

Jefferson County Marine Resources Committee 2019 Annual Report



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Project Title: Jefferson County MRC Operations and Projects

About the Jefferson MRC

The Jefferson County Marine Resources Committee (MRC), established in 1999, is a citizen-based, volunteer advisory committee appointed by the Jefferson County Board of Commissioners. MRC members come from the fishing, boating, aquaculture, marine science, tribal, and local government communities. We serve the County in an advisory capacity and have no regulatory or enforcement authority. Our goal is to promote an ethic of stewardship, support science-based projects, and work in partnership with other agencies, organizations and the broader community to restore and protect the marine resources of East Jefferson County.

The MRC’s work focuses on the County’s shorelines stretching along the eastern Strait of Juan de Fuca, Admiralty Inlet and northern Hood Canal. In addition to our advisory work, we engage in on-the-ground projects as well as education and outreach efforts focused on local marine environmental issues. The Jefferson MRC is one of seven Marine Resources Committees affiliated with the Northwest Straits Initiative (NWSI), which provides MRCs with scientific, technical, and financial support. In 2018-2019, the MRC received funding from Washington State, the US Environmental Protection Agency through the Puget Sound Partnership and Northwest Straits Commission (NWSC), and the Northwest Straits Foundation (NWSF). The table below highlights how MRC tasks support benchmarks developed by the NWSC.

Jefferson MRC Tasks	NWSC Benchmarks					
	Marine Habitats	Marine Life	Marine Water Quality	Citizen Science	Education & Outreach	Climate Change
Operations						
Monitoring: Forage Fish	*	*		*	*	*
Monitoring: Bull Kelp	*	*	*	*	*	*
Rain Gardens & Stormwater	*	*	*		*	
No-Anchor Zones	*	*	*		*	
Education & Outreach	*	*	*		*	*
Olympia Oyster Restoration	*	*	*	*	*	*



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Membership

The MRC relies on the dedication of its members and other community volunteers. **During the 2018-2019 grant year, the MRC recorded 1,614 volunteer hours**, demonstrating strong community interest and support for the work of the MRC. Several long-serving members stepped down in 2019 and an enthusiastic community response to filling those positions validated that assumption.



MEMBERS (As of December 2019)	REPRESENTING
Gordon King, Chairperson, Exec Committee	Commercial Interests
Emily Bishop, Vice Chair, Exec Committee	District 1
Jeff Taylor, Exec Committee NWSC Rep	District 2
Sarah Fiske, Exec Committee NWSC Rep Alt	District 3
Neil Harrington	Tribal Rep (Jamestown S’Klallam)
Ray RaLonde	District 1
Solenne Walker	District 1 Alt.
Brenda Johnson	District 2
Frank Handler	District 2 Alt
Heather Burns	District 3
Jackie Gardner	District 3 Alt
Greg Brotherton, <i>ex officio</i>	Jefferson County Commissioner
Betsy Carlson	Environmental Interests
Bryan DeCaterina	Environmental Interests Alt.
Judy Surber	Local Govt (City of Port Townsend)
Pam Petranek	Local Govt (Port of Port Townsend)
Nam Siu	Marine Science
Brent Vadopalas	Marine Science Alt.
Troy McKelvey	Recreation
Roy Clark	Recreation Alt.

MRC Operations

Goal: To carry out administrative functions in support of the mission (including work plan preparation, developing and preparing grant proposals, programmatic staff support, project monitoring and performance tracking, education programs and grant writing), travel, planning, and participation in training opportunities.

Meetings & Communication: The MRC met on the first Tuesday of each month. Monthly MRC meetings were open to the public, covered project and Northwest Straits Commission or Foundation updates, and often included a guest speaker or special topic of interest to discuss. At least one MRC representative attended monthly NWSC meetings.

Grant Administration: MRC staff prepared grant reports, tracked and administered budgets, documented matching funds and volunteer time, managed contracts, prepared grant applications, and provided other administrative support for MRC projects. Funding was secured through NWSC for 2019-2021 for all MRC tasks, as well as funding through NWSF for 2019-2021 for professional rain garden training workshops, forage fish monitoring, and shoreline landowner outreach.

Website Maintenance: The MRC website was regularly updated to provide information about completed and ongoing projects, meeting agendas and approved minutes, and upcoming events (www.jeffersonmrc.org).

Annual Work Plan Development: The MRC developed a work plan to guide efforts and priorities for the 2018-2019 grant year.

Training: MRC members and staff were encouraged to participate in trainings relevant to the MRC's goals and projects. Fourteen members attended the 2019 annual MRC conference. Individual members also attended trainings related to kelp and forage fish monitoring.

Participation in Local Integrating Organization (LIO) Meetings: The MRC worked with both of the Puget Sound Partnership's LIOs for Jefferson County: Hood Canal Coordinating Council (HCCC) and Strait Environmental Restoration Network (Strait ERN). At least one MRC member attended the Strait ERN LIO quarterly meetings to participate in the local planning process and action agenda updates.

Accomplishments

- Held 11 MRC monthly meetings.
- Attended NWSC monthly meetings.
- Attended Strait ERN (LIO) quarterly meetings.
- Presented MRC projects to the Jefferson County Board of Commissioners (Feb 4).
- Developed 2018-2019 annual work plan.
- Developed grant proposal and secured funding (\$164,186) through NWSC for 2019-2021.
- Developed grant proposal and secured funding through NWSF.

Citizen Science Monitoring: Bull Kelp

Goals: Track changes in floating bull kelp bed size for one site as part of Northwest Straits region-wide effort.

Bull kelp (*Nereocystis luetkeana*) forests provide habitat and food to a variety of species in Puget Sound. Anecdotal evidence indicates significant declines in kelp abundance in some parts of the Puget Sound, compelling assessment of kelp abundance and distribution for science-based decision-making on how to manage this resource.

The MRC continues to participate in a regional bull kelp monitoring effort coordinated by the Northwest Straits Commission (NWSC). In 2019, six volunteers conducted three kayak-based surveys (June 29, July 27, and Sept 2), and found that growth of bull kelp at the North Beach site was slower, less dense, and further offshore compared to the previous four years of monitoring. Additional environmental and health data was collected by a WA DNR kelp team, with assistance from Jefferson MRC. MRC member Jeff Taylor also worked with NWSC staff to strategize effective approaches for kelp monitoring using satellite image technology.

Accomplishments

- Engaged 6 volunteers.
- Conducted 3 kayak-based surveys of bull kelp at North Beach.
- Submitted data, contributing to regional monitoring efforts.

What's Next? The MRC will continue supporting regional bull kelp monitoring efforts.



Photo Credit: Russ McMillan (DNR)

Citizen Science Monitoring: Forage Fish

Goals: Support the WA Dept of Fish and Wildlife’s (WDFW) efforts to document forage fish spawning activity near Adelma Beach (Discovery Bay). Collect a third year of post-restoration data on spawning to help evaluate restoration success at Fort Townsend State Park. If conditions are suitable and landowner permission is granted, begin pre-construction forage fish spawning surveys at a new shoreline restoration site at Discovery Bay.

Forage fish are small schooling fish that form an important link in marine food webs, as major food items for salmon, seabirds, and marine mammals. Two forage fish species lay their eggs in the intertidal area of local beaches: surf smelt (*Hypomesus pretiosus*) and Pacific sand lance (*Ammodytes hexapterus*). The status of these forage fish populations serves as a key indicator of the health and productivity of nearshore ecosystems.

Adelma Beach Forage Fish Index Site: Monitoring began here in 2016 to contribute to WDFW’s regional forage fish database. With the help of seven volunteers, seven surveys were conducted in 2019 (Jan, Mar, Apr, Aug, Sep, Oct, and Dec). Lab results found surf smelt eggs in Mar, Oct and Dec, and Pacific sand lance eggs in Oct and Dec.

Fort Townsend State Park: A shoreline restoration project in Oct 2016 removed 1700 cu. yds of rock-armored landing fill at Fort Townsend State Park. The MRC, in partnership with WDFW and the Point No Point Treaty Council, began monitoring the site in Spring 2015 prior to restoration and has continued monitoring to document ecological changes following restoration. The 2018-2019 winter season (Oct.-March) was the third year of post-restoration monitoring. Surf smelt eggs were found in samples from November 2018 through January 2019; sand lance eggs were found in the February 2019 sample. Monitoring resumed in October 2019. Surf smelt and sand lance eggs were found in Nov and December 2019.

Lower Discovery Bay: A potential shoreline restoration site was identified in lower Discovery Bay, but research revealed that conditions were not suitable for restoration.

What’s Next? Continue forage fish monitoring at Adelma Beach on a monthly basis and post-restoration monitoring at Fort Townsend State Park through the 2020-2021 winter season.

Accomplishments

- Conducted 7 forage fish spawning surveys at Adelma Beach.
- Conducted 5 forage fish spawning surveys at Fort Townsend State Park.
- Engaged 14 volunteers who contributed a total of 114 hours.
- Forage fish eggs were found in 3 surveys at Adelma Beach and in 5 surveys at Ft Townsend State Park



Education & Outreach

Goals: To increase awareness of MRC projects and encourage individual actions that improve water quality and nearshore/marine resources.

Accomplishments



- Organized and participated in 13 outreach education programs and events.
- Reached 556 direct contacts.
- MRC volunteers logged 1,614 volunteer hours.
- Provided educational outreach on a variety of topics, including recreational shellfish and seaweed harvesting BMPs, shellfish aquaculture, derelict gear, eelgrass protection, MRC projects, ocean acidification and more.

In 2019, the MRC's education and outreach efforts targeted specific audiences with key messages about sustainable shellfish and seaweed harvesting practices, shellfish aquaculture, derelict gear, eelgrass protection, MRC projects, ocean acidification and more. The MRC emphasized individual actions that improve environmental conditions.

Promoted Best Management Practices for Shellfish Harvest:

- **Digging for Dinner:** The MRC sponsored a family-oriented Digging for Dinner event about sustainable clam harvesting on Quilcene tidelands, led by WDFW shellfish biologists (38 participants; 4 volunteers).
- **Crabber Outreach:** In partnership with NWSF, the MRC increased efforts to reach recreational crabbers with information about how to prevent loss of their pots (352 rack cards were distributed). We inserted info packets in new crab pots at point of purchase and at retail outlets, provided on-the-dock outreach at the beginning of crabbing season, and offered 2 free Crabber 101 workshops (3 speakers; 59 total attendees; 34 completed surveys; 4 volunteers).

Shellfish Aquaculture Educational Forum: The MRC organized a public educational, science-based forum about shellfish aquaculture (8 speakers; 76 attendees; 5 volunteers). A follow-up report was submitted to the Board of County Commissioners and posted on our website.

Searching for Seaweed: The MRC sponsored a free public family-oriented guided beach walk about nearshore environments, edible seaweeds and WDFW harvesting regulations (31 participants).

Ocean Acidification: MRC staff assisted in a 2-day professional development workshop organized by the Port Townsend School District to help 1st – 12th grade teachers (12 total) incorporate ocean acidification concepts into their curriculum.



Other Programs, Events & Efforts

- Presentation to the Board of County Commissioners about MRC
- Presentation to WSU Ext Beach Naturalists training program about MRC
- Wooden Boat Festival (290 direct contacts; 14 volunteers)
- Advisory actions regarding Pinto Abalone listing & other topics
- Played 4 MRC ads during pre-movie trailers at the Port Townsend Rose Theatre to promote stewardship actions such as picking up dog poop and proper disposal of old medicines
- Local press coverage in The Leader, Peninsula Daily News and Shore Stewards Newsletter
- MRC members are tracking and providing comments on the City of Port Townsend plans for upgrading its sewer outfall pipe.



MRC In the News

In 2019, the MRC was highlighted in 5 newspaper articles and numerous on-line event listings. Topics included derelict gear removal, digging for dinner, seaweed walk and crabbing 101 programs. We also sponsored a local newspaper ad to celebrate the MRC's 20th year.

What's Next? Continue our successful public outreach education programs.



Eelgrass & Voluntary No-Anchor Zones

Goals: To protect three established eelgrass and shellfish habitat areas by encouraging boaters to respect voluntary no-anchor zones delineated by maintained navigational marker buoys.

Eelgrass (*Zostera marina*) provides critically important habitat for salmon, crab, invertebrates and other marine life. To protect eelgrass beds along the Port Townsend waterfront, the MRC established its first voluntary no-anchor zone in 2004. The MRC now maintains 21 navigational buoys that protect 52 acres of eelgrass beds in Port Townsend along with 50 acres in Mystery Bay and 8 acres in Port Hadlock where shellfish beds are protected. The Port of Port Townsend provided a boat and skipper for most of our needs. In 2019, 4 volunteers contributed more than 25 hours to maintain the navigational buoys.

Compliance monitoring took place during the Wooden Boat Festival (WBF), when hundreds of boats anchor along the Port Townsend waterfront. In 2019, 99% compliance was observed. Outreach consisted of interpretive signs on docks, postings on a navigational app (Active Captain), ads in the 48 North Magazine (January issue) and Puget Sound Innovations Blog (June 10), a special display at WBF, and sharing project insights with the Salish Sea Nearshore Habitat Recovery Project.

What's Next? Continue buoy maintenance and outreach education.

Accomplishments

- Engaged 4 volunteers who contributed 25+ hours.
- Maintained 21 buoys at 3 sites: Port Townsend, Mystery Bay, and Port Hadlock.
- Observed 99% compliance, protecting a total area of approximately 110 acres of eelgrass and shellfish beds.
- Purchased 4 new buoys.
- Conducted outreach activities with Active Captain, 48 North Magazine, Puget Sound Innovations Blog, and Wooden Boat Festival.



Olympia Oyster Restoration

Goals: Expand the Olympia oyster population in Discovery Bay and the associated habitat created by a dense, natural population by increasing average density compared to 2018, as well as a range of sizes (indicating that annual recruitment is occurring). Also monitor test beds in Quilcene Bay to guide future efforts to re-establish Olympia oyster beds there.

The Olympia oyster (*Ostrea lurida*) is the only native oyster of the North American Pacific Coast and once thrived in coves, inlets and other protected tidelands in Puget Sound.

Discovery Bay: Discovery Bay historically contained a significant population of Olympia oysters. A small but healthy population is still present. Since 2014, the MRC has partnered with WDFW and the Jamestown S’Klallam Tribe to expand the population by providing new habitat areas with clean cultch.

- **Powerline Site Monitoring:** In 2019, multiple size classes continue to be found, indicating successful recruitment and growth. Percent of shell cover on surface of substrate has recently declined, likely due to currents moving substrate and some settling of shell into the mud.
- **Lagoon Site:** In Spring 2019, the MRC and other volunteers distributed 112 bags of clean cultch at the Lagoon Site, located adjacent to the extant native population. In autumn, an informal survey of the cultch found that it had significant amounts of wild Olympia oysters settling on it.

Quilcene Bay: The MRC first set wild-seeded Olympia oyster cultch here in 2016. Monitoring of the site has continued to find low survival rates. In 2019, only 1 Olympia oyster was found across 18 quadrats surveyed. The MRC determined that this particular site in Quilcene Bay is not suitable for Olympia oyster restoration due to oyster drills, high temperatures, and a heavy mat of macroalgae found on the plots.

What’s Next? Distribute additional cultch at Discovery Bay in Spring 2020 and continue to monitor recruitment, growth and survival of oysters at Discovery Bay sites.

Accomplishments

- Engaged 7 volunteers in monitoring the Powerline Site and spreading 112 bags of cultch at the Lagoon Site in Discovery Bay.
- Engaged 7 volunteers in surveying 18 quadrats at Quilcene Bay..
- Successful recruitment and growth of Olympia oyster populations in Discovery Bay.
- Contributed project details for the Native Olympia Oyster Collaborative’s [Story Map](#), which serves as a repository of restoration projects across the West Coast.



Rain Gardens and Stormwater

Goals: To improve the quality of water flowing into Port Townsend Bay and northern Hood Canal by constructing rain gardens in target areas to increase soil absorption and intercept pollutants and contaminants.

Rain running off roads and driveways flows into storm drains that discharge to local streams and bays. This stormwater often carries contaminants such as heavy metals, fertilizers, oil and pet waste. Rain gardens are designed to filter this runoff with special soils that hold onto pollutants and plant roots that absorb excess nutrients.

In 2019, the MRC, its partners (WSU Jefferson County Extension, City of Port Townsend, and Jefferson County Public Works) and 31 community volunteers installed two new rain gardens – in uptown Port Townsend and Quilcene. These rain gardens now help filter and reduce the amount of stormwater entering Port Townsend Bay and Quilcene Bay, as well as increase local awareness of the benefits of rain gardens to improve water quality in Puget Sound. **Over the last 5 years, the MRC and its partners have installed a total of 10 rain gardens with a cumulative area of 7,772 sq. ft.** Community volunteers maintain the installations.

What's Next? Continue partnering with WSU Extension, the City of Port Townsend and Jefferson County to install one or two additional rain gardens at priority sites each year, depending on available funding.

Accomplishments

- Installed 2 new rain gardens, one in uptown Port Townsend and one in Quilcene.
- Engaged 31 volunteers (16 new to MRC projects).
- Leveraged and matched in-kind services and materials totaled \$18,583.



Thank you

Thank you to our MRC members and other community volunteers. Your work and dedication to protecting and restoring the marine environment is making a difference in East Jefferson County.

The MRC receives support from the Northwest Straits Commission, Northwest Straits Foundation, Puget Sound Partnership, the United States Environmental Protection Agency, and Washington State University Jefferson County Extension.

We would also like to recognize the ongoing support of our partners for our projects, including the Port of Port Townsend, City of Port Townsend, Jamestown S'Klallam Tribe, WA Department of Fish and Wildlife, Taylor Shellfish and others. This support includes staff time, advice, materials and general support of MRC Projects. These are critical partnerships for the MRC!

How to get involved?

Attend monthly MRC meetings. Volunteer on local projects. Sign up for the [Northwest Straits Initiative newsletter](#). Get involved with the Northwest Straits Foundation.

When/Where are meetings held?

First Tuesday of every month, 6-8PM, at the Port of Port Townsend's Commissioner's Building (333 Benedict Way, Port Townsend, WA).

How to reach us?

Website: www.jeffersonmrc.org

Email: jeff.co.mrc@gmail.com