



Whatcom County Marine Resources Committee *2022 Annual Report*



Northwest
Straits
INITIATIVE



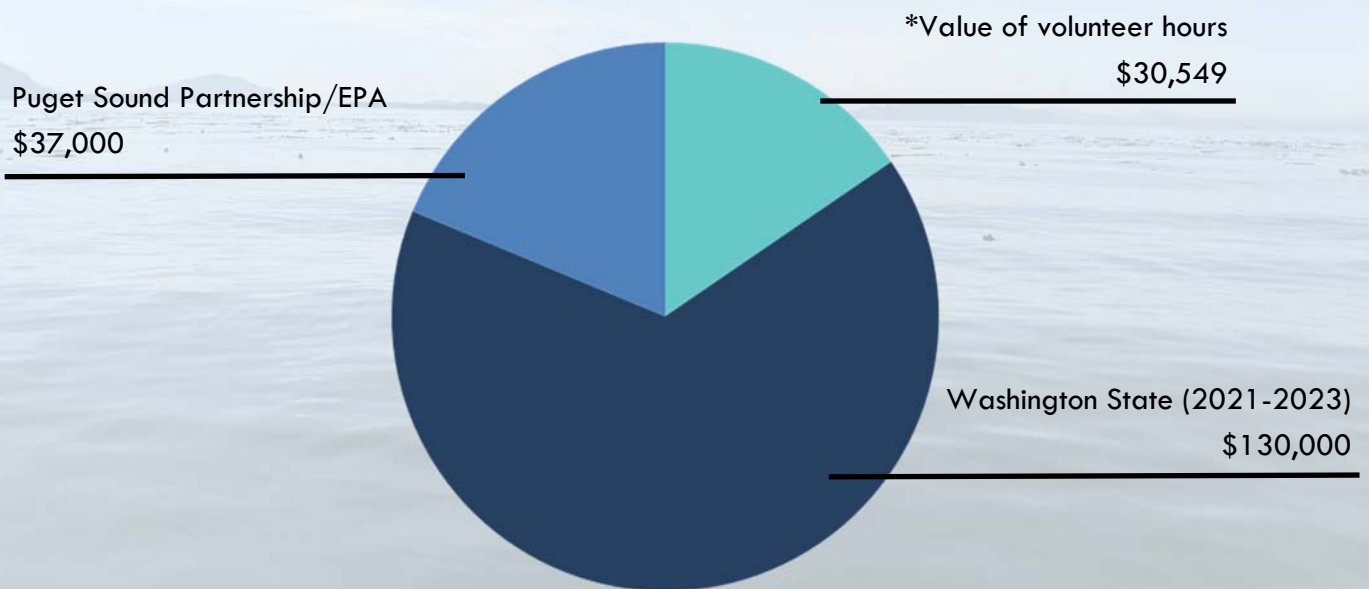
PUGET **SOUND**
PARTNERSHIP

About

The Whatcom Marine Resources Committee (MRC)

The Whatcom Marine Resources Committee (MRC) is one of seven citizen-based committees in the Northwest Straits Region to address marine issues. The MRC's purpose is to guide local communities, using up-to-date information and scientific expertise, to achieve important goals for marine habitat protection within the Northwest Straits. The Whatcom MRC's mission is to revitalize and preserve Whatcom County marine resources for future generations.

In 2022, the Whatcom MRC received a majority of its funding from Washington State and the U.S. Environmental Protection Agency (EPA) through a grant administered by the Northwest Straits Commission.



In 2022, Whatcom MRC members and community volunteers contributed **1,020** volunteer hours.

**Estimated value of each volunteer hour in 2022 was \$29.95 (independentsector.org).*

The Committee

<u>Member</u>	<u>Representation</u>
Glen (Alex) Alexander	Citizen-at-Large
Jim Boyle	Conservation/Environmental
Elma Burnham	Economic
Bob Cecile	Citizen-at-Large
Jackie Dexter	Economic
Andrew Gamble	Economic
Eleanor Hines	Scientific Expertise
Kathy Ketteridge	Citizen-at-Large
Elizabeth Lorence	Conservation/Environmental
Mike MacKay	Scientific Expertise
Heather Spore	Scientific Expertise
Dan Sulak	Recreational
Paul Troutman	Recreational
Colin Wahl	Conservation/Environmental

Alternates, Ex-Officio*, and Staff**

Kurt Baumgarten*	Port of Bellingham
Todd Donovan*	Whatcom County Council
Austin Rose **	Whatcom County Public Works- Natural Resources

Beach Seine with Kids

The MRC piloted the Beach Seine with Kids program that allowed elementary students to observe juvenile salmon using their intertidal habitat along the shoreline and to better understand the importance of these migratory corridors for salmon.



MAIN ACTIVITIES

- Applications were sent to 4th grade classrooms in the Bellingham School District and Lummi Nation. Three schools were chosen to participate based on classroom size (<30 students) and on the program's relevance to the existing educational goals for the students.
- Before each field event, an MRC member visited classrooms to brief students on the importance of the intertidal corridor for juvenile salmon and what to expect to see during the seine set.
- Each field event was preceded by a short talk by a Tribal Elder or marine scientist who discussed the ecological and cultural importance of salmon.
- Catch data was shared with the Lummi Tribe and Washington Department of Fish and Wildlife at the end of the project period.

Harlan James, Lummi Nation, shares salmon stories with students.



"What makes an impression on kids will stick with them. In our 4th grade memory books, many listed our Beach Seine field trip as their favorite memory, or one of their highlights."

*Suzanne Tiger, 4th grade teacher,
Silver Beach Elementary*

OUTCOME

4th graders were provided with immersive hands on experience in the field to understand local ecosystems and contribute to sense of place. This experience could change how they view their local beaches and allow them to share what they learned with family and friends.

Forage Fish Surveys

The MRC participates in a regional effort to characterize populations of the two species of forage fish that spawn on Puget Sound beaches: Pacific Sand Lance and Surf Smelt.

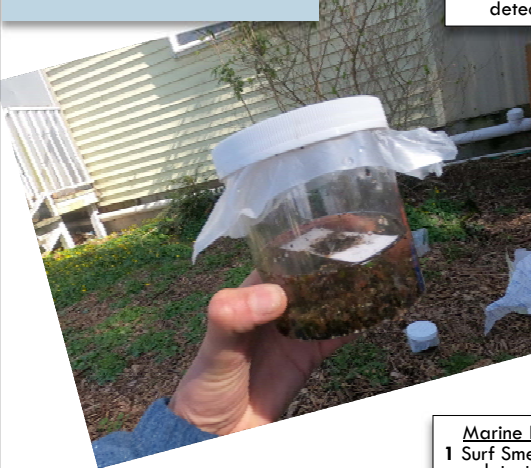
MAIN ACTIVITIES

- Following protocols developed by the Washington Department of Fish and Wildlife (WDFW), surveys are conducted monthly when the tide is below 5ft. A bulk sediment sample is collected and condensed to concentrate eggs. WDFW conducts lab analysis and egg identification.
- The MRC hires and trains an intern annually to lead the surveys (the intern coordinates volunteers, processes samples, and communicates with WDFW).



Volunteers collect sediment samples every 33ft along a 100 ft transect.

Condensed sediment sample in preservative, ready for processing.



Squalicum Beach
8 Surf Smelt eggs detected



Marine Park
1 Surf Smelt egg detected

Vortex method for separation of eggs from beach sediment.



Since this project began in 1972:

- Washington Department of Fish and Wildlife has conducted 30,000 beach surveys.
- MRCs and partners have conducted nearly 7,500 more.

Combined efforts have identified over:

- 371 miles of Surf Smelt spawning habitat.
- 141 miles of Sand Lance spawning habitat.
- According to [NOAA's shoreline mileage](#), that means at least 12.3% percent of Washington's total shore line has been used for surf smelt spawning, and 4.7% has been documented as sand lance spawning habitat.

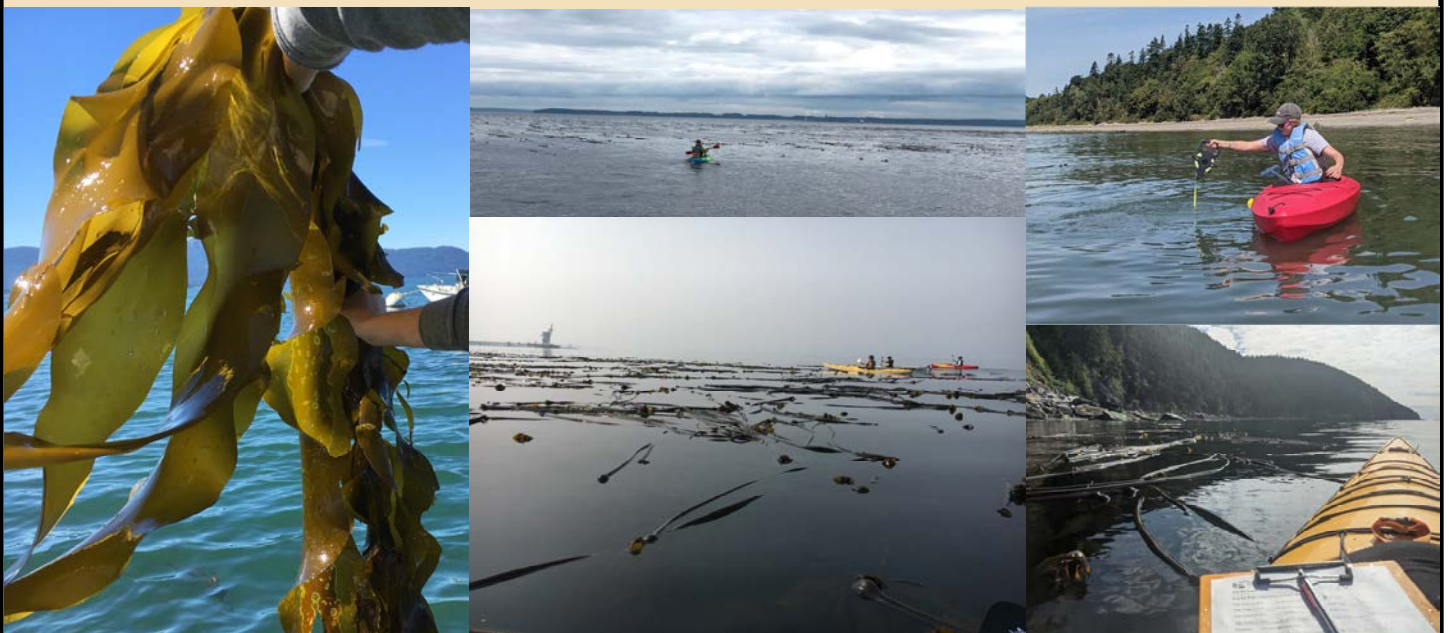
- Kate Olson, Forage Fish Biologist, Washington Department of Fish and Wildlife

Bull Kelp Surveys

The MRC supports a larger regional kelp monitoring program to provide a better understanding of kelp distribution, bed sizes, speciation, and health within the Salish Sea.

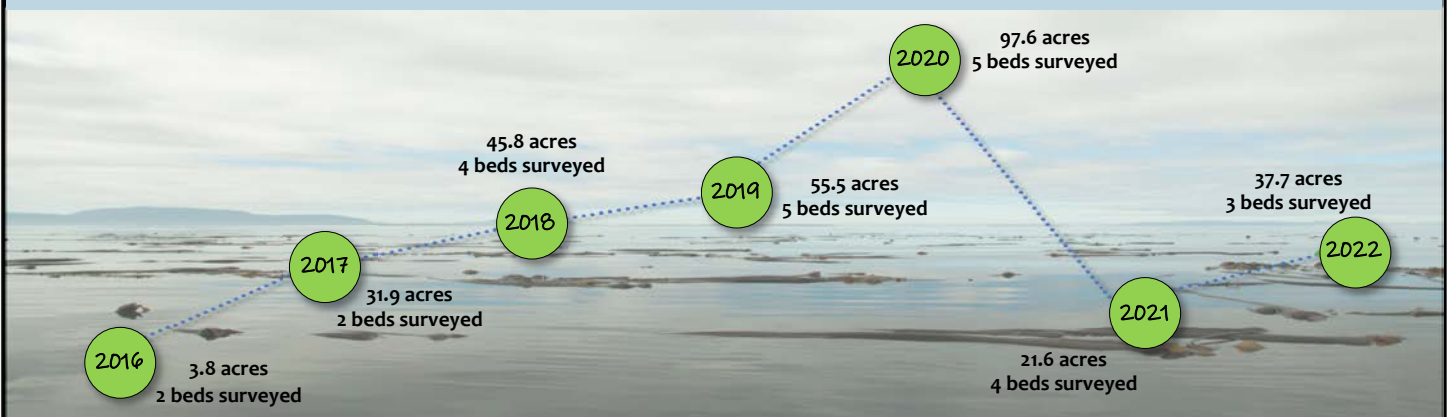
MAIN ACTIVITIES

- Kelp beds are monitored at five locations in Whatcom County (Aiston Preserve, SW Lummi Island, Cherry Pt./Gulf Rd, Point Whitehorn, and Alden Bank, July-September.
- Volunteers use GPS units to track the perimeter of the beds, start/end points, outer/shoreline edge points. Data is collected within set spatial locations that are returned to each year for surveys.



RESULTS/IMPACTS

- In 2022, the kelp beds surveyed appeared healthy and were slightly larger in perimeter than previous survey years.
- Whatcom MRC data from SW Lummi Island and Cherry Pt/Gulf Rd. is being used to inform the development of the [Kelp Canopy Vital Sign for Puget Sound](#).



Pilot Olympia Oyster Restoration

The MRC is working to establish a self-sustaining population of Olympia oysters to enhance habitat complexity and diversity. Physical and biological data is gathered annually to determine the status of restoration potential in North Chuckanut Bay.

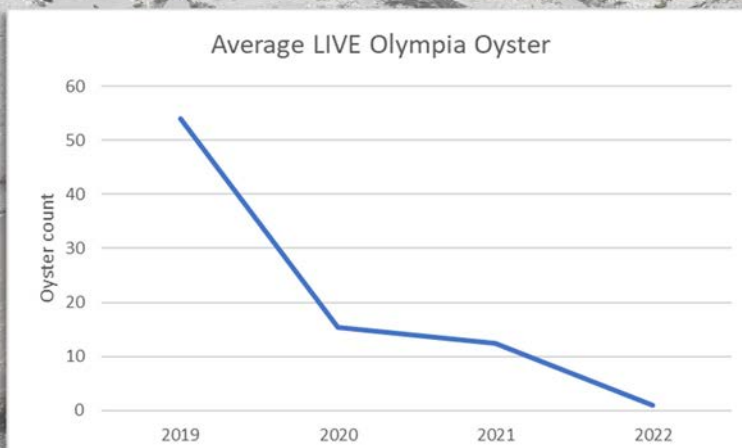
HISTORY

- Seven pilot plots (including one reference plot) were identified by Washington Department of Fish and Wildlife staff in 2016, as suitable to plant seeded cultch.
- In 2018 approximately 95,000 Olympia oysters were spread within the identified test plots.



MAIN ACTIVITIES

- Annual monitoring events (typically in May) are completed with the help of students from Bellingham Technical College (BTC) Fisheries and Aquaculture program.
- The MRC evaluates oyster retention within the pilot restoration plots, and changes in habitat characterization are determined by assessing change in restoration plots against the identified reference plot.
- The MRC placed two bags of seasoned Pacific oyster shell (approximately 50 shells/plot), donated by Taylor Shellfish, within the test plots to monitor natural recruitment of larvae against shell substrate. The MRC also monitors monthly larval settlement patterns during the summer using stacks of ceramic tiles.



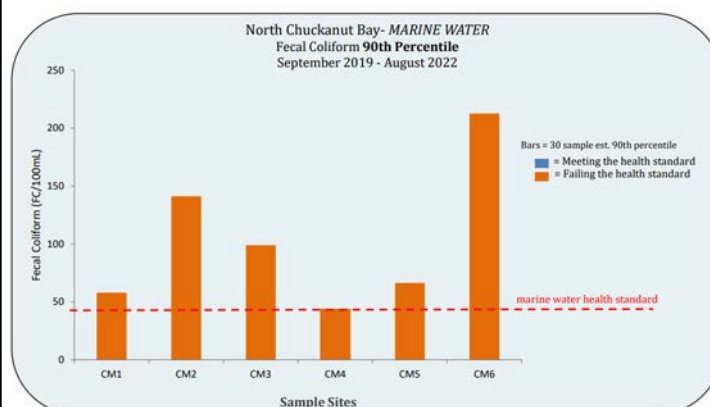
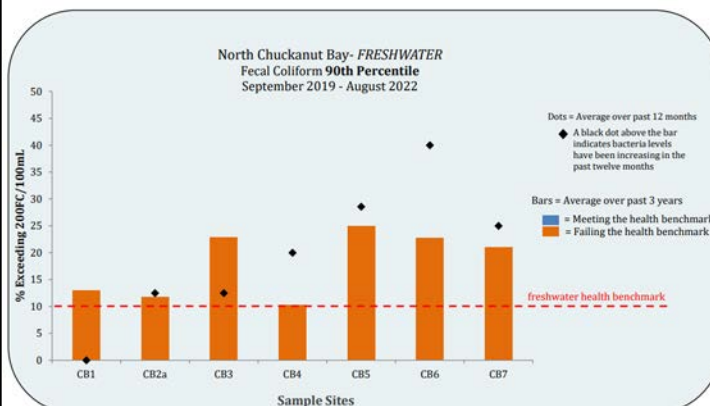
There is a clear decline in Olympia oyster population growth and retention within the established pilot restoration plots. It is suspected that there is not enough preferential substrate (rock, shell, or hard material) for larvae to attach to.

Chuckanut Pollution Identification and Correction (PIC) Program

The MRC continued their PIC project in the North Chuckanut Bay area in partnership with local and state agencies, conducting education and outreach for healthy water quality, monitoring, and data reporting on a monthly basis.

HISTORY

- North Chuckanut Bay is a recreational shellfish harvesting area that supports many species of clams. The bay has been closed to harvesting for 30 years due to concerns about bacteria levels.
- In 2014, the MRC began working with the Whatcom County Public Works, Whatcom County Health, and Washington Department of Health (DOH) to begin a PIC project in the area.
- To protect water quality, WA state has criteria for bacteria levels in both fresh and marine waters. The MRC conducts monthly water quality monitoring in the marine water and in the freshwater systems flowing into the bay.



RESULTS/IMPACTS

- In 2022, the MRC aimed to provide DOH with sufficient data to demonstrate improvement in water quality to encourage DOH to appropriately modify the shellfish harvest restrictions. and to continue outreach and engagement with the Chuckanut Village community.
- For the shellfish standard, a calculated 90th percentile is used versus a percent of samples over a threshold for freshwater. The graphs to the left show the sample sites are not meeting the 90th percentile standards for the marine or freshwater systems.
- Water quality decline corresponds with the COVID outbreak, which resulted in decreased septic evaluations, and community engagement. This is proven through high bacteria results found inconsistent with seasonal spikes and environmental conditions.

Remote Beach Cleanup

The MRC conducted a volunteer-led remote beach cleanup on the southwest side of Lummi Island along a shoreline that is inaccessible to the public by land.

MAIN ACTIVITIES

- A volunteer solicitation was developed and shared with Lummi Island residents. The flyer included education about the impact of marine debris on shoreline and marine species, the importance of beach cleanups to reduce litter, in effort to raise awareness about litter and plastic pollution.
- Specialized Marine Transport was hired to charter volunteers from Bellingham and the east side of Lummi Island to the clean up site.



RESULTS/IMPACTS

- Approximately two miles of shoreline was covered by volunteers. 450lbs of trash (mostly aquaculture and fishing gear) was removed from the site.
- This project is fairly popular with Lummi Island residents and MRC volunteers. Beach cleanups are suitable for the whole family to join and a fun way to participate in a meaningful activity while enjoying a day at a beach that is not easily accessible.

JOIN US ON LUMMI ISLAND
BEACH CLEANUP
THURS. JULY 14, 2022
9:30 AM

Between 500,000 to 1,000,000 tons of fishing gear are discarded or lost in the ocean every year!

EVERY TINY PIECE MATTERS

COME MAKE A DIFFERENCE!
Would you like to participate in an important and fun project on July 14? Beach clean-ups are key to reducing the problems caused by ocean debris and the danger that plastic pollution poses to marine life. The Whatcom County Marine Resources Committee (MRC) is partnering with the Lummi Island Heritage Trust to lead a beach cleanup on the southwest side of Lummi Island. Volunteers will be transported via landing craft boat from Squalicum Marina, Bellingham, and the Aiston Preserve, Lummi Island.

Space is limited.
• From Bellingham: please contact Austin Rose at ARose@co.whatcom.wa.us.
• From the Aiston Preserve: please contact Elizabeth Kilanowski at (360) 527-6471 or at Kilanowski@protonmail.com

INFORMATION
THURSDAY, JULY 14, 2022
9:30am - 2:00pm

- Bellingham Departure - Arrive at Squalicum Marina (Gate 5) at 9:15am
- Lummi Island Departure - Arrive at Aiston Preserve at 9:45am
- Supplies and snacks will be provided

www.whatcomcountymrc.org



Thank You

Thank you to our Whatcom County Marine Resources Committee members and community volunteers—your dedication to protecting and restoring the marine and nearshore environment is making a difference in Whatcom County. We would also like to recognize the ongoing support of our partners, including the Whatcom County Council and Whatcom County Executive Sidhu, Port of Bellingham, City of Bellingham, Lummi Nation, Taylor Shellfish, Washington Department of Fish and Wildlife, ReSources, Bellingham Technical College, the Whatcom Watershed Information Network, and many others. These contributions include staff time, guidance, materials, and general support for MRC projects. The MRC is also grateful for funding and support from the Northwest Straits Commission, Northwest Straits Foundation, Puget Sound Partnership, and the United States Environmental Protection Agency.

How you can get involved

- Attend monthly MRC [meetings](#).
- Volunteer on local [projects](#).
- [Sign up](#) for the Northwest Straits Commission newsletter

When/where are meetings held

Regular meetings are open to the public and are currently being held virtually (hybrid format quarterly), 5:00-7:00PM the first Thursday of each month. Visit the website to find the most up-to-date details: www.whatcomcountymrc.org

How to reach us

Contact Austin Rose arose@co.whatcom.wa.us

Map created by: Peter Gill, Whatcom County

