



## WHATCOM COUNTY MARINE RESOURCES COMMITTEE 2020 FINAL REPORT



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Photo credit: Eleanor Hines. *Floating kelp bulbs at SW Lummi Island.*

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## ACCOMPLISHMENTS

Adapted to COVID-19 by hosting monthly MRC meetings virtually since April 2020. MRC work continued through virtual meetings, conference calls, and limited volunteer participation.

Offered two paid internship positions to help with the North Sound Stewards community science program and the forage fish spawning surveys.

Members donated 825 volunteer hours to the 5 different active MRC projects.

Provided a tour of the Aiston Preserve restoration project to Congressman Rick Larsen and Whatcom County Executive, Satpal Singh Sidhu.

Assisted Washington Department of Fish and Wildlife with the Drayton Harbor European Green Crab emergency response including trapping and education to the community.

Provided letters of support for two shoreline restoration projects in Whatcom County.

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## ABOUT THE 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 of marine habitat protection within the Northwest Straits. The Whatcom MRC's mission is to revitalize and preserve Whatcom County marine resources for future generations.

The Whatcom Marine Resources Committee (MRC) works to achieve goals of resource conservation and habitat protection within the Northwest Straits, through implementing priorities of the Puget Sound Action Agenda. The MRC chose to focus on two Action Agenda targets: 1) protecting and restoring marine habitats; and 2) restore and re-open shellfish beds. Community education and outreach lies at the heart of each MRC program area and continues to be a defining characteristic of the Whatcom MRC's impact in the community.

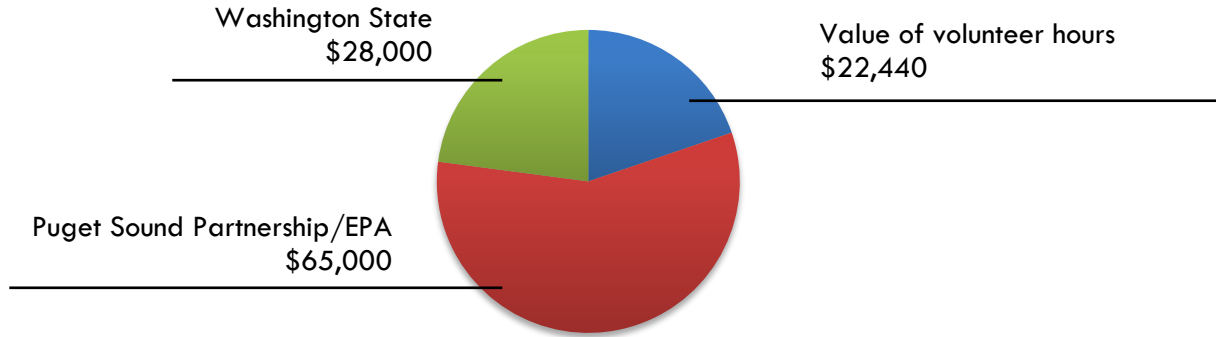
In 2020, Whatcom MRC activities focused on continuing efforts towards water quality monitoring in North Chuckanut Bay, kayak based monitoring of bull kelp, forage fish spawning surveys, a pilot Olympia oyster restoration project, and implementation of community education and outreach projects.

## Operations

Whatcom County Public Works Natural Resources staff provided administrative support for the Whatcom County MRC. General MRC meetings are held on a monthly basis and typically feature a guest speaker as well as discussion on MRC projects and other business topics. The MRC website [www.whatcomcountymrc.org](http://www.whatcomcountymrc.org) is updated regularly with meeting agendas and minutes, as well as project updates and local events related to the MRC.

## Funding Sources

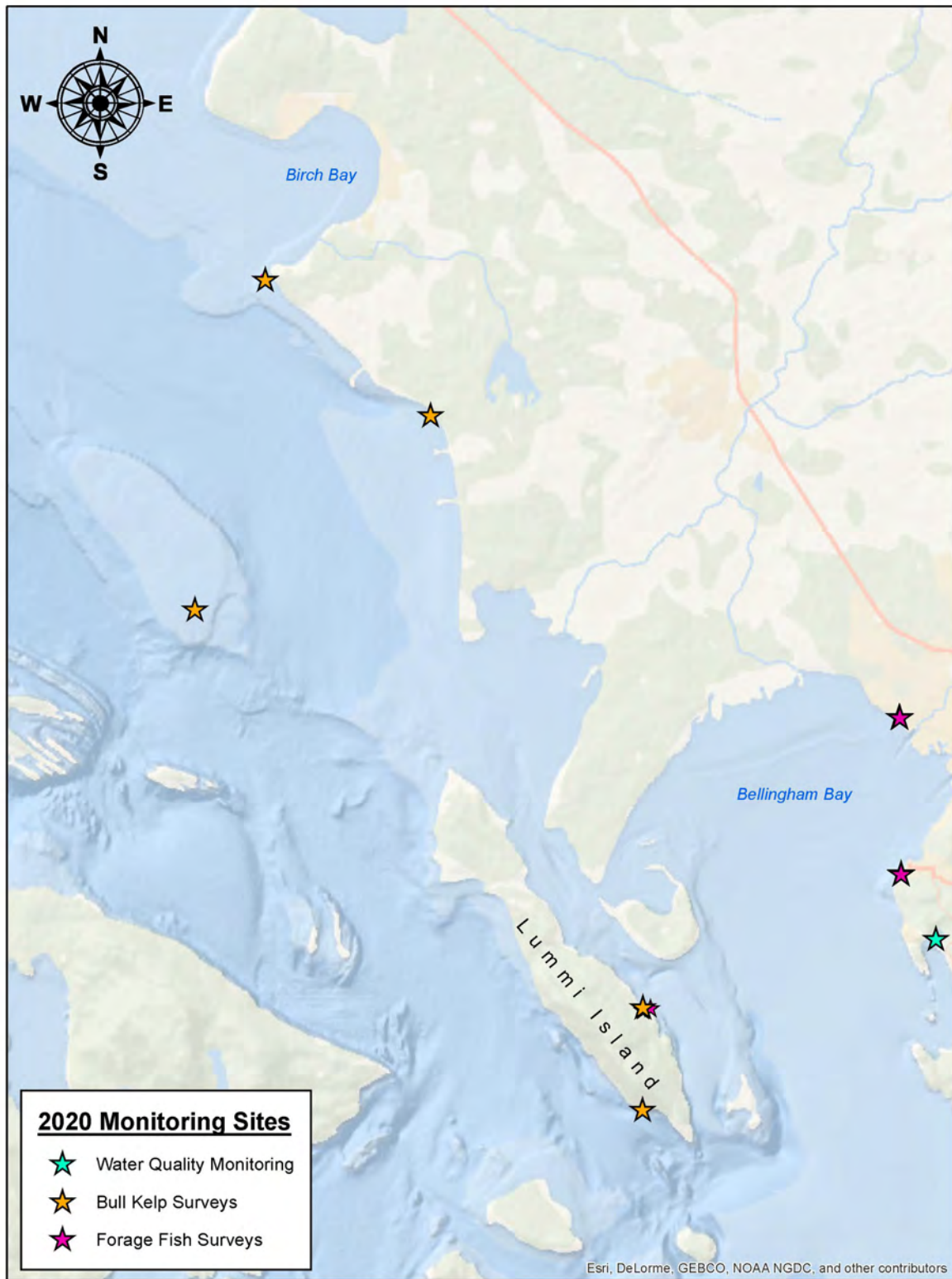
The MRC brings important environmental and economic value to Whatcom County and engages the local community to preserve and protect our local marine environment.



## Committee

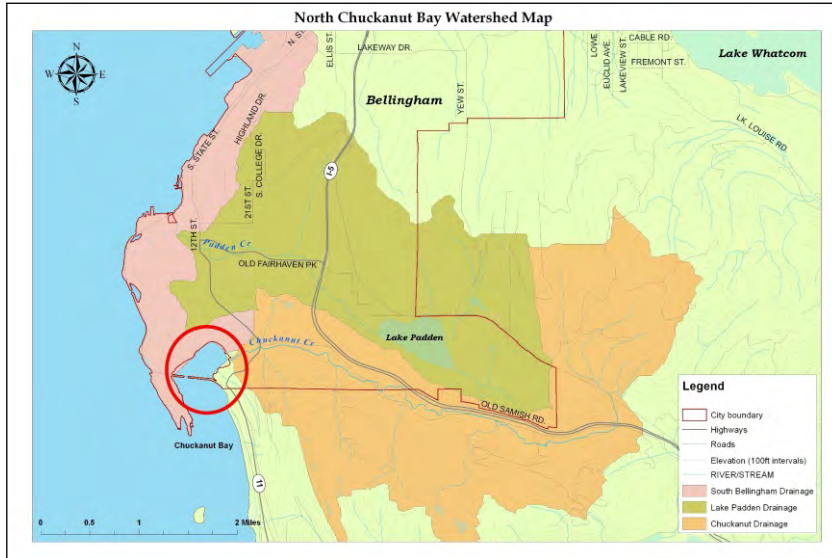
Member	Representation
Glen Alexander	Citizen-at-Large
Rachel Arnold	Conservation-Environmental
Bob Cecile (NWSC Rep)	Citizen-at-Large
Andrew Gamble	Economic
Pete Granger (NWSC Alternate Rep.)	Economic
Eleanor Hines (Chair)	Scientific
Elizabeth Kilanowski	Scientific
Mike MacKAY	Scientific
Ryan McLaughlin	Conservation-Environmental
Kristin Murray (Vice Chair)	Citizen-at-Large
Bob Seaman	Conservation-Environmental
Petur Sim	Economic
Dan Sulak	Recreational
Paul Troutman	Recreational
<b>Alternates, Ex-Officio*, and Staff**</b>	
Misty Peacock	Conservation-Environmental (alternate)
Heather Spore	Informational Alternate
Kurt Baumgarten*	Port of Bellingham (Ex-Officio)
Austin Rose**	Whatcom County Public Works – Natural Resources

## Monitoring: Where do we monitor?





## Monitoring: North Chuckanut Bay Pollution Identification and Correction



Northern Chuckanut Bay is a recreational shellfish harvesting area that supports many species of clams. There have been concerns about bacteria levels in Northern Chuckanut Bay for over 20 years. However, the area has always been popular for shell fishing despite the health advisory. Monitoring, community outreach and water quality improvement efforts are completed through the MRC's partnership with Whatcom County Public Works, Whatcom

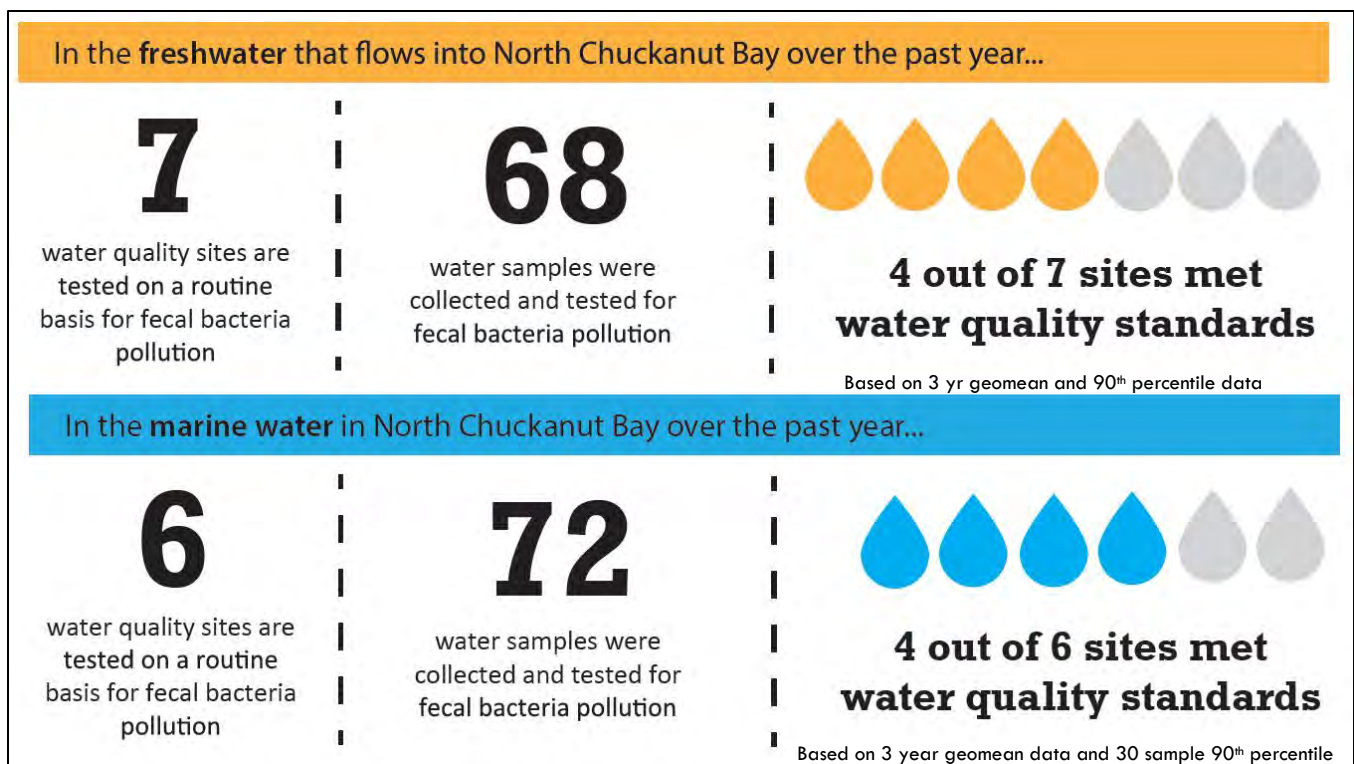
County Health, and the Washington Department of Health.

Seven freshwater sites and six marine sites are monitored for fecal coliform bacteria approximately two times per month in the Chuckanut drainage area. Monitoring is completed by County staff and community volunteers when possible.



The marine samples are assessed using the last 30-samples based on the Water Quality Standards set by the National Shellfish Sanitation Program. Washington Department of Health uses the 30-sample results to determine if the growing areas (marine waters) are meeting standards to protect public health. For freshwater, the 12 month and 3-year geomean and 90th percentile data are used to analyze short-term data trends compared to long-term trends. Using 3-years of data helps with seasonality consistency (ex. a full 3 rainy seasons) and looks

at the same time-period of samples across sites. Based on the standards for fecal coliform contamination in both freshwater and marine waters supporting shellfish growing areas, the table below shows the number of monitoring sites meeting those standards in North Chuckanut Bay.



Graphic (above) created by Kate Rice, Whatcom County Public Works

## Monitoring: Bull Kelp Surveys

Working with the [Northwest Straits Initiative](#) and other MRC's, using existing kayak-based monitoring protocols, the Whatcom MRC monitors floating bull kelp beds at five locations in Whatcom County including: SW Lummi Island, Point Whitehorn, Aiston Preserve, Cherry Point/Gulf Rd, and Alden Bank. The monitoring data provides information on the status (presence, size, and health) of floating kelp communities in Whatcom County and contributes to ongoing regional monitoring and long term data sets.

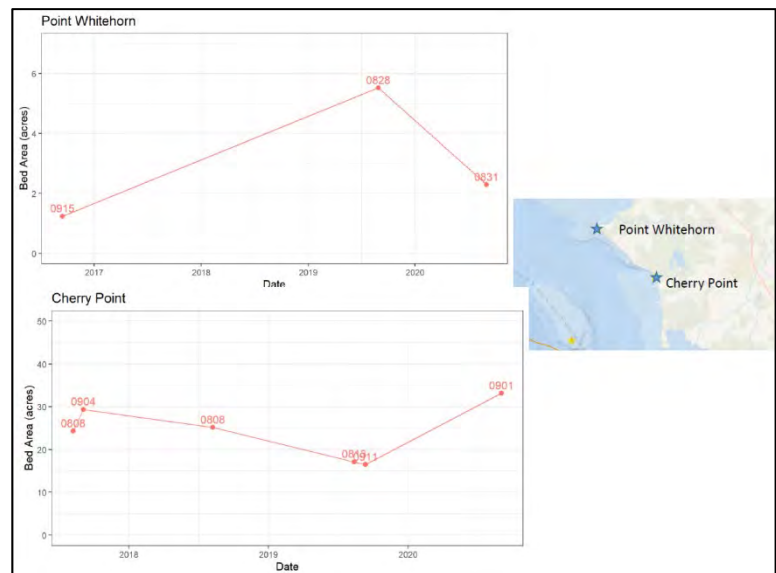
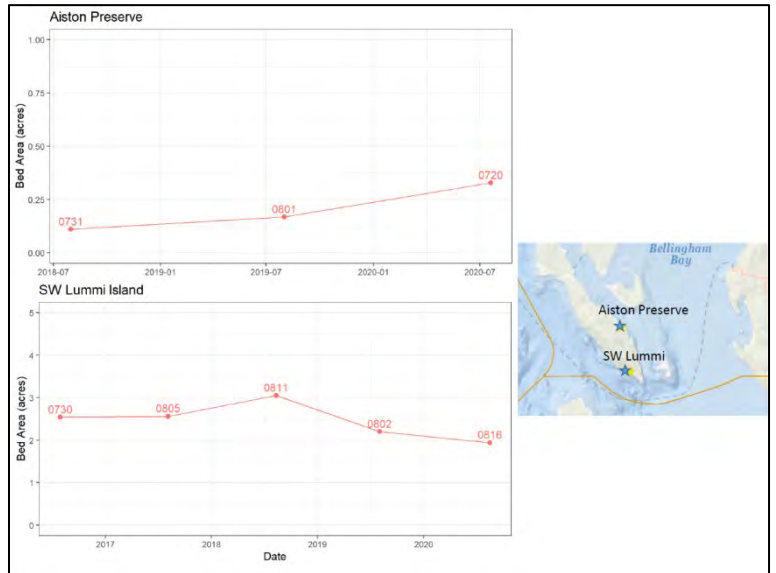


The graphs and plots included in this report were developed by Northwest Straits Commission staff and present data that have been through an initial QA/QC process. \*

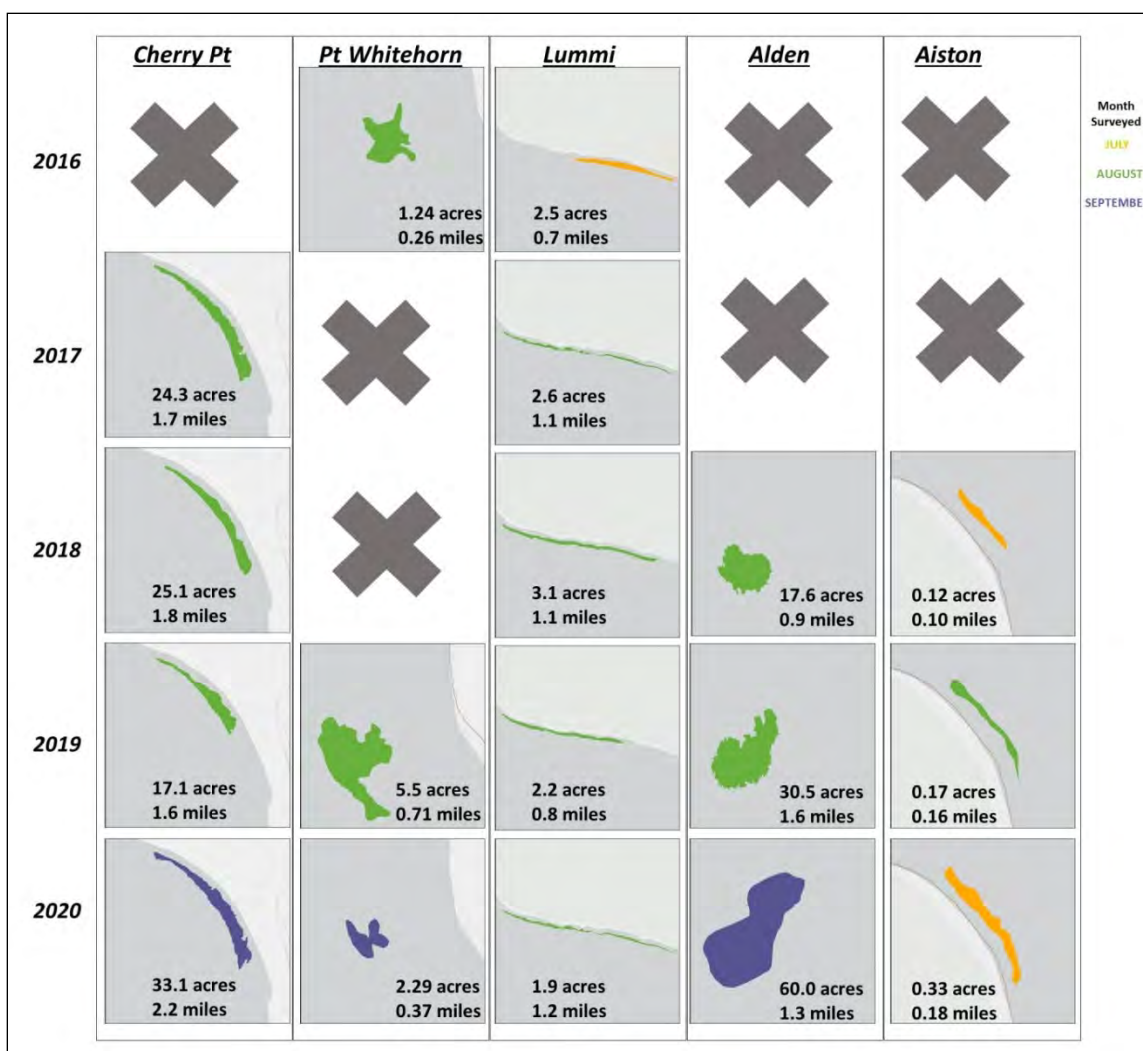
\*Data presented below includes:

1. *Acreage plots*—these show the acreage of each kelp bed through time. The points are plotted in red with the date of each survey indicated as MM/DD.
2. *Matrix plots*—these grid plots show the filled outline of the kelp bed by month and year to show the seasonal variation and progression by month and year. The plots are scaled and positioned consistently for each site.









## Monitoring: Forage Fish Surveys

The Whatcom 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. The MRC recruits and trains volunteers to conduct spawning surveys at two priority beaches in Bellingham, Marine Park and Little Squalicum Estuary; and the Aiston Preserve restoration site on Lummi Island.



In 2020, the MRC hired a recent graduate from the Bellingham Technical College Fisheries and Aquaculture program, Bridget Moran, to work as a part-time temporary intern helping to lead the monthly forage fish surveys. Bridget was well trained in forage fish surveys through her academic program, and her experience working with the MRC furthered her scientific career.

Due to COVID-19, field work with volunteers was put on hold. The forage fish surveys continued monthly, with only Bridget and possibly one other MRC in the field. Lisa Hillier, Washington Department of Fish and Wildlife (WDFW), visited Whatcom County forage fish survey sites to ensure protocols were being followed appropriately. A total of 21 surf smelt eggs were found at Little Squalicum Beach in 2020. No eggs have been found at Marine Park.



Top left photo: Lisa Hillier, WDFW, visiting Little Squalicum Estuary with main forage fish survey volunteers. Top right photo: Bridget Moran, utilizing vortex method to sieve sediment sample.

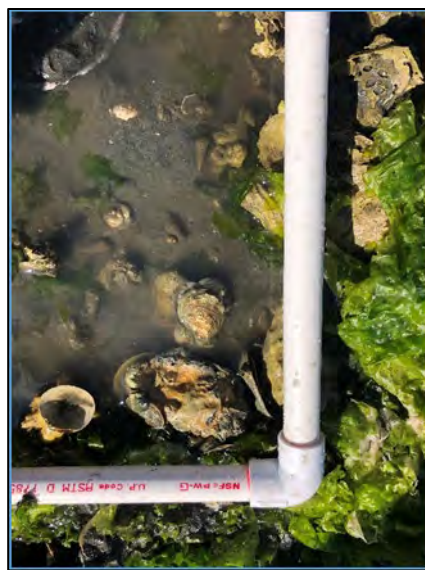
## Monitoring: North Chuckanut Bay Pilot Olympia Oyster Restoration Project

Following a pilot planting of Olympia oyster spat on shell within test plots in 2018, the MRC annually collects physical and biological parameter data to determine the status of Olympia oyster restoration potential in North Chuckanut Bay. Survey protocols have been drafted out of discussions with other MRC's conducting Olympia oyster restoration, technical advisors within the Northwest Straits Initiative, and staff from the Washington Department of Fish and Wildlife and the Puget Sound Restoration Fund.

In 2020, the a small group of MRC members surveyed the test plots and did not find strong evidence of Olympia oyster recruitment within the test areas. However, the live Olympia oysters found in 2020 were larger than those found in 2019.







## Drayton Harbor European Green Crab Emergency Management Plan

In September 2019, the Washington Department of Fish and Wildlife (WDFW) and the Washington Sea Grant (WSG) Crab Team found evidence of European green crabs (EGC) – a damaging invasive species - in Drayton Harbor. The agencies held EGC emergency management meetings to understand local concerns and link short-term and long-term resources available for response in Drayton Harbor. The MRC was identified as a local entity that could provide education and outreach to the community about the issue of EGC in Drayton Harbor, and the efforts planned for eradication.

Due to the COVID pandemic, it was not appropriate to involve community volunteers to help with increased EGC trapping efforts. However, some MRC members and affiliated volunteers were previously trained on EGC monitoring and trapping. These trained volunteers were asked to participate in the removal workforce and worked with agency staff on extensive trapping in the area.



## Visit from Congressmen Larsen



Congressman Rick Larsen made a visit to each of the MRCs in the fall of 2020. The Whatcom MRC provided a tour of the former Lummi Island Quarry site, now referred to in its newly protected status as the Aiston Preserve. The tour was joined by Whatcom County Executive Satpal Singh Sidhu, Northwest Straits Initiative Staff, and staff from the Lummi Island Heritage Trust who is spearheading the effort to restore the nearshore habitat and coastal processes at the site.



Removing the derelict structures is needed so that nearshore restoration can take place. Structure removal will improve intertidal habitat, water quality, and enable the re-connection of the upland and nearshore. This project aligns with efforts conducted by the Whatcom MRC to ensure habitat along our shoreline is fully functional and supports healthy marine life. The MRC is supporting this project by assisting with pre- and post-construction citizen science monitoring.

## More Community Connections

The MRC partners with community organizations to provide learning opportunities on local marine resources issues and be viewed as a source of education in the community.

### Work with Western Washington University

- The MRC worked with students enrolled in a marine conservation class at Western Washington University Huxley College on three different MRC project interests: Olympia oyster restoration, forage fish data consolidation, and public engagement/communication about European Green Crab. MRC members provided an in class presentation on MRC projects and interests (prior to COVID outbreak). Students then developed project proposals around those interests or to expand a current MRC project.

### Partnership with the Whatcom Watershed Information Network (WWIN)

- The MRC annually partners with WWIN to organize community speaker events that contribute to informing citizens about marine resources and marine resource issues specifically. The purpose of this program is to provide a forum for exchange of



information on marine related topics to the MRC and the broader local community. The MRC hosted five events in 2020 including:

- **Climate Action Planning in Whatcom County** - Chris Elder, Whatcom County
- **Monitoring Forage Fish in the Salish Sea** - Lisa Hillier, Washington Department of Fish and Wildlife. See presentation [here](#).
- **Local and Broadscale Patterns of Sea Star Recovery** - Melissa Miner, Researcher, UC Santa Cruz.
- **COVID-19 Effects on the Local Fishing Industry** - Pete Granger, Whatcom Working Waterfront Coalition.
- **Tsunami Hazards in Whatcom County** - Dr. Carrie Garrison-Laney, Tsunami Hazards Specialist and PMEL Liaison, Washington Sea Grant. **Tsunami Planning for Whatcom County** - John Gargett, Deputy Director, Whatcom County Sheriff's Office.
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- The MRC also partners with WWIN to organize Whatcom Water Week – a week-long event that celebrates our local water resources. The MRC joined the Surfrider Foundation and the Ocean Conservancy to host passive beach cleanups during Whatcom Water Week and International Coastal Cleanup Day. Approximately 31 people participated in the cleanups. 335 lbs of trash were removed from three locations on Whatcom County shoreline: Semiahmoo Spit, Locust Beach, and Gulf Rd. Cherry Point.

#### Work with RE Sources for Sustainable Communities

- 2020 marked the fourth year of the North Sound Stewards community science program which is organized by the MRC and RE Sources. Each year this program gains more community interest and more success stories from volunteer boots on the ground efforts. 43 volunteers registered for the program in 2020, and 284 volunteer hours were logged.