

## D. Conserve Natural Resources in the Sanctuary

*D1. Spills Prevention, Preparedness, Response and Restoration Action Plan*

*D2. Climate Change Action Plan*

*D3. Marine Debris Action Plan*

*D4. Wildlife Disturbance Action Plan*

*D5. Water Quality Protection Action Plan*

*D6. Habitat Protection Action Plan*

*D7. Regional Ocean Planning Action Plan*



### Introduction

The primary mandate of the Office of National Marine Sanctuaries is to protect sanctuary resources. Therefore, it is OCNMS' responsibility to reduce threats to sanctuary resource sustainability and condition. OCNMS also has a responsibility to facilitate compatible uses in the sanctuary in a manner that 1) is consistent with its treaty trust responsibilities, 2) promotes healthy and resilient natural resources, and 3) allows human uses to continue in a sustainable way. The seven action plans presented here highlight the primary resource conservation concerns that emerged from the MPR scoping process and the Living Resources Conservation working group that was formed as part of the MPR process. In many cases, the action plans indicate further assessment of potential impacts to resources in the sanctuary is needed in order to determine if there is a need for additional management measures.

**D1. Spills Prevention, Preparedness, Response and Restoration Action Plan**

**Desired Outcomes:** 1) Increased protection of marine, cultural, and shoreline resources from the impacts of an oil or hazardous materials spill; and 2) improved preparedness and coordination for responding to spills affecting marine resources within OCNMS.

**Links to Goals:**

Goal A - Build and strengthen OCNMS' partnerships with the Coastal Treaty Tribes and the Olympic Coast Intergovernmental Policy Council, and honor the sanctuary's treaty trust responsibility.

Goal B - Promote collaborative and coordinated management and stewardship of resources in the sanctuary.

Goal E - Maintain the sanctuary's natural biological diversity and protect, and where appropriate, restore and enhance sanctuary ecosystems.

Goal G - Facilitate wise and sustainable use in the sanctuary to the extent that such uses are compatible with resource protection.

**Background:**

The potential release of oil or other hazardous material from a marine accident is widely seen as the greatest threat to sanctuary resources and qualities. Prevention of spills is therefore one of the sanctuary's highest priorities. As a steward of these vitally important natural resources, OCNMS must continue to collaborate with other agencies and user groups to reduce the potential for oil spills and improve contingency planning for spill response.

Preventing, preparing for, and responding to hazardous spills continue to be high priorities for OCNMS. Additionally, better support for the damage assessment and restoration process is also a high priority. During the MPR process a spills working group was formed to bring together area experts to discuss OCNMS' role in regional spills prevention, preparedness, response and restoration efforts. The strategies and activities below reflect the recommendations of this working group.

**Strategy SPILL1: ATBA MANAGEMENT, COMPLIANCE AND MONITORING**

Sustain or improve the maritime industry's compliance with the Area to be Avoided (ATBA).

**Activity A:** Work with the USCG to prepare a proposal to the International Maritime Organization Subcommittee on Safety to Navigation to implement legislation requiring that voluntary "restrictions apply to all vessels required to prepare a response plan pursuant to Section 311(j) of the Federal Water Pollution Control Act (33 U.S.C. 1321(j)) (other than fishing or research vessels while engaged in fishing or research within the area to be avoided)" (Section 704, Coast Guard Authorization Act for Fiscal Years 2010 and 2011).

**Activity B:** Monitor voluntary compliance with the ATBA by conducting monthly processing of radar data from the jointly operated Canada/U. S. Cooperative Vessel Traffic Service (CVTS), augmented with Marine Exchange of Puget Sound Automated Identification System (AIS) data. Analyze vessel traffic patterns, track and identify the type and status of vessels that travel within OCNMS and the ATBA. Archive data to be able to identify trends in activity.

**Activity C:** Improve the OCNMS vessel monitoring program by developing the capability to view, analyze and archive vessel data within the entire sanctuary using AIS data.

**Activity D:** Conduct directed outreach to non-compliant vessels. Send letters jointly signed by the OCNMS Superintendent and U.S. Coast Guard Captain of the Port requesting compliance with the ATBA.

**Activity E:** Promote and facilitate reporting of ATBA compliance statistics and analysis to vessel traffic and oil spill prevention interests. This includes providing compliance data to Washington Department of Ecology (WDE) for inclusion within their annual Vessel Entry and Transit (VEAT) Report.

**Activity F:** Make ATBA compliance information available to regional marine spatial planning efforts and to the public.

### **Strategy SPILL2: REGIONAL VESSEL MANAGEMENT FORUMS**

Work within regional vessel management forums to analyze and reduce risks and hazards.

**Activity A:** Encourage and collaborate in review and development of Standards of Care (SOC) identifying accepted best marine practices for engaging in coastal towing operations off the Olympic Coast. Actively participate in local public meetings and comment on the USCG's proposed towing vessel inspection regulations with the goal of encouraging the earliest implementation of appropriate final rules.

**Activity B:** After SOCs are developed, utilize ATBA monitoring information to advise the USCG and industry of apparent non-compliance with developed SOCs.

**Activity C:** Encourage the USCG, in collaboration with the U.S. Army Corps of Engineers (USACE) vessel traffic risk assessment, to analyze vessel traffic patterns and risks, particularly in the vicinity of Duntze Rock, Tatoosh Island, and Duncan Rock, and to determine whether additional protective measures (e.g., additional aids to navigation or new routing schemes) are required for safer navigation.

### **Strategy SPILL3: REGIONAL PLANNING AND TRAINING EXERCISES**

Promote improved spill preparedness and response through OCNMS participation in training exercises and regional oil spill planning activities.

**Activity A:** Engage in regional efforts to promote, plan and conduct comprehensive drills and exercises.

- Promote regular testing and coordination of multiple response assets, equipment deployment, wildlife recovery and treatment equipment, emergency response tug located at Neah Bay, USCG emergency towing resources, communication systems, and natural resource damage assessment resources in these drills and exercises.
- Integrate OCNMS assets, including staff and vessels, into regional emergency response drills, exercises, and area contingency planning.

**Activity B:** Develop training/exercises, in conjunction with key partners, that target specific issues and concerns relevant to OCNMS and partners to improve planning and overall readiness.

- Training and exercise topics could include roles and responsibilities of various Incident Command System positions; dispersant consultation process; waste management tradeoffs; shoreline cleanup assessment technology training; shoreline treatment tactics; cleanup endpoints for different shoreline types; natural resource damage assessment; liaison function with key stakeholders; lessons learned from recent spills and exercises

**Activity C:** Collaborate in planning and conduct, if feasible, an exercise to test debris removal from remote shoreline locations.

- Test and evaluate issues and methods useful for pre-cleaning beaches and removing oily waste materials during response operations.
- If successful, promote regular exercise of safe and effective methods.
- Partner on debris removal projects with USCG and outer Olympic Coast land owners (Olympic National Park, Washington Maritime National Wildlife Refuge Complex, Coastal Treaty Tribes).

**Activity D:** Participate in technical workgroups and task forces of the Regional Response Team (RRT) and Northwest Area Committee (NWAC).

- Support integration of OCNMS priorities, data, and equipment into the Northwest Area Contingency Plan.
- Key workgroups and task forces include Volunteers; Response Science and Technology; Geographical Response Plans; Wildlife; and Communications and Outreach (separate activities for key NWAC workgroups are provided below).

**Activity E:** Assist in the review, development and improvement of Geographic Response Plans (GRPs) of the NWAC focusing on initial resource protection.

- Potential areas for GRP improvement include protection of cultural resources and threatened and endangered species, equipment appropriate for the operating environment, and additional shoreline protection strategies.

**Activity F:** Participate in the Response Science and Technology workgroup of the NWAC to develop a Shoreline Operational Guide.

- The Shoreline Operational Guide will address treatment tactics and cleanup endpoints for affected shorelines, proposed monitoring and other requirements for sensitive resources or habitats, and waste management guidelines.
- Promote integration of this Guide and its development into the Area Committee process.

**Activity G:** Participate in the Response Science and Technology workgroup of the NWAC to develop a dispersant use matrix that summarizes spatial and temporal data related to natural resources in the water column that could potentially be impacted by dispersed oil.

- Provide data held by OCNMS.
- Facilitate assembly and incorporation of data from NMFS.

**Activity H:** Support NWAC efforts to promote a strong non-dedicated vessel program including use of local resources, including fishing vessels regularly based in Neah Bay, La Push, and the Grays Harbor area.

**Activity I:** Participate in the Places of Refuge workgroup of the NWAC in the evaluation of areas adjacent to OCNMS.

**Activity J:** Support development of a digital environmental sensitivity index database and maps of Washington's outer Olympic Coast.

**Activity K:** Participate in US/Canada transboundary spill response planning through the Pacific States/British Columbia Oil Spill Task Force.

#### **Strategy SPILL4: OUTER COAST TRUSTEES WORKING GROUP**

Promote improved regional preparedness for spill response through coordination of an ad hoc Outer Coast Trustees working group (state of Washington, Coastal Treaty Tribes, local governments, National Park Service, U.S. Fish and Wildlife Service, Parks Canada) as a forum to share information and training opportunities.

**Activity A:** Maintain a current contact list for natural and cultural resource trustees, natural resource managers, and spill response leads from agencies and organizations on the outer coast of Washington.

- Include multiple means of communication (office and cell phone numbers, emails, agency emergency contact numbers, pagers) on contact list.
- Coordinate with RRT to regularly update the Northwest Area Contingency Plan.

**Activity B:** Identify opportunities for joint training and information sharing related to regional preparedness for spill response, and promote regional participation through the Outer Coast Trustees.

**Activity C:** Identify emergency response plans developed by co-trustees and collaborate with co-trustees to minimize inconsistencies and maximize the effectiveness of these plans.

#### **Strategy SPILL5: OCNMS ORGANIZATIONAL RESPONSE PLAN**

Develop policies, tools and procedures for OCNMS staff and resource mobilization, OCNMS integration into an Incident Command Structure, and effective consultation on emergency response actions.

**Activity A:** Develop an OCNMS Organizational Response Plan.

- Ensure consistency between the OCNMS Organizational Response Plan and Northwest Area Contingency Plan (NWACP).
- Integrate OCNMS information, policy and procedures into the NWACP, as appropriate.
- Identify OCNMS staff training requirements and needs for emergency response, and maintain appropriate training levels.
- As part of the plan, consider an outreach policy that explains how OCNMS will liaison with key stakeholders, the public, elected officials and co-trustees within their shared boundaries during spill responses.
- Develop a clear process or decision tool to identify steps for dispersant, in-situ burn, or shoreline chemical use decision-making by OCNMS to support consultation with co-trustees, the FOOSC, and the RRT consistent with the NWACP.

- Identify training opportunities for OCNMS volunteers to improve their ability to participate in spill response.

**Activity B:** Develop a database that includes natural and cultural resource information useful for shoreline protection countermeasures, as well as evaluation of potential resource impacts from spilled petroleum products and associated response activities.

- Assemble the most current and detailed data available for the region.
- Utilize effective technologies to access, display and analyze resource information.
- Collaborate with regional resource managers, co-trustees, response organizations and the RRT to share data, tools, and products.
- Regularly complete updates and improvements to these data and tools.

**Activity C:** Work with the Office of National Marine Sanctuaries and NOAA Office of Response and Restoration to regularly update and improve SHIELDS (Sanctuary Hazardous Incident Emergency Logistics Database System).

### **Strategy SPILL6: DAMAGE SURVEY AND ASSESSMENT PROTOCOLS**

Collaborate in regional efforts to develop plans, protocols, capacity and baseline data to support natural resource damage assessment (NRDA) efforts.

**Activity A:** Collaborate with co-trustees of resources in the sanctuary to develop an Outer Coast NRDA Response Plan that includes:

- Notification requirements
- Prioritized objectives
- Supplies and equipment for ephemeral data collection
- Standardized protocols for ephemeral data collection
- Identification of beach access points
- Property access permissions
- Cultural resource considerations and points of contact
- Lists of response resources (vessels, aircraft, personnel) that could be hired for NRDA purposes (vs. spill response clean-up efforts)
- Data quality objectives
- Training recommendations and requirements

**Activity B:** Collaborate with co-trustees to improve capabilities for NRDA work.

- Integrate NRDA components into local and regional response exercises.
- Seek funding to support participation in NRDA planning and training opportunities.
- Review and revise response plans, as appropriate, following incidents that include NRDA efforts.
- Inventory, purchase, place, and maintain ephemeral data collection equipment on the outer coast.

**Activity C:** Collaborate with co-trustees to identify natural and cultural resources most vulnerable to oil spills and prioritize baseline data collection for species and services useful for NRDA.

- Outline needed data and studies.

- Assemble existing data into a database for baseline information on natural and cultural resources.
- Determine who can conduct additional studies and sampling.
- Seek funding to support baseline data collection.

**Activity D:** Participate in any restoration projects, should they occur, within sanctuary boundaries or directly affecting the sanctuary through phases of planning, implementation, and monitoring. Coordinate with other trustees with responsibilities for affected resources and provide data and input to support decision-making.

**Links to other Action Plans:** Collaborative and Coordinated Sanctuary Management, Marine Debris, Wildlife Disturbance, Sanctuary Operations, Regional Ocean Planning

**Key Partners:** USACE Seattle District; Puget Sound Harbor Safety Committee; Canadian Coast Guard Marine Communications and Traffic Services, Tofino; Marine Exchange of Puget Sound; Makah Office of Marine Affairs; Makah, Quileute and Hoh Tribes and Quinault Indian Nation; American Waterways Operators; U.S. Navy (for movement of reactor core by barge); Lower Columbia Region Harbor Safety Committee; United States Coast Guard Thirteenth District Commander; Sectors Puget Sound and Columbia River; Canadian Coast Guard Marine Communications and Traffic Services Tofino; Marine Exchange of Puget Sound; Washington Department of Ecology; Washington Department of Fish and Wildlife; Washington Department of Natural Resources, Washington Department of Archaeology and Historic Preservation; Washington State Parks and Recreation Commission; Washington Resource Damage Assessment Committee; marine resource committees (MRCs); other natural resource trustees; on-scene spill response organizations; NOAA Office of Response and Restoration; NOAA Restoration Center; Department of Interior NRDA staff; Canadian Coast Guard; Canadian First Nations; Transport Canada, Olympic National Park; Washington Maritime National Wildlife Refuge Complex/U.S. Fish and Wildlife Service; U.S. Coast Guard; Clallam, Jefferson, and Grays Harbor counties; Parks Canada; NMFS; Northwest Area Committee and Regional Response Team members; OCNMS volunteers; academic institutions

## D2. Climate Change Action Plan

**Desired Outcomes:** 1) OCNMS is a sentinel site in the Pacific Northwest for climate change monitoring; 2) OCNMS is a go-to source for climate change information on Washington’s outer coast marine ecosystems; and 3) ONMS understands and is prepared for likely climate change impacts in the sanctuary region.

### Links to Goals:

Goal C - Investigate and enhance the understanding of ecosystem processes, and inform ecosystem-based management efforts, through scientific research, monitoring, and characterization.

Goal E - Maintain the sanctuary’s natural biological diversity and protect, and where appropriate, restore and enhance sanctuary ecosystems.

Goal G - Facilitate wise and sustainable use the sanctuary to the extent that such uses are compatible with resource protection.

Goal H- Build, maintain, and enhance an operational capability and infrastructure.

### Background:

The public repeatedly raised concerns about climate change and its potential effects on organisms and ecosystems within the sanctuary during the MPR scoping process. Additionally, the Olympic Coast Intergovernmental Policy Council (IPC) and the OCNMS Advisory Council (AC) identified climate change as a high priority to be addressed in the revised management plan.

Climate change is an ecosystem management issue cutting across all disciplines and will be addressed by all of OCNMS’ program areas over the next decade. Indeed, references to climate change can be found in strategies and activities throughout this management plan. Because climate change is expected to be such an important issue for the sanctuary, it was important to highlight the issue in its own action plan. Other action plans reference ways in which individual OCNMS programs will address aspects of the climate change topic, but this action plan is focused on how ONMS will coordinate its efforts across program areas in order to address climate change in a holistic and interdisciplinary way. This action plan also promotes OCNMS as a sentinel site for ocean acidification and climate change research. Sentinel sites are locations in the marine environment that support sustained observations of changes in the status of the marine environment. They allow investigators to track the status of key indicators of ecosystem integrity, serve as a means to provide early warning to resource managers, and offer opportunities for protocol testing. They address NOAA activities in areas of mandated responsibility and help address questions about regional issues such as habitat degradation and invasive species impacts.

### Strategy CLIM1: CLIMATE-SMART SANCTUARY PROGRAM

Participate in the Office of National Marine Sanctuaries Climate-Smart Sanctuaries program in order to become certified as a climate-smart sanctuary.

**Activity A:** Conduct an audit of OCNMS’ carbon footprint and determine what changes are needed to ensure OCNMS meets the minimum green operating standards outlined in the Climate-Smart Sanctuary guidelines.



**Activity B:** Develop a Climate Change Site Scenario for OCNMS synthesizing the best available information on climate change impacts to present a picture of what the sanctuary might look like in 50 to 100 years.

**Activity C:** Work with the AC and IPC to review (and revise if necessary) this Climate Change Action Plan based upon the findings of the Climate Change Site Scenario.

**Activity D:** Brief the AC and IPC on OCNMS' Climate-Smart Sanctuary certification process, and ensure information compiled for Climate Smart Sanctuary certification is widely distributed to OCNMS partners and the public.

### **Strategy CLIM2: SANCTUARY AS SENTINEL SITE**

Work to establish OCNMS as a sentinel site for long-term climate change research and monitoring in the Pacific Northwest.

**Activity A:** Propose to NOAA leadership that OCNMS be identified as a sentinel site for climate change research and monitoring.

**Activity B:** Work with the AC to establish a climate change working group to help 1) develop a climate change research prospectus describing specific climate change research priorities for the sanctuary, and 2) identify marine chemical, physical, and biological indicators of climate change that OCNMS and partners should consider monitoring.

**Activity C:** Provide relevant scientific and technical information to the Washington Department of Ecology to support the State's central climate change information clearinghouse and utilize this clearinghouse to support OCNMS research and planning efforts.

### **Strategy CLIM3: RESILIENT ECOSYSTEMS**

Work with natural resource managers and local communities on the Olympic Peninsula to improve the resiliency of ecosystems in the face of climate change impacts.

**Activity A:** Work with the AC to establish a climate change working group to provide recommendations to ONMS, and to collaborate with tribal, federal, state and local governments on potential joint management responses to climate change impacts.

**Activity B:** Participate in the state of Washington's integrated climate change response strategy as well as in other regional efforts to develop and understand climate change impacts to natural and cultural resources.

**Activity C:** Host workshops and provide training for OCNMS staff and local communities on the outer coast on planning, mitigating for, and managing climate change impacts.

### **Strategy CLIM4: COMMUNICATING CLIMATE CHANGE**

Communicate information about climate change and its potential effects on the sanctuary and Washington's outer coast to OCNMS partners and the public.

**Activity A:** Ensure information and data collected by OCNMS on climate change and its effects on the sanctuary are readily available to other resource managers and interested parties.

**Activity B:** Provide local communities and the public with information about potential climate change impacts on the Olympic Coast and local, tribal, state and regional efforts to plan for climate change.

**Activity C:** Work with tribal communities to develop public outreach materials that convey tribal perspectives on climate change and its potential effects on tribal communities.

**Activity D:** Promote education and outreach elements in climate change research projects that occur within OCNMS.

**Activity E:** Develop a Climate Literacy education and outreach plan and incorporate it into OCNMS' Ocean Literacy Action Plan.

**Links to Other Action Plans:** Collaborative and Coordinated Sanctuary Management, Physical and Chemical Oceanography, K-12 Education, Higher Education, Visitor Services, Data Management, Sharing, and Reporting

**Key Partners:** Hoh, Makah, and Quileute tribes and Quinault Indian Nation, Washington State Ocean Caucus, UW Climate Impacts Group, West Coast Governors' Agreement on Ocean Health Climate Change Action Coordination Team, NOAA/PMEL, OCNMS Advisory Council, West Coast Regional Sanctuaries, Monterey Bay Research Institute, Grays Harbor and North Pacific Coast marine resources committees, Washington Sea Grant, Port Townsend Marine Science Center, UW Friday Harbor Labs, U.S. Fish and Wildlife Service, Olympic National Park, NOAA Ocean Services, and non-governmental organizations, AC, NOAA (ONMS, NMFS, PMEL), NGOs, IPC, Washington Department of Ecology

### **D3. Marine Debris Action Plan**

**Desired Outcomes:** 1) Increased identification of the types and locations of abandoned submerged and floating marine debris; and 2) reduced environmental and aesthetic impacts of debris on coastal beaches.

**Links to Goals:**

Goal E - Maintain the sanctuary's natural biological diversity and protect, and where appropriate, restore and enhance Sanctuary ecosystems.

**Background:**

Manufactured materials disposed of in the ocean are known as marine debris; these debris are unsightly on our beaches, harmful to wildlife, and can reduce fishery profits. Removing marine debris from the ocean and beaches, and working with partners to reduce the production and disposal of materials that frequently become marine debris, are both important to protecting the health of the sanctuary and the wildlife that inhabit it. This action plan outlines the strategies and activities by which OCNMS will continue and expand its efforts to reduce marine debris in and prevent it from entering the sanctuary.

OCNMS formally defines marine debris, in accordance with the NOAA Office of Response and Restoration Marine Debris Program's definition, as "any persistent solid material that is manufactured or processed and directly or indirectly, intentionally or unintentionally, disposed of or abandoned into the marine environment." Marine debris can be submerged or floating in the ocean; it can also be beached. Submerged marine debris includes sunken, derelict vessels. Marine debris removal and reduction, in addition to being a high priority for OCNMS, is also a high priority for the state of Washington, the Coastal Treaty Tribes, non-governmental organizations such as Surfrider and a wide range of other organizations and agencies. Affecting ocean and beach ecosystems all over the world, marine debris is a global ocean epidemic. Thus, in supporting local marine debris efforts, OCNMS is also helping to promote nation and worldwide awareness of the marine debris problem.

#### **Strategy MD1: SUBMERGED OR FLOATING DEBRIS**

Identify, locate, and remove lost or abandoned submerged or floating marine debris.

**Activity A:** Promote use by tribal and non-tribal fishers of the Washington Department of Fish and Wildlife (WDFW) derelict fishing gear hotline, Northwest Straits Marine Conservation Initiative derelict fishing gear reporting system, or other systems established for reporting locations of lost fishing gear, sunken vessels, and other forms of submerged and floating marine debris.

**Activity B:** Support programs focusing on Washington's outer coast to locate abandoned submerged and floating marine debris, develop safe and minimal impact removal techniques, and remove known marine debris.

**Activity C:** Support local efforts to reduce generation of sea-based marine debris through improvements in opportunities for solid waste and marine debris disposal and recycling programs.

**Activity D:** Record observations of abandoned submerged and floating marine debris made during OCNMS research and monitoring programs. Report relevant observations to WDFW, Northwest Straits Marine Conservation Initiative and/or other appropriate reporting systems.

**Activity E:** Maintain an OCNMS database and geographic information system (GIS) products for marine debris identified by OCNMS and others. Collaborate in efforts to prioritize removal of submerged and floating marine debris.

**Activity F:** Collaborate with the U.S. Department of Defense to mitigate military use of expendable materials that become marine debris.

### **Strategy MD2: BEACH DEBRIS**

Mitigate impacts of marine debris on coastal beaches.

**Activity A:** Participate as an active partner in the Washington Clean Coast Alliance (WCCA). Engage coastal communities and volunteers in beach cleanups, including expansion of efforts to include multiple volunteer beach cleanup efforts on shores adjacent to the sanctuary throughout the year.

**Activity B:** Conduct outreach to increase public understanding of the nature and scope of environmental impacts of marine debris, and encourage individual efforts to reduce sources of marine debris.

**Activity C:** Collaborate with Olympic National Park and the Washington Maritime National Wildlife Refuge Complex to develop beach cleanup initiatives focused on refuge island shores and remote coastal areas of the park.

**Activity D:** Promote inventory of marine debris from Washington's outer coast beaches. Use marine debris data in public outreach efforts and to support regional efforts to reduce sea- and land-based sources of marine debris.

**Activity E:** Support programs in coastal communities to identify potential sources of land-based marine debris, and improve garbage management, recycling opportunities and other programs with potential to reduce beach debris.

**Activity F:** When feasible, collaborate with the U.S. Department of Defense to use military manpower and equipment to support beach cleanups and other marine debris removal efforts in the sanctuary.

**Links to Other Action Plans:** Collaborative and Coordinated Sanctuary Management, Community Outreach, Community Involvement in Sanctuary Management, Habitat Protection, Spills

**Key Partners:** Hoh, Makah, and Quileute tribes and Quinault Indian Nation, coastal communities, Washington Clean Coast Alliance, NOAA Marine Debris Program, West Coast Governors' Agreement on Ocean Health Marine Debris Action Coordination Team, Washington state, Olympic National Park, Washington Maritime National Wildlife Refuge Complex, U.S. Department of Defense, North Pacific Coast and Grays Harbor marine resources committees, Northwest Straits Marine Conservation Initiative, non-governmental organizations, and regional port authorities

#### **D4. Wildlife Disturbance Action Plan**

**Desired Outcomes:** 1) Minimized disturbance to wildlife in the sanctuary; and 2) improved protection for wildlife potentially impacted by human activities.

**Links to Goals:**

Goal E - Maintain the sanctuary's natural biological diversity and protect, and where appropriate, restore and enhance sanctuary ecosystems.

**Background:**

During the MPR public scoping process, numerous comments identified protection of wildlife, including minimization of wildlife disturbance from human activities, as an important topic for sanctuary management. The outer coast of Washington, particularly the northern portion, is recognized for its unique and abundant wildlife, relatively undeveloped condition, and productive ecosystem through state and federal designations – Washington Seashore Conservation Area, Olympic National Park's coastal strip, Washington Maritime National Wildlife Refuge Complex, and Olympic Coast National Marine Sanctuary. These extraordinary natural values were acknowledged and protected as early as 1907 when seabird colonies on the coast's islands were first granted federal conservation protection under a seabird reserve system by President Theodore Roosevelt.

The phrase 'wildlife disturbance' encompasses acoustic, physical and visual disturbances caused by human activities that can have physical and behavioral impacts on wildlife above, below and on the water surface. Overt responses of fish and wildlife species to disturbance include flushing birds from their nesting roosts, flushing of marine mammals from haul out areas, or even death. Sources of wildlife disturbance in OCNMS could include low-flying aircraft, motorized personal watercraft, fireworks, close approach to wildlife aggregation areas (either humans on foot or in a vessel) and other excessive anthropogenic noises that could originate from shipping, military exercises, or seismic exploration. Research has documented variability in disturbance distances and responses based on differing activities and vessel types, as well as on the species affected. In marine areas, these data have supported protective regulations to establish approach limits, speed restrictions and buffer zones around sensitive wildlife assemblages and habitats. Wildlife disturbance also can be minimized through outreach both to expand citizen familiarity with issues and to encourage appropriate behavior around wildlife.

The focus of this action plan is on working collaboratively to improve outreach, education and enforcement efforts related to wildlife disturbance, as there are existing regulations (OCNMS, USFWS, NMFS) addressing wildlife disturbance concerns and impacts. However, awareness and enforcement of these regulations is inadequate and greater efforts need to be made to improve:

- Sanctuary users' understanding of appropriate and mandated wildlife etiquette
- Voluntary compliance with wildlife disturbance regulations so impacts to wildlife are avoided
- Enforcement of wildlife disturbance regulations so future impacts to wildlife are reduced

**Strategy WD1: OUTREACH ON WILDLIFE DISTURBANCE**

Promote public understanding of wildlife disturbance issues through education and outreach programs.

**Activity A:** Collaborate with other wildlife management agencies in the region to develop wildlife viewing guidelines addressing shore-based and vessel activities. Produce and distribute those outreach products that address wildlife viewing guidelines.

**Activity B:** Collaborate on outreach efforts targeting specific user groups in order to improve public understanding of wildlife disturbance and the impacts of human behavior on wildlife. Promote best practices, guidelines and regulations that benefit wildlife, reduce disturbance, and enhance human enjoyment of natural resources.

- Model programs include NOAA’s Ocean Etiquette and Watchable Wildlife.
- User groups include charter fishing and wildlife viewing operators, kayakers and surfers.
- During outreach efforts, identify legitimate uses of the airspace within the OCNMS wildlife disturbance mitigation (overflight restriction) zone.

**Activity C:** Collaborate in training regional interpreters, rangers, enforcement staff and volunteers on wildlife disturbance issues.

**Activity D:** Improve OCNMS web site content related to visitor appreciation of wildlife and wildlife disturbance caused by human activities.

**Activity E:** Maintain the OCNMS incident database to record times, locations, and other information for reported wildlife disturbance events.

- Incident database entries will include reported overflight violations, as well as permitted and exempted low altitude flights.
- Include marine mammal ship strikes in the database.
- Incident database information will be shared with regional enforcement officers, permitting staff and concerned management entities to reinforce wildlife disturbance concerns.

**Strategy WD2: OVERFLIGHT RESTRICTION ZONE**

Support and improve recognition of and compliance with the existing OCNMS wildlife disturbance mitigation (overflight restriction) zone.

**Activity A:** Improve compliance with the OCNMS wildlife disturbance mitigation (overflight restriction) zone through collaboration with Aircraft Owners and Pilots Association (AOPA) and Washington Pilots Association (WPA) to improve outreach products for and communication with local pilots.

**Activity B:** Develop outreach products and orientation materials on the OCNMS wildlife disturbance mitigation (overflight restriction) zone and associated wildlife disturbance issues useful for regional enforcement officers. Organize and conduct regular training sessions for regional enforcement officers.

**Activity C:** Support efforts to have the OCNMS wildlife disturbance mitigation (overflight restriction) zone depicted on Federal Aviation Administration (FAA) aeronautical charts.

**Strategy WD3: MARINE MAMMAL DISTURBANCE**

Assess the potential for and occurrence of marine mammal disturbance and injury from human activities.

**Activity A:** Participate and encourage activities to characterize the acoustic environment and potential acoustic impacts on marine mammals in the sanctuary including:

- Supporting long-term acoustic monitoring to establish background sounds levels and changes over time
- Collaborating with researchers and other agencies to identify potential emerging issues related to sources of underwater sound that could impact the sanctuary environment
- Considering how proposed activities in and around sanctuary waters might generate underwater sound that could impact marine mammals

**Activity B:** Identify degree of risk posed to marine mammals from ship strikes in the sanctuary by:

- Coordinating with the Northwest Marine Mammal Stranding Network to identify potential increased incidences of ship strikes that may have occurred in the sanctuary
- Supporting efforts to examine overlap areas of high marine mammal density and shipping lanes
- Assessing acoustic impact mitigation strategies used by other sanctuaries and NOAA agencies and considering such strategies in OCNMS

**Activity C:** Work with the fishery co-managers and fishing organizations to identify existing conflicts between marine mammals and other activities in the sanctuary including:

- Marine mammal entanglement in fishing and other gear occurring in sanctuary waters
- New emerging conflicts such as those between long-line fishing operations and depredating sperm whales (i.e., whales that are taking or trying to take fish from fishing gear)

**Links to other Action Plans:** Sanctuary Operations, Habitat Protection, Populations, Communities and Ecosystems, Visitor Services, Community Outreach, Collaborative and Coordinated Sanctuary Management, Physical and Chemical Oceanography

**Key Partners:** Hoh, Makah, and Quileute tribes and Quinault Indian Nation, Olympic National Park, U.S. Fish and Wildlife Service, Washington State Parks and Recreation Commission, Washington Department of Fish and Wildlife, COASST, Washington Clean Coast Alliance; Grays Harbor and North Pacific Coast marine resource committees, Surfrider, NMFS, Westport Charterboat Association, regional port authorities and marina facilities, Northwest Marine Mammal Stranding Network, U.S. Coast Guard, U.S. Navy, Aircraft Owners and Pilots Association (AOPA), Washington Pilots Association (WPA), regional airports, shipping industry, coastal communities

**D5. Water Quality Protection Action Plan**

**Desired Outcome:** High water quality to ensure protection of natural resources in the sanctuary

**Links to Goals:**

Goal E - Maintain the sanctuary's natural biological diversity and protect, and where appropriate, restore and enhance sanctuary ecosystems.

**Background:**

ONMS strives to maintain and improve water quality in the sanctuary. Water quality protection is critical to ensuring the health of marine organisms and habitats from the bottom to the top of the food chain. Given increasing concerns about ocean acidification, harmful algal blooms and hypoxic events, it is crucial that OCNMS do its utmost to identify, mitigate, reduce and/or remove, where possible, known causes of water quality degradation in the sanctuary.

**Strategy WQP1: VESSEL DISCHARGES**

Reduce, through regulatory changes, voluntary and outreach measures, or marina facilities improvements, the degradation of water quality caused by vessel wastewater and sewage discharges.

**Activity A:** Work with the shipping industry and others to assess potential impacts of wastewater discharges from large vessels (300 gross tons or greater) and identify measures to prevent or mitigate those impacts.

**Activity B:** During the management plan review process, publish a rulemaking proposing to modify OCNMS regulations to prohibit all discharges from cruise ships into sanctuary waters, except those necessary for vessel operations (e.g., clean vessel engine cooling water, clean vessel generator cooling water, clean bilge water, engine exhaust, and anchor wash).

**Activity C:** Encourage regional port authorities, and assist in their efforts, to improve availability and use of sewage pump-out facilities for vessels.

**Activity D:** Work collaboratively with coastal communities to develop and implement a water quality education and outreach program to promote best practices regarding vessel discharges from marine sanitation devices, or those vessels lacking marine sanitary devices.

**Activity E:** In year five of management plan implementation review the progress made on activities WQP1 A-D, and evaluate if additional actions are warranted.

**Strategy WQP2: CONTAMINANTS**

Support efforts to monitor contaminant levels, understand potential impacts of contaminants, and reduce, eliminate, or mitigate impacts of contaminants to natural resources in the sanctuary.

**Activity A:** Support local, state, tribal and federal efforts to identify, characterize, and mitigate sources of contaminants within or entering waters of the sanctuary and accumulating in biota and habitats.

**Activity B:** Support closure and remediation of the Warmhouse Dump (on Makah Tribe's Reservation) to minimize contaminant release to marine waters.



**Links to other Action Plans:** Physical and Chemical Oceanography, Collaborative and Coordinated Sanctuary Management

**Key Partners:** U.S. Environmental Protection Agency, Washington Department of Ecology, Hoh, Makah, and Quileute tribes and Quinault Indian Nation, local governments, coastal communities, outer coast Marine Resources Committees, Olympic National Park, Washington Maritime National Wildlife Refuge Complex, West Coast Governors' Agreement on Ocean Health Polluted Runoff Action Coordination Team, U.S. Department of Defense, non-governmental organizations, regional port authorities, cruise ship industry, shipping industry, commercial fishing interests

## **D6. Habitat Protection Action Plan**

**Desired Outcomes:** Human-caused degradation of marine habitats is minimized and mitigated, particularly for those habitats 1) demonstrating high value to ecosystem functioning and productivity; and 2) are most vulnerable to human disturbance.

### **Links to Goals:**

Goal E - Maintain the sanctuary's natural biological diversity and protect, and where appropriate, restore and enhance sanctuary ecosystems.

### **Background:**

The phrase 'habitat protection' is used here to reference actions taken to prevent, mitigate, or eliminate degradation of marine habitats in the sanctuary. A fundamental premise of habitat protection actions is that healthy habitats support healthy marine populations and communities, including exploited fishery resources. Habitat protection actions must be supported by research and monitoring efforts that improve our understanding of functions and values of marine habitats, document how, when and where habitat degradation occurs, and evaluate the effectiveness of management responses. In addition, habitat protection actions need to be reinforced through outreach, both to expand citizen familiarity with issues and to encourage actions that individuals and organizations can take to minimize habitat impacts.

This action plan focuses heavily on collaborative work to 1) understand potential habitat impacts in the sanctuary, 2) identify habitats of special concern critical to ecosystem functioning in the sanctuary, and 3) monitor for and prevent invasive species introductions.

### **Strategy HP1: THREAT ASSESSMENT AND MITIGATION**

Assess existing and potential natural and human-caused threats to physical and biogenic marine habitats (e.g., deep sea corals and sponge, kelp and other macroalgae), and collaboratively develop appropriate management measures to protect and conserve physical and biological habitats.

**Activity A:** Identify, in consultation with co-management authorities, existing and potential impacts and threats to, as well as relative vulnerability of, physical and biogenic marine habitats in the sanctuary. Recommend and/or implement monitoring to assess relative habitat vulnerabilities to, and impacts and threats from natural disturbances and human activities, including cumulative impacts.

**Activity B:** Recommend, or implement collaboratively with co-managers, management measures minimizing and mitigating human-caused impacts to physical and biogenic marine habitats.

**Activity C:** Monitor the recovery rates of habitats, associated biological communities, and habitat-forming biogenic structures following disturbance by human activities.

### **Strategy HP2: HABITATS OF SPECIAL IMPORTANCE**

Develop criteria to identify marine habitats of special importance. Collaborate with co-managers to identify and implement management measures necessary for protection of habitats of special importance.

**Activity A:** Develop criteria, in collaboration with natural resource co-managers, for habitat types of special importance to ecosystem function or managed species and identify the locations of such habitats.

**Activity B:** Develop and implement, in collaboration with natural resource co-managers, potential management strategies for protection of habitats of special ecosystem value.

**Activity C:** Participate in Pacific Fishery Management Council processes, including identification and review of essential fish habitat (EFH) and habitat areas of particular concern (HAPC) through OCNMS representation on the EFH Review Committee.

**Activity D:** Collaboratively develop and evaluate recommendations for HAPC site and EFH conservation areas.

**Activity E:** Assist the National Park Service with designation and management of intertidal reserve areas as identified in the ONP 2008 General Management Plan.

### **Strategy HP3: INVASIVE SPECIES**

Reduce the potential for introduction of invasive species in the sanctuary region, monitor distributions of known invasive species, and support programs to mitigate impacts of invasive species to natural and cultural resources.

**Activity A:** Through OCNMS monitoring, stewardship and outreach programs, support the work of Washington State Department of Fish and Wildlife and other agencies to prevent introduction of invasive species.

**Activity B:** Engage in regional efforts to monitor for the presence and distribution of invasive species, including volunteer monitoring, where appropriate.

**Activity C:** Support regional efforts to develop a response protocol(s) for non-native invasive species and to reduce ecological and economic impacts of invasive species.

**Links to Other Action Plans:** Water Quality Protection, Populations, Communities and Ecosystems, Habitat Mapping and Classification, Collaborative and Coordinated Sanctuary Management

**Key Partners:** ONP, USFWS, USGS, NOAA (NMFS, NOS), Washington Departments of Fish and Wildlife, Ecology, and Natural Resources, Washington Invasive Species Council, Hoh, Makah, and Quileute tribes and Quinault Indian Nation, IPC, North Pacific Coast and Grays Harbor marine resources committees, NGOs, universities and colleges, coastal communities, Pacific Fishery Management Council, academic organizations, Department of Fisheries and Oceans Canada, local governments, and coastal communities

## D7. Regional Ocean Planning Action Plan

**Desired Outcome:** Improved integration of best available science into OCNMS decision making.

### Links to Goals:

Goal E - Maintain the sanctuary's natural biological diversity and protect, and where appropriate, restore and enhance Sanctuary ecosystems.

Goal G - Facilitate wise and sustainable use in the sanctuary to the extent that such uses are compatible with resource protection.

### Background:

Throughout the MPR process, the issue of human development in the sanctuary – and how to facilitate human activities in the sanctuary compatible with the primary OCNMS objective of resource protection – has repeatedly arisen. The ocean is a busy place; there are many activities occurring in sanctuary waters and many activities that may be proposed in the near future. It is a complex task to facilitate human use of the sanctuary while maintaining adequate protection for resources. Each human use and its potential associated impacts need to be analyzed and understood; likewise, the cumulative impacts of all human uses need to be considered. Moreover, ONMS needs to understand potential conflicts between human uses. Thus, in order to make sound decisions about human use development in the sanctuary, ONMS cannot consider each human use in isolation.

ONMS also needs to consider human uses in the sanctuary within the context of regional human use patterns and development. Currently, there are significant regional and national ocean planning efforts being made to address human use development in the ocean and balance development of ocean resources with the protection of these resources; these efforts are commonly described as “marine spatial planning.” The National Ocean Council describes coastal and marine spatial planning (CMSP) as:

*“...a comprehensive, adaptive, integrated, ecosystem-based, and transparent spatial planning process, based on sound science, for analyzing current and anticipated uses of ocean, coastal and Great Lakes areas. CMSP identifies areas most suitable for various types of classes of activities in order to reduce conflicts among uses, reduce environmental impacts, facilitate compatible uses, and preserve critical ecosystem services to meet economic, environmental, security and social objectives. In practical terms, CMSP provides a public policy process for society to better determine how the ocean, coasts, and Great lakes are sustainably used and protected now and for future generations.” Executive Order 13547, Stewardship of the Ocean, Our Coasts, and the Great Lakes*

ONMS decisions about human use planning and permitting in the sanctuary should be informed by regional ocean planning efforts. And, conversely, those making ocean planning decisions about human uses on a regional scale will include OCNMS and its role in promoting marine conservation and ocean stewardship in their decision-making process. This action plan explains how ONMS will integrate itself into regional and other ocean planning efforts in order both to

make and promote sound decisions about compatible human use development in the sanctuary and the northwest region.

**Strategy ROP1: REGIONAL OCEAN PLANNING**

Investigate how recent initiatives in marine spatial planning can improve sanctuary management by participating in regional ocean planning processes.

**Activity A:** Work with the IPC and AC to develop a plan to integrate sanctuary efforts into regional ocean planning processes.

**Activity B:** Make existing OCNMS spatial data available to existing marine spatial tools, such as the Multipurpose Marine Cadastre.

**Activity C:** Identify, prioritize and collect spatial data on marine uses and resources that contribute to regional ocean planning processes and improve ONMS decision-making.

**Activity D:** Support the state of Washington's efforts to develop a statewide Marine Spatial Plan, as well as other regional and federal ocean planning efforts that may emerge in the future.

**Activity E:** Participate in planning processes and site evaluations for proposed development projects in or immediately adjacent to OCNMS and utilize existing (or collaborate in collecting new) natural and cultural resource information to avoid, minimize, and mitigate user conflicts and impacts to habitats and natural and cultural resources.

**Links to Other Action Plans:** Collaborative and Coordinated Sanctuary Management, Community Involvement in Sanctuary Management, Habitat Mapping and Classification, Habitat Protection, Wildlife Disturbance, Sanctuary Operations

**Key Partners:** Hoh, Makah, and Quileute tribes and Quinault Indian Nation, Department of Interior (National Parks, U.S. Fish and Wildlife Service), NMFS, Washington State Departments of Fish and Wildlife, Natural Resources, and Ecology, Washington State Ocean Caucus, West Coast Governors' Agreement on Ocean Health Renewable Ocean Energy Action Coordination Team, West Coast CMSP Regional Planning Body, local governments, coastal communities and non-governmental organizations