



Snohomish County
Marine Resources
Committee

2020 Annual Report

Restore, Conserve, Educate



Northwest
Straits
INITIATIVE



PUGET SOUND
PARTNERSHIP



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Marine Resources Committee 2020 Annual Report

Restore, Conserve, Educate



Snohomish County
Marine Resources
Committee



Snohomish County
Conservation &
Natural Resources
Surface Water Management



Snohomish County Marine Resources Committee

2020 Annual Report

Snohomish County
Marine Resources Advisory Committee
3000 Rockefeller Avenue, M/S-303
Everett, WA 98201

The Snohomish MRC is a service provided by the
Snohomish County Surface Water Management Division

Questions or comments about the MRC can be directed to:

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Cover photo: Lincoln Loehr

Title VI and Americans with Disabilities Act (ADA) Information:

It is Snohomish County's policy to assure that no person shall on the grounds of race, color, national origin, or sex, as provided by Title VI of the Civil Rights Act of 1964, as amended, be excluded from participation in, be denied the benefits of, or otherwise be discriminated against under any county sponsored program or activity. For questions regarding Snohomish County Public Works' Title VI Program, or for interpreter or translation services for non-English speakers, or otherwise making materials available in an alternate format, contact the Department Title VI Coordinator via email at spw-titlevi@snoco.org or phone 425-388-6660. Hearing/speech impaired may call 711.

Información sobre el Título VI y sobre la Ley de Americanos con Discapacidades

(ADA por sus siglas en inglés): Es la política del Condado de Snohomish asegurar que ninguna persona sea excluida de participar, se le nieguen beneficios o se le discrimine de alguna otra manera en cualquier programa o actividad patrocinada por el Condado de Snohomish en razón de raza, color, país de origen o género, conforme al Título VI de la Enmienda a la Ley de Derechos Civiles de 1964. Comuníquese con el Department Title VI Coordinator (Coordinador del Título VI del Departamento) al correo electrónico spw-titlevi@snoco.org, o al teléfono 425-388-6660 si tiene preguntas referentes al Snohomish County Public Works' Title VI Program (Programa del Título VI de Obras Públicas del Condado de Snohomish), o para servicios de interpretación o traducción para los no angloparlantes, o para pedir que los materiales se hagan disponibles en un formato alternativo. Los que tienen necesidades comunicativas especiales pueden llamar al 711.

Message from Chair, Mike Ehlebracht



While 2020 was filled with challenges, the Snohomish County Marine Resources Committee's (MRC) 13 dedicated volunteers, Snohomish County Surface Water Management (SWM) staff, and our many partners have worked together to protect and restore the Salish Sea marine ecosystem. We invite you to read our annual report to learn about the MRC's extensive list of actions to help protect our marine waters which included:

- Mapped and prioritized 15,564 pilings in the Snohomish Estuary for potential removal to improve water and sediment quality. Read our recently completed [Pilings Report](#).
- Funded by SWM, four [derelict boats](#) were removed from the Snohomish Estuary.
- Provided crabber [education and outreach](#) using multiple social media outlets.
- Monitored the health of our local marine waters through [forage fish](#) and [kelp surveys](#) along various Snohomish County nearshore locations.
- Worked with many partners to monitor stormwater pollution at nine [Mussel Watch](#) cage locations with the help of the Stillaguamish Tribe, Tulalip Tribes, and WSU Beach Watchers.
- Assisted with updating two Oil Spill Geographic Response Plans for Snohomish County waters with the Washington Department of Ecology.
- Completed the Snohomish [Railroad Grade Beach Nourishment Study](#) with SWM, University of Washington, and WDFW.

But there is still so much work to do to help protect and restore our Salish Sea for future generations; I encourage you to get involved and join our citizen scientists and volunteers. Please feel free to contact us at our [website](#) for volunteer opportunities or join us for our [monthly meetings](#).

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MRC Members



Mike Ehlebract,
Member, Chair



Susan Tarpley, Member,
Co-vice Chair



Bob Hillman, Member,
Co-vice Chair



Tom Doerge, Member



Sarah Brown, Member



Tim Ellis, Member



Laura Gurley, Member



Julie Schlenger,
Member



Paul Clampitt, Member



Sara Maxwell, Member



Mike Sadler, Member



Natasha Coumou,
Member, Tulalip Tribes
Representative



Kip Killebrew, Member,
Stillaguamish Tribe
Representative

Northwest Straits Marine Conservation Initiative

The MRC is guided by the
Northwest Straits Marine Conservation Initiative (NWSI) Strategic Plan.

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



The Northwest Straits Commission provides funding, training and support to seven county-based Marine Resources Committees. It facilitates regional coordination among the MRCs and connects the MRC work to regional planning efforts.



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

The Snohomish County MRC is a team of citizen volunteers who 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.



The Northwest Straits Foundation is the nonprofit arm of the organization established to leverage additional financial resources to accomplish the work of the initiative.

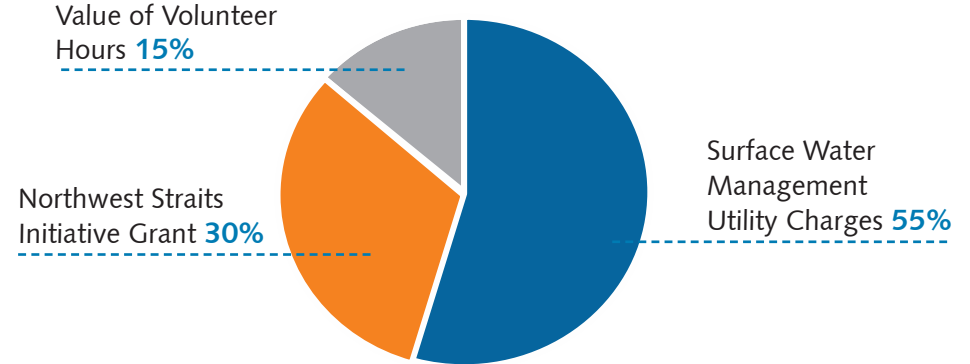
The Northwest Straits Foundation raises private and public funds and also manages large regional projects such as the removal of derelict fishing gear.

Program Support

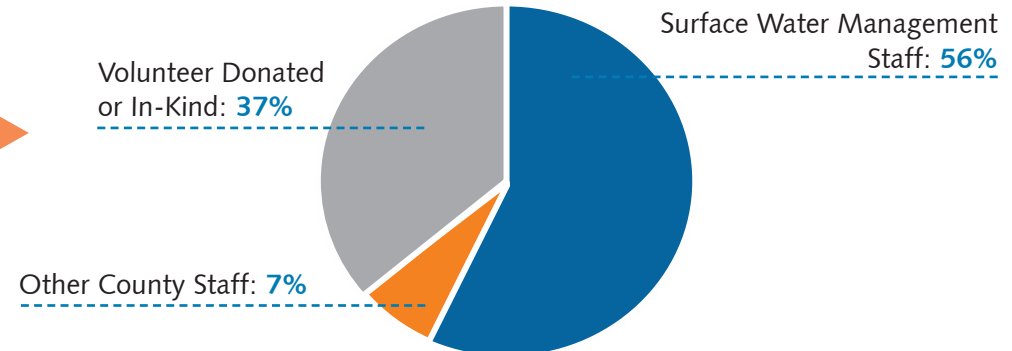
There were 1,400 professional hours donated by 13 MRC members in 2020 to implement the MRC's annual work plan and related activities which:

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

FUNDING



SUPPORT



Spotlight:

SWM's utility charges provided 55% of the MRC's annual budget. The remaining was from grants and in-kind volunteer time. By leveraging county funds with significant grants and volunteer time, the MRC implemented cost-effective projects across Snohomish County.



MRC volunteers monitoring kelp beds.



\$33.02
Washington State's
estimated value of a
volunteer hour.



1,400
Professional hours
donated in 2020.

\$46,228

Total value to Snohomish County



Snohomish Estuary Piling Removal Project

WHAT: In 2019, the MRC began the development of a prioritized plan for the potential removal of independent pilings in the Snohomish River estuary. The project area for this prioritization effort is the Snohomish River estuary downstream of the Highway 2 crossing, which is located just upstream of where Steamboat Slough splits from the river mainstem.

WHY: The MRC is interested in facilitating piling removal to improve habitat and water quality. Creosote-treated pilings release toxic chemicals into the environment, and pilings can also impact ecosystems by breaking up and altering aquatic habitats. Independent pilings are defined as “single or clustered pilings in the estuary that are not associated with a dock, marina, or bulkhead.”

ACTION: To support this prioritization project, the MRC hired Environmental Science Associates (ESA). The goal of this effort was to identify piling removal opportunities in the Snohomish River estuary that are most ecologically beneficial and readily implementable by the DNR Creosote Piling Removal Program. In 2020, the MRC and ESA produced the [Snohomish Estuary Creosote Piling Prioritization Plan](#), which provides a complete inventory and prioritization of pilings throughout the estuary. In 2021, the MRC will continue to work with ESA to identify five target areas to further explore feasibility of removal, including stakeholder meetings with relevant landowners and agencies.



U.S. Representative Rick Larsen met with MRC members and SWM staff to discuss the Pilings Report the committee completed.

Spotlight:

Pilings in the Snohomish River

- 15,564 independent pilings were identified in the Snohomish River Estuary
- 2,456 were creosote pilings
- 6,982 pilings are high priority for removal based on feasibility and impacts to habitat and water quality

Meadowdale Beach and Estuary Restoration Project

The six-foot culvert that currently runs under the railroad embankment at Meadowdale Beach Park connects the flow of Lund's Gulch Creek to Puget Sound and provides pedestrian access to the beach. This culvert is undersized and does not provide equitable ADA access to the beach. Additionally, it has caused many issues over the years, including restricting all beach access during high flows, blocking fish passage, causing flooding of the park, and impacting normal sediment delivery to nourish the beach.

The Meadowdale Beach and Estuary Restoration Project will address these issues by:

- Replacing the undersized culvert with a five-span railroad bridge including a 100-foot opening.
- Providing year-round ADA accessibility and beach access.
- Restoring 1.3 acres of estuarine rearing habitat for endangered species: Chinook, Chum and Coho salmon.
- Improving fish access to Lund's Gulch Creek.
- Restoring natural nearshore processes critical to Puget Sound recovery. Enhancements to the park's recreational features are planned, including a foot-wash and new picnic and bench viewpoints.

Permits have been secured and it has been fully funded, including \$6.6 million in grant funds, \$500,000 from Surface Water Management utility charges and other county funds. Construction is anticipated to begin in 2021.

Meadowdale beach from above.



This culvert is currently the only access point to the beach and poses challenges during high flows.



Beach Nourishment

Shoreline armoring, including railroad embankments, disrupts natural beach and habitat processes and has resulted in degraded shorelines and beaches in Puget Sound and Snohomish County. [The Nearshore Beach Restoration Project](#), which occurred in 2016, involved beach restoration at Howarth Park and beach nourishment at three sites along the shoreline. In total, over 18,000 cubic yards of fine-grained clean dredged sediment was placed on Snohomish County beaches.

The MRC worked with Snohomish County Surface Water Management, the University of Washington, and the Washington Department of Fish and Wildlife to obtain grant funds through the Estuary and Salmon Restoration Program for an in-depth [study](#) to assess the functional efficacy of nourishment and other treatments. Data was collected on beach wrack, riparian cover and composition, invertebrate populations, beach topography and substrate, benthic infauna, and forage fish spawning events.

The full study and conclusions of the project are summarized in the [Railroad Grade Beach Nourishment Study Report \(Dethier et al. 2020\)](#). The findings of the study suggest that while nourishment with fine sediment along the railroad grade did improve some structural and functional aspects of the shoreline, these improvements are unlikely to persist long-term if they are limited in scale and rely solely on finer dredge material. Longer term monitoring and continued experimental interventions will allow for a more complete understanding.

Project Highlights:

Spotlight:

- More than 18,000 cubic yards of fine-dredge material placed at three shoreline locations in Snohomish County.
- Funding for the beach nourishment study was provided by the ESRP Learning Program.



Construction in 2016.

Derelict Vessel Removal

Four derelict vessels were removed in 2020 from the Snohomish Estuary. Funding for this work was provided by the Washington Department of Natural Resources and Snohomish County Surface Water Management. Removing derelict vessels helps improve water quality and habitat by removing toxins and physical barriers. All derelict vessels were recycled or destroyed following a process to identify and work with the last known owners in accordance with Revised Code of Washington. For more information, visit the MRC's [webpage](#) on this project.

In The News

HeraldNet
EVERETT, WASHINGTON

Crews remove three more junk boats from the Snohomish River

One more is slated for removal. Meanwhile, a new report evaluates the river's 15,000 old wood pilings.

By Joseph Thompson

Monday, November 2, 2020 7:54am | LOCAL NEWS | ENVIRONMENT | EVERETT | MARYSVILLE



Vessel 1 – Unknown Sailboat

- Length: 32 feet
- Cost of removal: \$10,000



Vessel 2 – Sailboat

- Length: 21 feet
- Cost of removal: \$7,000



Vessel 3 – Unknown Cabin Cruiser

- Length: 38 feet
- Cost of removal: \$17,000



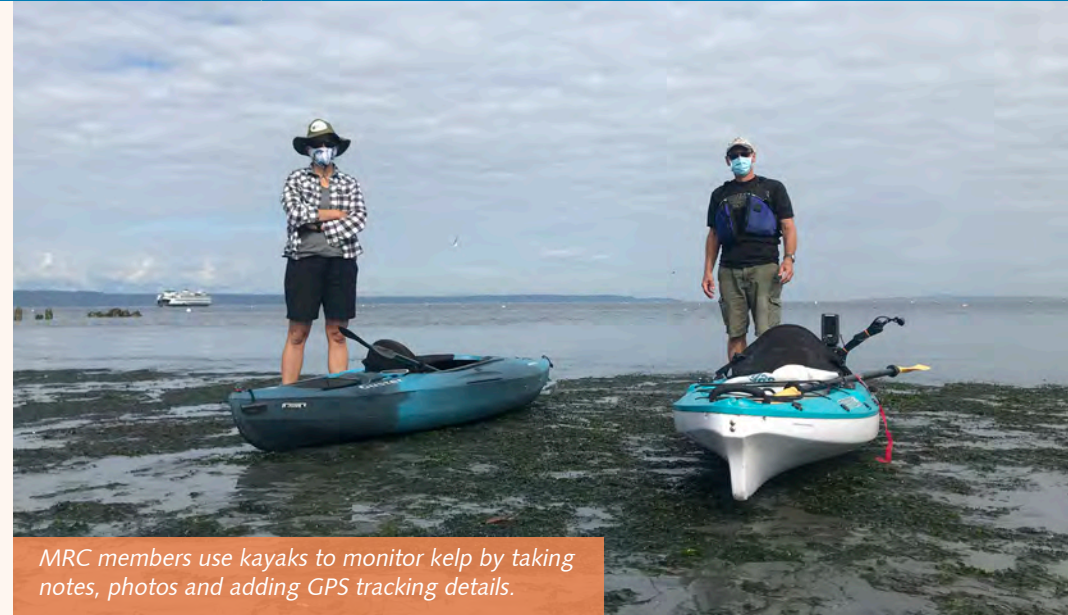
Vessel 4 – Unknown Sailboat

- Length: 30 feet
- Cost of removal: \$10,000

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 Snohomish County nearshore between Everett and Edmonds and around Hat Island.

- Watch the [Kelp Monitoring Video](#) on the MRC website to learn more.
- Read the [Puget Sound Kelp Conservation and Recovery Plan](#), which includes kelp data from around the Puget Sound.



Spotlight:

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



The kelp monitoring done by MRC volunteers and staff show an important trend in kelp canopy and beds over time. This information can help lead to science-based decisions on how to manage this resource, and has been used to inform regional kelp planning and conservation efforts. It is important to continue this monitoring effort annually.



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



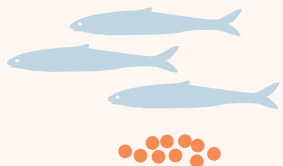
Forage Fish Spawning Surveys

The MRC has been monitoring forage fish spawning in Snohomish County for over a decade. Forage fish species, including Pacific sand lance and surf smelt play a vital role in the marine food web by providing food for salmon as well as other birds, mammals, and fish. Forage fish depend on the [nearshore](#) area for spawning and rearing. The MRC forage fish spawning surveys use [Washington Department of Fish and Wildlife's](#) (WDFW) protocols focusing on surf smelt and Pacific sand lance, which lay eggs on intertidal sand-gravel beaches in the nearshore environment.

MRC forage fish monthly surveys were suspended from March 2020-August 2020 due to COVID-19. MRC started taking samples again in September 2020 and takes monthly samples at Howarth Park, Meadowdale, and Picnic Point.

[Forage fish](#) are an important food source for birds, salmon, orcas, and other animals. Their presence is considered a good indicator of a healthy marine ecosystem. Continued forage fish monitoring is necessary to determine the effectiveness of restoration projects.

Spotlight:



The MRC took 52 **forage fish samples** along the Snohomish County shoreline in 2020.



On top is an adult surf smelt; below is an adult Pacific sand lance



MRC volunteers conduct forage fish egg analysis using the "blue vortex" method.

Caged Mussel Water Quality Study

Stormwater runoff from urban areas is considered one of the biggest contributors to water pollution and can have serious impacts on the health of Puget Sound. The MRC partnered with the [Washington Department of Fish and Wildlife](#) (WDFW) to use caged native mussels to monitor the presence of pollutants in the nearshore urban environment.

The MRC assisted with deploying and [retrieving cages](#) at 9 locations in Snohomish County: Meadowdale Beach, Mukilteo Ferry, Everett Harbor, Naketa Beach, Kayak Point, Hermosa Point, Edmonds Marina Beach Park, Edmonds Olympic Beach, and Edmonds Brackett's Landing.

Mussel Watch surveys are the basis for WDFW's Stormwater Action Monitoring. The goal of this work is to establish a Puget Sound monitoring program, to help inform local stormwater permitting. Data from the WDFW program is also used to monitor the impacts of events such as oil spills and the effectiveness of management decisions.

Results of the 2017/2018 study are available [here](#).

Oil Spill Preparedness

A large oil spill in county waters could significantly damage important environmental and economic resources. The [MRC Oil Spill Preparedness Subcommittee](#) works to build interagency relationships vital to successful spill prevention, preparedness, and response in Snohomish County and the Puget Sound region.

In 2020, the MRC assisted with updating two Oil Spill Geographic Response Plans with the Department of Ecology:

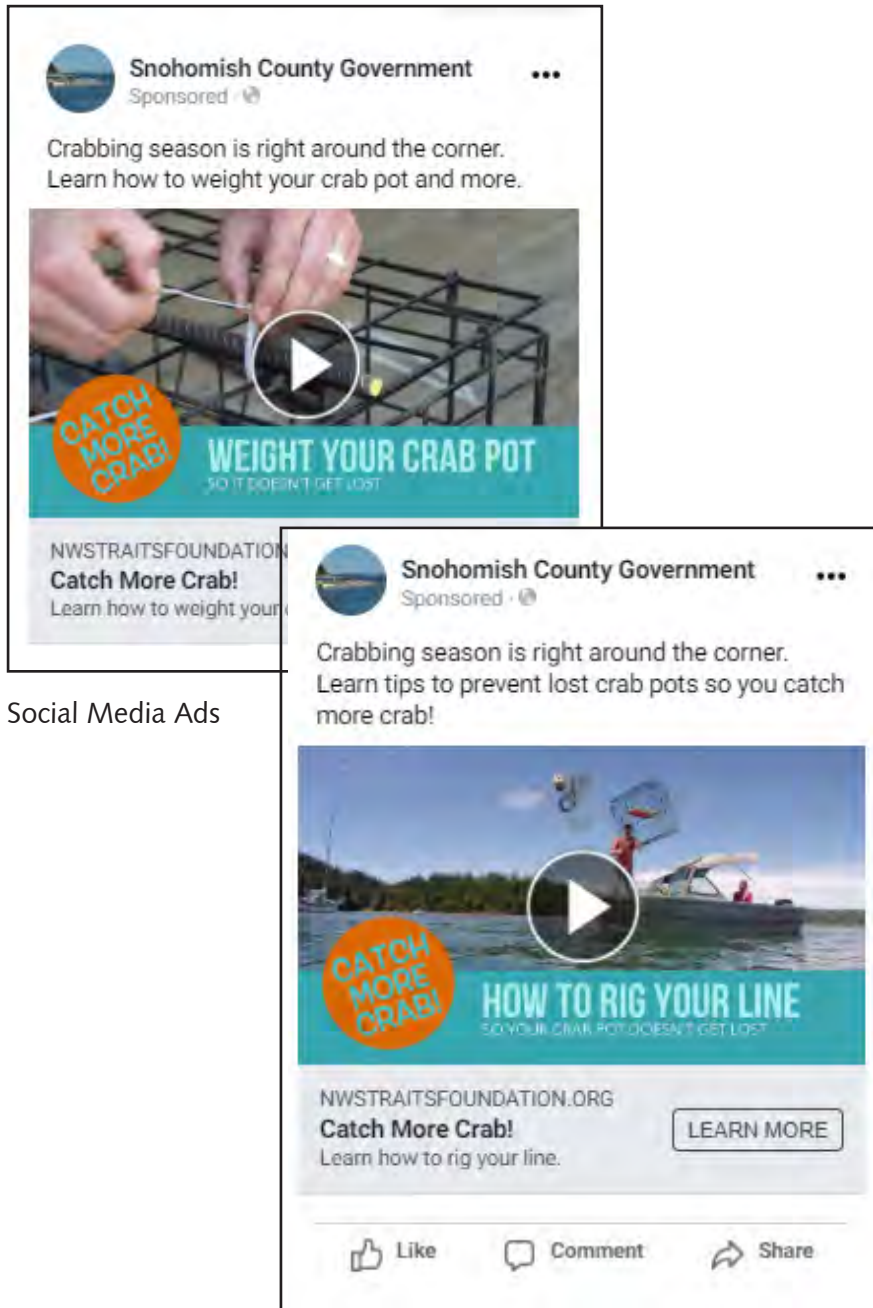
- North Central Puget Sound Geographic Response Plan
- Snohomish Estuary Geographic Response Plan

Geographic Response Plans are made up of pre-identified strategies for specific areas of the state at risk of oil spills. The strategies are designed to minimize impacts to sensitive environmental, cultural, and economic resources.

The MRC helped plan the "Oil Spill Awareness and Response Support" Training Pilot Program with WSU Extension Snohomish County. This pilot program has helped to determine how to best connect volunteer organizations to oil spill response leads through expert-led trainings.

More than 20 billion gallons of oil are transported through Washington each year by vessel, pipeline and rail. An oil spill could cause potentially irreversible damage to the endangered Southern Resident Killer Whales and other species.





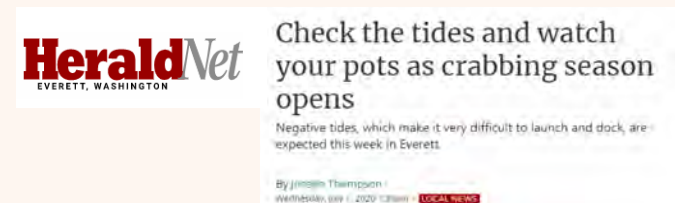
Social Media Ads

Crabber Education and Outreach

Adapting to the COVID-19 pandemic, the MRC used social media for crabber outreach instead of the usual outreach at boat launches. The social media campaign ad resulted in 32,124 unique views. Videos from the social media campaigns can be seen [here](#).

In addition, we ran educational radio ads on two local radio stations: Classic Country KXA and Everett's Greatest Hits KRKO.

In The News



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**.

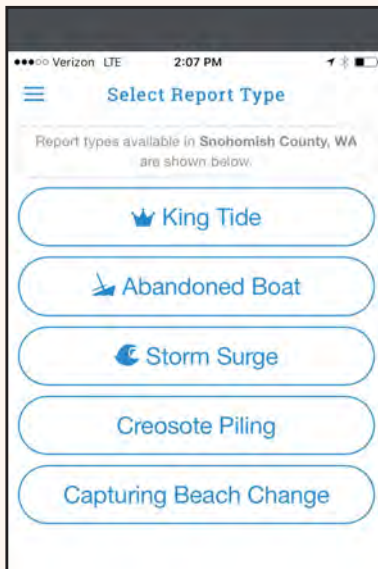




Citizen Science with the MyCoast App

The MyCoast App is a free smartphone app and webpage that can be downloaded by anyone who wants to participate in an MRC project. 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
- Capture beach change



In 2020, **183 MyCoast reports** were generated in Snohomish County using the smartphone app.



A king tide at Howarth Park in Everett

Thank You

The MRC receives support from the Northwest Straits Commission, Puget Sound Partnership, Snohomish County Council and Executive Somers, and Snohomish County Surface Water Management Division, the United States Environmental Protection Agency, and Snohomish County 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.

We would like to recognize the Tulalip Tribes and the Stillaguamish Tribe for providing in-kind staff support and coordination for MRC Projects. The MRC acknowledges our work resides on the ancestral lands and waters of the Coast Salish people who have called this place home since time immemorial and we are grateful for our partnership with the Tulalip Tribes and the Stillaguamish Tribe.

A special thank you to the MRC Program Manager Elisa Dawson and MRC Planner Alex Pittman. Thank you to Surface Water Management staff Luke Hanna, Frank Leonetti, Melody Ovard, Brett Gaddis; Communications staff Meghan Jordan and Rebecca Lindahl and to the many other Snohomish County employees who have contributed time and expertise to the 2020 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](#)

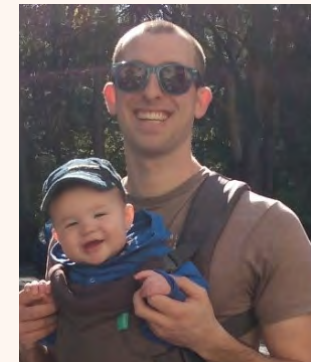
When/Where are meetings held?

- Third Wednesday of every month at 6:30 p.m. held virtually.
- Contact Elisa.Dawson@snoco.org for meeting link.

MRC Staff



Elisa Dawson
SWM Senior Planner



Alex Pittman
SWM Planner