



Marine Resources Committee 2017 Annual Report

Restore, Conserve, Educate



Snohomish County
Marine Resources
Committee



Snohomish County
Public Works
Surface Water Management



Snohomish County Marine Resources Committee

2017 Annual Report

Snohomish County
Marine Resources Advisory Committee
3000 Rockefeller Avenue, M/S-607
Everett, WA 98201

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Message from Chair, Sarah Brown



The Snohomish County Marine Resources Committee (MRC) is an energetic and enthusiastic group of volunteers whose primary purpose is to protect and preserve the Salish Sea through restoration, conservation, and education projects. The variety of education, career, and life experiences in our group, truly range from A to Z (agronomy to zoology) and equip our members with a broad range of expertise and perspective. This enables us to tackle local concerns and problems, thereby ensuring the health of the Salish Sea and its myriad resources.

As you read through our annual report, you'll see numerous examples of how our 12 volunteers and 2 Surface Water Management staff stretch local tax dollars to unfathomable lengths. Projects like fishing and crabbing education, derelict boat and gear removal, oil spill preparation, forage fish surveys, and habitat restorations all help protect our waters and boost critical wildlife populations.

Thank you for your interest and support of our many projects and accomplishments in 2017. I think you'll be amazed by the breadth and depth of our work.

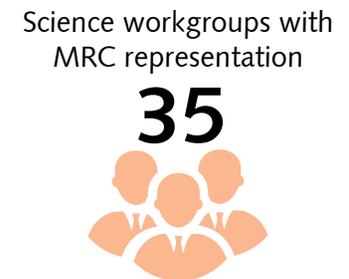
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▶ The Snohomish County Marine Resources Committee (MRC) is a team of citizen volunteers dedicated to promoting effective stewardship of Snohomish County's marine waters, habitats, species, and shorelines. The MRC seeks out the best available scientific information and uses it to evaluate, prioritize and implement strategies for achieving and sustaining a healthy Puget Sound.

Committee members are united by a dedication to managing natural resources for the benefit of all. MRC Members are appointed by the Snohomish County Council and congressionally authorized to represent diverse local interests. Advocating for communities, the MRC provides sound guidance to public officials as an advisory committee. The MRC is essential to the protection and restoration of Snohomish County's marine environment. Without the partnerships or funding support from native tribes, government, businesses, and non-profit organizations the MRC could not continue this crucial work.

"Promoting effective stewardship of Snohomish County's marine waters."



About the MRC



Established in 1999 and authorized by Chapter 2.800 of the Snohomish County Code; the Snohomish MRC members represent a diverse group of environmental, recreational, conservation, economic, and local and tribal government interests.

Since its inception, the MRC has developed an effective citizen-based process for examining local marine resource issues, engaging and educating the public, and initiating efforts to address established priorities.

These priorities are guided by the [Northwest Straits Marine Conservation Initiative \(NWSI\) Strategic Plan](#)

Together these entities comprise a non-partisan regional effort to protect and restore marine resources in the northern Puget Sound and the Strait of Juan de Fuca.



Northwest Straits Marine Conservation Initiative



Whatcom ♦ Clallam ♦ Jefferson ♦ Skagit ♦ San Juan ♦ Island ♦ Snohomish

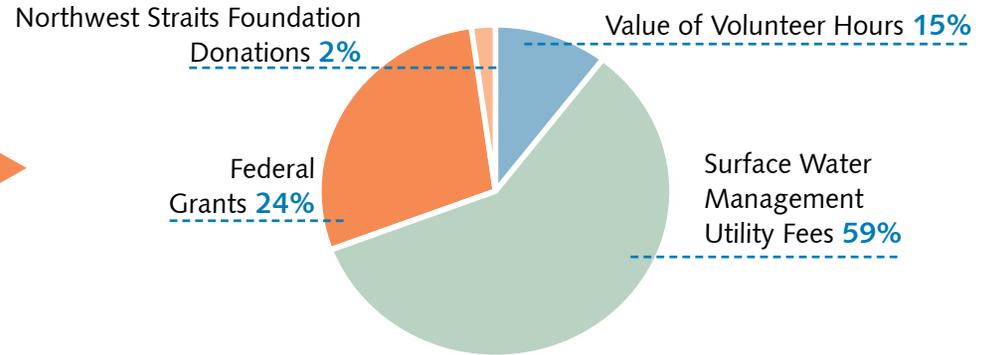
Program Support

1,545 professional hours donated by 12 MRC members in 2017 to implement MRC's 2017 work plan and related activities which:

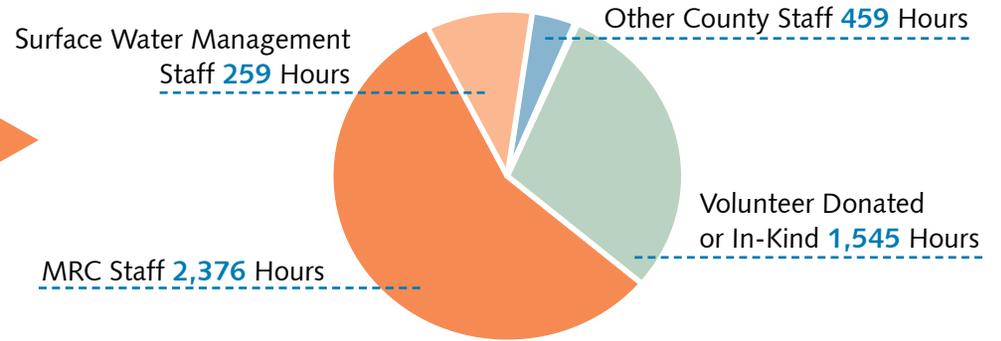
- o Provided a forum to mobilize citizen support of the marine conservation.
- o Generated and implemented practical, on-the-ground projects that benefit the ecosystem and the economy of our region.



FUNDING



SUPPORT



\$28.99

Washington State's estimated value of a volunteer hour.



1,545

Professional hours donated in 2017.

\$44,905.51

Total value to Snohomish County



RESTORE

The Snohomish County MRC is committed to restoring our marine and nearshore habitat and striving for net gains in the quality of habitat and resources, while improving public access to shoreline.



Meadowdale Beach Park Restoration

Meadowdale Beach Park is a 108 acre park located in unincorporated Snohomish County, bordered by the cities of Edmonds, Lynnwood, and Mukilteo. Situated in an urban forest, the park's hike-in only access trail winds through a ravine alongside Lund's Gulch Creek to Puget Sound. As one of the few parks with public beach access in Snohomish County, the park draws in roughly 65,000 visitors per year.

Park visitors access the beach by way of a six-foot-wide concrete box culvert under the railroad. This culvert also conveys the year-round flow of Lund's Gulch Creek. Due to the narrow opening of the culvert, sediment carried by the creek accumulates in the passageway, causing frequent flooding in the culvert and limits beach access for park visitors and limits salmon use of the creek.

The MRC worked with Snohomish County Parks and consultants to develop design alternatives that would improve beach access, enhance public safety, and restore habitat critical for native salmon species.

The Meadowdale Beach Park and Estuary Restoration Project proposes the construction of a five-span railroad bridge to replace the existing culvert and enhance the connection between the park and shoreline. The bridge will allow for American Disability Act accessible pedestrian beach access and accommodate naturally occurring patterns of the creek's flow with enough room for the creek to carry nourishing sediment into the Puget Sound. The project will create of two acres of restored estuary and riparian habitat to provide critical habitat for juvenile Chinook salmon.



Spotlight:

Community Benefits

A Benefit-Cost Analysis done by Earth Economics found that for every \$1 invested into park restoration at Meadowdale, the community will receive more than a \$4 public benefit.





MRC Projects Recognized in Washington DC

On April 18, 2017, US Representative Rick Larsen toured the Howarth Park Restoration Site with the intent to gain information to demonstrate the importance of funding provided to Puget Sound Restoration. This project removed a bulkhead and nourished more than 4 miles of sediment starved beaches.

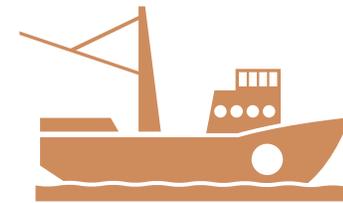
Representative Rick Larsen serves Washington's 2nd District, which includes Snohomish County. Project partners include the City of Everett, Port of Everett and the Northwest Straits Initiative.





▶ Derelict Vessel Removal

The MRC received funding from the Snohomish-Stillaguamish Local Integrating Organization for their Near Term Action to remove derelict vessels from the Snohomish Estuary. Derelict vessels in the Snohomish estuary threaten navigation, marine habitat and water quality. The MRC has been working to identify vessels with the most serious threat with the Washington Department of Natural Resources (DNR). This grant provides funding for Snohomish County to lead removal of priority derelict vessels. In 2017 eight derelict vessels were identified for removal. Boats will be removed and recycled or destroyed in 2018 following a process to identify and work with last known owners according to Washington Administrative Code.



8

Boats identified
for removal

CONSERVE

Sometimes the easiest way to conserve vulnerable habitat is to protect it. This involves knowing how much habitat you have in order to measure its decline or recovery. The Snohomish County MRC assists state and federal agencies by helping collect baseline and monitoring data for species or habitats of concern.



Intern Tim Keal takes forage fish samples at one of the Snohomish County Nearshore Restoration Sites.

► Kelp Monitoring

In response to concerns about declining bull kelp populations in some parts of the Puget Sound, and mounting interest in kelp restoration, the MRC gathered data for the Northwest Straits Commission's Regional Kelp monitoring project. The MRC kayak surveys cover the entire southern portion of the Snohomish County Nearshore from the Snohomish/King county border to the Snohomish River Delta and around Hat Island.

- Watch the [Kelp Monitoring Video](#) to learn more

Did you know?

Between 2015-2017, there has been a 67% decline in kelp in surveyed areas. The MRC will continue to monitor kelp beds to better understand trends.



Spotlight:

Bull Kelp is the largest of the 23 native species of large brown algae reaching 60' or more.

UP TO
60'
LONG



2017 monitoring found:
7 Bull Kelp beds
covering 8.4 acres.

Bull kelp forests provide **food and shelter** to dozens of species in our marine ecosystem, including rock fish.





Forage Fish Spawning Surveys

The MRC Forage Fish Spawning Survey project works in partnership with University of Washington's [Megan Dethier](#) and her team. The monitoring is focused on two species: surf smelt and pacific sand lance, which lay eggs on intertidal sand-gravel beaches.

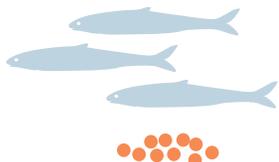
MRC volunteers collected sediment samples, which were winnowed, processed, and examined to look for eggs. This information is used to quantify spawning abundance and for scientific evaluations of spawning sites.



Spotlight:

Caged Mussel Study, Deployment December 4, 2017

[Washington Department of Fish and Wildlife](#) (WDFW) biologists are using cages filled with Penn Cove mussels to track the levels of stormwater pollution entering Puget Sound. The MRC sponsored three locations including: Edmonds Brackett's Landing, Meadowdale Beach Park, and the Port of Everett. Members deployed one cage at each location, and the mussel will stay at that location filter feeding for a three month period.



12 days of **forage fish** monitoring in Snohomish County at 18 locations; eggs found at 13 locations.

EDUCATE

The Snohomish County MRC provides education on key issues relating to our 123 miles of shoreline, including best management practices for shoreline landowners, recreational fishermen, and other interested citizens.

Share the Shore with Harbor Seals

On Shore
 Seal pups grace our lives. The pups haul and warmth. They sleep peacefully on the shores. Seal pups come ashore to regulate their survival. A pup alone on shore is

Observe Seal Pups from a Distance

Harbor seal mothers are very shy and will not return to shore for their young if they feel it is not safe, so always observe from a distance. NOAA recommends 100 yards. Never disturb, touch, or move a seal pup. If you move a seal pup that is not weaned, the mother may not be able to find her newborn again. In addition, seals are wild animals and can inflict a severe bite. They also carry diseases that are transmittable to humans and pets.

The Rookery is a Safe Haven

Seal harbor seals give birth at sites called rookeries. Mothers nurse their young for 4-6 weeks and their milk is richest of all mammals - over 50% fat. Pups double their weight in a matter of weeks. This fat layer, known as blubber, provides fuel and warmth to sustain them.

Mothers and pups bond through smell and touch. This helps mother locate her pup if they are separated.

Newborns are Acrobats

Pups can swim within minutes of birth, although they have to rest on mom's back until they are stronger. On land and vulnerable on land, seals are graceful and acrobatic swimmers. They can hold their breath for up to 30 minutes - and can even sleep underwater.

This time with mom is crucial to learning survival skills before they are weaned and on their own.

Weaned Pups Forage and Need to Rest

Seals of all ages spend the majority of their time in the water, most of it searching for food, and many hours on land, resting and getting warm. Weaned pups are just learning how to fish. They no longer have mother's milk to nourish them and are often thin.

This passage to adulthood is a very critical period, and pups must rest on shore to gain strength before they return to the waters to forage for food.

Help Keep Seal Pups Safe!

Keep Dogs Away at All Times

It's hard to believe, but every year seal pups are mauled by dogs on Puget Sound beaches. Dogs can be injured by seals, too.

Never Handle a Seal

Touching or feeding a marine mammal is a violation of the federal Marine Mammal Protection Act.

If you see a seal or other marine mammal on the beach, call:
 NOAA NW Stranding Hotline 1-800-853-1964 for all NW beaches



A one-day old pup gets swimming lessons.



Three weaned pups visit West Seattle.



To learn more about seals and the marine mammals of Puget Sound, visit www.sealsitters.org

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▶ Crabber Outreach

On opening crabbing weekend, the Snohomish MRC connected with more than 1,000 fishermen and women through in-person and social media outreach. Volunteers provided the information and products to support sustainable fishing and crabbing practices in an effort to reduce both marine debris and wildlife loss.

▶ Community Involvement

The Snohomish MRC booth was displayed at two community events to promote awareness and information on a variety of marine stewardship topics:

- Warm Beach Summerfest
- Sound Waters

Spotlight:

- Researchers estimate that **12,000 crab pots are lost** each year in Puget Sound.
- Lost pots catch and **kill** an estimated **129,000 crabs annually**.



Spotlight:

Volunteer Training, Sept. 14, 2017

The MRC hosted a follow-up workshop for the citizen scientists who helped with the storm surge project at Kayak Point Park. Volunteers had been collecting data using the MyCoast Smart Phone App. Using the app, volunteers documented storm surge for the joint project with USGS, as well as derelict boats and creosote logs.

View the [Snohomish County MyCoast Website](#) for more information.



Storm Surge Monitoring

MRC members worked with [Eric Grossman](#) from the United States Geologic Survey (USGS) to measure storm surge in Snohomish County waters and to provide information to calibrate a wave prediction model for Puget Sound.

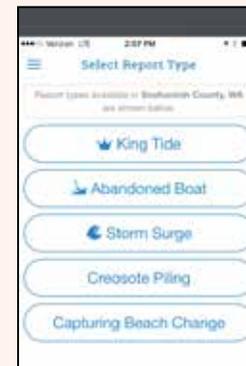
MyCoast App Citizen Science

The MyCoast App is a free smartphone app and webpage that can be downloaded by anyone who wants to participate in an MRC project. In 2017, the MRC created “forms” which users can fill out to participate in MRC Projects. These projects include:

- Storm Surge Monitoring Project
- Report derelict vessels
- Report creosote pilings
- Document king tides
- Capturing Beach Change

Capturing Beach Change

The MRC is conducting photo monitoring at public beaches along the Snohomish County Shoreline. Anyone can participate by following directions within the app and take a photo. These photos will create a collective time-lapse to allow us to see change over time!



Over **53 storm surge reports** have been collected through the MyCoast Smart Phone App.

MRC Members Learn and Engage in the Community

Annual MRC Conference, Bellingham, Nov. 3-4, 2017

Nine Snohomish County MRC members joined the Northwest Straits Initiative to share project ideas and accomplishments through presentations, posters and facilitated discussions. Over 40 organizations including all six other County Marine Resource Committees, were represented at the conference.

Celebration of Service

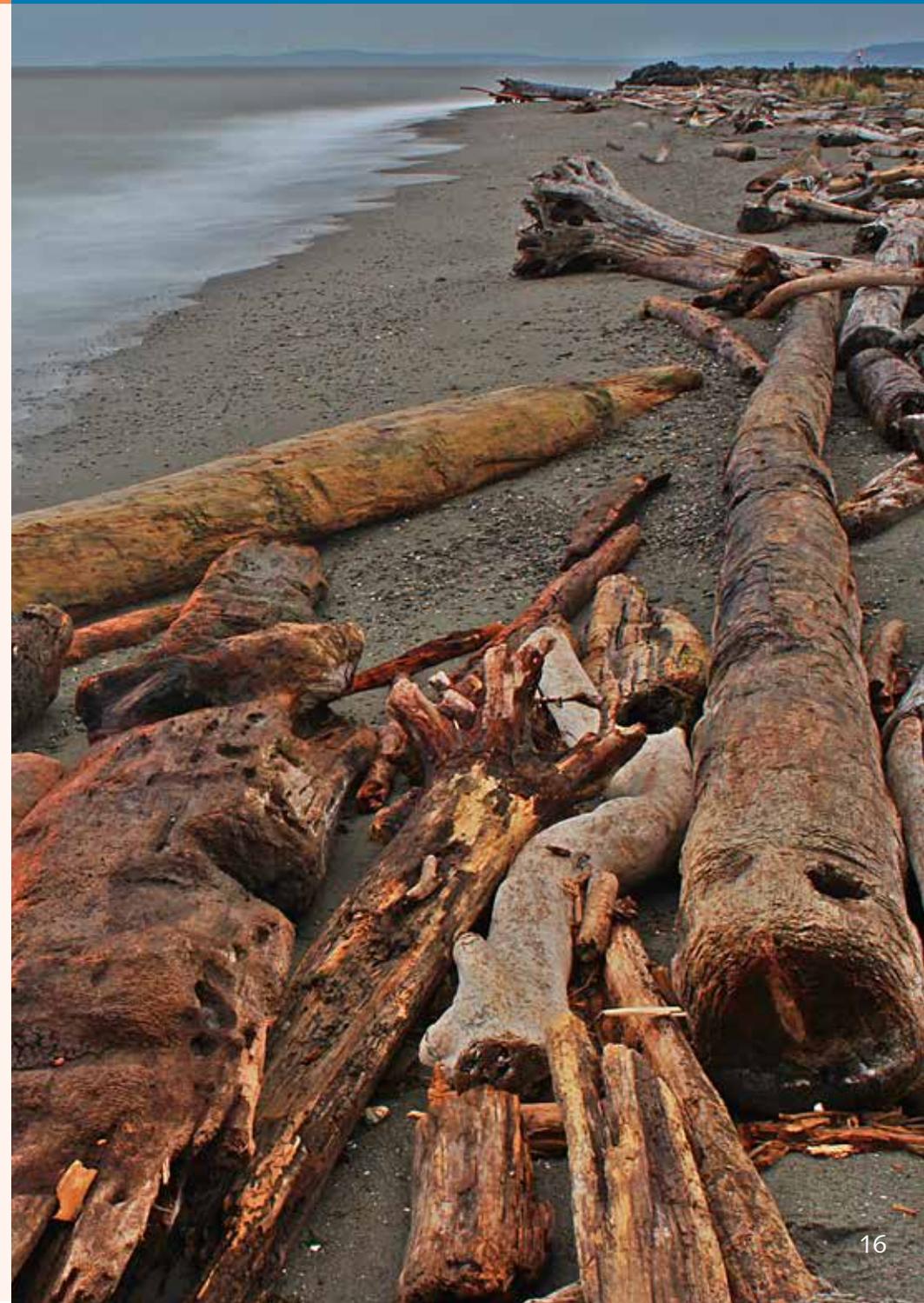
The MRC celebrated Lincoln Loehr's lifetime contributions of community service to the program. Lincoln volunteered 1,305 hours during his service on the MRC! Thank you, Lincoln!

Oil Spill Preparedness

The MRC Oil Spill Preparedness Subcommittee collaborated with the Snohomish County Department of Emergency Management (DEM) and participates in the Local Emergency Planning Committee (LEPC).

Geographic Response Plans (GRPs) are plans that guide oil spill response in Washington State. Each GRP is written for a specific area, and includes tactical response strategies tailored to a particular shore or waterway at risk of injury from oil.

The MRC was a key stakeholder in initiating the 2017 review and update of the [2017 Stillaguamish GRP](#). The MRC comments ensured the GRP are consistent with adjacent and downstream GRPs, identifying gaps in the Potential Oil Spill Origin Points, and that the best available practices and plans are in place in the event of an oil spill. The Department of Ecology incorporated comments into the final version of the plan.



▶ Thank You

The MRC receives support from the Northwest Straits Commission, Puget Sound Partnership, the United States Environmental Protection Agency, and Snohomish County Public Works' Surface Water Management Division for the Marine Resources Program.

Thank you to our MRC Members. Your work and dedication to protecting and restoring the marine environment is making a difference in Snohomish County.

<i>2017 MRC Members:</i>	<i>Cathy Stanley</i>
<i>Franchesca Perez, 2017 Chair</i>	<i>Susan Tarpley</i>
<i>Traci Sanderson, 2017 Co-Vice Chair</i>	<i>Deborah Hopkins</i>
<i>Sarah Brown, 2017 Co-Vice Chair</i>	<i>Laura Gurley</i>
<i>Paul Clampitt</i>	<i>Craig Wollam</i>
<i>Michael Ehlebracht</i>	<i>Tom Doerge</i>
<i>Robert Hillmann</i>	

A special thank you to the MRC Program Manager and Lead Staff Kathleen Pozarycki, MRC Planner Elisa Dawson, Surface Water Management staff Zach Brown and Intern Tim Keal, and to the many other Snohomish County employees who have contributed time and expertise to the 2017 MRC projects.

The accomplishments and current activities of the Snohomish County MRC depend on contributions from MRC Members, volunteers, Snohomish County staff members and individuals from other organizations. Their interest and participation in MRC activities is greatly appreciated.

▶ How to reach us?

- www.snocomrc.org

How to become involved

- Attend monthly MRC meetings
- Volunteer on local projects
- Become a member of the Northwest Straits Foundation
- Sign up for [MRC email distribution list](#) and [Northwest Straits Initiative newsletter](#)

When/Where are meetings held?

- Third Wednesday of every month 6:30 p.m.
Snohomish County Administrative Building East
on the 6th Floor