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INSIDE

WELCOME TO OLYMPIC COAST NATIONAL MARINE SANCTUARY

Humpback whales, sea otters, seabird colonies, seafloor canyons, undeveloped coastline, prehistoric village sites, shipwrecks... What do these all have in common?

They are all here!

Since its designation in 1994, Olympic Coast National Marine Sanctuary has combined innovative ocean research, progressive management and policy, and inspiring education programs to protect one of America's significant ocean treasures. Our job is to assure that future generations of Americans can enjoy the same benefits the sanctuary offers that we take for granted now: matchless beauty, abundant marine wildlife, a phenomenally productive ecosystem, and irreplaceable cultural and historic treasures.

Olympic Coast National Marine Sanctuary is one sanctuary in a system of national marine sanctuaries. Together, the national marine sanctuary system represents the most important places in our country's oceans and Great Lakes. National marine sanctuaries are recognized for the outstanding natural, historical, and cultural

values they provide the American people. The work of each sanctuary must carefully fit the needs of that unique place, whether it is preventing oil spills, managing impacts from human use, or simply gaining a better understanding of the marine ecosystem.

What makes the Olympic Coast so important is the sheer variety of living and cultural resources found here. Dozens of marine wildlife species depend on the sanctuary for their survival. Scores of shipwreck remains and other historic and prehistoric sites are protected here. Pioneering research and exploration of the ocean floor along the Olympic Coast is expanding our knowledge of underwater habitats that sustain the life of the ocean.

The wonders of the Olympic Coast sanctuary belong to all of you. We encourage you to visit, share your experiences and expertise, join us as stewards of this special place we enjoy and will pass on to future generations.

THE OLYMPIC COAST: A LIVING SYSTEM

Olympic Coast National Marine Sanctuary is a system of interrelated systems—biological, geologic, climatic, physical and cultural. As a place, it is influenced by vast processes in the Pacific—ocean currents and weather patterns—and the geologic processes at the continental margin—erosion, deposition, and uplift. The result is a dynamic physical environment, an often turbulent sea and a constantly changing shoreline of beaches, rocky headlands and a multitude of offshore rocks and islands.

Diverse habitats give rise to diverse communities. Kelp forests line the nearshore environment; broad expanses of sand and silt cover much of the ocean floor. Rocky headlands are rich nurseries for intertidal invertebrates. Shallow

reefs support dazzling arrays of fish and attached organisms, like purple sea urchins and colorful algae.

Many species of migrating wildlife make the Olympic Coast a stopover on their various journeys. Feeding albatross slurp up food for their chicks awaiting their return to the Hawaiian Islands. Thousands of gray whales follow the coast on their annual migrations between winter breeding grounds in Baja and summer feeding grounds in the northeast Pacific. For countless generations, people have been nourished and enriched by food from the ocean and traveled its watery paths—from village to village and continent to continent.



SANCTUARY SUPERINTENDENT'S MESSAGE

The word is out. Our oceans are in trouble.

Over the last few years, reports like those of the U.S. Commission on Ocean Policy and the Pew Oceans Commission have sounded warnings that it is time to act in order to protect our oceans' wildlife and the ecological lifeblood they foster. Here on the West Coast, governors of California, Oregon and Washington have joined forces to launch an ambitious strategy for protecting the ocean and coast that connects us. The West Coast Governors' Agreement on Ocean Health is a bold step, but more is needed. As the largest marine protected area in the Pacific Northwest, Olympic Coast National Marine Sanctuary recognizes the need to step up to create a new action agenda for the Olympic Coast.

When Olympic Coast National Marine Sanctuary was created in 1994, we knew that to protect this place we would have to explore its depths, map its habitats and understand its cycles of change. We knew that we would have to engage and inform the public and build collaborative working partnerships in order to face challenges ahead. Since 1994, we can point to some successes: we have not suffered any major oil spills; we have seen some critical wildlife populations thrive; we have broadened our

understanding of the Olympic Coast's features; we have connected with partners, including the state of Washington, tribes, other federal agencies and local communities.

Yet, it is time to revisit our assumptions, understand new needs, generate new ideas, and chart a new course for our work to understand and protect the Olympic Coast.

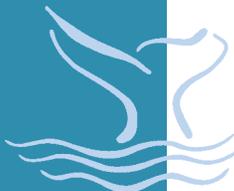
This fall, we begin a thorough re-examination of our management priorities. We call it "Navigating the Future." Our 1993 management plan has guided management and sanctuary programs since designation. Now it is time to take a fresh look at the state of the sanctuary's resources and priorities for action - a view informed by our current knowledge of this special place and the pressures we place upon it. Since an important part of navigating is deciding where you want to go, we need your ideas to help with our planning.

We encourage you to join us. Navigating the Future will let us renew our thinking, update our approach, and bring the best of what we have learned in recent years to face the challenges of the years ahead. In this way, you can have a hand in ocean conservation, starting here, where the stakes are tangible.

Carol Bernthal, Sanctuary Superintendent



The rugged Olympic Coast



Pacific white-sided dolphin



Rockfish on live coral habitat



Intergovernmental Policy Council signs agreement

TOP TWELVE ACCOMPLISHMENTS

1. No Oil Spills — There have been no major oil spills since the sanctuary was designated, and significant efforts were made in protecting habitats and restoring populations affected by the impacts of the Tenyo Maru spill in 1991.

2. Improved Maritime Safety — Cooperatively, the sanctuary, the maritime industry, and U.S. and Canadian Coast Guards have demonstrated that important commercial uses can continue while aggressively reducing risks to marine resources. Improvements were made in vessel routing through the sanctuary. Compliance with the International Maritime Organization's Area-To-Be-Avoided has been at over 98 percent; and the placement of a rescue tug at Neah Bay has significantly improved the safety net for sanctuary resources.

3. Intergovernmental Policy Council — In 2007, the Quinault Indian Nation, Hoh Tribe, Quileute Tribe, Makah Tribe, state of Washington, and Office of National Marine Sanctuaries created this forum for the tribal, state, and federal governments to coordinate activities within the sanctuary. This landmark collaborative opportunity improves federally mandated government-to-government communication on coastal marine matters.

4. Mapping Seafloor Habitats — In recent years, the sanctuary has developed a state-of-the-art habitat mapping program that has provided vital information for resource management decisions and research programs. High-resolution data mapping has extended coverage from zero to 25 percent of the sanctuary over the last seven years.

5. Water Quality Research and Monitoring — The creation of a multi-agency cooperative research project targeted at understanding harmful algal blooms has fostered more than a decade of coordinated research into human and ecosystem health issues associated with toxic algae and the movement of toxins through marine food chains. Routine monitoring of currents, temperature, oxygen, and other water quality parameters has improved our understanding of linkages between weather patterns, cycles of ocean productivity and intrusion of oxygen-limited water into nearshore areas.

6. Exploring for Deep-sea Coral Habitats — Using a remotely operated vehicle, researchers traveled to unexplored depths in search of deepwater habitats formed by living organisms. Recorded

on video and digital photography, these surveys have covered a small fraction of the sanctuary's seafloor and identified at least 18 coral species and numerous sponges.

7. Sea Otter Recovery — Sea otters are a keystone species and indicator of ecosystem health. This depleted population has increased, and its range has expanded in the last ten years. The sanctuary has actively aided development of the recovery plan for sea otters, as well as aided research on the status and health of sea otter populations.

8. Assessing Wildlife Population Trends — Annual surveys aboard NOAA ships have improved our understanding of the health of the ecosystem through systematic surveys of seabirds and marine mammals and establishment of long-term data sets to inform trend analyses.

9. Citizen Stewardship — The sanctuary has successfully partnered with Washington CoastSavers and other organizations and agencies in an effort to clean up beaches, and monitor, protect, and interpret the Olympic Coast. These efforts not only reveal volunteers' passion for the marine environment, but their commitment to clean, healthy coasts, our research goals, and a public literate in Olympic Coast marine protection issues.

10. Marine Ecosystem Education — Cooperative interpretive programming with Olympic National Park and the Makah Tribe, as well as teacher training programs in marine science, have enhanced the knowledge and experiences of thousands of Olympic Coast visitors. An interpretive facility in the region's largest population center, Port Angeles, continues to increase public awareness of the Olympic Coast and its marine resources.

11. Understanding Maritime Heritage — Partnerships with local historical and cultural organizations have improved understanding and appreciation of the maritime heritage of the Olympic Coast. The sanctuary has surveyed shipwrecks, led education and outreach programs, and supported tribal cultural initiatives like the Makah Cultural and Research Center and the Tribal Journeys canoe voyages. Sanctuary-sponsored research into paleoshoreline archaeology is pioneering this field within the region.

12. Overflight Reduction — Outreach to pilots has improved awareness within the aviation community of the impacts of low altitude flights on sensitive resources. Improved compliance with the 2000 foot altitude minimum has reduced disturbance to wildlife on nearshore islands and rocks.

NAVIGATING THE FUTURE

The 1993 Olympic Coast National Marine Sanctuary Management Plan, which outlines objectives for resource protection, research, and education programs, is up for review. This document guided the creation of our sanctuary and the first 15 years of our programs. Over time, all plans require updating to account for changing conditions and needs, also to acknowledge that since this sanctuary was designated, new partners and new opportunities have emerged. Our new management plan will be greatly enhanced by the ideas and comments of interested and knowledgeable people.

Our management plan review will be a public process with many opportunities for you to provide ideas and critical feedback, beginning with scoping meetings and continuing through the development of the draft and final management plans. To keep informed of meetings and progress, join our contact list by sending an email to ocnmsmanagementplan@noaa.gov or by calling 360.457.6622 x 28.

In addition to this newsletter, information about the current condition and trends of the natural and maritime heritage resources of the sanctuary, pressures on those resources, and management responses to those pressures is summarized in the Condition Report that is available on our web site (<http://olympiccoast.noaa.gov>). Specifically, the Condition Report includes information on the status and trends of water quality, habitat, living resources and maritime archaeological resources, as well as the human activities that affect those resources.

Additional information on the sanctuary and documents generated throughout the management plan review process will be available on our web site at <http://olympiccoast.noaa.gov/protection/mpr/welcome.html>

GET INVOLVED!

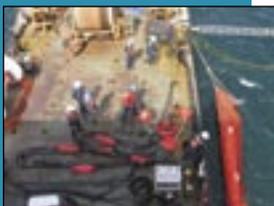
Voice your thoughts at SCOPING MEETINGS. These informal public forums will be held throughout the region between September 29 and October 5, 2008, to help us identify important issues that the management plan should address. Sanctuary users can help shape future management priorities during these meetings. WRITTEN COMMENTS can be sent before November 14, 2008, via email (ocnmsmanagementplan@noaa.gov) or post: OCNMS Management Plan Review, 115 East Railroad Ave., Port Angeles, WA 98362.

Contribute to ACTION PLANS. After a review of all scoping comments, there will be workshops and work groups to solicit help from citizens in tailoring action plans that address priority issues. These action plans provide the foundation for the draft management plan.

Review the DRAFT AND FINAL MANAGEMENT PLAN/EIS. The revised draft management plan, containing the action plans and management changes, will be critiqued through public comment via written comment and hearings. After the close of the public comment period, a final management plan will be crafted. Draft and final management plans will follow National Environmental Policy Act (NEPA) requirements for Environmental Impact Statements and will incorporate action plans for priority issues.



NOAA Ship McArthur II



Spill drills improve readiness



Northern Sea Otter



Scientists search for non-native species



Common Murre nesting

EMERGING TOPICS

As we begin to re-examine priorities for the sanctuary, our cumulative experiences—successes and failures alike—allow us to anticipate some of the future's challenges. Problems or issues emerging here may also reflect trends seen in marine ecosystems elsewhere. In addition, rapid technological advances will provide developments we can barely envision now. These will come with consequences about which we can now only make educated guesses.

In order to "Navigate the Future" effectively, we need to build on information we have now as well as anticipate the emergence of new areas of concern and opportunity. The following are just a few of the areas that we see emerging as challenges for the Olympic Coast:

Commercial Development and Compatible Uses With advances in technology and changes in our society's needs come new ideas on ways to harness or use ocean resources to benefit people. Many of these uses were unknown at the time of the sanctuary's designation. Projects such as submarine communications cables, ocean energy installations, and open ocean aquaculture will require careful evaluation of direct and indirect impacts and benefits to natural resources as well as human society.

Invasive Species Non-native species are increasingly common in coastal habitats, with potential for significant impacts to native species, biological communities, and local economies. Several invasive species have been identified in or near the sanctuary, but we are fortunate that no major impacts have yet been documented. Future efforts will focus on limiting introductions and conducting collaborative monitoring and assessment programs that can provide early warning of invasive species.

Oil Spills A release of oil from a marine accident is widely seen as the greatest threat to sanctuary resources and qualities.

An oil spill can bring immediate and long-term harm to sanctuary resources, as well as socioeconomic impacts to coastal communities. Large commercial vessels heading to and from U.S. and Canadian ports pose a significant risk of oil spills in the sanctuary. While no major spills have occurred since sanctuary designation, there have been several smaller spills related to vessel sinking and equipment failure. The sanctuary must work with other agencies and user groups to reduce the potential for oil spills and improve contingency planning for spill response.

More Human Use It may be hard to imagine crowd control as a management issue for the sanctuary. However, increased numbers of visitors can compound the problems of wildlife harassment, noise pollution, and habitat degradation above and below the water. Boats, personal watercraft and airplanes are among the prime sources of noise in and under the water. However, non-motorized recreation can also have harmful impacts. Adventurous kayakers explore offshore islands where wildlife is sensitive to human disturbance. Studies have shown that foot traffic can affect species abundance, diversity and the composition of plant and animal communities on popular rocky seashores. Management of such issues will require sensitivity, both to desires of sanctuary users and to needs of natural resources that these people come to enjoy.

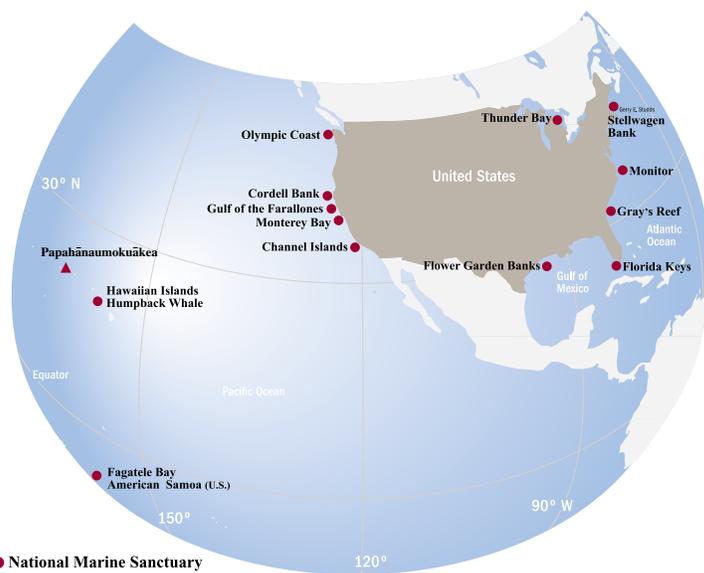
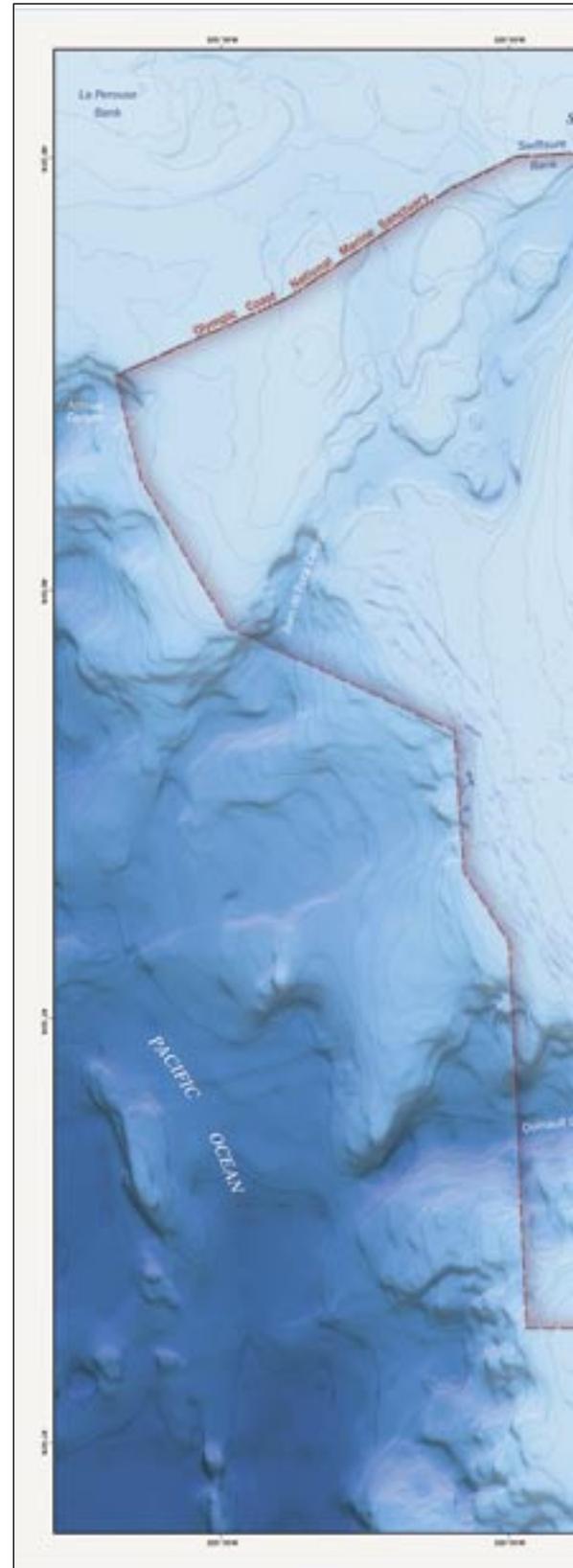
Ecosystem Change Understanding the ecological balance of the marine system as influenced by changing climatic conditions and changing populations of key species is a daunting challenge. The sanctuary's rebounding population of sea otters is an example. Sanctuary staff and partner researchers are exploring the capacity of the local environment to sustain increasing numbers of sea otters and the impacts of foraging otters on kelp forest communities, including invertebrates and fish.

A SYSTEM OF SANCTUARIES

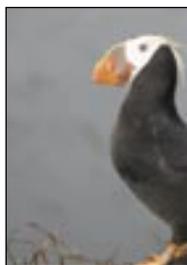
Until 1969 when a devastating oil spill blackened the coastline of southern California and killed countless marine creatures, the ocean's size and changing tides seemed to keep it safe from any lasting human damage. Three years later, Congress responded to the oil spill and other accounts of pollution damage with a series of new environmental laws to prevent ocean dumping and protect endangered marine animals. Like their counterparts on land, marine areas identified for their biodiversity, ecological integrity, and cultural legacy could now receive protection through the Office of National Marine Sanctuaries. The sanctuary system, administered by National Oceanic and Atmospheric Administration (NOAA), was created in Title III of the Marine Protection, Research and Sanctuaries Act of 1972.

Today the National Marine Sanctuary System consists of 14 marine protected areas, protecting some 150,000 square miles of aquatic habitat and coasts. The system's first sanctuary on the Great Lakes in Thunder Bay, Michigan, was designated in 1999. The most recent addition to the system, Papahānaumokuākea Marine National Monument, encompasses the Northwestern Hawaiian Islands, an area that is home to more than 7,000 marine species, half of which are unique to the Hawaiian Island chain. These species include coral, fish, birds, the endangered monk seal, the threatened green sea turtle, and the endangered leatherback and hawksbill sea turtles.

Our very existence on the planet is dependent on preserving our oceans. Today our coastal areas are subject to great environmental pressures. Over 50 percent of our nation's people live within 50 miles of the ocean or Great Lakes. This focus on our coastlines for home, livelihood or recreation is predicted to increase over time. With this comes the inevitable loss of marine habitats and increased pollution compounding the stresses on threatened ocean resources. NOAA's Office of National Marine Sanctuaries expands our nation's long history of protecting special areas on land to embrace the seas. It brings a ecosystem approach to marine environmental protection and asks us to adopt a new ethic of marine stewardship. But perhaps most of all, our marine sanctuaries challenge us all to work together to find creative solutions to the problems facing our oceans and coasts.



Wilderness coastline



Tufted Puffins

TRIBAL TREATY RIGHTS

Within the sanctuary system, OCNMS is unique in the fact that it is entirely encompassed by the traditional harvest areas of the Hoh, Makah and Quileute tribes and the Quinault Indian Nation. As sovereign nations, the tribes have treaty fishing rights and co-management responsibilities with the state of Washington for fish and other natural resources within the sanctuary. Any proposed changes to the sanctuary's current management plan will be done in recognition of these rights and the tribes' management role. In addition, the sanctuary has an obligation to consult with these tribes on a government-to-government basis. The Management Plan Review process has been designed to meet this obligation.

A treaty is a legal agreement between two or more sovereign nations. When nations make treaties with each other, they recognize that each is an independent government that has legitimate political power of its own. Under the U.S. Constitution, treaties are considered "the supreme law of the land."

All treaties with coastal Washington tribes contained some version of the following clause in the 1855 Treaty of Point Elliott: "The right of taking fish at all usual and accustomed grounds and stations is further secured to said Indians in common with all citizens of the Territory, and of erecting temporary houses for the purpose of curing, together with the privilege of hunting and gathering roots and berries on open and unclaimed lands; provided, however, that they shall not take shell-fish from any beds staked or cultivated by citizens."

In exchange for the land that now makes up western Washington, the tribes reserved the rights that they held most important, including fishing, hunting and gathering. Tribes have always possessed these rights; and treaties just put the force of U.S. law behind them. As a federal court ruled in *U.S. v. Winans*, treaties were "not a grant of rights to the Indians, but a grant of rights from them." All U.S. citizens enjoy the property and other rights granted from the tribes in the treaties.

Unfortunately, the federal government's trust obligations to protect tribal fishing, hunting and gathering rights were soon forgotten. After years of struggle, the treaty tribes in western Washington were forced to fight for their rights in federal court. On Feb. 12, 1974, U.S. District Court Judge George Boldt re-affirmed the tribes' treaty-reserved rights, which had been violated for more than 100 years. The famous "Boldt decision" established the tribes as co-managers of the state of Washington's natural resources and determined that the tribes had a right to catch 50 percent of harvestable fish returning to state waters.

The U.S. Supreme Court has upheld Boldt's ruling.

Treaties do not diminish with age, any more than the Constitution. The federal courts have repeatedly upheld the validity of Indian treaties.

The U.S. and its agencies are bound to honor the trust responsibility and commitments to the Indian nations. An example is the support of the Makah Tribe's treaty right to whale by staff of the National Oceanic and Atmospheric Association at International Whaling Commission meetings. With support from the U.S. government, the tribe has obtained three 5-year permits to harvest gray whales.



Contemporary Native American life draws strength from tradition



Tide pools and seaweeds



University students learn archaeology



Wild Olympic Coast beaches draw visitors



A colorful sea anemone

IMPLEMENTATION SUCCESS FOR THE OCNMS MANAGEMENT PLAN

Since designation, the sanctuary has made substantial progress in implementing specific portions of its management plan. However, resource limitations and the need to respond to immediate and emerging issues have prevented the sanctuary from fully achieving all elements of the ambitious plan set forth in 1994. The following matrix lists objectives defined in the 1993 management plan and summarizes the relative degree of success the sanctuary has had implementing these objectives to date.

	Completed	Implemented & Ongoing	Partially Implemented	Not Implemented
RESOURCE PROTECTION				
Reduce threats to sanctuary resource and qualities.				
Conduct an emergency response drill to assess the state of preparedness to respond to an emergency within, or in close proximity to the sanctuary, and generate a plan to address inadequacies.				
Assess the state of preparedness of contingency plans as they relate to the sanctuary.				
Form agreements to improve spill detection programs and augment capabilities (i.e., with additional equipment, staff and deployment plans).				
Develop and implement a site-specific contingency and emergency-response plan designed to protect the Olympic Peninsula's offshore resources.				
Work with the Canadian and U.S. Coast Guards and the Advisory Council to generate a vessel traffic management plan for the sanctuary.				
Monitor vessel traffic in coordination with the U.S. Coast Guard to assess the needs of additional preventive strategies.				
Maintain a record of emergency events in and around the sanctuary.				
Ensure that the water quality of the sanctuary is maintained at a level consonant with sanctuary designation.				
Promote public awareness of, and voluntary compliance with, sanctuary regulations and objectives, through education and interpretive programs stressing resource sensitivity and wise use.				
Encourage participation by interested agencies, tribes, and organizations in the development of procedures to address specific management concerns.				
Coordinate activities of management and regulatory agencies to resolve conflicting or duplicative regulations, policies and enforcement procedures.				
Consult with other agencies on policies and proposals for the management of activities that may affect protection of sanctuary resources and qualities.				
Ensure that research results and scientific data are made available to management agencies to improve resource-protection strategies.				
Using observers from other agencies and cooperating organizations, provide the surveillance information needed for the enforcement program.				
Investigate suspected violations and take appropriate action.				
Analyze use patterns to determine if additional surveillance is required.				
Evaluate the effectiveness of sanctuary enforcement operations.				
Monitor and assess the levels of use to identify and control potential degradation of resources and minimize potential user conflicts.				

ADMINISTRATION				
Implement site-specific management plan through interagency agreements and funding of on-site programs.				
Develop budget for program development, operations and staffing.				
Establish sanctuary headquarters and administrative offices.				
Develop policies and procedures in response to specific issues.				
Establish liaisons with the appropriate agencies to ensure the sanctuary mandate can be carried out through a cooperative management strategy.				
Create an Olympic Coast National Marine Sanctuary Advisory Committee.				



Constant forces of erosion



Instruments sample the water column



Nature invites creativity



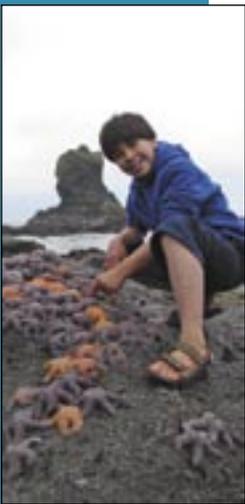
Mussels and barnacles crowd on rocks



A place of exploration and discovery



Verdant kelp forests



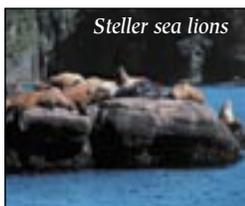
Sea stars exposed at low tide



Critical seabird habitat

RESEARCH	Completed	Implemented & Ongoing	Partially Implemented	Not Implemented
Ensure that research projects contribute to improved management of the sanctuary.				
Complete a site profile within the first five years following designation.				
Conduct research workshops to facilitate the identification of research problems.				
Prepare annual sanctuary research plans.				
Incorporate research results into the interpretive/education program.				
Coordinate physical, chemical, geological and biological oceanography data collection in the sanctuary.				
Encourage research that examines biodiversity within the habitats of the sanctuary.				
Encourage studies that integrate nearshore and open ocean research findings for a more complete understanding of processes affecting both zones.				
Initiate a monitoring program to assess environmental changes due to natural and human processes.				
Identify the range of effects on the environment that would result from predicted changes in human activity or natural phenomena.				
Assure that research activities do not harm or diminish sanctuary resources.				
Encourage information exchange among all the organizations and agencies undertaking management-related research in the sanctuary.				
Evaluate the effectiveness and efficiency of the research program and its integration with resource protection and education objectives.				
Conduct a general literature search on existing cultural, archeological and paleontological studies.				

EDUCATION	Completed	Implemented & Ongoing	Partially Implemented	Not Implemented
Provide the public with information on sanctuary goals and objectives.				
Broaden support for the sanctuary and sanctuary management by offering programs suited to visitors with a range of diverse interests.				
Provide for public involvement by encouraging feedback on the effectiveness of education programs.				
Collaborate with other organizations to provide interpretive services.				
Establish extension and outreach services through collaborative efforts with school and volunteer programs.				
Incorporate research results into the interpretive/education program.				
Use research opportunities as an educational tool by establishing research assistantship and citizens monitoring programs.				
Create public awareness of the entire nation-wide sanctuary program, its purposes and intent and the role of the sanctuary as part of a regional and national system.				
Develop educational materials and programs aimed at enhancing public awareness of the sanctuary's resources and characteristics and their need for protection.				
Provide relevant information about sanctuary regulations and use policies.				
Collaborate with public and private organizations in promoting compatible use of the sanctuary.				
Provide all users of the sanctuary with easily understood materials that explain the regulations, their rationale, and the shared government responsibility for their enforcement.				
Develop and distribute brochures explaining sanctuary regulations and their intent.				
Post sanctuary regulations at appropriate locations (e.g., marinas, sailing clubs, public docks, waterfront recreation sites and restaurants).				
Establish contact with industry, and recreational and commercial groups (e.g., fishing and shipping industries) to present and explain the regulations.				



Steller sea lions



Feeding humpback whales

OUR WORK

EDUCATION

The ocean challenges both our minds and imaginations. Vast in proportion and mostly inaccessible, the ocean is nevertheless vulnerable to our actions. As is the case with the land environment, we protect best what we know best. Only through ocean literacy, the connective thread between understanding and action, can people acquire the tools to be the ocean's stewards.

Education is essential in protecting marine sanctuaries. We teach the science of protecting marine resources. We encourage people who live both near and far from the ocean to take appropriate actions. We introduce young people to the skills required to become ocean citizens, perhaps even to pursue ocean-related careers.

Sanctuary education programs use a wide range of media to present information. We offer our services to teachers and students of all ages; we use the Internet, print media, video and other high-tech ways of presenting our messages. We also assist others, offering training to naturalists and accurate information to print and broadcast media. It has been said that the greatest threat is not what we put into the ocean or take out of the ocean. The greatest threat to the seas is our ignorance, and our brightest hopes hinge on expanding our understanding.

RESEARCH

The scientific study of national marine sanctuaries serves three main purposes: we must know what it is we are charged to protect; we must know of trends in ocean conditions and the status of marine resources; and we must make decisions based on the best available scientific data.

Understanding the ocean is no simple task. The sanctuary is part of a vast and dynamic ecosystem, influenced by regional and global processes that operate on many time scales. The inaccessibility of the seafloor makes understanding underwater landforms, life forms, and habitats extremely difficult. Since our designation, we have recognized the need to understand just what is "out there." Mapping habitats and the seafloor has been a high priority, as has understanding critical populations of invertebrates, marine mammals and seabirds.

In the ocean, what is normal? Ocean cycles occur as frequently as waves battering a shore or as infrequently as climate patterns that last decades or centuries. Against such a backdrop of variability, knowing and predicting normal conditions is very difficult. As our goal is the conservation of marine resources, understanding human impacts in such an unsteady world is especially difficult. We've addressed this need with monitoring programs—detecting trends in harmful plankton, low oxygen conditions and the health of seabird and marine mammal populations. With the help of volunteers, we've studied patterns of natural seabird die-off, so that, in the unfortunate event of an oil spill, we can understand the magnitude of the impacts.

Our research takes us deep in the ocean and far offshore as well as to beaches and tidepools close at hand. By studying things as diverse as plankton and humpback whales, ocean chemistry and seafloor sediments, we can learn aggressively and act with caution to conserve precious marine resources.

RESOURCE PROTECTION

When Congress passed the National Marine Sanctuaries Act, they didn't give a completion date. There's no end in sight to the task of protecting the marine environment. We accomplish this by creating national marine sanctuaries—honored places that are particularly important. National marine sanctuaries exist to secure the legacy of our marine treasures for each generation that follows. We create partnerships to share stewardship of, better understand, and educate people about sanctuaries. We adopt regulations or other tools to prevent harm or to minimize damage to resources.

Regulations in Olympic Coast National Marine Sanctuary prohibit oil, gas and mineral exploration and removal, altering the seabed, military bombing, discharging or depositing any material, injuring or harassing certain marine wildlife,

damaging historic or cultural resources, and flying motorized aircraft below 2,000 feet in parts of the sanctuary.

But regulations only govern certain actions. Many activities cause no harm or can benefit society and the environment if carried out properly. The Olympic Coast Area-To-Be-Avoided, for example, is a voluntary restriction imposed by the international maritime community to create a safety zone in hazardous areas of the sanctuary. And precautionary steps, like oil spill response planning and the placement of rescue equipment, also represent meaningful steps to prevent harm to the environment and ensure a healthy environment for future generations to enjoy.

As resource managers, we don't really manage the ocean—we manage human actions that affect the ocean. That means making decisions: will "Action A" have a more positive or negative effect than "Action B"? Such decisions can easily have economic, social or cultural impacts on society. We analyze the differences among management choices and engage the community in selecting options that best protect the marine environment and local communities.

GOVERNMENT CONSULTATION & ADVISORY COUNCILS

The Office of National Marine Sanctuaries has tremendous responsibilities caring for the Olympic Coast, but that task is not one that we shoulder alone. Hosts of other agencies, tribes, and organizations have complementary roles in marine protection and assist us with managing the sanctuary.

INTERGOVERNMENTAL POLICY COUNCIL

As designated, the sanctuary is located within the usual and accustomed fishing grounds of the Quinault Indian Nation, Hoh Tribe, Quileute Tribe, and Makah Tribe as well as aquatic bedlands owned and managed by Washington state. As sovereign nations, the tribes have treaty fishing rights and co-management responsibilities with the state of Washington for their treaty protected resources within the sanctuary. This gives the tribes and state strong and direct concern for research, resource protection, and education programs conducted by the sanctuary.

In response to a need for high-level consultation and guidance, the sanctuary worked with the tribes and state of Washington to establish an Intergovernmental Policy Council (IPC), which provides a forum for the tribal, state and federal governments to coordinate activities within the sanctuary.

The IPC has been meeting regularly since January 2007, has begun to develop research priorities for the sanctuary, and will be an integral part of management plan review.

ADVISORY COUNCIL

The Advisory Council is an important forum for collaboration.

Comprised of 21 members, the Advisory Council includes representatives from Indian tribes, other federal, state and local agencies, user groups and the public. During regularly scheduled meetings, Advisory Council members share their perspectives and offer the sanctuary Superintendent the benefit of the views of the groups they represent. Acting in an advisory role, the council is a sounding board for discussing issues and developing solutions that reflect a local and regional perspective.

To date the Advisory Council has focused on issues such as oil spill preparedness and prevention, vessel traffic measures, reviewing policies and permitting issues associated with fiber optic cables, alternative energy and military activities within the sanctuary, and defining research and educational programmatic priorities.

Advisory Council meetings are open to the public; each has a scheduled public comment period during which interested citizens may comment on sanctuary matters or decisions facing the Advisory Council.

To find out more about Advisory Council meeting dates and locations, check our website: <http://olympiccoast.noaa.gov/AboutUs/sac/welcome.html>