

COUNTY: WHATCOM

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PROJECT TITLE: Whatcom County Marine Resources Committee (MRC) Operations and Projects

TASK NUMBER: 1.9 (2019 Annual Report)

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WHATCOM COUNTY MARINE RESOURCES COMMITTEE 2019 FINAL REPORT



ABOUT THE MARINE RESOURCES COMMITTEE (MRC)

ACCOMPLISHMENTS

Presented MRC project accomplishments and community connections to the Whatcom County Council to celebrate 20 years of the Whatcom MRC.

Offered two paid internship positions to help with the North Sound Stewards outreach program and the forage fish monitoring, providing local students with valuable work experience.

Partnered with the Cherry Point industries to recruit over 110 volunteers to help clean 10 miles of Aquatic Reserve shoreline.

Acquired additional funding from the Northwest Straits Foundation to support beach cleanups on Lummi and Sucia Islands – removing a total of 500lbs of garbage

Partnered with the WA Department of Natural Resources and Drayton Harbor community members to remove 2,000lbs of garbage from the shoreline.

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 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 important 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.

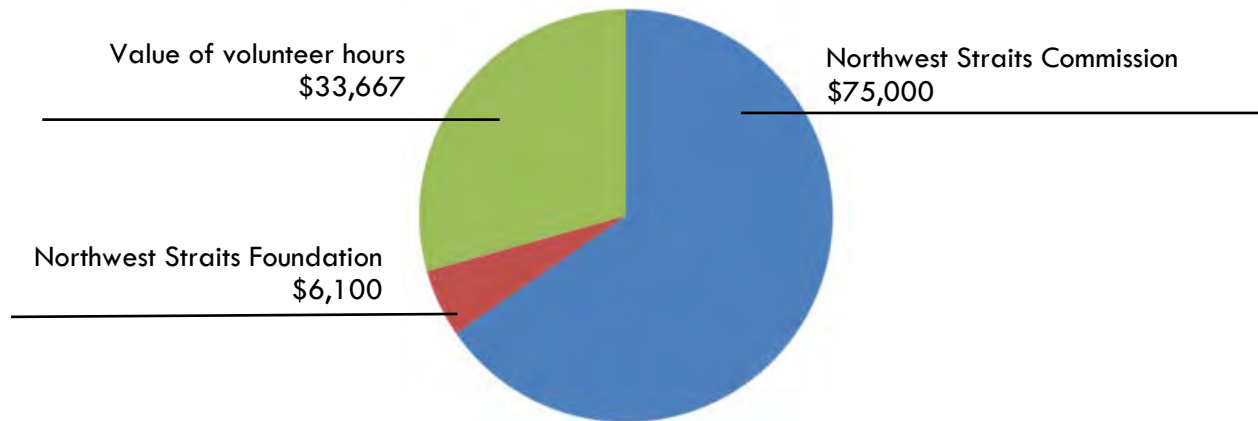
In 2019, Whatcom MRC activities focused on continuing efforts towards water quality monitoring in North Chuckanut Bay, kayak based monitoring of bull kelp, forage fish spawning surveys, a pilot Olympia oyster restoration project, and implementation of community education and outreach projects.

Operations

Whatcom County Public Works – Natural Resources staff (MRC staff) provided administrative support for the Whatcom County MRC. The MRC grant funds a 0.7 FTE for MRC activities. General MRC meetings are held on a monthly basis in the Civic Annex Building Garden Level Conference Room, and typically feature a guest speaker as well as discussion on MRC projects and other business topics. The MRC website <https://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

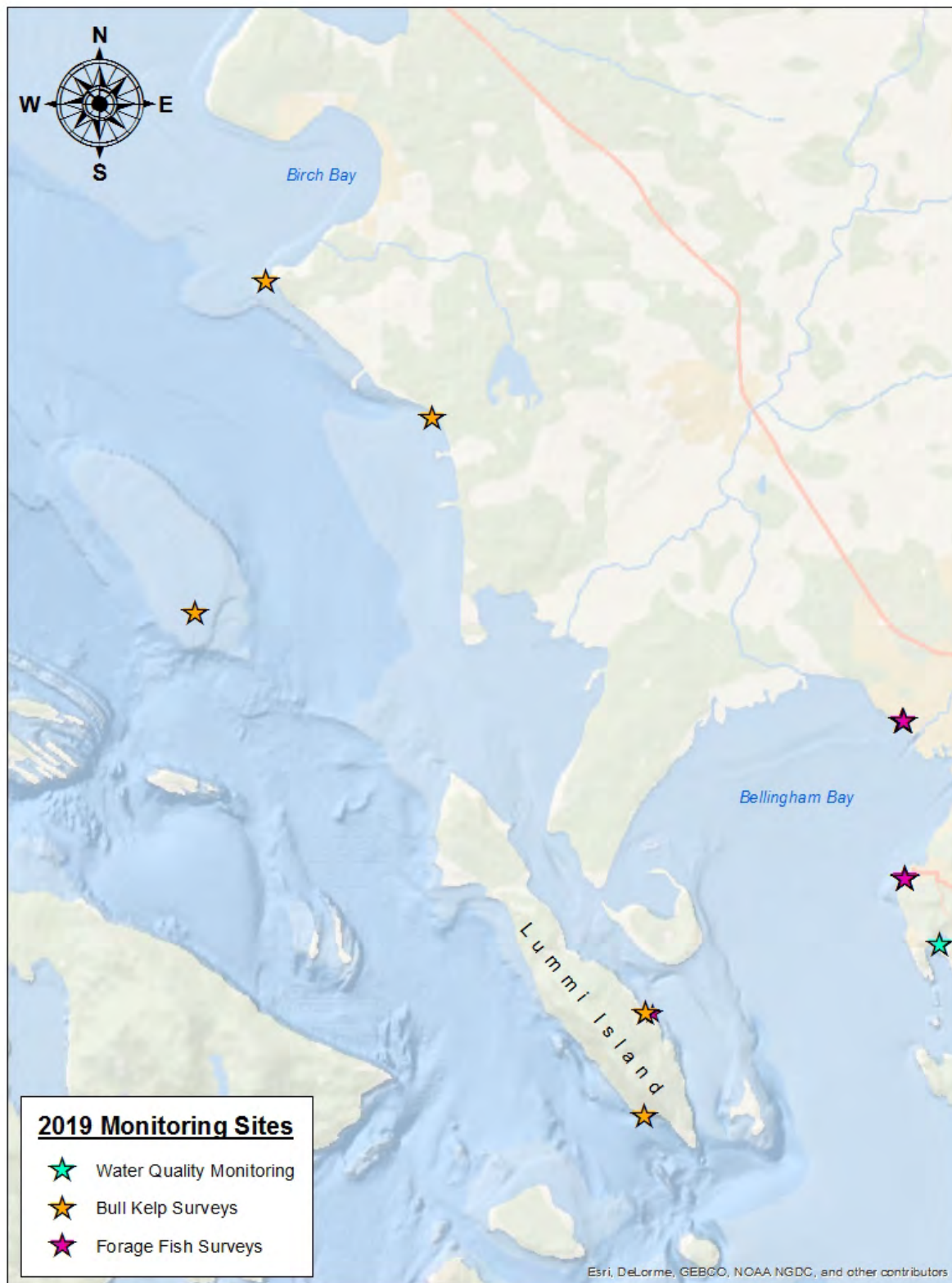
The MRC brings important environmental and economic value to Whatcom County and engages local community to preserve and protect our local marine environment.



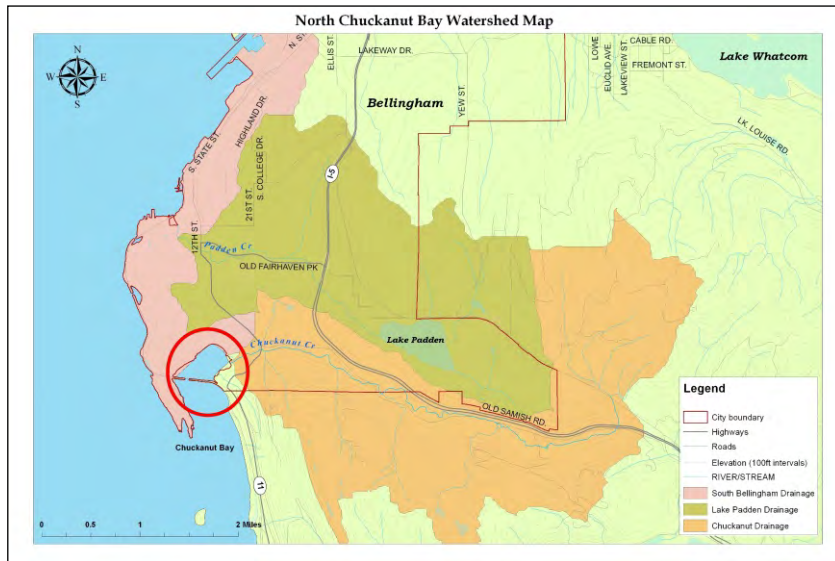
Committee

Member	Representation
Glen Alexander	Citizen-at-Large
Rachel Arnold	Conservation-Environmental
Atina Casas	Scientific
Bob Cecile (NWSC Rep)	Citizen-at-Large
Pete Granger (NWSC Alternate Rep.)	Economic
Jim Hansen	Recreational
Eleanor Hines (Chair)	Scientific
Elizabeth Kilanowski	Scientific
Ryan McLaughlin	Conservation-Environmental
Kristin Murray (Vice Chair)	Citizen-at-Large
Bob Seaman	Conservation-Environmental
Petur Sim	Economic
Alternates, Ex-Officio*, and Staff**	
Misty Peacock	Conservation-Environmental (alternate)
Kurt Baumgarten*	Port of Bellingham (Ex-Officio)
Austin Rose**	Whatcom County Public Works – Natural Resources
Robin Klein**	Whatcom County Public Works – Natural Resources Division Secretary

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 recreational harvest despite the health advisory and shellfish closure. Monitoring, community outreach and water quality improvement efforts are completed through the MRC's partnership with Whatcom

County Public Works, Whatcom County Health, and WA Department of Health.

Seven freshwater sites and five marine sites (Figure 2) are monitored approximately two times per month in the Chuckanut drainage area for fecal coliform bacteria. Monitoring is completed by County staff and community volunteers.



Figure 1. Northern Chuckanut Bay water quality monitoring stations. Orange dots indicate freshwater sites and blue dots indicate marine sites. Map created by Austin Roses, Whatcom County Public Works

In the **freshwater** that flows into North Chuckanut Bay over the past year...

7

water quality sites are tested on a routine basis for fecal bacteria pollution

89

water samples were collected and tested for fecal bacteria pollution



6 out of 7 sites met water quality standards

In the **marine water** in North Chuckanut Bay over the past year...

5

water quality sites are tested on a routine basis for fecal bacteria pollution

83

water samples were collected and tested for



4 out of 5 sites met water quality standards

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

Newsletter cover (left) created by Kate Rice, Whatcom County Public Works

The MRC worked with Whatcom County Public Works staff to develop a PIC newsletter specific to the Chuckanut Creek watershed. The newsletter was sent to 230 residents within the watershed highlighting water quality status, sources of bacteria, actions landowners have taken and can take to improve and protect water quality, and technical and financial assistance programs that are available. Ongoing community outreach and engagement will be required to protect water quality in Chuckanut Bay in the long term.

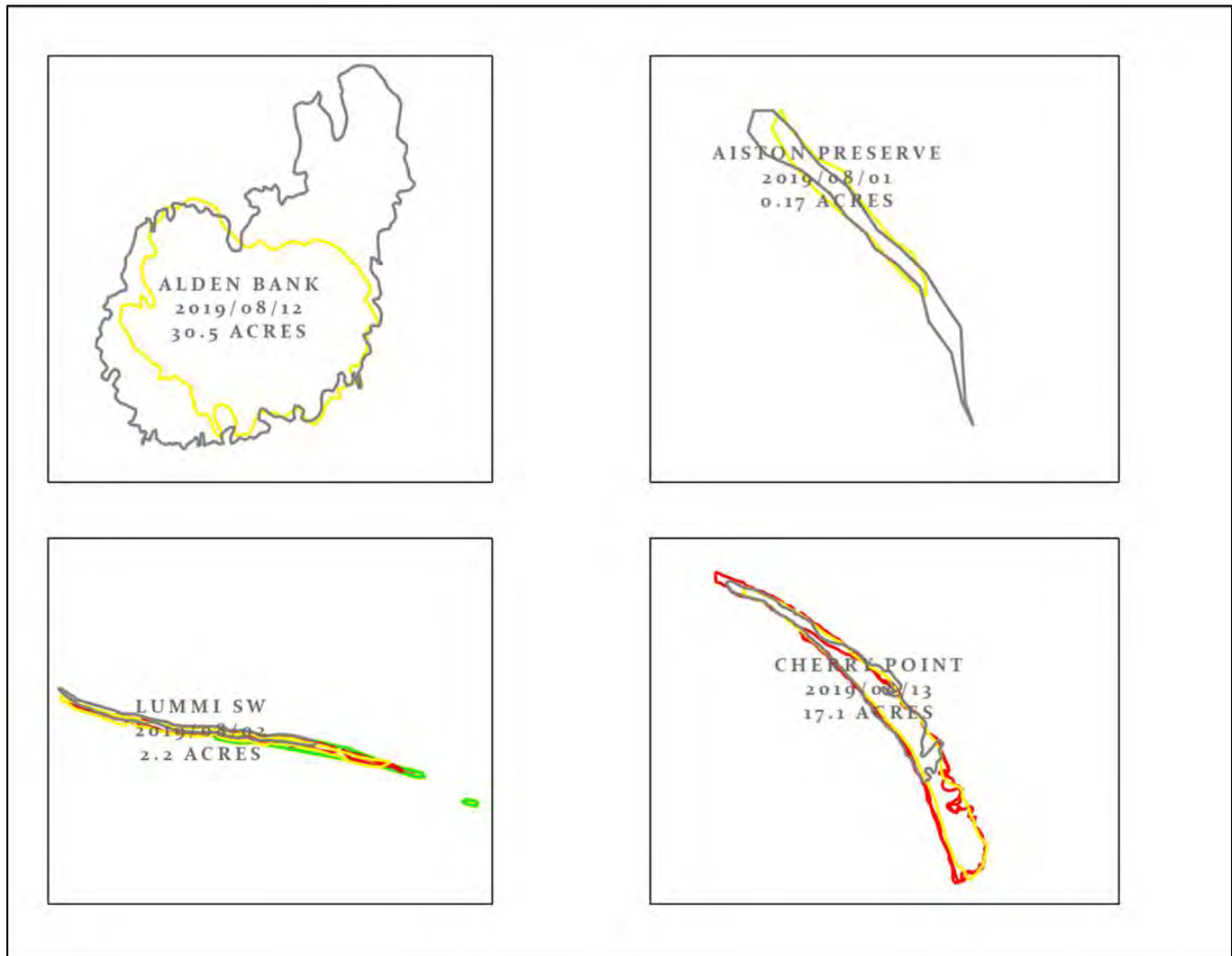


Monitoring: Bull Kelp Surveys

The MRC conducts boat-based bull kelp surveys in coordination with the [Northwest Straits Initiative](#) and other MRC's. Volunteers monitor the size of bull kelp beds using GPS units while paddling a kayak around the perimeter of the bed. This data contributes to ongoing regional monitoring and long term data sets. The MRC's are encouraged to develop data collections strategies that address research questions or data needs specific to each county.

Data was collected from five sites in Whatcom County: Point Whitehorn, Cherry Point/Gulf Road, Alden Bank, Southwest Lummi Island, and the Aiston Preserve, Lummi Island. Temperature loggers were deployed at four sites to measure temperature across multiple depths.

Figure 2. 2019 surveys (grey), 2018 (yellow), 2017 (red), 2016 (green). Created by Suzanne Shull, Northwest Straits Commission



KEY OBSERVATIONS

Beds were larger in 2019 than in previous years of monitoring (Figure 1).

Overall, kelp beds appeared healthy and dense.

Average water temperature within beds was 14°C

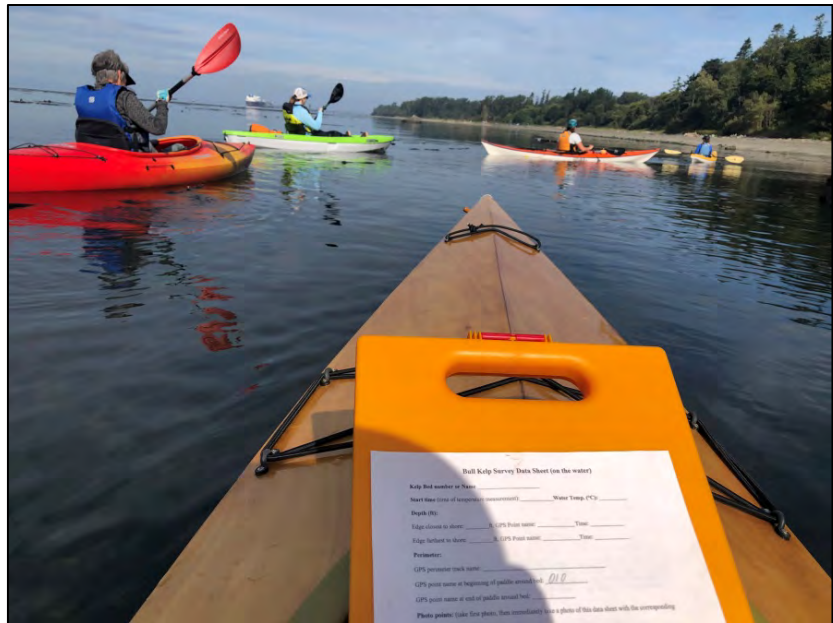


Photo credit: Eleanor Hines, MRC member

Monitoring: Forage Fish Surveys

The MRC currently monitors Little Squalicum Estuary, Marine Park, and the Aiston Preserve, Lummi Island for forage fish spawning. The information collected is helping to close important data gaps on when and where forage fish are spawning locally which can help Department of Fish and Wildlife make better informed policy decisions to protect these forage fish that are important for many species, including salmon and orca.



Photo credit: Austin Rose, Whatcom County Public Works.
Photo above, MRC member Eleanor Hines teaching BTC students how to complete sediment grab for spawning survey.
Photo right, volunteers completing sediment grab.

The MRC works closely with the Bellingham Technical College Fisheries and Aquaculture program to recruit student volunteers and interns to help with the monthly monitoring.



In 2019, volunteers began counting and recording the developmental stage of forage fish eggs found in a sediment sample. This data is verified by staff with Department of Fish and Wildlife, but allows the volunteers to be more involved with processing the samples they collect.

KEY OBSERVATIONS

Surf Smelt and Sand Lance have been found at Little Squalicum Beach. Only Surf Smelt has been found at Marine Park.

This has proven to be a valuable citizen science opportunity happening each month and keeps volunteers engaged.



Photo credit: Austin Rose, Whatcom County Public Works. MRC intern, Amanda Weiss, and WCC Lilya Jaeren looking for forage fish eggs.

Monitoring: North Chuckanut Bay Pilot Olympia Oyster Restoration Project

Following a pilot planting of Olympia oyster spat on shell within test plots, the MRC annually collects physical and biological parameter data to determine the status of Olympia oyster restoration potential in North Chuckanut Bay. In 2019, the MRC involved students from the Bellingham Technical College Fisheries and Aquaculture program to survey the population of live Olympia oysters within the test plots one year after seeding. 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.



Photo credit: Kenny Clarkson, Northwest Straits Foundation



Photo credit: Austin Rose, Whatcom County Public Works. BTC students surveying Olympia oyster population within plot

KEY OBSERVATIONS

Results from the year one post seeding survey reflected what was anticipated when the seven test plots sites were selected in 2016.

The three plots closer to the center of the bay and are within optimum habitat. The four additional plots have a more dynamic habitat condition that is not as suitable.

Bags of clean Pacific oyster shell will be added to plots to assess for natural post larval recruitment.

Monitoring: Boulevard Park Intertidal Monitoring

KEY OBSERVATIONS

The type and density of intertidal plants and animals are variable.

Predominant species found were green algae, barnacles, shelled snails, and limpets.

The prominent difference in intertidal life numbers occurred in 2014, after the shoreline enhancement. Some recovery of species was noted in 2015 and 2019.

Large boulders and cobbles were associated with more intertidal life than beach areas with cobbles, gravel, and sand substrate.

The MRC contracted services to complete intertidal surveys at four sites throughout Boulevard Park during the summers of 2013-2015 and again in 2019 to assess any changes to beach slope, and diversity of intertidal organisms following shoreline enhancement work that occurred in 2013. Two of the monitoring sites underwent a restoration action in 2013, and two did not. The survey methodology was derived from strategies developed by the Beach Watchers program.



Photo credit: Austin Rose, Whatcom County Public Works. Volunteers conducting an intertidal survey at Boulevard Park.

Education and Outreach: North Sound Stewards Program



2019 marked the third year of the North Sound Stewards citizen volunteer program which is organized by the MRC and RE Sources for Sustainable Communities. Each year this program gains more community interest and more success stories from volunteer boots on the ground efforts. Sixty-four volunteers registered for the program in 2019, and 290 volunteer hours were logged. Most of the participants learned about the program through email listservs including: the MRC, RE

Sources, Whatcom Food Network, Huxley College, Surfrider, and Northwest Straits. Participants range in age and experience and include: college students, returning volunteers, retired community members, education sector, biologists and other scientists.

NORTH SOUND STEWARDS

A North Sound Stewards Advisory Committee was developed in 2019 to develop a work plan and discuss program structure. The committee decided on a new logo for the program (see above) and worked together to develop a monthly e-news distribution to volunteers.

Education and Outreach: Drayton Harbor Beach Cleanup

The MRC was informed by a citizen of Blaine (also a former North Sound Steward volunteer) of a large amount of debris along the shoreline of Drayton Harbor between California and Dakota Creek. The garbage included: tires - that extended into the tidelands, old blender parts, pieces of plastic, metal scraps, linoleum floor pieces, shingle scraps, caulking materials, creosote logs, etc. The MRC worked with Department of Natural Resources staff and local community volunteers to organize a large scale beach cleanup. 2,040 lbs of trash was removed including: 41 tires, and 2 greasy railroad ties. The local Northern Light newspaper published a story about the effort.



The Northern Light

Blaine and Birch Bay's Community Newspaper

MAIN MENU



WINNING
IS CLOSER THAN YOU THINK!

SILVER REEF
CASINO RESORT
1-5 Exit 260
SilverReefCasino.com

Beach clean-up helps turn the tide on pollution in east Drayton Harbor



Photo credit: Eleanor Hines, MRC Chair. Trash materials along shoreline (above). Tires in tidelands (below).



Photo credit: Kristian Tollfeson, WA Department of Natural Resources. WCC crew handling tires from tidelands.

Education and Outreach: Cherry Point Community Beach Cleanup

The MRC partnered with Cherry Point Industries (BP, Alcoa, Petrogas, Phillips 66) to conduct a beach cleanup along the Cherry Point reach, from Neptune Beach to Pt. Whitehorn. The

Whatcom community was informed of this event via press release and a county wide Nextdoor post. Other organizations that were notified include: Lummi Nation, Department of Natural Resources, Citizen Advisory Committee for Cherry Point Aquatic Reserve, Friends of Birch Bay, Whatcom County Executive, Whatcom County Council, PDS staff, and the Whatcom Land Trust. 110 volunteers participated in the cleanup. BP supplied hats, clean up materials, and lunch for volunteers. Participants met at the BP recreation area for an orientation, including an overview of the MyCoast app, which was used to capture data on large items that could not be removed by volunteers.



Photo credit: Erica Bleke, WA Department of Natural Resources

Education and Outreach: Remote Beach Cleanups

The MRC was awarded funding through the Northwest Straits Foundation to conduct remote beach cleanups in partnership with other Whatcom County organizations and the San Juan MRC. Local volunteers helped identify two areas that could benefit from a group beach cleanup, the southwest point of Lummi Island, and Sucia Island Marine State Park. Funding was used for County staff support to organize the cleanups, hire a charter landing craft to transport volunteers from the mainland to the islands, garbage disposal, and materials for beach cleanups. At Lummi Island, volunteers worked along approximately 3 miles of shoreline as can be seen by the yellow line depicted in the map (left). 440 pounds of garbage were removed from the island and disposed of at Recycling Disposal Services in Bellingham.



Photo credit (above): Elizabeth Kilanowski, MRC member

The cleanup on Sucia Island consisted of volunteers from the Whatcom MRC, San Juan MRC, and Surfrider Foundation. Approximately 60 pounds of garbage was collected, mostly consisting of micro-trash. Volunteers covered approximately 2.5 miles of shoreline as shown by the orange lines depicted in map below.



Photo credit: Kenny Clarkson, Northwest Straits Foundation. Map credit: Austin Rose, Whatcom County Public Works

More Community Connections

The MRC participates in community events 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 WWU- Huxley College on four different MRC project interests: Olympia oyster restoration, forage fish data consolidation, public engagement/communication, and local stormwater issues. MRC members provided an in class presentation on MRC projects and interests. Students then developed project proposals around those interests or to expand a current MRC project.
- MRC Chair, Eleanor Hines, and Northwest Straits Commission staff provided a presentation as part of the WWU- Huxley College Speaker Series on the Northwest Straits Initiative's Bull Kelp surveys, specifically those surveys occurring in Whatcom County. This opportunity allowed for a great opportunity to connect with professors and students who could be looking to complete an internship that would support an MRC project.



Eleanor Hines, MRC Chair and Dana Oster, Northwest Straits Commission (NWSC). Photo by: Nicole Jordan, NWSC

Kids on the beach day

- The MRC worked with a 5th grade teacher at Blaine Elementary to integrate MRC monitoring projects and the Garden of the Salish Sea Curriculum <https://www.gardensalishsea.org/> into the 5th grade curriculum. The focus was to host a pilot “Kids on the Beach Day” and MRC members participated with students at various stations along the beach including: an intertidal survey, and sediment sample grabs to look for forage fish eggs.



MRC member working with students at a Blaine Kids on the Beach station. Photo by: Amy Keiper

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 6 events in 2019.
- 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 beach cleanups during Whatcom Water Week, in recognition of International Coastal Cleanup Day. Approximately 80 lbs of trash were removed from Semiahmoo Spit and Locust Beach.

