

partners in marine conservation

2015 Annual Report



2015 Northwest Straits Commission Members

Nan McKay Governor's Appointee, Chair Jerry Masters Governor's Appointee, Vice Chair

Jamey Selleck Skagit County MRC Phil Green San Juan County MRC Dr. Ron Thom Governor's Appointee Ken Carrasco Whatcom County MRC Ed Adams Island County MRC Dale Moses Jefferson County MRC Dr. Terrie Klinger Governor's Appointee Lincoln Loehr **Snohomish County MRC**

Sheida Sahandy Puget Sound Partnership, Governor's Appointee

Jeff Ward Clallam County MRC

Terry Williams Tulalip Tribes, Secretary of the Interior Appointee

Alternates

Cecilia Gobin Alternate for Terry Williams
Marc Daily Alternate for Sheida Sahandy

Science Advisory Committee

Dr. Ron Thom, Chair Dr. Tessa Francis Dr. Tom Mumford Dr. Milton Love

Commission Staff/Support

Ginny Broadhurst Executive Director
Holly Faulstich/ Program Coordinator

Nicole Jordan Caroline Gibson/

Marine Program Manager

Dr. Lucas Hart Sasha Horst

Communications Manager

Suzanne Shull GIS support in partnership with Padilla Bay National Estuarine Research Reserve

Terry Stevens Director of Padilla Bay National Estuarine Research Reserve



Passages

On March 9, 2015, we lost an important member of the Northwest Straits family. Robyn du Pré passed away, far too early in her adventurous and successful life. Robyn was dedicated to protecting and restoring the environment and as the Director of the Northwest Straits Foundation she was able to focus her passion on protecting our marine waters and creatures. She was an avid biker, kayaker, hiker, gardener and naturalist and strong community builder. We continue to be inspired by her and her accomplishments.

Cover photo: Ginny Broadhurst

A Message from our Chair

What gives you hope? For me, it's got to do with people looking at big challenges and taking personal action to address them—in the face of uncertainty. In this incredibly beautiful and bountiful place we call home—the Northwest Straits, one of our huge challenges is reversing decades of pollution, habitat destruction and declining species. Thankfully, we continue to share this place with a rich diversity of creatures, including orca whales, Dungeness crabs, sea urchins, sea stars, rockfish, octopuses, puffins, herons and hundreds of other birds, fish and invertebrates.

The Northwest Straits Commission works in seven counties in north Puget Sound, including Clallam, Island, Jefferson, San Juan, Skagit, Snohomish and Whatcom. Since the Commission was created in 1998, thousands of residents who live in these counties have joined together to take actions to protect and restore our shorelines, wildlife and water quality. We do this because the beauty of this place inspires us, and we have a keen awareness of our connections and responsibilities to its non-human residents.

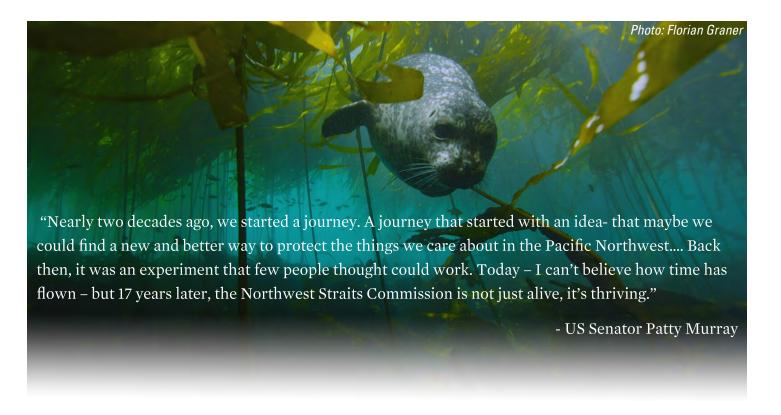
While our motivations are often personal, our work is done in collaboration with many others who find value, power and wisdom in collective action.

These attributes—personal responsibility and collective action—are hallmarks of the mission and work of the Commission. We also pay attention to ensuring that our work makes positive and meaningful change. Our Science Advisory Committee brings us the latest research on causes, effects and approaches. We measure and evaluate our work against outcomes. We seek the advice of leaders and other citizens. We constantly ask questions about how best to do our work.

Inside this report you will find stories of local people making a difference in the quality of life in their place. May this give you hope and inspire you to join us.

Chair, Northwest Straits Commission





Our Mission

The mission of the Northwest Straits Initiative is to protect and restore the marine waters, habitats and species of the Northwest Straits region to achieve ecosystem health and sustainable resource use.

The Northwest Straits Initiative (Initiative) encompasses the Northwest Straits Commission, seven county Marine Resources Committees (MRCs) and our non-profit partner, the Northwest Straits Foundation. Authorized by Congress in 1998 as an alternative to a national marine sanctuary, the Initiative unites our regional conservation and restoration efforts, bringing together people from diverse viewpoints to produce measurable improvements to the marine ecosystem of the region.

The Initiative complements and supports the work of state, local and tribal governments, and engages an incredible base of knowledgeable volunteers.

About the Northwest Straits Commission

The Northwest Straits Commission (Commission) serves as a regional coordinating body, providing focus and guidance to ensure progress toward the Initiative goals, and directing funding to the MRCs. The Commission facilitates regional coordination among the MRCs and connects MRC work to regional planning processes such as the Puget Sound Action Agenda.

The Commission's focus is protecting marine habitats, wildlife and water quality through stewardship actions, restoration projects and education.

Northwest Straits Initiative Environmental Goals

From the 2014 Strategic Plan:

Goal 1: Accelerate the rate of shoreline and nearshore habitat protection and restoration with the goal of a net gain of functional habitat. Work in harmony with regional planning efforts that have identified projects that increase shoreline connectivity and complexity. Design restoration projects, where feasible, to help mitigate the effects of sea level rise and changing ocean conditions.

Goal 2: Support water quality monitoring efforts and take measures to protect and improve water quality.

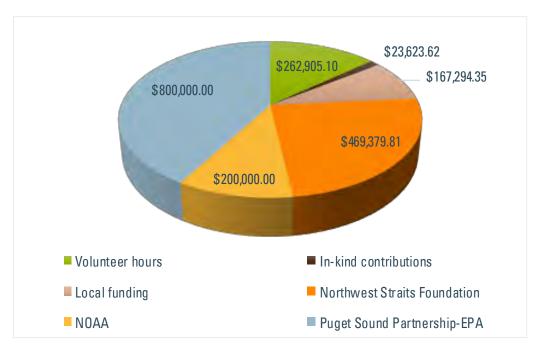
Goal 3: Protect and restore marine species and habitats to improve ecosystem health.

Goal 4: Educate local residents about the health of the Northwest Straits marine waters and habitat and provide opportunities for engagement. Raise attention to and take action on emerging and urgent issues related to the health of the region's marine waters and habitat.

Finances

The Commission and MRCs are supported by grant funding that leverages in-kind support, local funds and a significant number of volunteer hours. This base support also allows our partner non-profit to leverage additional funds.

- In 2015, MRC members and other project volunteers contributed over 10,000 hours in support of MRC work.
- MRCs received more than \$190,000 in local support, both in-kind and direct funding.
- The Northwest Straits Foundation leveraged an additional \$470,000 for projects.



Northwest Straits Commission – 2015 Highlights

Ocean Acidification

The Northwest Straits Commission provides current information to local communities on the science of ocean acidification, its impacts on fisheries and shell-fisheries, and what can be done locally to address these impacts. In 2015, the Commission hosted community forums on ocean health in Island and Skagit counties, bringing together researchers, local leaders and shellfish growers. To date, the Commission has hosted 17 public events featuring ocean acidification experts, including six local forums on ocean health. This outreach continues in 2016 with targeted outreach to local decision makers.

The Commission also supports MRCs in carrying out projects aimed at reducing the local impacts of ocean acidification, including native oyster restoration, eelgrass protection and filtration of stormwater through the use of rain gardens (see photo at right).

The Commission has a seat on the Washington Marine Resources Advisory Council, convened to maintain a coordinated focus on the issue of ocean acidification.

Learn more about our work on Ocean Acidification at www.nwstraits.org/our-work/ocean-acidification.



Ginny Broadhurst, Brooke Love, Rosie Cayou James, Bill Dewey, Christine Woodward, and Jay Lind at a community forum on ocean health in Skagit County. Photo: Holly Faulstich



"The Northwest Straits Commission plays a vital role in educating people about the threats of ocean acidification in the Salish Sea. By connecting citizens with scientists and community leaders, the Commission promotes discussion that can lead to innovative solutions tailored to our region, the resources we value, and the rich cultural fabric that makes this such a wonderful place to live."

Dr. Terrie Klinger, Co-Director, Washington Ocean Acidification Center

Kelp Recovery

Kelp is critical habitat for many marine species that not only live in but forage for food around kelp beds. Kelp itself is a food source for marine animals and it absorbs carbon at a rate higher than some of the most productive forests.

The Commission launched a regional survey of bull kelp (*Nereocystis*) beds using a kayak-based survey protocol developed in 2014. Six MRCs recruited volunteers and piloted this project, and the Commission compiled the data and created a regional kelp database. A volunteer pilot photographed project sites in four counties, providing baseline aerial data on the extent of kelp.

In December, the Commission convened a workshop to identify changes needed to finalize the protocol for future surveys. As the dataset becomes more robust, it will serve to improve our understanding of kelp abundance in the Northwest Straits region. Our science advisory committee and partners from natural resource agencies are instrumental in the success of this project.

Learn more about our work on Kelp Protection and Recovery at <u>www.nwstraits.org/our-work//kelp-recovery.</u>



"A terrific example of how SoundIQ informs local policy and management decisions is the recent update to Island County's Shoreline Master Program, which regulates shoreline use. SoundIQ illustrated valuable data and maps on marine resources and habitat to our County Commissioners and departments. This allowed Commissioners to adopt a science-based document that was approved by the state"

- Linda Rhodes, Island MRC

SoundIQ

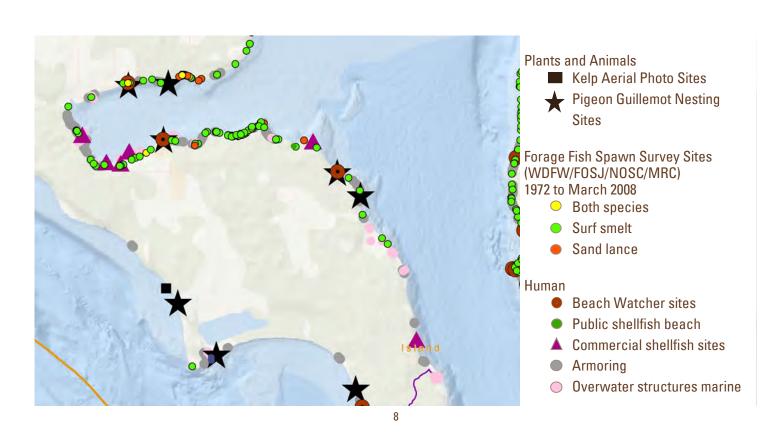
SoundIQ is the Northwest Straits Commission's web-based application to share data collected by MRCs and the Commission in an easily-accessible map format. MRC data on SoundIQ can be viewed in combination with complementary data from other sources.

In the past year, SoundIQ incorporated data from four additional MRCs, so that all seven Northwest Straits counties are on board. SoundIQ was upgraded to a new software platform called Geocortex in 2015, which supports the system for use on mobile devices and improves use and access. An updated <u>user tutorial</u> is available on our website.

What can you do with SoundIQ?

- ◆ Learn about MRC projects
- Find MRC data and reports
- View and change visible map data layers
- Print or share a map
- Search and download data
- Get inspired to fill additional data gaps

Learn more about SoundIQ and the data represented on the map below at www.nwstraits.org/our-work/soundig/.





In 2015, the Commission held two forage fish survey workshops to train citizen science volunteers to document spawning activity by surf smelt and sand lance. Since 2014, we have trained a total of 69 volunteers at five training events hosted in collaboration with the Washington Department of Fish and Wildlife. Volunteers are surveying beaches in four counties and sharing their data with state agencies and local governments.

The Commission also co-hosted a two-day symposium at the 145th American Fisheries Society meeting, highlighting forage fish research, conservation and management efforts across North America, in order to develop new collaborative efforts and reduce existing knowledge gaps around these species.

Results of previous work were published as <u>Nearshore</u> <u>distribution of Pacific sand lance in the inland waters</u> <u>of Washington State</u> in the Winter 2015 edition of Northwestern Naturalist.

Information about our Forage Fish Program can be found at www.nwstraits.org/our-work/forage-fish/

"The Northwest Straits Commission's pioneering work using volunteers and citizen science paved the way for regional survey efforts aimed at Sound -wide protection of smelt and other forage fish species."

-WA Senator Christine Rolfes



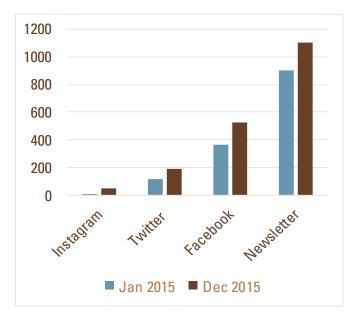
2015 MRC conference: Marta Branch, San Juan MRC & Chris Castner, EPA; Senator Kevin Ranker, 40th Dist. Photos: Al Bergstein

Outreach and Communications

The Commission co-hosted the 17th annual MRC conference – The Northwest Straits Initiative In Action – in Bellingham on November 6-7. This event brought together approximately 150 participants who represented the seven MRCs, the Commission, Foundation and project partners, to share information and learn about key issues facing our marine waters. Over 94% of participants rated the conference as very worthwhile, with many noting specific information they would use or actions they planned to take as a result of the conference. This event also serves as an important forum for fostering collaboration among the MRCs.

The Northwest Straits Commission communicates our work to a variety of audiences through a website. monthly newsletter and growing social media presence. Over the past year, the Twitter account following more than doubled from 85 to over 180 and counting. Our reach on Facebook averaged over 160 people per post, and in 2015 we added Instagram to our toolbox of ways to reach key audiences.

Join our mailing list or find an event near you at www.nwstraits.org/get-involved/.





Marine Debris Removal

This past year the Commission wrapped up a 16-month project to remove marine debris from local beaches, working with Washington Conservation Corps Veterans crews. These cleanup efforts removed 91,863 pounds (41.13 tons) of marine debris from 30 project sites in six counties. Much of the debris consisted of small plastic and foam fragments, drink bottles, large Styrofoam blocks, car tires, preservative-treated wood, and derelict fishing/aquaculture gear.

The Commission also collaborated with the Anacortes Arts Festival to turn marine debris into works of art. Portions of debris collected during cleanup projects were donated to the Anacortes Arts Festival staff for a community-based art project called "Tidecraft" in which salvaged marine debris was used to construct artwork.



Marine debris collected in Snohomish County. Photo: Paul Argites

Learn more about the Marine Debris program at www.nwstraits.org/our-work/marine-debris/.

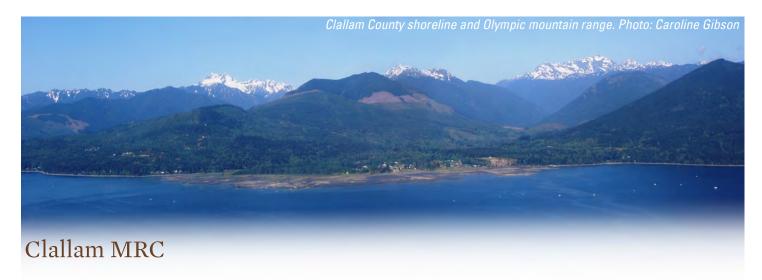


Marine Resources Committees

Making Investments in Local Communities

Marine Resources Committees receive support from the Northwest Straits Commission to identify and carry out marine conservation projects of local importance. They leverage their grant funds with volunteer hours as well as in-kind and financial support from local government, state and federal grants and private dollars. In 2015, over 10,000 volunteer hours were contributed by MRC members and other community volunteers in support of MRC projects.





Since 2012, Clallam MRC has partnered with the Jamestown S'Klallam Tribe restoring native Olympia oysters in Sequim Bay. Their efforts have resulted in a thriving oyster bed of approximately 0.64 acres with an estimated population of over 46,000 oysters. The MRC is looking at new sites to expand Olympia oyster restoration in coming years.

Targeted outreach including messages about the importance of good habitat and clean water reaches thousands of local residents at the Dungeness River Festival and other events.

Clallam MRC continued their successful marine debris program, resulting in the removal of 2.12 tons of debris from local beaches. Beach cleanup projects mobilized 170 volunteers at seven locations, including their annual 5th of July cleanup event where volunteers of

all ages collected sparkler sticks and other firework remains along with other marine debris.

To provide community members with skills needed to respond to an oil spill, Clallam maintained their oil spill preparedness and response training series in 2015. Due to high demand, the MRC expanded the program to include additional trainings, reaching 125 volunteers this year and over 600 since the MRC began.

Clallam MRC's five interns supported their work on oyster restoration, community outreach, marine debris removal, oil spill preparedness and invasive shoreline plants. Coming from the local high school and college, their work helps them gain valuable skills and engage with the local community on marine issues, while advancing the projects of the Clallam MRC.

For more information: www.clallamcountymrc.org



Left to right: Teaching elementary students about water quality at the 2015 Dungeness River Festival. Photo: Clallam MRC 4th of July parade to promote beach cleanup event. Photo: Steve Gray



Jefferson MRC's voluntary no-anchor zones continue to effectively protect eelgrass and shellfish beds at three locations. In Port Townsend, the MRC expanded their voluntary no anchor zone in 2015, protecting an additional 36 acres of eelgrass habitat. Volunteers maintained and reinstalled the seasonal buoys, which identifies the areas to boaters. The areas were also added to Active Captain, an online navigational mapping application. The project is based on voluntary participation, so success relies on the effectiveness of Jefferson MRC's outreach. Monitoring of boats anchored at the annual Wooden Boat Festival consistently shows nearly 100% compliance, diverting an estimated 200 boat anchors from damaging important eelarass habitat.

Last year, Jefferson MRC worked with the City of Port Townsend, WSU Extension and volunteers from the crew of the schooner Adventuress to install two new rain gardens. These beautiful plots filter contaminants from stormwater to improve water quality in Port Townsend Bay. Community support remains high for these and future projects, as demonstrated by the commitments made by adjacent landowners, project partners, and community volunteers who will maintain the gardens. Attractive interpretive signage has resulted in more local residents inquiring about rain gardens, and the MRC plans to expand this work in the coming year.

Jefferson MRC's outreach and education efforts directly reached nearly 850 people in 2015, as well as countless indirect contacts reached through signage and movie theatre preview ads. Their messages were focused on protecting nearshore habitat and improving water quality, as well as improving collaboration on projects.

For more information: www.jeffersonmrc.org



Preparing the eelgrass protection zone buoys for re-installation in Port Townsend. Photo: Cheryl Lowe

Skagit MRC

Skagit MRC continues to engage and train a strong volunteer network of citizen scientists through their Salish Sea Stewards and Beach Naturalists programs. Managed in collaboration with Padilla Bay's Coastal Volunteer Partnership, twenty-five new Salish Sea Stewards volunteers were trained this year, contributing over 800 hours of volunteer service.

Six new Beach Naturalists volunteered throughout the summer at Washington Park, sharing information with hundreds of visitors about the intertidal areas and good stewardship practices and preventing damage to the sensitive shoreline area.

The MRC hosted their 12th annual Fidalgo Bay Day in 2015, a one-day event to increase community awareness of the marine environment and to foster stewardship. Over 250 visitors enjoyed activities and educational displays from 19 different organizations

To promote increased awareness of coastal processes and alternatives to bulkheads, Skagit MRC hosted a workshop for shoreline landowners, drawing 55 participants from Fidalgo, Guemes and Samish islands. The workshop increased awareness of the value of natural

shorelines in preventing erosion, and multiple property owners requested follow up site visits to better understand their own shoreline.

Skagit MRC partnered with the Northwest Straits
Foundation and Washington State Parks to restore 540
feet of shoreline in Bowman Bay in Deception Pass
State Park. The project improved habitat for forage
fish, juvenile salmon and bull trout, and made room for
sea grass beds to shift with sea level rise. The MRC
also worked with the Foundation to train volunteers
and conduct pre- and post-construction nearshore
monitoring at this site and other restoration sites.

Skagit MRC is helping with restoration efforts for the native pinto abalone, which are functionally extinct in Washington. Working with the Puget Sound Restoration Fund, the MRC outplanted an estimated 2,300 juvenile abalone seed last year and monitored the nearly 1,500 abalone that were planted in the previous year. Seeding is an important aspect of restoration because the current population of pinto abalone are too far apart to successfully reproduce and sustain their population.



Island MRC

Now entering their tenth year surveying local eelgrass beds, Island MRC took cameras below the surface to complete submerged video monitoring at ten locations. They also took aerial photographs of the entire Whidbey Island coastline and parts of Camano Island. The MRC provides data to the WA Department of Natural Resources, and were able to confirm increased area of eelgrass beds at several sites.

Island MRC's monitoring work also includes surveying for forage fish eggs, to understand how forage fish use Island County beaches. Eight trained volunteers conducted surveys at the newly-restored shoreline at Cornet Bay during the summer months, and the MRC equipped itself to use an improved method of finding eggs in collected samples. In addition to forage fish surveys, 50 volunteers were trained to monitor for juvenile salmonid use of the Cornet Bay nearshore habitat, where both chum and Chinook salmon were found.

Pigeon guillemots are an important indicator species in the region, one of the few seabirds that commonly breed on Whidbey Island. Island MRC, in partnership with Whidbey Audubon, collects field survey data to understand population trends as a measurement of overall ecosystem health. In 2015 they completed a report on six-years of monitoring effort and conducted outreach to promote awareness of these endearing birds.

In addition to the MRC's successful use of plants to remove contaminants from stormwater at their project site in Coupeville, the MRC evaluated other plant-based filtering systems at the local water treatment plant, successfully reducing the amount of copper, lead, tin and zinc in the outflow. The MRC is now planning to use the knowledge gained to advise on other planned projects in the county.

For more information: www.islandcountymrc.org



Photos: Sasha Horst, Emily Bishop, Lucas Hart

Whatcom MRC

Whatcom MRC conducted intensive water quality sampling in North Chuckanut Bay and is working towards restoring the recreational shellfish area that has been closed to harvest for nearly 20 years. In 2015 the MRC trained 48 volunteers in water quality sampling, including students from Western Washington University. Volunteers collected 12 samples to date, and over time will collect enough to allow the Department of Health to make a determination on reopening the shellfish bed to harvest. In addition to studying water quality the MRC conducted clam surveys in the area, compiling data with results from previous years. Surveys were conducted with the help of 75 third-graders, who were mentored by students from Bellingham Technical College.

At Bellingham's popular Boulevard Park, a restoration project provided an opportunity for the MRC to evaluate the biological effects of the shoreline enhancement. Whatcom MRC trained 25 volunteers to survey the intertidal zone for changes over time, recently completing a three-year report on the survey results.

Community outreach is a strength of the Whatcom MRC, and is an important tool to reach audiences at local schools, from elementary through university and beyond. The MRC hosted events from Point Whitehorn in Birch Bay to Lummi Island and Chuckanut Bay, reaching hundreds of local residents, visitors and project volunteers emphasizing water quality messages and enlisting community support for the MRC's work. The MRC is a key partner and co-sponsor of Whatcom Water Weeks, an annual community event focusing on water resources in the county.



San Juan MRC

San Juan MRC is implementing the Marine Stewardship Area (MSA) Plan that they developed in partnership with multiple organizations, agencies and individuals years ago when the MSA was established. Their work in 2015 focused on high-priority strategies identified in the plan, including fostering a marine stewardship ethic and supporting efforts to reduce the risk of oil spills. They also advocated for governmental and non-governmental partners to work towards outcomes identified in the plan through their participation in local and regional processes such as the Local Integrating Organization, the Stormwater Advisory Committee, and the Salmon Citizen Advisory Group.

In carrying out the MSA Plan in 2015, the MRC hosted their tenth Marine Managers' Workshop, aimed at increasing understanding of the risks from marine vessel traffic and developing policy approaches to protect marine resources. The event brought 60 participants together from San Juan County as well as from across the international border in the Gulf islands of British

Columbia, Canada to collaborate on effective protection efforts. Facilitating a neighbor-to-neighbor exchange across the international border is a powerful and important tool to protect marine waters from a variety of threats.

San Juan MRC continued to actively engage residents and visitors to the area in marine conservation and protection. In 2015 the MRC contributed to the national "Leave No Trace" program, by collaborating to adapt the Leave No Trace principles to fit the San Juan MSA Plan. The MRC is a partner and member of the steering committee for the Stewardship Network of the San Juans, a coalition of organizations that works collaboratively on outreach and education, this year contributing to the development of a marine-based program for the Youth Conservation Corps.

For more information: www.sjcmrc.org



Snohomish MRC

In 2015, Snohomish MRC completed an assessment of Port Susan Bay to identify high priority parcels for protection and removal of shoreline armoring. This allowed the MRC to target outreach efforts to reach shoreline landowners and find those willing to consider alternatives to hard armoring. The MRC was successful in finding interested landowners and is now exploring options for a community bulkhead removal on a five-parcel site.

Approximately 12,000 crab pots are lost every year in Puget Sound! Some of this is preventable by using strategies that keep pots from floating away, lost in currents or otherwise irretrievable. The Snohomish MRC carried out a creative approach to share information about ways to prevent the crab pot loss. Volunteers greeted recreational crabbers on opening day of crabbing season and provided information to them about how to set their crab pots and to share their smart moves through a social marketing campaign called #CatchMoreCrabSnoCo. This campaign reached hundreds of crabbers directly and many more indirectly, with more than 120 photos shared. All photos were tagged with good crabbing practices. Washington Department of Fish and Wildlife enthusiastically supports this project and appreciates the efforts to keep derelict



Traci Sanderson, vice-chair of the MRC on a field work day.

crab pots from needlessly being lost. It will be expanded throughout the region in 2016.

With additional funding leveraged from the County and other grants, the Snohomish MRC also carried out forage fish surveys on local beaches, made progress toward restoring beaches at Meadowdale Beach and Howarth Park, coordinated with multiple agencies and organizations on derelict vessel removal and oil spill preparedness, and assisted with the WA Department of Fish and Wildlife's caged mussel study to monitor contaminants in Puget Sound marine waters.

For more information: www.snocomrc.org







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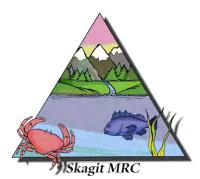
















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