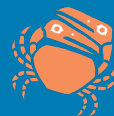




Marine Resources Committee 2023 Annual Report

Restore, Conserve, Educate



Snohomish County
Marine Resources
Committee



Surface Water
Management



Snohomish County Marine Resources Committee

2023 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: Port Susan. by: Elisa Dawson

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 2023 Chair, Matasha Coumou



The Snohomish County Marine Resources Committee is made up of volunteers and Surface Water Management (SWM) staff that help us conserve marine natural resources for the benefit of all. We partner with local governments, tribes, businesses and nonprofit organization to seek out ways to implement best strategies for achieving and sustaining a healthy Salish Sea.

We acknowledge that the lands and waters where we operate today constitute the ancestral homelands of the Tulalip Tribes and the Stillaguamish Tribe. We are committed to working with these sovereign tribal governments as co-managers to promote effective stewardship of Snohomish County's marine waters, habitats, and species in order to support their treaty reserved rights and access to resources, and to honor their sacred spiritual connection with the land and water.

In 2023, 961 volunteer hours we donated by MRC Members, helping us achieve the goals set out in our work plan, and we are happy report great progress. Adding to the work we did in 2022, in 2023 we conducted outreach to outline actionable steps for meeting conservation targets at Port Susan. We continued our scientific monitoring on studies to evaluate the health of our marine ecosystem and, together with partners, completed year 1 of post restoration monitoring at the Meadowdale Beach Park and Estuary Restoration Project. We expanded our Derelict Vessel Removal efforts, forging a unique partnership with the Tulalip Tribes to remove (7) owner abandoned derelict vessels. The Snohomish MRC partnered with the Ocean Research College academy (ORCA) to explore the potential use of invaluable multiyear data on Possession Sound health. These are only some of highlights from our Annual Report.

We invite you to look through our annual report for more details of the efforts our dedicated volunteers selflessly engaged in to protect, conserve, and restore the Salish Sea. If you are interested in joining us, you can find out how on our [website](#), join us on our [monthly meetings](#), or [subscribe to the MRC's mailing list](#).

Table of Contents

MRC Members	3
About the MRC	4
Finance	5
Restore	6
Conserve	9
Educate	13
Contact Us, Resources/Credits	16

MRC Members



Natasha Coumou,
Chair, Tulalip
Tribes Representative



Tim Ellis
Co-Vice Chair



Brie Townsend
Co-Vice Chair



Franchesca Perez,
Stillaguamish Tribe
Representative



Allan Hicks



Andrew Gobin



Sara Maxwell



Julie Schlenger



David Bain,
Ex-Officio

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 961 volunteer hours donated by 8 Members and 1 Ex-Officio Member in 2023 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.

Spotlight:

SWM's utility charges provided 38% 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.

FUNDING

Value of Volunteer Hours **5%**

Northwest Straits Initiative Grant **16%**

Surface Water Management Utility Charges **38%**

DNR Derelict Vessel Removal Funds **41%**

SUPPORT

Volunteer Donated or In-Kind: **27%**

Other County Staff: **5%**

Surface Water Management Staff: **68%**



\$33.02

Washington State's estimated value of a volunteer hour.



961

Volunteer hours donated in 2023.

\$31,732

Total value to Snohomish County



MRC volunteers conducting a beach cleanup.

Port Susan Marine Stewardship Area 10-year Anniversary and Progress Tracking

In 2021-2022, the Snohomish County MRC partnered with the Island County MRC to reconvene partners, assess the current status of the 2012 Conservation Action Plan (CAP), and identify opportunities to support conservation activities in Port Susan for the next decade and beyond.

In 2023, the MRC conducted outreach as a Phase 2 of this project. Through a presentation to the Stillaguamish Watershed Council and the creation of an [interactive Storymap](#), the MRC documented lessons learned from the 10-Year Plan Revisit, highlighted successes from the past decade, and outlined future actions.



The CAP was first developed in 2012 with the goal of achieving a healthy marine and estuarine ecosystem in Port Susan with thriving biodiversity and strong recreational and resource-based industries.

Conservation Targets: Ten Years of Progress

The MRC evaluated progress on the Strategic Actions in the Conservation Target areas established in the CAP. Below are progress trackers highlighting areas with significant progress and areas that need further progress.



Meadowdale Beach and Estuary Restoration Project

After a decade of planning, construction was completed on the 1.3-acre estuary restoration project at Meadowdale Beach Park in 2022. Pocket estuaries like Meadowdale are important rest stops for young salmon, where salmon can shelter, feed and grow.

Beach access at Meadowdale was reopened on January 7, 2023. The lower park area was fully opened to the public in September 2023, and a ribbon cutting event and a public celebration held were held in October 2023.

As a groundbreaking and innovating project, the Meadowdale Beach Park & Estuary Restoration Project was awarded the "Innovation in Conservation Award" by the National Recreation & Park Association (NRPA) and the Puget Sound Regional Council (PSRC)'s "Vision 2050 Award."



Receiving the Puget Sound Regional Council (PSRC)'s "Vision 2050 Award."

See this video about the completion of the Meadowdale Project!

In 2023, the park was opened to the public.



Spotlight:

Restoration of a 1.3 acre pocket estuary began in 2021.



Snohomish County Surface Water Management, the MRC, Tulalip Tribes, and multiple other partners collaborated to complete year 1 of a 10-year post-restoration monitoring program in 2023 to investigate the ecological effectiveness of this project.

Derelict Vessel Removal

The Snohomish estuary and Everett shoreline was improved during 2023 due to Snohomish County efforts to remove seven owner-abandoned derelict vessels. The removals totaled nearly 100 cubic yards of marine debris, which helped eliminate pollutants while also improving boater safety. Funding for the County's removal work was provided by the Washington Department of Natural Resources and Snohomish County Surface Water Management.

Five of the vessels removed in 2023 were on Tulalip Tribal Tidelands. By partnering with Tulalip Tribes, Snohomish County and the MRC were able to assist in the removal of these vessels that historically have been difficult to address using the DNR Derelict Vessel Removal Program.

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 on this project, visit the MRC's [webpage](#).

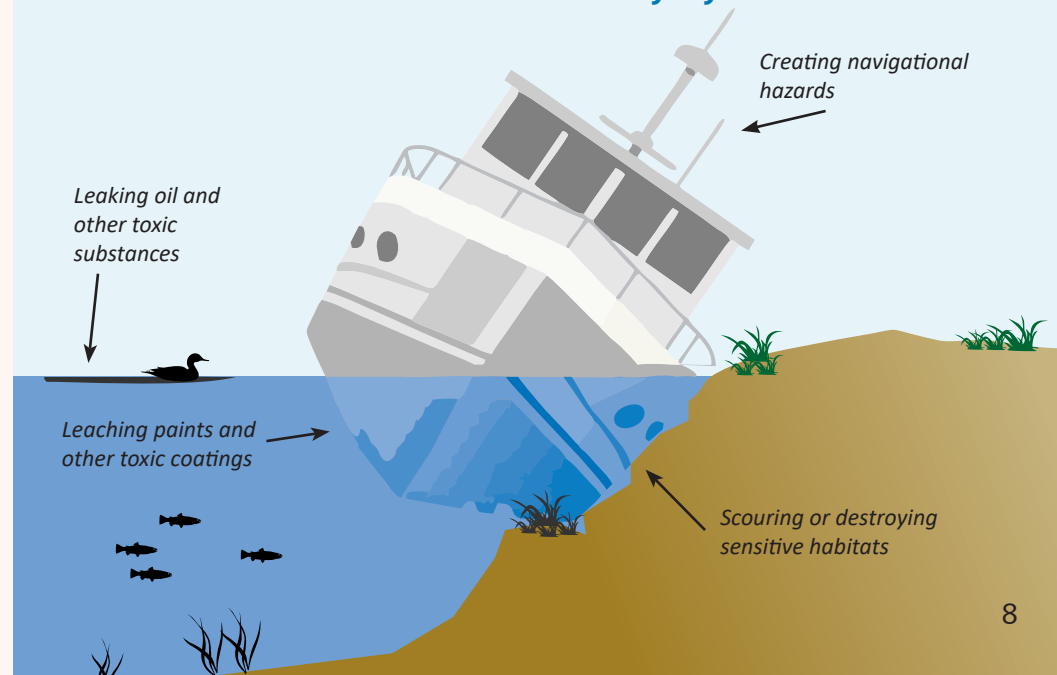
Spotlight:

Snohomish County has partnered with DNR's Derelict Vessel Removal Program to remove 27 vessels from 2018-2023. This is over 600 cubic yards, estimated to be 240,000 pounds, of marine debris.

You can report a derelict vessel using the MyCoast App: www.mycoast.org/wa



Derelict vessels impact aquatic habitat and threaten human safety by:



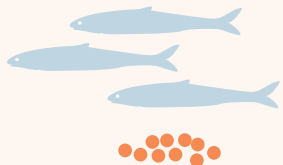
Forage Fish Spawning Surveys

The MRC has been monitoring forage fish spawning in Snohomish County for over a decade. MRC forage fish spawning surveys use [Washington Department of Fish and Wildlife's](#) (WDFW) protocols focusing on surf smelt and Pacific sand lance. These species depend on sand and gravel beaches of the [nearshore](#) environment for laying eggs, spawning and rearing. Continued forage fish monitoring is necessary to determine the effectiveness of restoration projects. The MRC currently takes monthly samples at Howarth Park, Meadowdale, and Picnic Point.

Spotlights:



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. Their presence is a good indicator of a healthy marine ecosystem.



The MRC collected **73 forage fish samples** along the Snohomish County shoreline in 2023.



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



Each month MRC volunteers collect and process forage fish samples on site.

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.

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.
- Explore Puget Sound's Kelp Forests with this [interactive storymap](#) highlighting the Puget Sound Restoration Fund's 2021 Kelp Expedition.



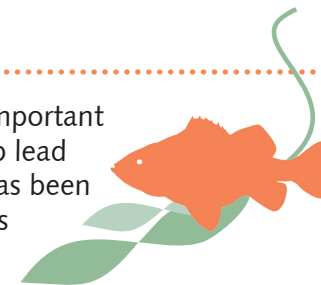
MRC members use kayaks to monitor kelp by taking notes, photos and adding GPS tracking details.

Spotlight:

Bull Kelp is the largest of the 23 native species of large brown algae. It can reach 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.



Caged Mussel Water Quality Study

Many toxic chemical pollutants reach Puget Sound via storm water runoff, creating a potential risk to the health of marine species and to humans that consume plants and animals harvested from the marine environment.

Since 2011, the MRC has partnered with WDFW and other groups to monitor the winter storm water flowing into Puget Sound. In this study, native mussels are placed in cages and stationed on local beaches, exposed to ambient nearshore water quality conditions for several months. Mussels filter feed and will retain toxic chemicals from the water as they collect food. After two months, the caged mussels are harvested and analyzed for over 200 different chemicals. This data is used as an indicator to assess the quality of storm water entering local nearshore environments.

Snohomish County MRC volunteers monitored 8 of 96 sites (8%) throughout Puget Sound in winter 2023. These sites included nearshore waters of Edmonds, Mukilteo, Everett, and also Port Susan in partnership with Stillaguamish and Tulalip Tribes.

MRC volunteers deployed mussel cages at 8 locations in Snohomish County to monitor water quality in Puget Sound.



Marine Vegetation Monitoring

From 2020-2022, Snohomish County MRC has been working with the Washington State Department of Natural Resources (DNR) to conduct a comprehensive study of marine vegetation along the shoreline of Snohomish County. The area was monitored using towed underwater videography for marine vegetation species, including eelgrass, submerged kelp, and other macroalgae.

In 2023 Snohomish County Surface Water Management Staff and the MRC created an [online map](#) which shares these results. The purpose of this web application is to present the extents of eelgrass surface area from the recent surveys along the shoreline of Snohomish County, and to compare the recent findings with previous studies done on eelgrass in Snohomish County.

The Snohomish County Marine Resources Committee's goal is the repeat this comprehensive monitoring every 7-10 years to understand marine vegetation changes in Snohomish County over time.

Marine vegetation data were collected using towed underwater videography. Eelgrass species shown here.



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.



Ocean Research College Academy

The Ocean Research College Academy (ORCA) is an early college program for high school juniors and seniors at Everett Community College and is located at the Port of Everett. Marine research is a unifying thread of interdisciplinary student studies at ORCA. Student learning is centered on studying water quality metrics gathered in Possession Sound. To support this, ORCA maintains two long-term in-water deployments along with conducting spot profiling. These stationary instruments collect a variety of data, including, but not limited to, salinity/conductivity, temperature, pH, turbidity, dissolved oxygen and relative chlorophyll concentration.

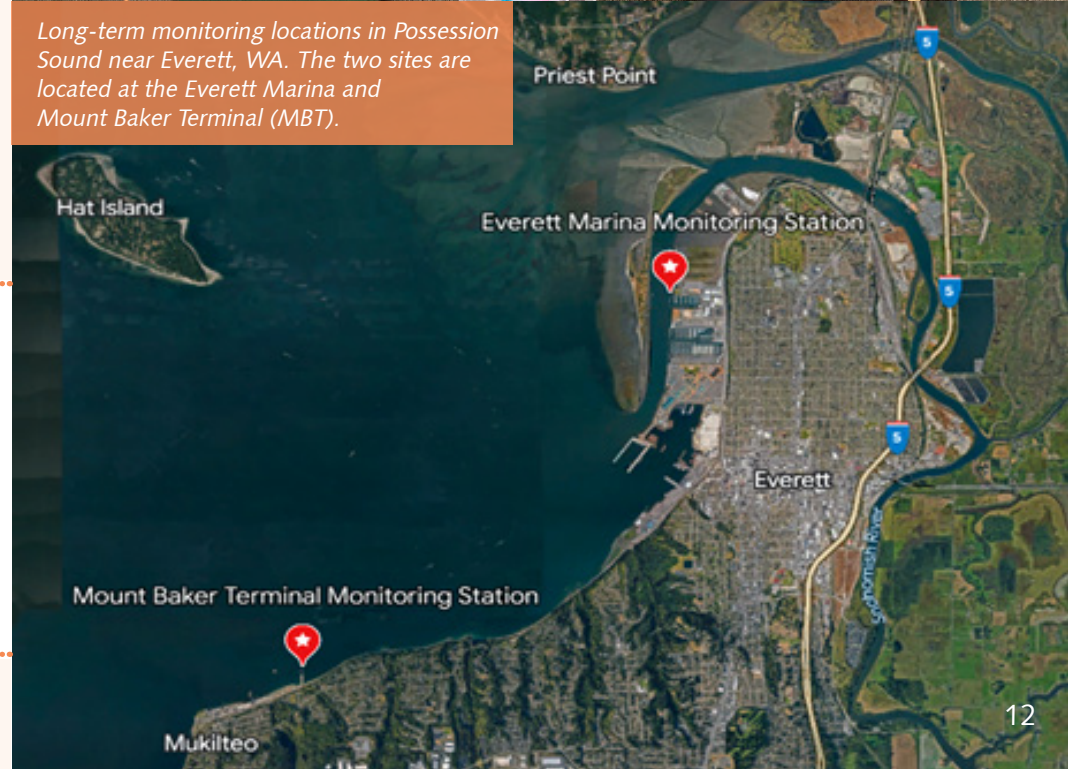
In 2023, The Snohomish MRC partnered with ORCA to start exploring how the data ORCA students collect could be used for broader water quality monitoring of Puget Sound health. As a first step, ORCA worked with Snohomish County Staff and the Snohomish County MRC to create a standard quality assurance program from their data, and analyzed the 2023 data collected. Next steps will include going back to analyze past data, and continuing to add to a database in order to better understand the health of Possession Sound using the data that ORCA students collect.



ORCA student servicing a YSI EXO Sensor that collects data every 15 minutes, 24 hours a day, 7 days a week, 365 days a year at one of the two sites using a stationary, automated monitoring platform.



Long-term monitoring locations in Possession Sound near Everett, WA. The two sites are located at the Everett Marina and Mount Baker Terminal (MBT).



Plastic Free Salish Sea

The [Plastic Free Salish Sea](#) campaign brings organizations, business, and individuals together to change the culture of plastic use across the Puget Sound area. They provide educational and practical resources through their website, Plastic Free Living toolkits, and community events.

Every year 8 million metric tons of plastic enters our oceans.

The Snohomish County MRC recognizes this as a major issue of concern and is taking steps to address this problem within Snohomish County. One way is through our quarterly beach clean ups with WSU Beach Watchers. In 2023, these quarterly clean ups collected over 340 lbs of trash. Each year at least one of these clean ups utilizes the Escaped Trash Assessment Protocol (ETAP).



In 2023, 145lbs of trash was collected and sorted from Mission Beach, Marysville.



Spotlight:

Escaped trash is any material that is intentionally or unintentionally disposed of or abandoned into the environment. The ETAP allows communities to better understand the extent and type of litter in their area so that they can reduce escaped trash sources. The data collected is also added to a statewide database and helps inform Washington Legislative Policy on plastics and escaped trash.





Crabber Education and Outreach

Beginning on opening recreational crabbing weekend, the Snohomish County MRC worked with WSU Beach Watchers staff and volunteers to connect with approximately 554 crabbers.

Volunteers conducted outreach at the 10th Street boat launch in Everett on the mornings of July 1st, 2nd, 8th and 9th. They provided crabbers with the information and products to support sustainable fishing and crabbing practices in an effort to reduce both marine debris and wildlife loss. The MRC also handed out 100 oil spill kits that contained information and materials for containing small spills. The kits were donated by Washington Sea Grant.

In addition to in-person outreach, the MRC posted information on social media and issued a press release in coordination with the Northwest Straits Foundation. Videos from the social media campaigns can be seen [here](#).

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.



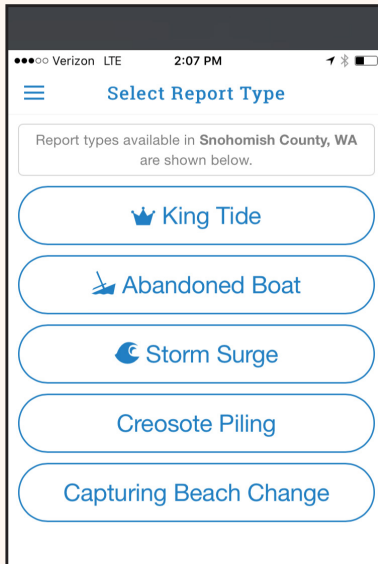
MyCoast

Citizen Science with the MyCoast App

The MyCoast App (mycoast.org) 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
- European Green Crab Molt Monitoring



Reports submitted on MyCoast are used both within Snohomish County and statewide to track environmental conditions and inform project work, including the MRC's derelict vessel removal efforts.

In 2023, **134 MyCoast reports** were generated in Snohomish County using the smartphone app.



Creosote logs on beach identified on MyCoast being removed by Washington Dept. of Natural Resources AmeriCorps Members.

Thank You

The MRC receives support from the Northwest Straits Commission, Puget Sound Partnership, Snohomish County Council and Executive Somers, the United States Environmental Protection Agency, Department of Natural Resources Derelict Vessel Removal Program 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 staff support and coordination for MRC Projects. The MRC acknowledges that our work resides on the ancestral lands and waters of the Coast Salish people who have called this place home since time immemorial.

Thank you to Surface Water Management staff Sheila Hagen, Brett Gaddis, Alex Pittman, Joseph Geigel, Frank Leonetti, Stuart Baker, Steve Britsch, Adam Jackson and Meghan Jordan; Communications staff Rebecca Lindahl and to the many other Snohomish County employees who have contributed time and expertise to the 2023 MRC projects.

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?

MRC Meetings are held either virtually or in-person. Contact Elisa.Dawson@snoco.org more information.

MRC Staff



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SWM Senior Planner



Joycelyn Blue
SWM Planner



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Marine Ecology Intern