



Northwest Straits Initiative

2019 ANNUAL REPORT

Pho



A message from the director

The Northwest Straits Initiative has been known for its collaborative grass roots approach to conservation for over twenty years. In 2019, we continued this tradition with Marine Resources Committees (MRC) leading the charge on numerous projects.

The highlights throughout this report illustrate important community-led actions that result in positive impacts to Puget Sound. The Northwest Straits Commission created the Actions to Impacts program to tell these stories more effectively. As you read the

outcomes from 2019, you will notice **four categories** that describe our work: **conservation and restoration, monitoring, education, and advisory.**

Creating these four focus areas is a subtle step in advancing our Actions to Impacts program to tell a collective story--one that can only be told through our dedicated network of volunteers, staff, and partners.

A handwritten signature in black ink, appearing to read "Jeff Ward", is centered on the page.

Left: Clallam MRC kelp monitoring on the Strait of Juan de Fuca. Photo: Jeff Ward

We envision a
thriving, resilient,
and healthy
Salish Sea, where

individuals are
engaged in the
health of their
local ecosystems.



The Northwest Straits Initiative supports a local approach to marine resource conservation and protection.

The [Northwest Straits Commission](#) provides funding, training, technical resource, and support to seven county-based Marine Resources Committees (MRCs).

The [MRCs](#) are local advisory groups comprised of volunteers with an interest in protecting their local marine waters and shorelines. MRCs receive base funding through grant agreements with the Northwest Straits Commission to accomplish priority restoration and protection work in their communities.

In partnership with counties and the [Northwest Straits Foundation](#), the funding that Northwest Straits Commission provides to MRCs creates staff capacity and organizational stability.



The Northwest Straits Initiative includes the Commission, 7 Marine Resources Committees and the Foundation.

Photo: Herring spawning off Point Whitehorn, Rick Hann

"When he and Patty were developing the Commission, the most important consideration for Jack was that it will be directed by the local counties which bordered the straits waters. The ones closest to it, and who understood the problems." - Norma Metcalf, wife of Congressman Jack Metcalf, in her remarks at the 2018 Northwest Straits conference



The Northwest Straits Commission convenes and coordinates at a regional level.

The Northwest Straits Commission serves MRCs by **facilitating** regional coordination, **connecting** MRC work to regional planning processes, and managing regional projects that engage multiple MRCs. The Commission also coordinates across numerous partners to forge collective action on emerging issues.

The Northwest Straits Initiative conservation approach is based on four focus areas:

- **Monitoring and research** - Collecting environmental data to inform local government and resource managers.
- **Education** - Engaging the community to encourage local stewardship and sustainable resource use through outreach and education.
- **Conservation and restoration** - Protecting and restoring marine and nearshore habitat and species
- **Advisory** - Serving as an advisory group to local government on marine resource issues.



*Left: Pete Haase, Skagit MRC and Anna Toledo, Island MRC.
Right: Bellingham Technical College students helping Whatcom
MRC with Olympia oyster surveys. Photo: Austin Rose*



Monitoring and Research

People are naturally curious about what is happening in their own back yard and surrounding area.

Community science programs provide an opportunity to turn that curiosity into action, filling important data gaps and documenting changes over time.

MRCs are leaders in creating and using protocols for monitoring efforts, and coordinating to tell the story of what they learned at a regional level. They engage communities in multi-year monitoring programs, document restoration effectiveness, and partner with state and federal agencies and tribes to contribute to their work.

Photo: Whatcom MRC forage fish crew, Trisha Patterson.



Bull kelp monitoring

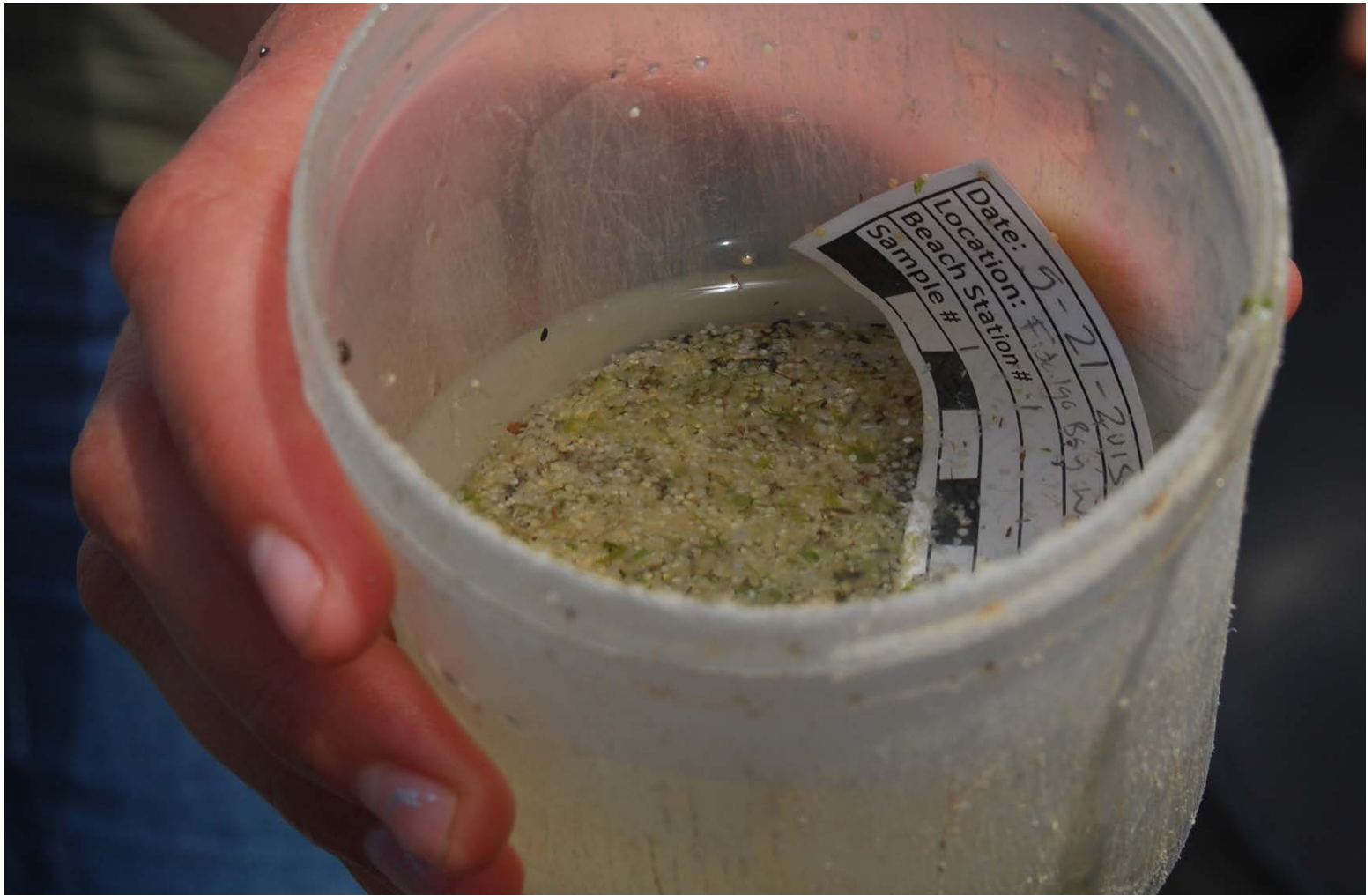
In 2019, six MRCs participated in the bull kelp monitoring program. **39 individuals** volunteered their time to survey **20 different kelp beds**. In doing so, they documented the area and environmental conditions of **460 acres** of kelp in our region.

MRC bull kelp monitoring is contributing to our understanding of kelp distribution and trends in the Northwest Straits Region, a priority goal of the Puget Sound Kelp Conservation and Recovery Plan. Since the pilot program began in 2015 volunteers have **paddled over 1,000 miles** to document local bull kelp beds. The majority of bull kelp beds appear relatively stable and in the expected range of seasonal variability but two locations, Meadowdale and Mukilteo in Snohomish County, have lost their kelp beds since the start of this monitoring program. Bull kelp is highly variable year to year and site to site, so long-term monitoring is key to understanding the true status of this important habitat. To view a map of your local kelp beds visit [SoundIQ](#).

Learn more about kelp monitoring



Photo: Coffin Rocks kelp surveys, Ron Larson



Forage fish spawning surveys

In 2019, 20 individuals representing four Northwest Straits counties were trained on how to conduct forage fish spawning sampling. MRC **volunteers in six counties** were involved in the Index Site Program, sampling **10 index sites each month** to provide long-term beach spawning trends to WA Dept of Fish & Wildlife. This monitoring effort contributes important baseline data on spatial and temporal distributions and trends of these critical fish in the food web.

Learn more about forage fish monitoring



More monitoring and research project highlights

- **Chuckanut Pollution Identification and Correction:** Whatcom MRC works in partnership with county and state health agencies to monitor freshwater and marine sites. In 2019, they collected 89 samples from 7 freshwater sites and 83 samples from 5 marine sites. This monitoring is coupled with a community outreach campaign to identify and gain support for actions to improve and protect water quality in [North Chuckanut Bay](#).
- **Eelgrass monitoring:** Island MRC has [monitored eelgrass](#) through aerial photography and

underwater videography since 2008, in partnership with Sound Water Stewards. In 2019 they focused on Cornet Bay, where they found that a downward trend in eelgrass acreage had leveled off. Their two other core sites - Monroe Landing and Freeland Park - showed stable eelgrass beds. The MRC completed aerial photography of eelgrass around Camano and Whidbey islands.

- **Pigeon guillemot surveys:** Seeking information about the health of this indicator species, Clallam MRC continued [pigeon guillemot breeding surveys](#) in collaboration with Olympic Peninsula Audubon Society and the Guillemot Research Group. In 2019, 25 volunteers surveyed 12 colonies between Freshwater Bay and Mussel Beach once a week between June and September.





Clockwise from top left: Skagit pinto abalone monitoring, photo Puget Sound Restoration Fund; Salish Sea eelgrass bed; Whatcom MRC water quality monitoring in Chuckanut Bay, photo Austin Rose; pigeon guillemot monitoring in Clallam County, photo Caitlin Connolly.



Education and Outreach

Community education is a cornerstone of our work – it is especially important with a growing number of people living around the Salish Sea. MRCs seek to help residents and visitors understand marine issues and foster a regional stewardship ethic. With outreach projects from safe shellfish harvest and aquaculture to recreational crabbing and boater

awareness around whales, MRCs engage and inform locally in a way that resonates with the community where they live.

Photo: Artwork by students at Spring Street Int'l School, San Juan MRC



Engaging youth

Kids on the Beach: This program of the [Skagit MRC](#) increases ocean literacy in middle school students through hands-on experience in marine science and restoration. In 2019, the MRC expanded the program to 2 schools, reaching over **100 8th grade students**, and provided a greater focus on Native Environmental Science. Students received Next Generation Science Standards-

based classroom lessons, completed fieldwork and data analysis, and finished with a symposium of their research findings.

Intern Program: The Clallam MRC [internship program](#) provides opportunities for local high school and college students to gain hands-on experience with scientists and other professionals on current environmental projects. In 2019, **five 80-hour internships** supported a variety of monitoring and outreach projects, and culminated in a celebration where interns presented their work to the community.



Clallam MRC intern monitoring for invasive green crab.

Discover our Island Shores: Island MRC used their 30-minute film, '[Discover our Island Shores](#)', as a springboard for outreach to elementary students, reaching **a dozen classrooms in 4 schools**, along with an accompanying classroom activity. An associated art contest drew 70 entries with a theme of “What positive impact will you make on the Salish Sea?” with winning results shared in a display in the County Commissioners’ office.



IMPACT:

The next generation is
inspired to pursue
marine conservation

Photo: Conway School Kids on the Beach, Paul Dinnel.

*"What I would do to help the ocean is reduce the amount of plastic we put in the ocean by switching to paper and aluminum products instead of plastic and encouraging others to do the same." ~
Island County 5th grader
response for Discover our
Island Shores activity*



Community Science



Salish Sea Stewards: Skagit MRC engaged community volunteers in their [Salish Sea Stewards](#) Program, providing training to a new class of **21 graduates** in 2019. These community scientists continue to support important marine programs of the MRC and partners, contributing over **30,000 hours of service** since the program began in 2014.



North Sound Stewards: In its third year, this citizen science [volunteer training program](#) of the Whatcom MRC and RE Sources continues to gain community interest and success stories from boots-on-the-ground efforts. **Sixty-four volunteers** registered for the program in 2019, logging hundreds of volunteer hours. Participants include college students, returning volunteers, retired community members, education professionals, biologists and other scientists.

Photo: Salish Sea Stewards 2019 class, Skagit MRC.



Community outreach

Sea Level Rise: Island MRC hosted [workshops](#) to help residents better understand projected sea level rise in their local area, and how they can take action to plan and adapt. In partnership with WA Sea Grant and Island County, **125 attendees** joined to learn about sea level rise, explore sea level rise projections, and discuss planning and adaptation. Of those, **60% planned to take action** as a result of what they learned.

Whale Warning Flag: The San Juan MRC works tirelessly to protect Southern Resident killer whales with a variety of projects. To increase boater awareness and promote best practices, the MRC adopted the [Whale Warning Flag](#) used in British Columbia to signal the presence of whales and serve as a cue for boaters to slow down, be prepared to change course and [Be Whale Wise](#). In 2019 the MRC reached **thousands of boaters** through their presence at boat shows, marinas, online, and on the water. Since 2018 the MRC has distributed whale warning flags and outreach material to over **600 boaters** throughout the county, region and even further afield.

Digging for Dinner: Jefferson MRC partners with WA Dept of Fish & Wildlife, Jefferson County Public Health, and WSU Extension to bring local residents [hands-on learning](#) about the connections between safe and sustainable shellfish harvest, along with water quality issues and individual actions they can take to protect the resource and enjoy it sustainably. After this 6th year of the program, over **400 local residents** have learned as they harvest shellfish for their dinner.

Photo: Sen. Liz Lovelett with the whale warning flag at the Anacortes Boat Show, San Juan MRC

More education and outreach project highlights

- **Plastic Free Salish Sea:** San Juan MRC and partners are engaging the community to reduce solid waste. In 2019 they hosted a Talking Trash community workshop and took part in the Great Islands Cleanup. An MRC member went one step further by creating a video series on relevant topics. As the effort gains momentum, they are working to build out information on the [Plastic Free Salish Sea website](#).
- **Oil spill preparedness:** Since 2010 more than **550 volunteers** have received [HAZWOPER training](#) through the efforts of Clallam MRC. Clallam County Commissioners recognized the importance of this work and issued a proclamation to designate March 2019 as Oil Spill Preparedness Month.
- **Fidalgo Bay Day:** Skagit MRC hosted the 16th annual [Fidalgo Bay Day](#) in 2019, a family-friendly event with interactive displays, crafts and a beach seining demonstration. Over **50 volunteers**, including members of Mount Vernon high school's Key Club, and **30 organizations** joined to host **400+ visitors** to promote stewardship of the Salish Sea.



*Family at Jefferson MRC Digging for Dinner, photo Cheryl Lowe;
5th grade artist's submission in Island MRC's Discover Our Island
Shores art contest; Skagit MRC's Fidalgo Bay Day event, photo
Pete Haase.*



Conservation and Restoration

The Northwest Straits Commission contributes to nearshore and marine protection and restoration projects, often working in partnership to achieve collaborative conservation goals. In coordination with regional planning efforts, we carry out projects that benefit eelgrass beds, improve water quality, restore native species and restore shoreline habitat.

*Photo: Beach restoration site at Bowman Bay, Kenny
Clarkson*



Olympia oyster restoration

Olympia oysters, Puget Sound's only native oyster species, provide critical nearshore habitat but declined in population due to past overharvesting and pollution. Skagit and Jefferson MRC started restoration efforts in 2002. Since then, Olympia oyster restoration has turned into a regional effort with Clallam and Whatcom MRCs establishing more restoration sites. Together, the four MRCs have created **7 acres of restored and enhanced Olympia oyster habitat.**

Work progressed in 2019 as one new restoration site was established and eight test plots were assessed for restoration potential. The MRCs will continue their long-term objectives to monitor Olympia oyster growth and population size over time, as well as explore and test new sites for future restoration efforts.

[Learn more about Olympia oysters](#)



Photo: Chuckanut Bay Olympia oyster site, Kenny Clarkson.



OLYMPIA OYSTER RESTORATION HIGHLIGHTS

Regional accomplishments in Olympia oyster restoration work conducted by Marine Resources Committees between 2002 - 2020.



**2.9+ MILLION
OYSTER SEED**

placed by citizen scientists and volunteers.

6.8 ACRES

Olympia oyster habitat restored and enhanced.



2,810 BAGS

of Pacific oyster shell added to enhance substrate.

29 TEST PLOTS

established to identify potential restoration sites.



Volunteers at Skagit MRC Olympia oyster restoration site in Fidalgo Bay. Photo
Paul Dinnel



Eelgrass protection



Jefferson MRC protects **52 acres of eelgrass beds** in the popular boating anchorage area of Port Townsend Bay, where dragging anchors can damage or destroy eelgrass. Additional voluntary no anchor zones protect shellfish areas to allow for commercial and tribal harvest.

The eelgrass protection zone had a 99% compliance rate during the annual Wooden Boat Festival in 2019, with hundreds of boats anchored outside the eelgrass. A boater outreach and education campaign complements the program to increase the effectiveness of the buoy fields, encouraging boaters to "anchor out for safety and salmon".

Learn more about eelgrass protection

Port Townsend Bay boaters anchored outside the eelgrass bed, photo Jefferson MRC.

More conservation and restoration project highlights

- **Bowman Bay:** Skagit MRC, with the [Northwest Straits Foundation](#) and Skagit Fisheries

Enhancement Group, continued to plant and maintain vegetation along the Bowman Bay shoreline, following beach restoration in 2015. Volunteer work parties throughout the summer are helping to establish a healthy riparian area. In 2019, monitoring showed that **forage fish have returned** to spawn at the beach, the first time this has been documented since 2003.

- **Rain gardens:** Jefferson MRC has an ongoing partnership with WSU Extension, City of Port Townsend and Jefferson County to design and install [rain gardens](#) to improve water quality in local marine waters. In 2019, **2 new rain gardens** were installed, with 1,200 sq. ft. of new area, and nearly **7,800 sq. ft. to date**. Volunteers installed and maintain the gardens, and local elementary students used the project as a place-based learning tool.
- **Pinto abalone restoration:** Skagit MRC, in partnership with Puget Sound Restoration Fund and WA Dept of Fish & Wildlife, established two new [pinto abalone](#) outplant sites in 2019, totaling **8 sites** in Skagit County and **11,400 pinto abalone** outplanted since 2009. Pinto abalone were listed as a state endangered species in 2019.
- **Derelict vessel removal:** Following a successful year removing 5 derelict vessels in 2018, Snohomish MRC removed and disposed of another 3 [derelict vessels](#) from the Snohomish

Estuary in 2019. Altogether more than **22 tons of marine debris** was removed, with funding support from a Puget Sound Partnership Near Term Action Grant, Snohomish County, and WA Dept of Natural Resources.

- **Beach cleanup:** Whatcom MRC worked in partnership with businesses, agencies and organizations, to hold cleanup events in 4 areas, including remote beaches, a marine state park and a state aquatic reserve. Volunteers removed over **2,500 pounds of trash** - from microtrash to railroad ties and tires - from nearly **20 miles** of shoreline.



Clockwise from top left: Rain garden installation in Jefferson County, photo Cheryl Lowe; Snohomish derelict vessel report in the MyCoast app; Volunteers planting along Bowman Bay

*nearshore, photo SFEG; Whatcom beach cleanup event, photo
Whatcom MRC.*



Advisory

MRCs are appointed by and embedded in local county government, where they serve as a **non-partisan, science-based** body that advises on marine resources issues and policies.

MRCs provide a forum to **mobilize community support** for marine conservation, and participate in local and regional processes affecting marine resource management, ranging from Shoreline

Master Programs and Geographic Response Plans for oil spills to non-native finfish aquaculture and marine spatial planning.



Photo: Chairman Shawn Yanity of the Stillaguamish Tribe of Indians at the 2019 conference, Adam Jordan.



MyCoast

MyCoast allows residents to share photos documenting shoreline change, pollution, and hazards with resource managers. Photos

are shared with state agencies and other partners to help track beach change over time and prioritize marine restoration efforts.

Snohomish MRC pioneered the use of the app in Washington, and it was expanded statewide in partnership with the WA Dept. of Natural Resources, US Geological Survey and Washington Sea Grant. In 2019 Snohomish MRC focused on recruiting new users and amplify awareness among entities engaged in marine conservation, resulting in more than **560 new users** and **1,300+ reports** submitted.

[Go to MyCoast](#)

Photo: Creosote report submitted via MyCoast.



Southern Resident Killer Whales



Even before the Southern Resident Killer whales were designated as endangered in 2001, San Juan MRC was engaged with the County, state, federal and tribal agencies, and local organizations focused on the survival of this iconic species. Over the years the MRC's input has contributed to the knowledge base that is now an important resource as the entire transboundary region takes action.

With the MRC providing input to the County on policies and proposed actions, State and wildlife managers are now promoting the [San Juan County Marine Stewardship Area](#) voluntary westside no-go zone (Whale and Salmon Sanctuary) for the first time. In 2019, the MRC created a storyboard of the history of their support for orca recovery in local waters.

[Go to storyboard](#)

Photo: West side of San Juan Island at Lime Kiln, Sasha Horst.



Kelp Conservation and Recovery Plan

The Puget Sound Kelp Conservation and Recovery Plan was initiated as part of the Puget Sound rockfish recovery effort. The Northwest Straits Initiative (Northwest Straits Commission, Northwest Straits Foundation and MRCs) led an effort with NOAA Fisheries, the WA Department of Natural Resources, Puget Sound Restoration Fund, Marine Agronomics LLC, and many other entities and individuals to review local science and policy relating to kelp forests.

Progress in 2019 included workshops with local, state, Tribes, and federal entities along with researchers and community members to develop recommendations for the Kelp Plan. The draft plan was fine-tuned by peer review and public comments.

The Kelp Plan is non-regulatory, and provides a framework for coordinated action to help understand kelp population dynamics and why it is declining in some areas. This will also strengthen implementation and enforcement of protective measures. The final plan will be available in 2020 on our website.

[Read the Kelp Plan](#)

Bull kelp growing. Photo: Max Calloway

"Skagit MRC works in collaboration with an expanding list of partners, and with the help of these partners and volunteers, the Skagit MRC is able to accomplish a great deal with

*a modest budget." - Skagit
County Commission
proclamation in celebration
of the MRC's 20th
anniversary, June, 2019*



More advisory highlights

- **Marine Stewardship Area Plan:** The San Juan [Marine Stewardship Area Plan](#) was adopted in 2007 through the work of the San Juan MRC and many partners. In 2019, the MRC kicked off a review of the Plan to identify who has worked on the strategic actions in the Plan, what monitoring

data exist, and what has been done to identify and reduce threats. This effort will continue into 2020.

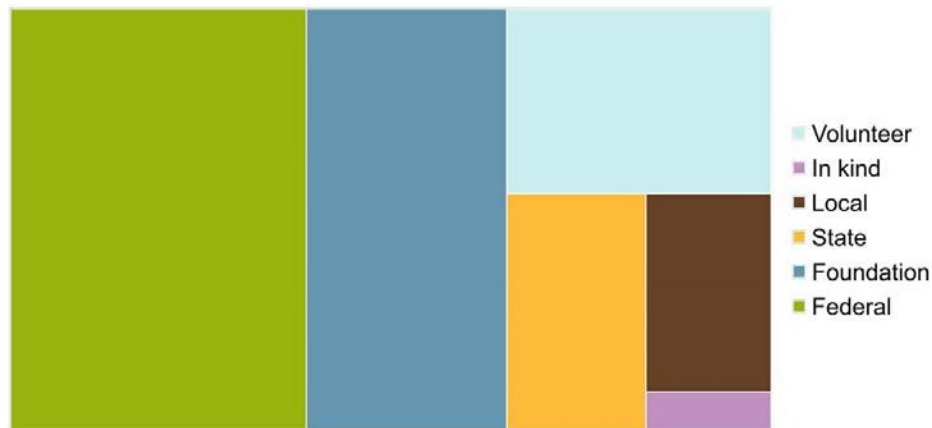
- **SoundIQ:** Our regional [web-based mapping tool](#) makes our project data accessible, along with complementary data from other sources. These data are key to supporting the work of natural resource decision makers locally and regionally.
- **Puget Sound Day on the Hill:** The Northwest Straits Commission is part of a regional network of agencies and organizations engaged in Puget Sound recovery, and participated in the 2019 Puget Sound Day on the Hill to advise leadership at the federal level about the importance of maintaining a coordinated federal investment.
- **Local advisory:** MRCs regularly serve as advisors to their local councils and commissions on marine resource issues relevant to the county and the region. These efforts involve compiling information and collecting input from the public and expert resources, and providing written comments and input to the county and for local planning processes.

Photo: Governor Jay Inslee on a site visit at Cornet Bay, Anna Toledo.

Financial Summary

Funding for the Northwest Straits Initiative comes from a variety of sources, including federal funds from the [EPA's National Estuary Program](#), Washington State funds, participating county contributions, and dedicated project funding. Match is provided through in-kind support from project partners, and over **12,000 volunteer hours** contributed annually.

Leveraged funding through our non-profit partner Northwest Straits Foundation includes federal and state grants, as well as private funds from foundations, corporations and individuals.



Estimated proportion of funding and support for the Northwest Straits Initiative in 2019.

Learn more about recent work of the Northwest Straits Initiative on our [website](#), or from your local county [Marine Resources Committee](#) and the [Northwest Straits Foundation](#).



www.nwstraits.org



This project has been funded wholly or in part by the United States Environmental Protection Agency. The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency under Assistance Agreement [CE-01J65401]. The contents of this document do not necessarily reflect the views and policies of the Environmental Protection Agency, nor does mention of trade names or commercial products constitute endorsement or recommendation for use.