympic Park Institute)
Shannon Walz (Olympic Park Institute)
Betsy Wharton (City of Port Angeles)
Adria, Raymond, Sean, Jerry, and Bret (students from North Olympic Skills Center)

During most of the workshop, participants were divided into four breakout groups, each of which addressed a different aspect of the ocean literacy topic: K-12 education, post-secondary education, community outreach and visitor services. Each breakout group was tasked with 1) identifying the needs related to these sub-topics, 2) prioritizing the needs they identified, and 3) characterizing the outcomes related to their topics that they would like to see OCNMS achieve over the next five to ten years. Each breakout group was staffed with a facilitator/notetaker who recorded the participant comments on flip charts.

The breakout groups generated a multitude of outcomes related to Ocean Literacy that they would like to see OCNMS achieve; they also generated a plethora of ideas for specific work that OCNMS could do to achieve these outcomes. OCNMS staff

worked to incorporate these ideas into a suite of strategies, activities, and outcomes (presented below) for inclusion in the revised management plan.

A draft workshop report and draft strategies were circulated to all workshop invitees for review and comment from December 22, 2009 to January 5, 2010. Comments were received from five workshop participants. OCNMS staff worked to incorporate these comments, finalize the workshop report and send it to the AC for review and discussion at its January 22, 2010 meeting. The AC voted to forward the workshop report strategies and activities to OCNMS (with minor revisions) with a recommendation that they be incorporated into the revised management plan.

II. RECOMMENDED STRATEGIES & ACTIVITIES

STRATEGY OLIT1: ENHANCE K-12 EDUCATION

WHAT IS THE DESIRED OUTCOME OF THIS STRATEGY?

Students and teachers will have an improved understanding of the ocean's importance and Ocean Literacy principles; students will be better prepared to enter careers that require an understanding of Ocean Literacy.

ACTIVITIES NECESSARY TO ACHIEVE STRATEGY:

ACTIVITY A: Maintain partnerships with other regional education organizations including the Seattle Aquarium, Feiro Marine Life Center, Olympic Park Institute, Port Townsend Marine Science Center, Ocean Shores Interpretive Center, Olympic National Park, Olympic Natural Resources Center and local school districts that leverage resources for Ocean Literacy.

- Collaborate with recipients of National Oceanic and Atmospheric Administration (NOAA) funding (Pacific Northwest Bay Watershed Education and Training (B-WET) Program, Environmental Literacy Grants) to maximize the effectiveness of NOAA resources and promote the NOAA Strategic Education Plan;
- Promote education opportunities that bring NOAA science and other education resources to educators and students in the region. These opportunities include, but are not limited to: Teacher At Sea, Get to Know NOAA, various data visualization products, distance learning and others;
- Utilize available technologies to expand classroom access to NOAA science and research programs (e.g., live video streaming)
- Work directly with classroom teachers to determine ways to integrate ocean literacy and OCNMS programs into existing school curricula;

- Promote the goals and strategies of the West Coast Governors' Agreement on Ocean Health (which include incorporating ocean literacy into Washington State Learning Goals Standards).

ACTIVITY B: Work collaboratively with the underserved and tribal communities within the region adjacent to the Sanctuary to develop place-based education opportunities for K-12 students.

- Consult with school districts, tribal governments, home-school organizations in local communities, non-profit and other education organizations to design programs that 1) meet education standards, 2) fulfill needs identified by regional educators and, 3) emphasize place-based and hands-on learning;
- Work with local area high schools to develop senior culminating projects that involve students in Sanctuary programs;
- Collaborate with schools in the Sanctuary region to develop student citizen science projects in and adjacent to the Sanctuary (e.g. beach clean-ups, beach water quality monitoring, bird monitoring, Streamkeepers of Clallam County, Washington State University Beach Watchers, local recycling and waste reduction campaigns etc.).
- Develop learning experiences to support summer youth programs.

ACTIVITY C: Participate actively in regional organizations, including the Northwest Aquatic and Marine Educators, the Environmental Education Association of Washington and the Washington Science Teachers Association, the Pacific Education Institute, as well as in regional initiatives (e.g., statewide environmental literacy planning and “No Child Left Inside”).

PARTNERS: Makah, Quileute and Hoh Tribes and the Quinault Indian Nation, Olympic Coast Intergovernmental Policy Council, Seattle Aquarium, Olympic Park Institute, Olympic National Park, North Pacific Marine Resources Committee, Grays Harbor Marine Resources Committee, Feiro Marine Life Center, Port Townsend Marine Science Center, Port Angeles School District, Quillayute Valley School District, North Beach School District, Cape Flattery School District, Sequim School District, Quileute Tribal School, local home school organizations, University of Washington Olympic Natural Resources Center, North Olympic Skills Center, the Pacific Education Institute.

RESOURCES: Staff time and funding to continue, restore and expand K-12 education programs

STRATEGY OLIT2: ENHANCE SERVICES TO VISITORS OF THE SANCTUARY

WHAT IS THE DESIRED OUTCOME OF THIS STRATEGY?

Improved awareness of Sanctuary; increased visitor awareness of ocean issues; an enriched and extended coastal travel experience; and improved visitor behavior that inspires stewardship and supports marine health.

ACTIVITIES NECESSARY TO ACHIEVE STRATEGY:

ACTIVITY A: Actively collaborate with other agencies, tribal governments, tourism organizations and the private sector to provide services and products that contribute to high-quality educational experiences for visitors to the Olympic Peninsula.

- Develop education and outreach materials, in a variety of media, to attract visitors, orient them to the region's visitor amenities, educate them on resources in the Sanctuary and inspire a sense of stewardship for the environment;
- Participate in regional forums and planning processes (e.g., chambers of commerce) that contribute to a strong tourism economy for the Olympic Peninsula;
- Offer technical assistance and training to partners and businesses that serve and educate visitors and interpret resources in the Sanctuary;
- Using contracts, memoranda of agreement or other instruments, provide funding, training and support to cooperative interpretation programs with sanctuary partners (these include initiatives based on successful programs with the Makah Cultural and Research Center, Olympic National Park and Washington State Parks);
- Expand efforts to develop interpretation programs on the Makah, Quileute, Hoh and Quinault Indian reservations as a way of developing program capacity, tourism enterprise, and training and job opportunities for tribal members.

ACTIVITY B: Develop and implement a Long Range Interpretive Plan for OCNMS.

- Actively involve partners and stakeholders in Long Range Interpretive Plan development;
- Work collaboratively to identify opportunities to develop additional visitor centers, wayside exhibits, informational signs, kiosks and aquarium or museum exhibits in the Sanctuary region;

- Coordinate the Long Range Interpretive planning process with partners in order to reflect the region's needs and effectively invest in visitor service infrastructure;
- Coordinate with other sanctuaries in the West Coast Region also developing interpretive plans;
- Include in the Long Range Interpretive Plan specific strategies to enhance effectiveness of the Olympic Coast Discovery Center (OCDC). These strategies should identify ways to: recruit, train and retain volunteers; coordinate and collaborate with the Feiro Marine Life Center and Olympic National Park as they develop a larger and more expansive coastal visitor and education center in Port Angeles; maintain and update existing exhibits; attract new visitors; and increase development and enrichment activities for staff and volunteers.

PARTNERS: Makah, Quileute and Hoh Tribes and the Quinault Indian Nation, Olympic Coast Intergovernmental Policy Council, Makah Cultural and Research Center, Olympic National Park, Feiro Marine Life Center, Port Townsend Marine Science Center, Port Angeles School District, Quillayute Valley School District, North Beach School District, Cape Flattery School District, Sequim School District, Quileute Tribal School, Peninsula College, Grays Harbor College, University of Washington Olympic Natural Resources Center, North Olympic Skills Center, Ocean Shores Interpretive Center, OCDC volunteers, and the communities of Port Angeles, Sequim, Neah Bay, La Push, Forks, Hoh River, Taholah, Ocean Shores, Westport and Pacific Beach.

RESOURCES: Staff time for planning, building partnerships, development and design of facilities, project management and operations and maintenance of the OCDC and other facilities.

STRATEGY OLIT3: STRENGTHEN COMMUNITY OUTREACH EFFORTS AND PROGRAMS.

WHAT IS THE DESIRED OUTCOME OF THIS STRATEGY?

OCNMS will become a vector through which the stories of the Outer Coast communities are told; OCNMS staff will develop more personal connections with the local communities on the Outer Coast and in the Olympic Peninsula region.

ACTIVITIES NECESSARY TO ACHIEVE STRATEGY:

ACTIVITY A: Actively support marine stewardship and citizen science volunteer programs (e.g., Coastal Observation and Seabird Survey Team and Washington CoastSavers).

ACTIVITY B: Assess needs and opportunities to develop a stronger OCNMS staff presence on the Olympic Coast

- Work with sanctuary partners who have existing facilities on the Outer Coast to explore office-sharing opportunities;
- Conduct feasibility and cost analyses of a “South Coast” satellite office in Grays Harbor County and a “West End” satellite office in Forks;
- Evaluate opportunities for “storefronts” and/or visitor information centers in coastal communities;
- Develop an inventory of possible locations, partners, costs, services and audiences for exhibits, visitor centers, waysides etc. (See Strategy OLIT2, Activity B).

ACTIVITY C: Maintain an OCNMS staff presence at events and meetings on the Outer Coast (e.g., Makah Days, Quileute Days, Chief Taholah Days, other festivals, Tribal Canoe Journeys, Marine Resources Committee meetings etc.).

- Develop an annual outreach plan that includes priorities for community events, staffing and volunteers, as well as priority themes and messages.

ACTIVITY D: Maintain a highly visible profile by sending sanctuary representatives (staff, leadership, AC representatives, volunteers) to community events that engage audiences of community members and leaders.

- Provide regular briefings to service clubs, local governments, chambers of commerce, tourism organizations, stakeholder groups and others on matters pertaining to the Sanctuary;
- Furnish expert speakers for public lecture series, community meetings, college classes and other forums in order to provide up-to-date information on sanctuary research, education, policies and management activities.

ACTIVITY E: Actively support the efforts of the North Pacific and Grays Harbor Marine Resources Committees (MRC), regional watershed councils, salmon recovery teams, the Puget Sound Partnership, and local and state government resource management initiatives in areas of research, education, and policy coordination.

PARTNERS: University Coastal Observation and Seabird Survey Team, Washington CoastSavers, Washington Clean Coast Alliance, Makah, Quileute and Hoh Tribes and the Quinault Indian Nation, Olympic Coast

Intergovernmental Policy Council, Makah Cultural and Research Center, Feiro Marine Life Center, Olympic National Park, Grays Harbor MRC, North Pacific MRC, Puget Sound Partnership, Clallam, Jefferson and Grays Harbor counties, state of Washington, local organizations such as Rotary and Lions Clubs, Surfrider Foundation chapters, local kayaking groups etc.

RESOURCES: Staff time; additional funding for events and travel.

STRATEGY OLIT4: ENHANCE USE OF TECHNOLOGY

Maximize use of technological resources to reach diverse and geographically remote audiences and stakeholders (i.e., the World Wide Web, social networking tools, distance learning, digital media, interactive kiosks, tele- and video-conferencing, webinars and other innovative tools).

WHAT IS THE DESIRED OUTCOME OF THIS STRATEGY?

Improved local, regional, and national awareness of the Sanctuary, the unique ecological resources that exist within its boundaries, and the American Indian cultures that have thrived on the Outer Coast of the Olympic Peninsula for thousands of years; creation of “information relationships” that enable the dissemination and gathering of information related to Ocean Literacy through efficient and cost-effective means.

ACTIVITIES NECESSARY TO ACHIEVE STRATEGY:

ACTIVITY A: Maintain an authoritative, engaging and up-to-date website, both as a way of distributing information about the sanctuary and as a way of creating interactive opportunities for the exchange and storage of digital information between staff, peers, partners and audiences.

- Complete an update and overhaul of OlympicCoast.NOAA.gov
- Integrate other appropriate technologies, as feasible, including social networking resources, smartphone applications, podcasts, webcasts of video etc.;
- Build out the OCNMS website to be a source of Ocean Literacy information (e.g., OCNMS-authored educational/curriculum materials, news articles on ocean issues etc.).

ACTIVITY B: Develop the capacity for high-quality video conferencing (telepresence) to enhance collaboration with partners and deliver education programming to geographically remote audiences.

- Update facilities, hardware and software to accommodate telepresence, including ship-land links, connections between

education centers (e.g., Peninsula College, Olympic Coast Discovery Center, Great Lakes Maritime Center, etc.);

- Work cooperatively with other sanctuaries and the Office of National Marine Sanctuaries to implement “Sanctuaries Live” and participate with cooperating National Estuarine Research Reserves to link to “Estuaries Live.”

PARTNERS: Makah, Quileute and Hoh Tribes and the Quinault Indian Nation, Olympic Coast Intergovernmental Policy Council, Makah Cultural and Research Center, Peninsula College, Olympic National Park, Olympic Park Institute, National Park Service Research Learning Centers, Office of National Marine Sanctuaries, Seattle Aquarium, other sanctuaries.

RESOURCES: Staff time and funding to support website development and information technology infrastructure.

STRATEGY OLIT5: PROMOTE CAREER-BUILDING OPPORTUNITIES IN MARINE SCIENCES, EDUCATION, MANAGEMENT AND POLICY.

Engage secondary and post-secondary students in career-building opportunities/activities associated with the marine environment. Because of the high school drop-out rate, and low participation of Tribal and rural students in the field of marine science, it is critical to start these programs before they leave high school.

WHAT IS THE DESIRED OUTCOME OF THIS STRATEGY?

OCNMS will become a catalyst for secondary and post-secondary opportunities with/among partners; secondary and post-secondary students in the Sanctuary region will have more opportunities for experience (classes, internships) in ocean research and management.

ACTIVITIES NECESSARY TO ACHIEVE STRATEGY:

ACTIVITY A: Coordinate internship activities between high schools, colleges, universities, community colleges and OCNMS to create learning opportunities within the areas of sanctuary operations, research, education and management.

- Formalize an internship coordinator staff role, which will focus on developing and coordinating OCNMS internship opportunities;
- Develop appropriate guidelines for academic elements of OCNMS internships.

ACTIVITY B: Develop the necessary agreements and instruments (e.g., internet advertising) to recruit and utilize Americorps or Student Conservation Association volunteer positions at OCNMS.

ACTIVITY C: Participate in local high school and college career days and other types of job fairs.

ACTIVITY D: Develop opportunities with local high school and college classes to provide OCNMS staff and other experts as lecturers, presenters and/or adjunct faculty.

ACTIVITY E: Build partnerships with Peninsula College, Western Washington University Huxley Program on the Peninsula, Grays Harbor College, the University of Washington Olympic Natural Resources Center and other institutions to:

- Develop continuing education programs on Ocean Literacy and ocean issues;
- Develop opportunities for students to be involved in marine research;
- Develop opportunities for OCNMS staff to become more engaged in college campus communities;
- Provide continuing education opportunities for teachers to receive academic credit and clock hours in order to enhance their understanding of marine science content areas and methods for hands-on science education.

ACTIVITY F: Work collaboratively with foundations, local colleges and universities, tribal communities and other agencies to develop college scholarship funds for students from the Coastal Treaty Tribes who are interested in pursuing college degrees in marine policy, science, conservation, education and other related fields.

PARTNERS: Peninsula College, WWU Huxley Program on the Peninsula, Grays Harbor College, the University of Washington Olympic Natural Resources Center, North Olympic Skills Center, Olympic National Park, Olympic Park Institute, North Pacific Marine Resources Committee, Grays Harbor Marine Resources Committee, Makah, Quileute and Hoh Tribes and the Quinault Indian Nation, Olympic Coast Intergovernmental Policy Council, Seattle Aquarium, Olympic Park Institute, Feiro Marine Life Center, Office of National Marine Sanctuaries, Americorps, American Indian College Fund (and other foundations).

RESOURCES: Staff time and additional funding for travel, internships, scholarships etc.