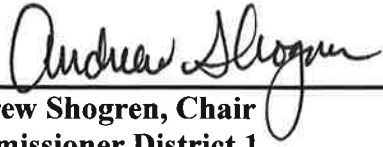


**Clallam County Marine Resources Committee**

**5-Year Strategic Plan**

**2013 through 2018**



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**Andrew Shogren, Chair  
Commissioner District 1**

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**Commissioner District III**



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**Ed Bowlby  
Academic Community**

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**Doug Morrill  
Elwha Tribe**

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**Greig Arnold  
Makah Tribe**

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**Port of Port Angeles**

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**Marine Trades**

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**Chris Byrnes  
Ex-Officio, WDFW**



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**Lyn Muench, Commissioner District II**



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**Jeff Ward, Vice-chair  
Sequim City Council**

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**Arnold Schouten  
Development Community**



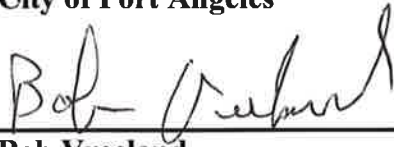
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**Randy Johnson  
Jamestown-S'Klallam Tribe**



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**Brad Collins  
City of Port Angeles**



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**Bob Vreeland  
Conservation/Environmental Community**



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**Cathy Lear  
Ex-Officio, Clallam County**



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**Bob Campbell  
Marine Recreation and Tourism**



## **Clallam Marine Resources Committee 5-Year Strategic Plan (2013 through 2018)**

### **AUTHORITIES AND AUTHORIZATIONS**

The Clallam County Marine Resources Committee (CCMRC), and the six other MRCs that share the common resources of the Salish Sea, were created via enabling legislation that established the Northwest Straits Marine Conservation Initiative. The Initiative was formed in 1998 to provide a bottom-up, community-based approach to address declines in the marine ecosystem of the Northwest Straits area of Puget Sound, Washington State.

The Initiative provides coordination and funding for seven community-based Marine Resources Committees that are appointed by county councils in the Northwest Straits region. MRC members serve an advisory role rather than regulatory role to their respective county councils. Although the committees, which represent Clallam, Island, Jefferson, San Juan, Skagit, Snohomish, and Whatcom counties, are autonomous and independent, and establish their own priorities and conservation projects, they often seek common themes among the other groups to address regional issues, and to leverage funds.

The Northwest Straits Commission manages the Northwest Straits Initiative and acts as a board of directors of the Marine Resources Committees (MRCs). The commission includes 13 members, including one member of each MRC. Five commission members are appointed by the governor of Washington to provide technical advice or stakeholder perspective. One member of the commission is a tribal representative appointed by the Secretary of the Interior. The position of commission chairman rotates annually between the gubernatorial appointees and MRC representatives. Decisions are made by consensus. The Northwest Straits Foundation is a non-profit organization that seeks funding for education, restoration and scientific projects. It is a separate but complementary body with its own director of development.

The Clallam County Marine Resources Committee (CCMRC) was established by the Clallam County Board of Commissioners through their resolution 58-1999 as an advisory committee to the Board of Commissioners, and with the specific purpose of addressing marine issues in the Strait of Juan de Fuca, recommending remedial actions to local authorities, building awareness of these issues and local support for these remedial actions in accordance with the Benchmarks for Performance as established in the August 20, 1998 Report to the Conveners of the Murray-Metcalf Northwest Straits Citizens Advisory Commission.

### **VISION STATEMENT**

The Clallam County Marine Resources Committee will guide policy decisions and become a national leader in nearshore restoration and protection through the use of sound science, and by partnering with local, State, Federal, and Tribal entities, NGO's and the residents along the Strait of Juan de Fuca. The MRC will help maintain a high quality of Clallam County marine resources (i.e., fish and shellfish resources, nearshore habitat, water quality) by guiding policy decisions, by facilitating discussion and public outreach, and by providing guidance to Clallam

County on issues that affect marine resources including regulation, enforcement, incentives, and mitigation.

The MRC's public outreach on issues affecting the nearshore marine environment will empower Clallam County citizens and visitors to use, enjoy, and protect marine resources. Clallam MRC will play an active role in creating Clallam County's vibrant, multifaceted, and sustainable economy and marine environment.

## **MISSION STATEMENT**

CCMRC protects and restores the marine waters, habitats, and species of Clallam County along the Strait of Juan de Fuca to achieve ecosystem health and sustainable resource use.

## **LONG TERM GOALS**

The long-term goals of the CCMRC are to

- Protect and restore nearshore habitats
- Improve water and sediment quality
- Protect and restore species and populations

In practice, these goals are highly interrelated, and progress is attained through a variety of activities that include 1) the development and execution of place-based projects within Clallam County that benefit both human and marine communities, 2) development of opportunities for public education, engagement and outreach on marine resource issues; and 3) alignment of CCMRC programs, when possible, with other local or regional efforts to extend and leverage limited financial resources.

The CCMRC is committed to collecting environmental data following standardized protocols that result in high-quality information that is efficiently disseminated to support environmental decision-making and reduce uncertainty. The CCMRC advises the County Commissioners on existing and emerging environmental challenges, provides input on marine planning issues such as Shoreline Management Plan updates, and creates opportunities to bring citizens, scientists, policy makers, industry, and other groups together to collaboratively discuss and debate issues and challenges.

## **KEY PARTNERSHIPS AND COLLABORATIONS**

Since its creation in 1999, the CCMRC has worked collaboratively with a variety of groups and organizations to support the three goals described above, to promote public awareness of local, regional, and national issues. Table 1 provides a partial list of key partnerships and collaborations that have been developed by the CCMRC to enable it to continue to promote its long-term goals. This list is expected to grow in 2013-2018.

CCMRC has maintained a close relationship with the two organizations that support the vision and mission of the Northwest Straits Initiative (Northwest Straits Commission, Northwest Straits

Foundation) as well as the Puget Sound Partnership. CCMRC has also worked closely with the Jefferson County MRC and the North Pacific Coast MRC (formed in 2009 under a different mandate separate from the Northwest Straits Initiative though modeled after it) to leverage funding and public participation to address marine issues of interest for all organizations.

Through its membership and through extended partnerships, the CCMRC has also worked effectively and collaboratively with local, State and Federal resource and governing agencies, local Indian tribes, marine sciences laboratories, and local NGO's. All of these relationships are valuable and necessary to address the three long-term goals of our organization.

**Table 1.** Key Partnerships and Collaborations Available to the CCMRC

<b>Organization</b>	<b>Contact Information</b>
Northwest Straits Commission	<a href="http://www.nwstraits.org">http://www.nwstraits.org</a>
Northwest Straits Foundation	<a href="http://www.nwstraits.org">http://www.nwstraits.org</a>
Jefferson County MRC	<a href="http://www.jeffersonmrc.org">http://www.jeffersonmrc.org</a>
North Pacific Coast MRC	<a href="http://wdfw.wa.gov/about/volunteer/mrc/county_northpacific.html">http://wdfw.wa.gov/about/volunteer/mrc/county_northpacific.html</a>
Puget Sound Partnership	<a href="http://www.psp.wa.gov/">http://www.psp.wa.gov/</a>
US Environmental Protection Agency, Region 10	<a href="http://www.epa.gov/aboutepa/region10.html">http://www.epa.gov/aboutepa/region10.html</a>
Olympic Coast National Marine Sanctuary	<a href="http://olympiccoast.noaa.gov">http://olympiccoast.noaa.gov</a>
NOAA	<a href="http://www.noaa.gov/">http://www.noaa.gov/</a>
Washington Sea Grant	<a href="http://wsg.washington.edu/">http://wsg.washington.edu/</a>
US Geological Survey	<a href="http://www.usgs.gov/aboutusgs/">http://www.usgs.gov/aboutusgs/</a>
Washington State Department of Ecology	<a href="http://www.ecy.wa.gov/ecyhome.html">http://www.ecy.wa.gov/ecyhome.html</a>
Washington State Department of Fish and Wildlife	<a href="http://wdfw.wa.gov">http://wdfw.wa.gov</a>
Washington State Department of Natural Resources	<a href="http://www.dnr.wa.gov/Pages/default.aspx">http://www.dnr.wa.gov/Pages/default.aspx</a>
Washington State Department of Health Marine Biotxin Program	<a href="http://www.doh.wa.gov/CommunityandEnvironment/Shellfish/BiotoxinsIllnessPrevention/Biotoxins.aspx">http://www.doh.wa.gov/CommunityandEnvironment/Shellfish/BiotoxinsIllnessPrevention/Biotoxins.aspx</a>
Jamestown S'Klallam Tribe	<a href="http://www.jamestowntribe.org/">http://www.jamestowntribe.org/</a>

Lower Elwha Tribe	<a href="http://www.elwha.org/">http://www.elwha.org/</a>
Makah Tribe	<a href="http://www.makah.com/">http://www.makah.com/</a>
Surfrider Foundation – Olympic Peninsula Chapter	<a href="http://olympicpeninsula.surfrider.org/">http://olympicpeninsula.surfrider.org/</a>
Washington Coast Savers	<a href="http://www.coastsavers.org/">http://www.coastsavers.org/</a>
Dungeness River Audubon Center	<a href="http://www.dungenessrivercenter.org">http://www.dungenessrivercenter.org</a>
Coastal Watershed Institute	<a href="http://www.coastalwatershedinstitute.org">http://www.coastalwatershedinstitute.org</a>
Olympic Peninsula Audubon Society	<a href="http://olympicpeninsulaaudubon.org/">http://olympicpeninsulaaudubon.org/</a>
Feiro Marine Life Center	<a href="http://feiomarinelifecenter.org">http://feiomarinelifecenter.org</a>
Pacific Northwest National Laboratory	<a href="http://www.pnl.gov">http://www.pnl.gov</a>
North Olympic Peninsula Skills Center	<a href="http://www.nopsc.org">http://www.nopsc.org</a>
Clallam Economic Development Council	<a href="http://www.clallam.org">http://www.clallam.org</a>
Port of Port Angeles	<a href="http://www.portofpa.com/">http://www.portofpa.com/</a>
City of Port Angeles	<a href="http://www.cityofpa.us/">http://www.cityofpa.us/</a>
City of Sequim	<a href="http://www.sequimwa.gov/">http://www.sequimwa.gov/</a>
Peninsula College	<a href="http://www.pencol.edu/">http://www.pencol.edu/</a>
Coastal Observation and Seabird Survey Team (COASST)	<a href="http://depts.washington.edu/coasst/">http://depts.washington.edu/coasst/</a>

## CCMRC STRENGTHS, CHALLENGES, OPPORTUNITIES, THREATS

Figure 1 presents a summary of CCMRC strengths, challenges, opportunities and threats. Primary strengths of the organization include the technical expertise of its members, its positive presence in Clallam County for over a decade, the overall organizational structure that includes stakeholders representing Clallam County and city governments, tribal nations, and recreational, commercial, public and educational interests, and the strong relationships the group has developed within and outside of Clallam County.

The challenges are typical of many publically minded volunteer organizations - too many things to do and not enough time, money, or staff. The organization can also be hampered by limited time to conduct CCMRC-related business, given the monthly meeting agenda and the other duties and responsibilities each member has outside of the committee that may result in the lack of a quorum to conduct normal committee business.



Despite the bleak economic and funding outlook, and the perception that environmental organizations will be asked continually to do more with less, many opportunities exist. Locally based organizations with high levels of technical knowledge and experience are often the best bargain available when it comes to investments in environmental protection, restoration, and sustainability. Organizations like CCMRC have relatively low overhead, access through members and external partnerships to highly relevant technical experience, and the ability to work collaboratively with external organizations on project leadership, outreach, and education. Such collaboration reduces agencies’ and entities’ need to travel to the North Olympic Peninsula, easing their travel budgets and saving them money and time. These attributes need to be leveraged and highlighted in proposals and grant applications.

Threats to the CCMRC include increased competition for scarce funds, matching fund requirements, and the potential for CCMRC members to become discouraged by the “do more with less” attitude that has become increasingly common.

<p><b>STRENGTHS</b></p> <ul style="list-style-type: none"> <li>• Long-term presence in Clallam Co.</li> <li>• Wide, varied representation.</li> <li>• Many success stories.</li> <li>• Local and regional support.</li> <li>• Great relationship with NWSC, NWSF, and other partners.</li> <li>• Members bring wealth of experience and expertise.</li> </ul>	<p><b>OPPORTUNITIES</b></p> <ul style="list-style-type: none"> <li>• Increased focus on ecosystem health, services, and sustainability.</li> <li>• Growing support for community-based projects and guidance.</li> <li>• Advantage to partnering with local advisory groups that can address ecological, socioeconomic, and cultural needs.</li> </ul>
<p><b>CHALLENGES</b></p> <ul style="list-style-type: none"> <li>• Not always possible to make measurable impact due to funding and staff constraints.</li> <li>• Committee members have other outside commitments that influence ability to contribute.</li> <li>• Monthly meetings can make it hard to get things done efficiently.</li> </ul>	<p><b>THREATS</b></p> <ul style="list-style-type: none"> <li>• Funding mechanisms are changing and will become much more competitive.</li> <li>• Matching fund requirements will become more prevalent.</li> <li>• “Do more with less” mentality can create discouragement.</li> </ul>

**Figure 1.** CCMRC Strengths, Challenges, Opportunities, and Threats Assessment

## CCMRC GUIDING PRINCIPLES

### Bottom's Up, Place-Based Thinking Gets Things Done

CCMRC provides a place to discuss needs and issues, explore ideas, and mobilize the local community to ensure the marine resources of Clallam County are available for generations to come. Ideas generated at a local, stakeholder level include local knowledge, and create a sense of ownership and shared commitment that promotes success and provides a positive example of how to protect and restore the resources of the Strait of Juan de Fuca.

### Partnerships are Essential

Federal, state, and local governments, Tribes and resource agencies face an ongoing struggle to do more with less, and this is certainly true with regard to programs and projects related to marine resource protection. CCMRC realizes that forging strong partnerships will be an essential part of our success. By leveraging financial and human resources, creating programs and projects that meet the needs of different groups, and working collaboratively with our existing and future partners, the CCMRC will continue to serve the citizens of Clallam County.

### Education and Outreach Should be a Component of Every Project

Although the membership of the CCMRC is varied and encompasses many perspectives, we all realize that one of our most important jobs is training and encouraging our replacements. Thus, whenever possible, the CCMRC will build educational opportunities for students, citizen scientists, and members of the public into our programs. Doing so provides an opportunity for those interested in careers in science or education to learn by doing, and for citizens of Clallam County to gain an understanding of and greater appreciation for their marine resources.

### Sound Science Increases Certainty in Decision-Making

Unfortunately, science rarely provides a definitive answer to a question or concern. Rather, scientific information reduces uncertainty when it is collected following accepted protocols. It helps decision-makers understand the tradeoffs of one action compared to another. For projects that involve data collection, CCMRC commits to ensuring that procedures follow standard protocols. Project protocols and project results will be disseminated, if possible, to project partners, stakeholders, and the public in a way that is understandable and useful for decision-making.

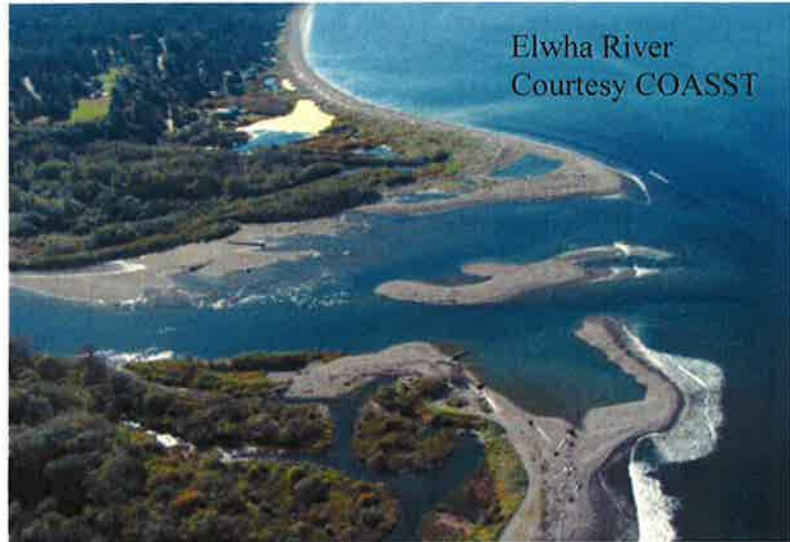
### Membership Assures Broad Socioeconomic, Cultural, and Environmental Components

The makeup of the CCMRC includes representatives from local and regional governments and Indian Tribes, and persons representing the economic development community, marine trades, marine recreation, academia, and conservation and environmental interests. This diverse membership provides different opinions, perspectives and expertise. It helps the CCMRC provide valuable advice to the County Commissioners, and design and implement projects that reflect socioeconomic and cultural concerns while protecting and sustaining the marine resources of Clallam County.

## ACTIVITIES TO ACHIEVE LONG-TERM GOALS

### GOAL 1: Protect and Restore Nearshore Habitats

Nearshore ecosystems are subject to a variety of natural and anthropogenic threats, including effects related to global climate change (including ocean acidification), change impacts related to legacy construction activities in the nearshore or adjacent watersheds, introduction of invasive species, and the recent increase in marine debris resulting from the 2011 earthquake and tsunami event in Japan.



Sustainable use of marine resources includes the protection, enhancement, and restoration of valued ecosystem components, and the consideration of socioeconomic and cultural needs. The CCMRC has a long history of supporting basic research related to 1) the Elwha dam removal, 2) restoration and removal of derelict fishing gear, 3) removal of shoreline structures that affect natural geomorphic processes, and 4) the funding of studies that provide fundamental environmental baseline information that can be used to assess impacts and detect change. These topics and concerns continue to be a major focus within and outside of Clallam County and are consistent with local, State, and National priorities. Examples of previous successful projects conducted by the CCMRC or its members include:

- Elwha nearshore restoration. Opportunities abound for restoration of the Elwha nearshore following removal of two dams on the Elwha River. The Clallam MRC support positive steps toward restoration through eelgrass and forage fish monitoring, landowner outreach, and the Elwha Nearshore Consortium, which brings together researchers and the local community to understand the dynamics of a fast-changing nearshore environment.
- Marine debris removal and response. Clallam MRC has fostered a local stewardship ethic by publicizing beach cleanup events, and providing materials and a dumpster for beach cleanups. Following the disastrous 2011 Tohoku earthquake and tsunami, Clallam MRC sponsored a multi-day symposium to offer the community expert views and guidance for a response to the anticipated arrival of tsunami debris.
- Derelict gear removal.
- Initiated in Clallam County by members of the Clallam MRC, derelict gear removal has proven to be an effective way to immediately improve both marine habitats and marine populations throughout the NW Straits. Continued training for oiled wildlife response efforts. Since 2009 Clallam MRC has provided citizen volunteers an opportunities for training in oiled wildlife rescue, intake and stabilization. Drawn from around the region, the volunteers

annually refresh their skills in personal safety, oiled wildlife identification and capture, intubation, and other critical oiled wildlife response actions.

- Monitoring shellfish for biotoxins to permit public shellfish harvesting. Clallam MRC is committed to providing timely and accurate shellfish toxin data for western Straits beaches. The PSP sampling effort reflects the MRC's intent to allow safe commercial and recreational harvest.
- Best management practices for shoreline owners. Educating shoreline landowners through targeted workshops and field trips is an effective way to provide information about best shoreline management practices and to understand the issues that shoreline landowners encounter. Clallam MRC will continue to engage landowners as opportunities to implement BMPs arise.
- Olympia oyster restoration. Clallam MRC supports restoring the native Olympia oyster to its historic habitat, and works with the Jamestown S'Klallam tribe and others to plant, map, and monitor the oyster. The MRC also works to educate the local community about the importance of this unique oyster, and the efforts to restore it to its marine waters.
- Public outreach for citizens on values, threats, protection, and restoration potential of nearshore habitats. Ocean acidification, marine debris, derelict gear, and wise use of shoreline resources are among the issues that matter to our local community. Clallam MRC plays a role by offering timely outreach through symposiums, forums, festivals, and speaker events.

### Value Proposition

The CCMRC will continue to promote projects that ensure sustainable marine resources for future generations. Projects are locally focused, and also reflect regional and national priorities and needs. CCMRC projects will provide examples of how to balance marine resource protection and sustainability with socioeconomic and cultural needs. Public participation, education, and outreach will be an important component of all projects.

### Action Plan

During 2013-2018, the CCMRC will work collaboratively with existing partners to promote science and research related to the Elwha Dam removal and restoration action, and look for ways to leverage existing funds to fill critical project and data needs. Examples of this may include sponsoring Elwha-related scientific symposia; creating student intern positions under CCMRC member supervision to collect, analyze, and disseminate data of interest to restoration ecologists; and sponsoring public outreach and



citizen science activities that benefit restoration. CCMRC will also pursue activities and projects that raise awareness of responsible shellfish harvesting and better ways for private owners to manage and protect shorelines. CCMRC will encourage citizen scientists to participate in environmental surveys such as annual Audubon bird counts and monthly COASST surveys. In addition, CCMRC will actively partner with local organizations, State and Federal agencies, and other MRCs to develop a network of citizen volunteers to respond to the increasing marine debris issue, especially as the magnitude of the tsunami debris impacts are better understood over time. CCMRC will also look for opportunities to support restoration activities similar to the Washington Harbor project along the Straits within CCMRC jurisdiction.

### Key Collaborations

Key collaborations to achieve Goal 1 include the existing network of supporters and volunteers that have played a key role in CCMRC success since its beginning in 1999. CCMRC will also engage funding partners that include NWSF, NWSF, PSP, and State and Federal resource agencies that already understand the value of having CCMRC involved in their projects.

### Measures of Success

Measures of success during the 2013-2018 for Goal 1 include:

- Successful engagement of the public, students, and citizen scientists in emerging water quality issues, including potential effects of ocean acidification, and other water quality concerns within Clallam County that have the potential to adversely affect marine life. Continued activity and engagement in the Elwha nearshore restoration project
- Opportunities for citizen scientists to participate in research activities
- Continued shoreline management public outreach events
- An expanded, integrated network of partners and volunteers to respond to the continued issue of marine debris
- New partnerships that allow us to support local restoration projects, and respond to new threats to marine resources
- Continued partnership with the Northwest Straits Commission to identify and remove the derelict gear that continues to deplete nearshore resources.

## GOAL 2: Improve Water and Sediment Quality

Threats to water and sediment quality can occur from natural phenomena (e.g. algal blooms affecting shellfish safety), discharge of contaminated wastewater or stormwater, or marine-related accidents, such as oil spills. These threats have the potential to affect water and sediment quality in nearshore areas for months or years. During 2013-2018, CCMRC will look for opportunities to lead or support activities and actions that help to ensure that Clallam County residents have access to uncontaminated beaches and safe seafood. We envision place-based programs that raise public awareness,



provide training to citizen scientists and students in water quality monitoring, and collaborative efforts with Federal, State, and local agencies and NGOs to ensure trained volunteers are available to support oil spill response and cleanup activities in the event of a significant spill into the waters of the Strait of Juan de Fuca. These programs and others will build on the successes of the past, including:

- Paralytic Shellfish Monitoring. For many years, CCMRC has partnered with the Elwha Tribe to support paralytic shellfish monitoring of the beaches of the Strait of Juan de Fuca. Due to this monitoring program, many Western Strait beaches are now open to recreational shellfish harvesting when the data indicates they are safe for harvest. This program also offers an opportunity to train students in water quality monitoring, and to raise the awareness of residents in the value of these collaborative efforts.
- Oil Spill Response Training. In collaboration with the US Coast Guard, Surfrider, Coast Savers, and others, CCMRC has sponsored and hosted training sessions to enable citizen volunteers to effectively and safely support oil spill cleanup efforts. Classes that train

volunteers to work safely near hazardous chemicals, or to rescue, stabilize, and clean oiled wildlife, are extremely well attended in Clallam County. Often the classes have a waiting list. This type of training must continue, to ensure volunteers maintain their certifications and proficiency, as the threats, unfortunately, will always be present.

### Value Proposition

During 2013-2018, CCMRC will continue to provide leadership in outreach and education that raises public awareness about the need for clean water and safe shellfish. CCMRC will sustain and extend existing successful partnerships, and continue to provide opportunities for citizen scientists and volunteers, and student-intern training.

### Action Plan

CCMRC will build on the successful efforts of the past by pursuing funding opportunities that enable and promote public engagement and action to address water quality issues in Clallam County waters, and to support efforts that ensure trained volunteers are available to respond to oil spill events. Water quality monitoring efforts will be designed to promote educational and outreach opportunities by providing training to students and/or citizen scientists, and by coordinating and hosting public seminars that help citizens clearly understand the current issues and emerging challenges. For example, ocean acidification, and its potential effects on the aquatic resources of Clallam County provided an opportunity for CCMRC to bring ocean acidification seminars involving regional and national experts to Port Angeles. These kinds of activities will continue in 2013-2018. CCMRC will also continue its successful program in oil spill response preparation, which is considered a model for other MRCs.

### Key Collaborations and Partnerships

The CCMRC works with a variety of partners to support water quality monitoring, including the local Tribes, Washington State Department of Health, Washington State Department of Ecology, and Peninsula College. Funding has historically come from NWSC, and it is expected this key partner will continue to assist us financially. Support for oil spill response preparation and training will include USCG, Surfrider Foundation, Wash. Dept of Fish & Wildlife, Coast Savers, and other Federal, State, and local partners. Funding partners have included NWSC and NWSF, and these and other partners will be engaged during 2013-2018.

### Measures of Success

Success for Goal 2 will include:

- Successful commercial and recreational shellfish harvest on beaches of the western Strait. Continued effective PSP monitoring program, with potential extension to other beaches within Clallam County or other vulnerable areas within the Salish Sea by other MRC's following the CCMRC model.

- Continued training of volunteers to effectively respond to an oil spill along the Strait of Juan de Fuca, Continued certification of those already involved in the program, and training additional volunteers to expand and extend our capabilities.

### GOAL 3: Protect and Restore Species and Populations

The aquatic resources of the Salish Sea and the Strait of Juan de Fuca are part of a large, vibrant marine food web that provides social, cultural, recreational, and economic benefits to the citizens of Clallam County. Unfortunately, these marine resources are susceptible to a variety of anthropogenic and natural stressors, including the introduction of exotic or invasive species via ship ballast water or other intentional or unintentional activities, effects related to urbanization, shoreline armoring, and pollution, and longer-term impacts related to ocean acidification and climate-change induced sea level rise. There are many examples of successful restoration efforts that will help restore resources lost to the above stressors, including the recent removal of the Elwha dams, and restoration of historical hydrologic function to Washington Harbor by the replacement of a large berm with a trestle. These actions create the kinds of conditions needed for restoration success, and will be a



part of the work CCMRC supports and conducts in 2013-2018. During the next five years, the CCMRC will continue efforts to restore historically abundant species, such as the native Olympia oyster, and seek out new opportunities to participate in restoration actions that help balance the effects of anthropogenic and natural stressors. These efforts ultimately provide benefits to the marine resources of Clallam County and the Strait of Juan de Fuca that positively affect the social, cultural, and socioeconomic aspects of the community. Examples of past or current efforts that will be continued or used as models for new project include:

- Elwha Restoration. The removal of two decommissioned dams on the Elwha River and subsequent restorations in the watershed and nearshore represents the largest effort of its kind in the world. As the removal action concludes, there will be many opportunities to partner with NPS, USGS, and local NGOs to support research, education, and public outreach. CCMRC will work collaboratively with these groups, and others, including Peninsula College, to develop MRC-led projects that involve citizen scientists and students to help fill data and information gaps that support assessments of restoration success and ecosystem adaptation.



- Washington Harbor Restoration. The recent restoration project in Washington Harbor coordinated by an MRC partner, the Jamestown S’Klallam tribe, has restored historical hydrological function that was affected during the building of the City of Sequim’s marine outfall in the mid-1900’s. The replacement of a berm and culvert system limiting water exchange with a raised trestle will support the natural recovery of intertidal and shallow subtidal aquatic communities, creating conditions that may benefit from directed restoration projects sponsored by CCMRC or others.
- Olympia Oyster Restoration. The Olympia oyster restoration project will reintroduce oysters into intertidal beach in Sequim Bay. CCMRC will work closely with the Jamestown S’Klallam tribe and others to support this program, and expand it, if possible within and outside Sequim Bay. CCMRC will also work closely with the tribe to provide opportunities for student interns, and promote the program within Clallam County. Olympia oysters appear to be more tolerant to lower pH water than the introduced Pacific oyster; the restoration action could also form the basis of an adaptation strategy for ocean acidification.
- Marine bird, forage fish, and eelgrass surveys. Clallam MRC supports monitoring of marine species for several projects. To prepare for the Elwha ecosystem restoration, Clallam MRC mapped eelgrass and monitored forage fish in the relevant drift cells. To provide an update to the historic MESA studies, Clallam MRC funded surveys of marine birds. These efforts and others offer a more complete picture of the status of the marine environment. As projects demand and funding allows, the MRC will continue to provide timely data to through surveys.

### Value Proposition

During 2013-2018, the CCMRC will work collaboratively with Federal and State agencies, local Tribes, NGO’s, and other partners to protect existing native species and restore those that have been lost to development or competition from introduced or invasive species. CCMRC will use these opportunities to increase public awareness, provide opportunities for education via student internships, and enable the species that were historically present in the area to again become a part of a vibrant marine ecosystem.

### Action Plan

During 2013-2018, the CCMRC will sustain and extend collaborations with Federal, State and local resource agencies, Tribes, and NGO’s to identify and participate in collaborative opportunities for species restoration. These projects include work in the ongoing Elwha restoration effort, the successful partnership with the Jamestown S’Klallam tribe on the Olympia oyster restoration project, and identification of opportunities where species restoration efforts can occur after barriers to natural system recovery have been removed (e.g. Washington Harbor berm removal).

### Key Collaborations

Key collaborations to support this goal include Tribal governments, Federal and State agencies supportive of species restoration projects, and potentially, NGO's with access to restoration funds.

### Measures of Success

- Success will be related to the extent of the impact CCMRC can have in restoring keystone species and populations. Metrics will include the number of projects funded, the acreage restored, species changes, the overall impact CCMRC contributions make to larger restoration goals, and the extent of education and outreach that results from the work.