

JEFFERSON COUNTY MARINE RESOURCES COMMITTEE

ANNUAL REPORT 2024



Jefferson County
**Marine
Resources
Committee**

ABOUT THE MRC

The Jefferson County Marine Resources Committee (MRC) is a county based advisory group comprised largely of volunteer members appointed by the Jefferson Board of County Commissioners to advise on research, educational, and regulatory measures necessary to protect and restore the marine resources of East Jefferson County. This area includes the marine waters of the eastern Strait of Juan de Fuca, Admiralty Inlet and northern Hood Canal, nearly 200 miles of shoreline from Gardiner to Triton Cove, and the ancestral lands and waters of the Coast Salish Peoples who have inhabited and stewarded this area since time immemorial. In addition to serving the county in an advisory capacity, the MRC engages in hands-on restoration, monitoring, and education outreach projects. The MRC's goal is to promote an ethic of stewardship, implement science-based recommendations, and work in partnership with Tribes, local and state government agencies, nonprofit organizations, and the broader community to restore and protect our corner of the Salish Sea.

The Jefferson County MRC was established in 1999 (Res. No. 45-99) and is one of seven county MRCs affiliated with the Northwest Straits Marine Conservation Initiative. Also part of the Initiative is the Northwest Straits Commission - which provides scientific, technical and financial support to the MRCs. This report summarizes the Jefferson MRC's work from October 2023 through December 2024.

Prepared by Katie Kowal, MRC Coordinator

WA Department of Ecology Grant: SEANWS-2023-JeCoWS-00006

Project Title: Jefferson County MRC Operations and Projects

Photos taken by Monica Montgomery or Katie Kowal unless otherwise noted.



Jefferson County
**Marine
Resources
Committee**



**Northwest
Straits**
INITIATIVE



PUGET SOUND
PARTNERSHIP



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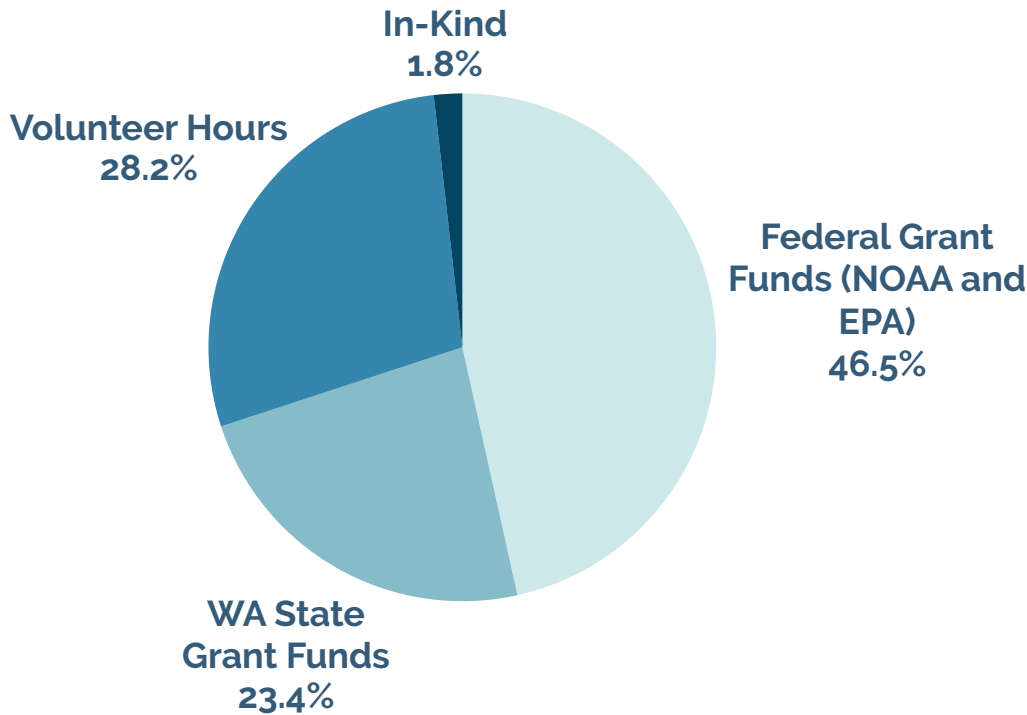
MRC MEMBERSHIP

MRC members are residents of Jefferson County and represent a range of backgrounds, interests, and expertise, with the unified goal of protecting and restoring our local marine and nearshore environments. In 2024, three MRC members renewed their terms - Jeff Taylor (District 2), Gordon King (Commercial Interests), and Bryan DeCaterina (Environment/Conservation Alt) - and two MRC members, Joanie Hendricks (District 3) and Christopher Kelley (Marine Science Alt) resigned. In 2023, the MRC members decided by consensus to add a new position on the committee to represent local youth, with a starting age of 15-21 years old and serving up to a four year commitment (to be determined at the beginning of their term). In 2024, a new member, Akeyla Behrenfeld, joined as our Local Youth representative for a 1-year term.

Jefferson MRC Member Representatives (as of December 2024)

Gordon King, Chair - Commercial Interests
Betsy Carlson, Vice Chair - Environmental Interests
Jeff Taylor, NWS Rep - District 2
Sarah Fiskens, NWS Alt - District 3
Neil Harrington - Jamestown S'Klallam Tribe
Heidi Eisenhour - Jefferson County Commissioner, *ex officio*
Carol Hasse - Port of Port Townsend Commissioner
Judy Surber - City of Port Townsend
Janette Mestre - District 1
Brad Bebout - District 1
Timothy Behrenfeld - District 1 Alt
Brenda Johnson - District 2
Frank Handler - District 2 Alt
Vacant - District 3
Tim Cross - District 3 Alt
Emily Buckner - Marine Science Practitioner
Vacant - Marine Science Practitioner Alt
Roy Clark - Recreational Interests Alt
Troy McKelvey - Recreational Interests
Bryan DeCaterina - Environmental Interests Alt
Akeyla Behrenfeld - Local Youth

FUNDING & SUPPORT



In 2024, the Jefferson MRC received a total of \$194,000 from Washington State, the U.S. Environmental Protection Agency, and the National Oceanic and Atmospheric Administration through grants administered by NWSC. Additionally, MRC members and community volunteers contributed a total of 2,246 volunteer hours, a value of \$78,318 (@ **\$34.87/hr**). The MRC also received an estimated \$5,000 through in-kind contributions from community partners, including contributions from the Port of Port Townsend and Taylor Shellfish for use of their vessels for no-anchor zones work as well as from the City of Port Townsend for rain garden green waste removal services. Through grants, volunteer hours and in-kind contributions, the MRC brought an approximated total value of \$277,318 to Jefferson County between January 2024 and December 2024.

2,246

total hours
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MRC members and
community volunteers

\$277,318

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Jefferson County
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MRC OPERATIONS

Operations: Through late 2023 and 2024, the MRC funded one staff member, the MRC Coordinator. Monica Montgomery, the MRC Coordinator since 2020, left the position in February 2024. A new Coordinator, Katie Kowal, was hired in May 2024. In November 2024, with support from Facilitator Janine Boire, the MRC held an all day retreat for discussing project interests and priorities for the upcoming two-year grant cycle (2025-2027). Also in 2024, the MRC Diversity, Equity, and Inclusion (DEI) subcommittee continued their work, led by Emily and Neil, to evaluate internal and external practices. With funding help from Strait ERN, the MRC hired USAWA Consultants to help understand how to improve the MRC's representation and engagement of communities across East Jefferson County.



Janine establishing purposes and goals for the day's discussions during the November MRC retreat.



*MRC members at the November 2024 NWSC conference.
Photo credit: Caitlyn Blair*

Meetings: Public meetings were offered in a hybrid format and held on the first Tuesday of each month, with the exception of July. Meetings often included a guest speaker or special topic of interest to discuss, as well as project and partner updates. MRC members and staff also engaged in meetings among local and regional partners, including NWSC, the Strait Ecosystem Recovery Network, and

Hood Canal Coordinating Council. In November, 12 MRC members attended the NWSC Conference in Everett, WA, to attend workshops, network, and share experiences with other MRC members and NWSC staff.

MRC OPERATIONS

Communications: To share about the MRC's work and connect with the broader community, the MRC tabled several events across East Jefferson County, including Hood Canal Fjordfest in May 2024, and Wooden Boat Festival in September 2024.

The MRC also maintains a website (www.jeffersonmrc.org) which was regularly updated to provide current information about completed and ongoing projects, meeting agendas, approved minutes, and upcoming events. MRC events and workshops were also shared via the WSU Extension Facebook page and website.



Table visitors playing the eelgrass toss game at the Wooden Boat Festival (left), and Katie and Joanie sharing the MRC's work at Fjordfest (right).

Photo credit: Sarah Fiskén

Grant Administration: The MRC Coordinator tracked project progress and deliverables; prepared monthly, quarterly and annual grant reports; managed budgets, permits and subcontracts; documented in-kind contributions and volunteer hours; and coordinated an MRC Retreat to support planning for the 2025-2027 grant proposal cycle.

Advisory Actions: In August, Troy presented on the MRC's No-Anchor Zone Buoy project to WA State Senator Patty Murray. Troy continues to represent the MRC on the North Olympic Development Council's Marine Renewable Energy Steering Committee.

MRC PROJECTS

In addition to serving Jefferson County in an advisory capacity, the MRC engages in hands-on marine stewardship projects with numerous local and regional partners. MRC projects are led by committee members, engage community volunteers in conservation efforts, and support local and regional conservation efforts. These projects include monitoring forage fish spawning beaches, bull kelp populations, and storm surge events; improving water quality by maintaining a network of rain gardens; protecting eelgrass and shellfish habitat by maintaining voluntary no-anchor zones; restoring Olympia oyster populations in priority areas; recovering lost crab pots using submersible remotely operated vehicles (ROVs); and providing environmental education opportunities across East Jefferson County. In 2024, MRC projects engaged a total of 95 volunteers in stewarding our marine and nearshore resources, and served 62 participants through education and outreach activities.

95

volunteers who
contributed to marine
stewardship through
MRC projects

62

participants in
MRC education
and outreach
events

With support and coordination from NW Straits Foundation, the Jefferson MRC also participates in the Shore Friendly - Landowner Outreach program. MRC members join NWSF staff and local biologists on site visits to local shoreline homeowners properties. The Shore Friendly team advises homeowners on bulkhead and shoreline armoring removal, landscape management, and drainage and erosion control.



COMMUNITY SCIENCE: FORAGE FISH SPAWNING SURVEYS

The MRC monitors two forage fish species that spawn intertidally: surf smelt (*Hypomesus pretiosus*) and Pacific sand lance (*Ammodytes hexapterus*). Knowing when and where these species spawn is critical for protecting their spawning habitat and populations, which in turn supports a resilient marine ecosystem. The data collected from these surveys contribute to regional monitoring efforts, with index site data contributing to the [WDFW Forage Fish Spawning Database](#). In 2024, the MRC monitored one forage fish spawning site, Dabob Bay, and began background research into adopting a second site, the Quilcene Yacht Club.

Dabob Bay WDFW Index Site:

Monthly monitoring began here in June 2020. This year, five volunteers conducted twelve surveys, with 39 sand lance eggs and 5 surf smelt eggs detected over the course of the year.

Quilcene Yacht Club WDFW Restoration Site:

In 2024, Sarah continued working with the Port of Port Townsend to assist with providing resources for potential removal of a bulkhead. The goal at this site is to remove the bulkhead and provide nourishment for the beach. In support of this, the MRC will begin sampling this location for forage fish as a pre-restoration site starting in 2025.

Three MRC members and the Coordinator also attended the October 2024 NWSC Forage Fish Training in Padilla Bay, WA. They practiced collecting, sieving, and preserving samples, identifying eggs in sediment samples, and reviewed forage fish identification, life history, and ecology.



Troy and Sarah with a full sample bag ready for precessing. Photo credit: Ann Seeley



Troy, Tim, Dana (Whatcom) and Sarah filter beach samples through a series of sieves during training.

COMMUNITY SCIENCE: BULL KELP MONITORING

Bull kelp (*Nereocystis luetkeana*) is a large brown algae that is native to the Strait of Juan de Fuca and Puget Sound areas. It often grows in dense “forests” in the rocky subtidal zone and provides vital foraging, nursery and spawning habitat for a variety of species. Declines in parts of south and central Puget Sound have galvanized efforts to assess kelp abundance and distribution statewide, to better inform recovery. For more information, read the [Puget Sound Kelp Conservation and Recovery Plan](#) and [2023 Status Update](#). Jefferson MRC continues to collect data as part of NWSC’s regional bull kelp monitoring project, with 2024 marking the ninth year of surveying the East Kelp Bed at North Beach.



With unfavorable paddling weather in September, the MRC conducted just two surveys this year, in July and August. Overall, the bull kelp bed at North Beach appeared to be healthy and relatively dense, though somewhat irregularly shaped compared to previous years.



Two MRC members also worked to understand floating kelp trends along the Quimper Peninsula. They tested the quality and potential use of satellite imagery as a qualitative method to detect large shifts in floating kelp extent, with the hope that this tool could be used to flag regions of the shoreline where more in depth studies could be used to better understand trends, density, and potentially causes of changes in kelp distribution.

The MRC will continue to monitor kelp beds at North Beach and other areas, as capacity allows.

*Floating Kelp at North Beach (top);
Volunteers paddling among the bull
kelp at North Beach (bottom)
Photo Credit: Jill Alban*

COMMUNITY SCIENCE: STORM SURGE MONITORING

Local residents have identified data gaps in existing king tide observations in WA State associated with the degree to which storm surge and wave runup contribute to coastal flooding. In effort to address these data gaps, the Jefferson MRC adopted a storm surge monitoring project from Local 20/20, a local nonprofit fostering community resiliency. In 2024, the MRC continued building upon seven years of this existing data at the Salmon Club boat ramp in Port Townsend and one year of data near Chetzemoka Park. The Salmon Club boat ramp was monitored three times between November-December 2023, and four times between October-December 2024.



Jeff, Barney Burke, and Dave Wilkinson photographing a small storm surge event in Port Townsend (left); Ian Miller, Jonathan Waggoner and Dave using high resolution GPS to map the Salmon Club boat ramp elevation - photo by Jeff Taylor (right).

Monitoring total water levels captures the sum of parameters that contribute to coastal flooding (i.e., tidal elevation, storm surge, wind direction, wind speed, fetch, and wave runup) that are not currently assessed together in forecasts. This involves collecting repeat photos during high storm surge and wave runup events at the same location, using fixed features in photos to provide reference against which the elevation of total water level during these events can be estimated, and coupling these observations with ancillary data on other parameters that contribute to coastal flooding. In addition to monitoring total water levels, the MRC will be developing a written protocol that can be adopted for other locations across the Salish Sea so that other communities can better understand their own coastal flood risks and make more informed decisions at the local level. The overall goal of this project is to improve our understanding of the combination of variables that contribute to coastal flooding.

RAIN GARDENS

Rain running off rooftops, driveways, and roads flows into storm drains that discharge to local streams and bays untreated. This stormwater often carries harmful contaminants such as fertilizers, oils, bacteria from pet waste, and toxicants in rubber car tires that are lethal to coho salmon. Rain gardens are designed to filter and treat stormwater. Concerned about water quality in the marine environment, the MRC began installing rain gardens in 2014. To date, the MRC has co-sponsored the installation of 19 rain gardens across East Jefferson County.

In 2024, the MRC shifted its focus to maintaining existing rain gardens. To help address maintenance needs, the MRC focused efforts on recruiting and educating community members interested in stewarding, or “adopting,” their neighborhood rain garden. To date, five community members have adopted three rain gardens. In 2024, the MRC organized six maintenance work parties, focusing on weeding, mulching, replanting and dividing plants. Janette coordinated with the City of Port Townsend to pick up the green waste generated during rain garden work parties. The MRC also hired a landscaper in Fall 2024, to assist with weeding several rain gardens that had become overgrown. In the coming years, the MRC will continue to focus on maintenance and cultivating community stewardship.



Janette and Frank weed the Monroe St. rain garden (top); Frank, Cheryl, Janette and volunteers weed the Chetzemoka Park rain garden (bottom).

VOLUNTARY EELGRASS PROTECTION NO-ANCHOR ZONES

Eelgrass (*Zostera marina*) is an underwater flowering plant that provides numerous important ecosystem benefits, including shelter for juvenile salmon and Dungeness crab, substrate for herring eggs, uptake of excess nutrients, and carbon sequestration. Localized eelgrass declines are primarily attributed to anthropogenic causes, one of which is physical damage caused by boat propellers and anchors. In 2004, the MRC established the first voluntary no-anchor zone to protect eelgrass beds along the Port Townsend waterfront. The MRC now maintains 21 buoys that protect over 100 acres of eelgrass and shellfish beds in Port Townsend Bay (along the Port Townsend waterfront and near Port Hadlock) and in Mystery Bay.



In 2024, the MRC conducted maintenance of the Mystery Bay and Port Townsend buoy fields. Monitoring of boater compliance along the Port Townsend waterfront occurred throughout the year, noting 100% compliance, even during the Wooden Boat Festival, the busiest boating weekend of the year.



Troy and Bryan prepare to swap summer spar buoys with winter floats - photo by Gordon King (top left); Gordon diving on the Mystery Bay buoys - photo by Troy McKelvey (top right); Boats anchored outside the Port Townsend no-anchor zone during the Wooden Boat Festival - photo by Brent Vadopalas (bottom)

OLYMPIA OYSTER RESTORATION

The Olympia oyster (*Ostrea lurida*) is the only native oyster of the North American Pacific Coast and once thrived along the Strait of Juan de Fuca and Puget Sound areas. However, due to habitat degradation and overharvesting, these oyster populations are a mere fraction of what they were prior to the arrival of settlers in the mid-1800s. In 2024, the MRC focused its efforts on Discovery Bay, identified as a priority area for Olympia oyster restoration ([WDFW 2012](#)).

Discovery Bay: Since 2014, the MRC has partnered with WDFW and the Jamestown S’Klallam Tribe to expand a nearby extant population by spreading clean Pacific oyster shell which provides substrate for larvae to settle on and grow. In 2024, the MRC counted and measured Olympias in a population survey of the North and South Powerlines Sites, calculating an estimated more than 111,000 Olympia oysters. These oysters ranged from 2 to 84mm in size and followed a normal distribution curve, indicating that natural recruitment continues to occur in this area. The MRC also contracted Hood Canal Oyster Company to deliver 1,500 bags (approximately 50 cubic yards) of clean shell at the Powerlines site, to be spread in spring 2025. Two yards of shell were spread at the Lagoon site with the help of Taylor Shellfish.

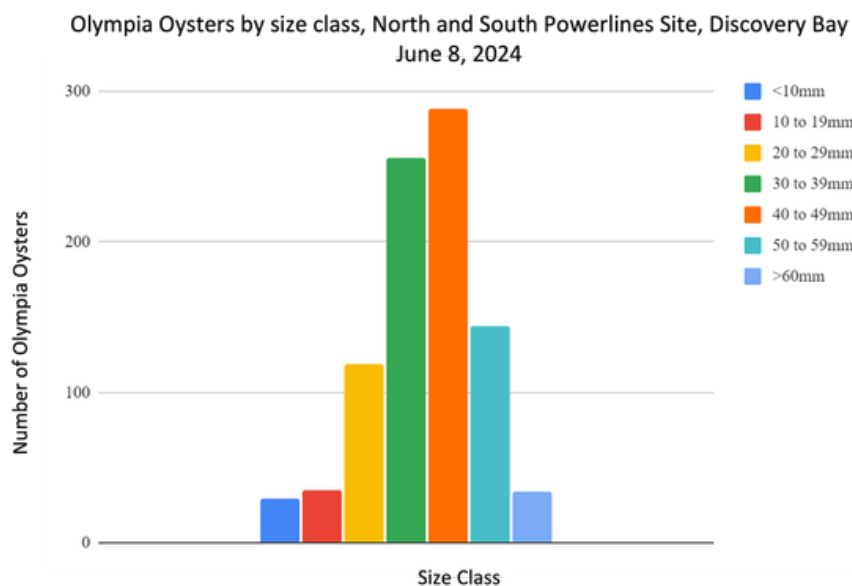


Figure 1. Size class (mm) distribution of Olympia oysters measured during a survey at the Powerlines site in Discovery Bay on June 8, 2024. The normal distribution curve indicates a healthy population.



Pacific oyster shell placed at the Powerlines site in July 2023, showing Olympia oyster spat settlers in June 2024.

OLYMPIA OYSTER RESTORATION

50 cu yds

of clean shell were spread in South Discovery Bay in 2024 to provide substrate for native Olympia oyster larvae to settle on and grow

>111,000

population of Olympia oysters estimated from surveys in 2024, compared to essentially zero when the project began in 2014

Throughout 2024, Olympia oyster spat was found to have settled on both Pacific oyster and Olympia oyster shell, a key goal of this project.

The MRC will continue to conduct population surveys at the North and South Powerlines and Lagoon sites, and spread clean shell in Discovery Bay in accordance with project permits. The MRC will also continue community engagement efforts and work with partners to conduct baseline surveys of Olympia oyster populations at various properties along Kilisut Harbor.



*Volunteers counting and measuring Olympia oysters (top); Placing demarcation buoys for shell delivery (middle); Neil, Gordon and Bryan ready to toss 1,500 shell bags at the South Discovery Bay site (bottom)
Photo credit: Neil Harrington.*

ROV LOST CRAB POT REMOVAL



Students working in the field with the ROV in 2023 (top); A recovered lost pot with Dungeness crab entrapped - photo by Jeff Taylor (middle); Jeff with a truckload of unusable pots headed for the landfill (bottom)

It is estimated that over 12,000 crab pots are lost and become derelict each year in Washington waters of the Salish Sea, killing 180,000 otherwise harvestable Dungeness crabs annually. To expand the [NW Straits Foundation](#)'s derelict crab pot removal program, in 2021, the Jefferson MRC began a partnership with the Sea Dragons, a Port Townsend-based student-run robotics team specializing in underwater remotely operated vehicles (ROVs), to locate and remove lost crab pots.

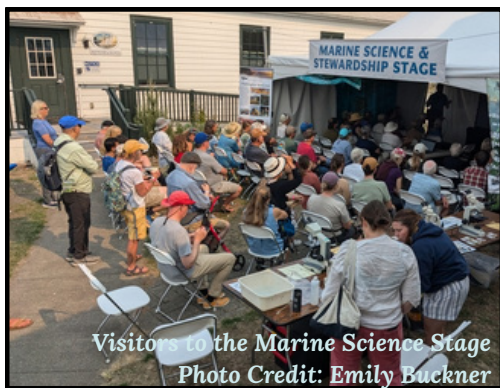
In 2024 the ROV Lost Crab Pot Removal project was put on pause. The goal is to resume this project in 2025.

In the future the MRC plans to continue working with local youth, to provide more opportunities for students to engage in real world conservation efforts, further enhance the ROV's capabilities in recovering pots, and continue removing pots in popular crabbing locations across East Jefferson County. The MRC also plans to adapt this project to provide further opportunities for community engagement.

EDUCATION & OUTREACH

The MRC supports stewardship of marine and nearshore resources by providing science-based information to the public, engaging community members in hands-on learning, and building community support and appreciation for restoration, conservation, and water quality improvement efforts.

In 2024, the MRC reached over 1823 community members and visitors through on-the-beach education, classroom workshops, and tabling community events. The MRC offered two on-the-beach education events, “Digging for Dinner” and “Searching for Seaweed,” in partnership with WDFW, to educate recreational harvesters about digging clams, shucking oysters, and harvesting seaweed safely and responsibly. The MRC also held a Crabbing 101 workshop to provide education on WA crab regulations, co-management efforts, and best practices for properly rigging pots to avoid loss. They also distributed over 175 crabber education packets at key locations across the county.



This year the MRC piloted a new outreach initiative, the Marine Science and Stewardship Stage at the Port Townsend Wooden Boat Festival. The MRC partnered with WA Sea Grant and the Port Townsend Marine Science Center to invite 21 speakers to present over 3 days, on topics ranging from Derelict Crab Pots, to Orcas of Port Townsend and the ecology of a whale fall, to sustainable fishing and boating practices. Each morning started with a 1-hour live Plankton lecture and demonstration, with a hands-on plankton tow and microscope activity, which was incredibly popular with kids and adults alike. It was the first year a marine science education stage was held, and was so successful there are plans to double the tent size for the 2025 festival.

THANK YOU

Thank you to our Jefferson County Marine Resources Committee members and the many community volunteers who continue to support MRC projects. Your dedication to protecting and restoring the marine and nearshore environment is making a difference in East Jefferson County! We would also like to recognize the ongoing support of our partners, including the Board of Jefferson County Commissioners, Port of Port Townsend, City of Port Townsend, Jamestown S’Klallam Tribe, Point No Point Treaty Council, Taylor Shellfish, WA Department of Fish and Wildlife, WA Department of Natural Resources, Strait Ecosystem Recovery Network, Port Townsend Marine Science Center, Coastal Sensing & Survey, John Gussman, Eric Wennstrom, Stewart Pugh, Hood Canal Oyster Company, Native Plant Salvage Foundation, WSU Extension (Master Gardeners, Beach Naturalists), and many others. This includes staff time, advice, materials, and general support for MRC projects. The MRC is also grateful to our funders and for support from the Northwest Straits Commission.

How to get involved: Attend monthly MRC meetings 6-8PM the first Tuesday of each month ([sign up here](#) to be added to the notification list). Volunteer on a [project](#). [Sign up](#) for the NW Straits Commission and Foundation newsletters.

How to reach us: Website: www.jeffersonmrc.org Email: jeff.co.mrc@gmail.com

