

Jefferson County Marine Resources Committee 2019 Annual Report



Jefferson County
**Marine
Resources
Committee**

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 of 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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Project Title: Jefferson County MRC Operations and Projects



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Marine
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PUGET SOUND
PARTNERSHIP



Northwest
Straits
INITIATIVE

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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.



MEMBERS (As of December 2019)	REPRESENTING
Frank Handler, Exec Committee Co-Chair	District 2 Alt.
Neil Harrington, Exec Committee Co-Chair	Tribal Rep (Jamestown S’Klallam)
Jeff Taylor, Exec Committee NWSC Rep	District 2
Sarah Fisksen, Exec Committee NWSC Rep Alt	District 3
Emily Bishop	District 1
Ray RaLonde	District 1
Solenne Walker	District 1 Alt.
Brenda Johnson	District 2
Heather Burns	District 3
Greg Brotherton, <i>ex officio</i>	Jefferson County Commissioner
Gordon King	Commercial Interests
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, shoreline restoration monitoring, and Shore Friendly landowner outreach.

Website Maintenance: The MRC website is 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.
- 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 for 2019-2021.

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, including the endangered rockfish, bocaccio. Anecdotal evidence indicates significant local declines in kelp abundance in southern and central Puget Sound and the San Juan Archipelago, compelling assessment of kelp abundance and distribution.

Accomplishments

- Engaged 6 volunteers.
- Conducted 3 kayak-based surveys of bull kelp at North Beach.

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 last four years of monitoring. MRC members worked with NWSC staff to strategize effective approaches for kelp monitoring using satellite image technology in the future.

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



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. Determine if safe access is available and landowner permission is granted for pre-construction forage fish spawning surveys to be conducted at a new shoreline restoration site at Discovery Bay.

Forage fish are small schooling fish that form an important link in marine food webs, feeding 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 can be a key indicator of the health and productivity of nearshore ecosystems.

Adelma Beach Forage Fish Index Site: Monthly monitoring began here in 2016 and has continued through 2019, with the help of seven volunteers this year. Sand lance and surf smelt eggs were found in 2019. Survey reporting forms, photos and lab data were submitted to WDFW, to support their regional forage fish database.

Fort Townsend State Park: A shoreline restoration project removing 1700 cubic yards of rock-armored landing fill at Fort Townsend State Park was completed in October 2016. The MRC, in partnership with WDFW and the Point No Point Treaty Council, began monitoring the site in Spring 2015 prior to restoration and have continued monitoring to document ecological changes following restoration. The 2018-2019 winter season (October through March) marked the third year of post-restoration monitoring, with the help of seven volunteers. Surf smelt eggs were found in samples taken between November 2018 and January 2019, and sand lance eggs were found in the February 2019 sample.

New Site at Discovery Bay: This pre-construction shoreline restoration site in lower Discovery Bay was identified as a potential new forage fish survey site. Samples were first collected in October 2019.

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 end of the 2020-2021 winter season.

Accomplishments

- Conducted 8 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 at Adelma Beach and in 4 surveys at Fort Townsend State Park (Nov-Feb).

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.
- 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 guided by a WDFW speaker (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) by inserting info packets in new crab pots at point of purchase, providing on-the-dock outreach at the beginning of crabbing season, and offering 2 free Crabber 101 workshops (3 speakers; 59 total attendees; 34 completed surveys; 4 volunteers).

Shellfish Aquaculture Educational Forum: We held a public educational, science-based forum about shellfish aquaculture (8 speakers; 76 attendees; 5 volunteers).

Searching for Seaweed: The MRC sponsored a family-oriented beach walk event to learn 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
- WSU Ext Beach Naturalists training program
- Seaweed Press event
- Wooden Boat Festival (290 direct contacts; 14 volunteers)
- Pinto Abalone & Advisory Actions
- 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.

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, protecting 52 acres of eelgrass beds in Port Townsend, and approximately 50 acres in Mystery Bay and 8 acres in Port Hadlock where shellfish beds are also protected. The Port of Port Townsend provides a boat and skipper for most of our needs and Taylor Shellfish provides a licensed diver. In 2019, 4 volunteers contributed more than 25 hours to maintain the navigational buoys.

Compliance monitoring takes place during the Wooden Boat Festival (WBF), when hundreds of boats anchor along the Port Townsend waterfront. In 2019, full 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.

Accomplishments

- Engaged 4 volunteers who contributed 25+ hours.
- Maintained 21 buoys at 3 sites: Port Townsend, Mystery Bay, and Port Hadlock.
- Observed full 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.

What's Next? Consolidate and renew DNR permitting for all 3 sites. Continue buoy maintenance and outreach education.



Olympia Oyster Restoration

Goals: To expand the Olympia oyster population in Discovery Bay and the associated habitat that a dense, natural population would create, such that populations in 2019 will have similar or better average density compared to 2018, as well as a range of sizes (indicating that annual recruitment is occurring). To find suitable habitat in Quilcene Bay, for future efforts to re-establish Olympia oyster beds through site selection, seeding and monitoring of test areas.

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 and a small but healthy population remains present. The MRC has been involved with this population since 2002, assisting with surveys and assessments of test plots in the area in collaboration with the Puget Sound Restoration Fund. 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 at this site in 2019 found percent cover has recently declined, likely due to currents removing substrate. However, multiple size classes continue to be found, indicating successful recruitment and growth.
- **Lagoon Site:** In 2019, the MRC and other volunteers distributed 112 bags of cultch provided by Taylor Shellfish at the Lagoon Site, which is located adjacent to the extant native population.

Quilcene Bay: The MRC first set wild-seeded Olympia oyster cultch here in 2016 and have continued to find low survival rates. In 2019, only 1 Olympia oyster was found across 18 quadrats surveyed. The MRC determined that this site 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 cultch in Spring 2020 and continue to monitor recruitment, growth and survival of oysters at Discovery Bay.

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 the Quilcene Bay site.
- 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.

