Washington Coastal Hazards Organizational Resilience Team (COHORT) Inaugural Report

Successes and accomplishments of Washington's interagency coastal hazards assistance team in the 2023-25 biennium

Washington State Department of Ecology
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This report was authored by the core team members of COHORT:

- Henry Bell, Washington State Department of Ecology
- Ellen Chappelka, Washington State Emergency Management Division
- Samuel Giannakos, Washington State Department of Ecology
- Sanpisa Sritrairat, PhD, Washington Sea Grant
- Kayla Wells-Yoakum, Washington State University Extension
- Olivia Zimmerman, Washington State Department of Ecology

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Contact Information

Shorelands and Environmental Assistance Program

Henry Bell
P.O. Box 47600
Olympia, WA 98504-7600
Phone: (360) 628-2750
Website[1]: Washington State Department of Ecology

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Figure 1: David Cottrell in 2018. David's leadership and determination were instrumental in addressing the impacts of devastating erosion on the community of North Cove and piloting the use of innovative nature-based solutions on Washington's Pacific Coast. Photo Credit: Molly Bogeberg.

Acronyms and Abbreviations

ACRE	Applied Coastal Research and Engineering
BRIC	FEMA Building Resilient Infrastructure and Communities Grant Program
CCA	Climate Commitment Act
CHRN	Washington Coastal Hazards Resilience Network
COHORT	Coastal Hazards Organizational Resilience Team
Commerce	Washington State Department of Commerce
CoPes Hub	Cascadia Coastlines and Peoples Hazard Research Hub
CREST	Center for Research in Education and Simulation Technology
CRRC	NOAA Climate Resilience Regional Challenge
CTP	Cooperating Technical Partners Program
DOC	Washington State Department of Commerce
Ecology	Washington State Department of Ecology
EMD	Washington State Emergency Management Division
FEMA	Federal Emergency Management Agency
HMA	EMD Hazard Mitigation Assistance
HMGP	FEMA Hazard Mitigation Grant Program
HMP	Hazard Mitigation Plan
LCEP	Lower Columbia Estuary Partnership National Estuary Program
MRC	Marine Resources Committee
NCRF	National Coastal Resilience Fund
NFWF	National Fish and Wildlife Foundation
NOAA	National Oceanic and Atmospheric Administration
NSF	National Science Foundation
PCD	Pacific Conservation District
RAD	Resilience Action Demonstration Project
SR	State Route
WCG	Wahkiakum Common Ground
WCMAC	Washington Coastal Marine Advisory Council
WDFW	Washington Department of Fish and Wildlife
WDNR	Washington State Department of Natural Resources
WSDOT	Washington State Department of Transportation
WSG	Washington Sea Grant
WSU	Washington State University

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Executive Summary

Washington's Coastal Hazards Organizational Resilience Team (COHORT) is an interagency team established in 2023 that works collaboratively with communities and Tribes to advance coastal resilience efforts across Washington's Pacific Coast, Puget Sound, and Strait of Juan de Fuca. The team supports local- and Tribal-led efforts to understand coastal hazards issues, build consensus around paths forward, and develop and implement projects that advance holistic resilience goals. The team is staffed by the Washington State Department of Ecology (Ecology), Washington Sea Grant (WSG), Washington's Emergency Management Division (EMD), and Washington State University (WSU) Extension. Ecology provides coordination, administration, and funding support for the team with funding from the Climate Commitment Act (CCA).

Figure 2: Westport Observation Tower. COHORT assists communities with addressing risks such as flooding, erosion, sea level rise, and other coastal challenges. Photo Credit: Stefanie Baltzell, 2023.

The Washington Legislature directed Ecology to establish COHORT in 2023. This action followed on the heels of the Washington Coastal Marine Advisory Council's (WCMAC) 2021 resilience recommendations and, prior to that, many years of local resilience initiatives, pilot efforts, and growing calls from community members for the state to provide communities and Tribes with additional capacity to address pressing coastal hazards and prepare for future impacts.

Figure 3: Local engagement at a project site in Wahkiakum County. A key component of COHORT's approach is to bring partners and stakeholders together to share different perspectives, develop common understandings of issues, and collectively work toward multi-beneficial solutions. Photo credit: Sanpisa Sritrairat, 2025.

In its first two years, COHORT met and engaged with communities and Tribes to understand local hazards issues, build relationships, and share information about the assistance and support that COHORT can provide. COHORT also led and supported many collaborative grant proposals to secure millions of dollars in federal funding for transformative resilience projects. These projects are addressing coastal hazard problems, restoring and reconnecting important habitats, preparing communities for future climate impacts, and bringing together local governments, Tribes, organizations, and state agencies to build a resilient future for Washington.

The following metrics provide an overview of COHORT's activities and accomplishments in its first two years:

- **350:** COHORT conducted 350 outreach and engagement events with coastal community members, stakeholders, and Tribal staff across all 15 coastal counties.
- **5500:** Through these engagement events, COHORT connected with more than 5500 individuals about coastal resilience issues, needs, and projects.
- **67:** COHORT led or supported more than 67 unique projects that address coastal hazards issues and advance ecological and community resilience goals.
- **$85 million:** COHORT helped communities and Tribes secure over $85 million in federal funding for resilience projects and planning efforts.
- **$150 million:** COHORT helped communities and Tribes prepare and submit proposals for projects totaling over $150 million in requested federal funding. To date, 35 projects have received funding and 17 are awaiting funding decisions.
- **70 to 1:** For each $1 invested by the state in the COHORT program through the Climate Commitment Act, COHORT has helped secure more than $70 in federal funding for Washington communities and Tribes.

Figure 4: Community engagement workshop. Community members, local government staff, and other partners participate in a resilience planning workshop series led by Pacific Conservation District and the Lower Columbia Estuary Partnership, with support from COHORT. Photo credit: Sanpisa Sritrairat, 2024.

About COHORT

Introduction

COHORT is an interagency team established in 2023 to enhance the resilience of Washington's coastal communities and Tribes. The team brings together expertise from the Washington State Department of Ecology, Washington Sea Grant (WSG), Washington's Emergency Management Division (EMD), and Washington State University (WSU) Extension. By working together, these agencies collaboratively support communities' and Tribes' efforts to address risks such as flooding, erosion, sea level rise, and other coastal challenges.

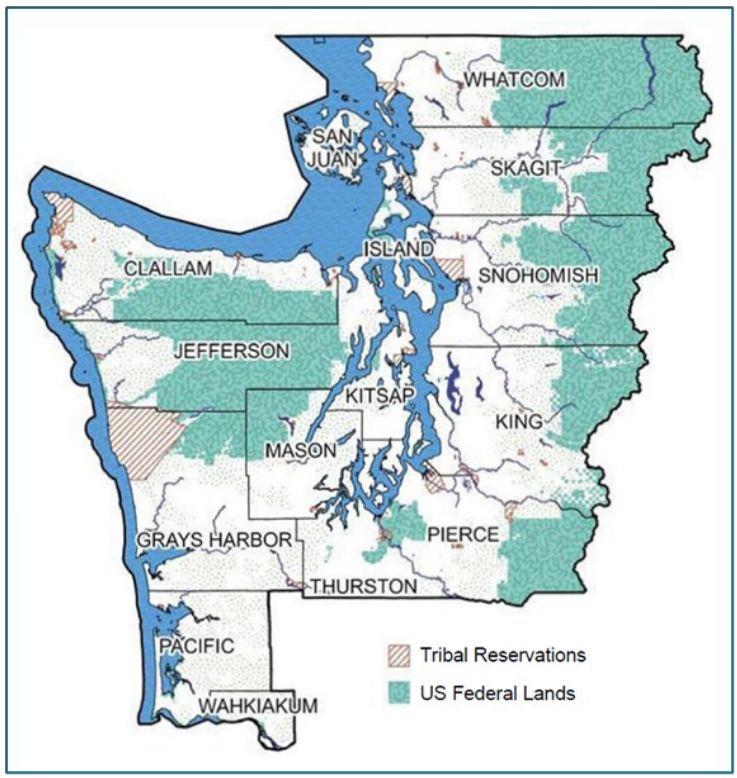

Figure 5: Washington State coastal counties map. The COHORT works across the fifteen counties that make up Washington's coastal zone, as well as with Tribes whose reservations or usual and accustomed grounds lie within this geographic region.

COHORT's mission is to work collaboratively with communities and Tribes on the identification, co-creation, and implementation of resilience projects, planning efforts, and other capacity building activities. This includes hands-on planning support to develop project plans and access federal and state funding sources. COHORT also assists communities with understanding their hazards issues, navigating challenging conversations, and assessing their options for climate adaptation and resilience actions. At the regional level, COHORT supports the development of joint priorities and overall strategies that integrate social, economic, and ecological resilience goals.

Background: A direct response to community needs

On April 23, 2023, the Washington State Legislature passed Engrossed Substitute Senate Bill 5187, which included direction and funding for Ecology to establish a 'coastal hazard organizational resilience team' alongside other efforts to address coastal hazards. This was a direct response to coastal communities' requests for the state to help address the growing severity of natural hazards, which include flooding, erosion, sea level rise, landslides, and the risk of a Cascadia subduction zone earthquake and tsunami event.

Figure 6: Coastal bluff. COHORT emphasizes meeting on site with community members and staff to understand lived hazards and discuss multi-beneficial solutions that create additional benefits for the community and the environment. Photo Credit: Sanpisa Sritrairat, 2024.

Between 2016 and 2017, the William D. Ruckelshaus Center conducted the Washington Coast Resilience Assessment,[2] which explored long-term resilience opportunities in response to growing concerns about the impacts to Tribes, coastal communities, infrastructure, and the natural environment from coastal hazards. The assessment found that Washington was already experiencing severe and costly damage to life and property from coastal hazards and climate change. Many communities and Tribes facing the biggest impacts are overburdened and underserved and may not have access to sufficient resources to undertake large-scale resilience projects or capacity building activities. Competing for and managing federal and state grants also created significant challenges for communities whose staff were already stretched thin.

In 2018, Governor Inslee voiced his support for building on the findings of the Ruckelshaus Center's assessment. In a letter dated March 28, 2018,[3] the Governor requested that the Washington Coastal Marine Advisory Council (WCMAC)[4] "identify high priority needs and actions to carry out the recommendations from the assessment regarding coastal hazards." WCMAC then asked Ecology and WSG to lay the groundwork for these future resilience efforts by piloting the Ruckelshaus Center's first recommendation, which was to establish COHORT. The four COHORT member agencies were identified by communities through the Washington Coast Resilience Assessment as

Figure 7: Point Defiance. COHORT conducts site visits to places that have implemented coastal resilience projects, such as this restoration work at Point Defiance, to learn lessons from local project proponents and bring takeaways to other communities. Photo credit: Ellen Chappelka, 2024.

[2] https://mrsc.org/getmedia/0498ef44-89e8-46c7-b834-469b992196c6/Washington-Coast-Resilience-Assessment-Report.aspx
[3] https://www.ezview.wa.gov/Portals/_1962/Documents/WCMAC/3.28.2018%20Gov%20Inslee%20ltr%20to%20WCMAC.pdf
[4] https://www.ezview.wa.gov/?alias=1962&pageid=37058

four initial entities that had the interest, expertise, mission, and capacity to provide integration and elevation of coastal resilience efforts. Additional agencies and organizations would collaborate and coordinate with COHORT to support this work.

In 2019, Ecology and WSG secured funding from National Oceanic and Atmospheric Administration (NOAA) for a two-year pilot concept of COHORT, which became the Resilience Action Demonstration (RAD) Project.[5] After the initial success of the RAD in 2021, WCMAC developed a series of consensus resilience recommendations for the Governor and Legislature[6] that included creating and funding COHORT as its first recommendation. In turn, Ecology developed a budget request that would formally establish a long-term COHORT program.

In 2023, the Washington State Legislature included ongoing funding for COHORT in the state budget beginning with the 2023-2025 biennium. The legislation provided Ecology with funding to support each of the four COHORT member agencies to hire one full-time equivalent dedicated staff member. These staff were hired and onboarded between October 2023 and January 2024, though the core team continued to evolve to better support community needs over the course of the biennium. For example, Ecology hired a coastal engineer later in 2024 to provide additional technical expertise for COHORT. This report provides information on the work and accomplishments of the program in the first two years of operation.

Figure 8: The Hoh River. Photo credit: Sanpisa Sritrairat, 2024.

[5] https://wacoastalnetwork.com/resilience-action-demonstration-project/
[6] https://www.ezview.wa.gov/Portals/_1962/Documents/WCMAC/WCMAC%20Resilience%20Recommendations%20to%20Gov.%20FINAL%20%2007.29.2021_Signed.pdf

Goals and objectives of COHORT

COHORT's goal is to strengthen the hazards resilience efforts of coastal communities and Tribes by enhancing local capacity. In particular, COHORT provides targeted support for overburdened, underserved, rural, and Tribal communities.

COHORT's objectives include:

Community engagement

Engage with community and Tribal leaders, staff, residents, and visitors to understand local resilience needs, priorities, and challenges across Washington's diverse coastlines and use this information to continually adapt and improve the state's coastal resilience efforts.

Education and technical assistance

Educate and provide information and technical assistance related to coastal natural hazards, climate change adaptation, and other topics related to community and ecological resilience.

Partnership building

Spearhead cross-fertilization of ideas, support new collaborations, coordinate across agencies, and build partnerships that span different sectors, jurisdictions, and geographic scales.

Secure funding for resilience efforts

Connect local project proponents with federal and state funding to support projects, programs, and research that build local capacity, address coastal hazards risks, and create additional benefits for communities, economies, and the environment.

Targeted project support

Bolster local capacity through targeted project support for locally led resilience efforts, with a focus on supporting Tribal and community driven processes to identify and advance resilience priorities.

What is coastal resilience?

In the 2017 Washington State Coast Resilience Assessment that first identified the concept of COHORT, the William D. Ruckelshaus Center provided their perspective on resilience: "A resilient community is able to thrive in the present, adapt to challenges, and even transform as necessary to meet future threats or opportunities." This definition was based on over 100 interviews with coastal community members, local and state government officials, and Tribal staff who represented interests in coastal resilience and natural hazard preparedness.

Importantly, COHORT recognizes that "resilience" means different things to different people, and for that reason, the core goal of COHORT is to support and elevate local resilience priorities. COHORT does not use or impose a top-down vision for what it means to be "resilient." Rather, the team works collaboratively with coastal communities and Tribes to address immediate and emerging hazards while helping to ensure that these efforts provide benefits to community members, local economies, and the environment. COHORT also strives to connect and synergize complementary efforts by bringing potential project partners together to resolve coastal management issues, access funding opportunities, and achieve greater outcomes.

Figure 9: A nature-based cobble dynamic revetment in North Cove helps restore an eroding beach. The incorporation of nature-based solutions and adaptive management approaches are two key elements of the RAD resilience principles. Photo credit: Ecology's Applied Coastal Research & Engineering Section.

To further frame COHORT's approach to coastal resilience, the team draws upon the "Resilience Principles for Coastal Hazards Projects,"[7] which were developed in collaboration with community partners by the RAD Project team. This document provides guiding principles related to coastal community resilience and helps frame and illustrate the concept of a "coastal hazards resilience project." These principles include reducing community vulnerability to coastal hazards, aligning immediate concerns with a long-term vision, using multi-benefit approaches and nature-based solutions, and ensuring strong community participation.

Inter-agency resilience coordination

While COHORT supports community led resilience, the value of COHORT services extend far beyond individual project support, notably increasing the capacity of state agencies to serve the

[7] https://apps.ecology.wa.gov/publications/parts/2206003part4.pdf

public through increased inter-agency coordination and information sharing. COHORT actively works to break down silos within and between agencies, embracing a "no wrong doors" approach. This means that regardless of whether an issue falls within COHORT's direct scope or capacity, the team will still offer resources, connections, or referrals to the right people. When a community member raises a question or concern, COHORT ensures they are connected with a knowledgeable state representative who can either assist directly or guide them to the appropriate agency contact. This collaborative, community-centered model is grounded in a shared expertise ethos, allowing COHORT to view hazards through a holistic lens that reflects the networks, knowledge, and perspectives of all four partner agencies. For this reason, COHORT plays an important role in implementing the 2024 Washington State Climate Resilience Strategy[8] by supporting regional partnerships that build climate resilience.

A strong example of COHORT's interconnected approach is its close collaboration with the Washington Department of Commerce's Energy Resilience Technical Assistance Program,[9] from whom COHORT adopted the "no wrong doors" principle. Commerce's Energy Resilience team works directly with communities to improve energy system resilience by helping communities define their goals, identify workable solutions, and secure funding. Like COHORT, they engage deeply at the local level, building relationships and gaining insight into each community's unique challenges.

Figure 10: Site visit to Clatsop Spit to observe a dynamic revetment. Photo credit: Ellen Chappelka, 2024.

This shared commitment to community engagement has fostered a strong partnership between COHORT and Commerce, allowing both teams to exchange lessons learned and successful practices in their work with communities and Tribes. One tangible outcome of this collaboration is the creation of a "grant matchmaking" process: when Hazard Mitigation Assistance (HMA) grant applications with an energy focus are not selected for funding, COHORT shares them with Commerce, who can then help identify alternative funding sources and opportunities. This connection has strengthened the relationship between Commerce and the Emergency Management Division's HMA Team, creating new pathways for communities to access critical support.

[8] https://ecology.wa.gov/air-climate/responding-to-climate-change/washingtons-climate-strategy
[9] https://www.commerce.wa.gov/eremo/energy-resilience-technical-assistance/

Highlights and Accomplishments

Community assistance metrics

COHORT began tracking metrics in October 2023 once dedicated agency staff were hired to begin carrying out community outreach and hazards assistance activities. COHORT community assistance highlights between October 10, 2023 and June 30, 2025 include:

350 engagement events and technical assistance meetings held by COHORT with coastal community members, stakeholders, and Tribal staff.

$85.6 million in federal funding secured by communities, Tribes, and agencies toward 36 coastal resilience projects and planning efforts, with direct support from COHORT.

$53.3 million in additional funding proposed by coastal communities and Tribes with support from COHORT and still awaiting final funding decisions.

67 coastal resilience project efforts advanced toward the next stage of funding or implementation with technical assistance from COHORT.

Outreach and engagement

Figure 11: COHORT engagement in Wahkiakum County. Participants view a resilience project during a site visit in the second Wahkiakum Common Ground Workshop Series. Photo credit: Sanpisa Sritrairat, 2025.

Developing connections and relationships with coastal community and Tribal members and staff has been fundamental for accomplishing COHORT's goals. To support locally led resilience efforts, COHORT staff needed to understand local coastal hazards issues and community level challenges. Past coastal resilience reports such as the 2017 Grays Harbor Resilience Coalition Project Report,[10] 2017 Washington State Coast Resilience Assessment,[11] and the 2022 RAD Project Final Report[12] all found trust to be an integral part of building community resilience. To begin developing these relationships and building trust, the COHORT team invested significant time and effort to engage and meet with coastal communities and Tribes during the COHORT's first biennium.

[10] https://apps.ecology.wa.gov/publications/documents/1706018.pdf
[11] https://mrsc.org/getmedia/0498ef44-89e8-46c7-b834-469b992196c6/Washington-Coast-Resilience-Assessment-Report.aspx
[12] https://wacoastalnetwork.com/resilience-action-demonstration-project/

From October 10, 2023, to June 30, 2025, **COHORT conducted over 350 meetings and engagement events** across the fifteen coastal counties in western Washington. These meetings and events include in-person site visits and sit-down meetings as well as virtual follow-ups or introductory calls. Through these events, the **COHORT engaged with more than 5,500 individuals** to learn about and discuss coastal resilience issues and solutions. The figure below highlights the project areas and communities served.

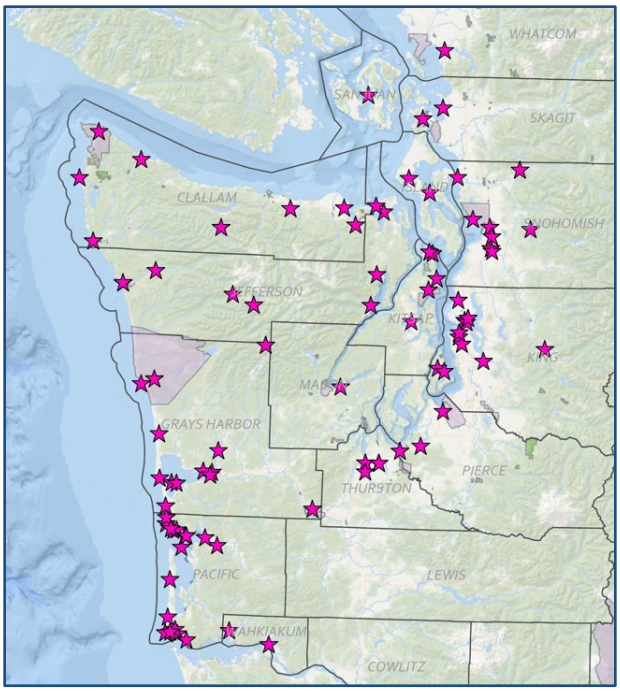

Figure 12: Map of COHORT project engagement in the 2023-2025 biennium.

"COHORT has always provided subject matter experts to the [Quinault Indian Nation] regarding current threats and vulnerabilities the [Quinault Indian Nation] faces, such as sea level rise and coastal flooding. COHORT members actively listen and help pull resources to provide solutions or ideas to rural underserved communities that are largely understaffed and [under]funded. My experience working with COHORT has been amazing, I've found the team to be wonderful, [they] provide funding opportunities and offer help navigating complicated issues and/or grants."

– Daniel Ravenel, Emergency Manager, Quinault Indian Nation

Environmental justice

The COHORT works to strengthen the hazards resilience efforts of coastal communities and Tribes by enhancing local capacity. In particular, the COHORT provides targeted support for vulnerable, underserved, overburdened, and Tribal populations. The Washington State Department of Ecology serves as the COHORT fiscal sponsor, contract manager, and lead agency responsible for the performance and budget of the COHORT as an interagency team, with funding from Washington's Climate Commitment Act (CCA). Consequently, COHORT conducts its work in alignment with and guided by the requirements of Washington's Healthy Environmental for All (HEAL) Act.[13]

The HEAL Act requires Ecology to identify and address environmental health disparities in overburdened communities and for vulnerable populations. During the 2023-25 biennium, 68% of COHORT's project support efforts directly benefited overburdened communities[14] pursuant

[13] https://ecology.wa.gov/about-us/who-we-are/environmental-justice/heal
[14] https://geo.wa.gov/datasets/e0074300efda47efa6b01e6236bcfe48_0/explore?location=47.354697%2C-123.318343%2C8.00

to the Governor's Directive 24-11.[15] This was far from the only resource that COHORT used to guide its environmental justice efforts. To inform a holistic, equity-centered approach to community assistance, COHORT worked with a consultant to develop equity-focused strategic engagement materials, gathered input from stakeholder groups such as WCMAC, and consulted resources including the Washington Environmental Health Disparities Mapper[16] and the Washington list of Economically Disadvantaged Cities, Towns, and Counties.[17] Communities could also demonstrate a compelling need for COHORT assistance by citing additional factors, considerations, or data.

Regional coordination and capacity building

COHORT serves as an integrator, helping local leaders effectively navigate and access state resources to advance resilience efforts. To support communities in a coordinated and complementary way, the state agencies that make up COHORT have built strong, collaborative working relationships. The process of launching this new interagency program included the co-creation of foundational documents such as a COHORT Charter. This process strengthened partnerships between Washington Sea Grant, WSU Extension, the Department of Ecology, and the Emergency Management Division, laying the groundwork for long-term, coordinated resilience support for coastal communities and Tribes. The formation of COHORT has enabled the partner agencies to engage in new community spaces and develop working relationships outside of their traditional work areas, further advancing their missions and better serving the interests of Washingtonians.

Several capacity building examples are listed below that demonstrate how COHORT-led collaboration and integration is helping to enhance existing programs and establish new initiatives, bringing additional benefits to coastal communities and Tribes.

2024 Winter Storms Forum

In response to requests from local governments for improved winter weather preparedness, COHORT hosted a Winter Storms Forum in 2024. Designed to strengthen local readiness and resilience, the event brought together community leaders, including public utility representatives, city administrators, Tribal government staff, and state agency partners, to explore the science and response and recovery strategies related to winter storm events. Approximately 100 participants attended the forum, which featured a full day of discussions and presentations led by subject matter experts, fostering valuable knowledge-sharing and collaboration across sectors.

Figure 13: Flyer for the 2024 Winter Storms Forum.

[15] https://governor.wa.gov/sites/default/files/directive/24-11%20-%20Overburdened%20Communities.pdf
[16] https://fortress.wa.gov/doh/wtn/WTNIBL/
[17] https://apps.ecology.wa.gov/publications/documents/2309045.pdf

Washington Coastal Resilience Fellowship Program

One of the most impactful capacity-building and early-career development initiatives to emerge from COHORT's work is the Coastal Resilience Fellowship Program. Developed and managed by Washington Sea Grant (WSG), this innovative program pairs early-career fellows with coastal communities to support local resilience efforts. Designed to be mutually beneficial, the fellowship minimizes administrative burdens for host organizations while providing fellows with hands-on experience, mentorship, and opportunities to contribute meaningfully to local and Tribal priorities around coastal resilience.

The program is funded through the Department of Ecology's successful Coastal Resilience Regional Challenge (CRRC) award from NOAA. Starting in fall 2025, fellows will be placed for two-year terms with local and Tribal host organizations, including the Shoalwater Bay Indian Tribe, Quinault Indian Nation, Chinook Indian Nation and Columbia Land Trust, Pacific Conservation District, and the North Olympic Development Council. Importantly, the fellows' salaries are fully funded by the NOAA award, allowing host organizations to participate at no cost. To further support both fellows and hosts, WSG has hired a full-time fellowship manager to provide dedicated mentorship and program coordination.

The focus for the first year of this capacity building program was on Washington's Pacific Coast. Additional cohorts of fellows are planned to begin in new host communities in 2026 and 2027, expanding the program's reach and long-term impact across the Puget Sound as well.

Expanding WSU Extension's Climate and Coastal Resilience Outreach

Figure 14: 2025 COHORT climate event in Mason County. Participants watch a demonstration on how to make biochar, which has many climate-related benefits filtering ground water, reducing greenhouse gas emissions from wet soil, and increasing drought resistance in plants. Photo credit: Kayla Wells-Yoakum.

Funding, connections, and in-kind support from COHORT staff helped expand existing WSU Extension programs and create new programming opportunities. The WSU Extension Beach Naturalist Program was expanded through COHORT funding to provide training to both Jefferson and Clallam County residents and staff. During the 2025 training, a dedicated coastal resilience session was added to the program curriculum which included five new keynote speakers. In addition, three attendee scholarships were provided, aquatic species identification guides were purchased for new volunteers, and field trip parking fees for all trainees were paid for, making the training more affordable and accessible for community members. In total, 62 new Beach Naturalists Volunteers were trained in 2025 across Clallam, Jefferson, Kitsap and Snohomish counties.

With support and funding from COHORT, WSU Extension provided new coastal resilience programming in Island, King, Mason and Wahkiakum counties. In Island County, COHORT formed new partnerships with local programs including the Island County Planning Department, the Island County Shore Friendly Program, and the Island County Marine Resources Committee. These new partnerships allowed WSU Island County Extension to co-plan two Shoreline Community Workshops, reaching 450 individuals with education about sea level rise and its impacts on aging septic systems. Integration of WSU King County Extension staff into the coastal resilience space led to connections with local government and nonprofit organizations. One such partnership produced a three-part climate education series through COHORT funding, reaching fifty Vashon Island residents.

"COHORT was a great help for us as a sounding board when we were preparing our long-term data set on salmon spawning for community outreach. We really benefited from the multi-disciplinary look at our data and the advice on outreach points and techniques. We created a one-page handout for our community on salmon that was much better and [more] effective than it would have been if we'd done it alone. And the support is ongoing through the connections we made with the team as we delve further into more analytical aspects of the data. We are super grateful for this support!"

– Bianca Perla, PhD, Science Director, Vashon Nature Center

In Mason County, COHORT staff partnered with WSU Mason County Extension staff to deliver a full-day of climate-focused education to 25 community members. This event, titled *Sound to Sea: Working Together to Build Resilient Coastal Communities*, brought in presenters from WSG to discuss topics such as invasive European green crab, water quality, and land stewardship. WSU Extension Master Gardener Volunteers also led presentations on backyard biochar and planting for slope restoration.

Partnerships with the Coastal Hazards Resilience Network (CHRN) and Cascadia Coastlines and Peoples Research (CoPes) Hub

COHORT collaborates closely with regional networks of coastal resilience practitioners, including the Coastal Hazards Resilience Network and the Cascadia Coastlines and Peoples Research Hub (CoPes Hub).

The Coastal Hazards Resilience Network (CHRN)[18] is a Washington-based network of over 300 coastal hazards specialists and climate change practitioners from local, federal, and state government agencies, Tribes, academic institutions, consulting firms, and nonprofit organizations. This network supports efforts to address the impacts of coastal hazards and climate change by strengthening the relationships of Washington's coastal communities

[18] https://wacoastalnetwork.com/

through collaboration, education, and knowledge exchanges. COHORT agencies (WSG, Ecology, and EMD) co-manage the network and organize events throughout the year.

EMD joined CHRN as a co-manager in 2025 as a direct result of its participation in COHORT. This additional capacity enabled the CHRN to expand its coastal hazards information sharing efforts, including holding more frequent Lunch & Learn webinars, establishing COHORT office hours to answer community questions, and organizing a much larger annual meeting in 2025: attendance increased from 100 in 2024 to 155 the following year.

Figure 15: 2025 CHRN Annual Meeting. The event gathered practitioners to share and discuss science and actions being taken to address coastal and climate hazard issues. Photo Credit: CHRN.

The Cascadia Coastlines and Peoples Research (CoPes) Hub[19] is an initiative comprised of over 100 researchers from ten institutions in Washington, Oregon, and California who have expertise in coastal hazards resilience. COHORT collaborated with these researchers to bring additional capacity and technical support to communities to address hazards such as flooding, erosion, landslide, fire, and tsunamis. For example, the Wahkiakum County Marine Resources Committee received over 160 hours of technical support from a CoPes Hub Postdoctoral Fellow over eight months to support the *Wahkiakum Common Ground* project, which is described later in this report.

COHORT is currently working with CoPes Hub researchers on three different CoPes Hub Pilot projects to support additional community resilience engagement, compound flood modeling, and flood model validation in Southwest Washington. COHORT also works with CoPes Hub Oregon State University (OSU) researchers to assess erosion and study the efficacy of dynamic revetments as a nature-based solution to erosion control in Pacific County and Grays Harbor.

[19] https://cascadiacopeshub.org/

Integrating social vulnerability to support hazard mitigation planning

EMD and Washington Sea Grant (WSG) partnered to secure funding through National Sea Grant's Community Engaged Internship (CEI) Program, which provides opportunities for young adults to explore careers in the resilience workforce. This joint application builds on the strong, ongoing collaboration between EMD and WSG through COHORT.

As part of the internship, the selected student conducted research on integrating social vulnerability and risk identification into coastal hazard mitigation planning. Their work culminated in a set of actionable recommendations for EMD, outlining best practices for enhancing Hazard Mitigation Plans (HMPs) and strategies to better support communities throughout the planning process.

Figure 16. Community Engaged Internship site visit. Ava Vaughn joins EMD and WSG resilience partners on a site visit during her internship. Photo credit: Ellen Chappelka, 2025.

Funding for Floodplains by Design project applicants

COHORT offers communities sustained support for resilience projects that extend beyond a single grant round or funding agency. A strong example of this is the grant crosswalk process conducted by COHORT staff following Ecology's Floodplains by Design[20] funding reviews. After each round, EMD works with COHORT partners to review unselected proposals to assess their alignment with federal funding programs such as FEMA's Building Resilient Infrastructure and Communities (BRIC), Hazard Mitigation Grant Program (HMGP), Flood Mitigation Assistance (FMA), or Cooperating Technical Partners (CTP).

When promising candidates are identified, COHORT initiates outreach to project proponents and supports them in adapting and resubmitting proposals to appropriate FEMA programs. This approach helps ensure that valuable community-led projects remain in the funding pipeline, even if they are not selected in their initial round. It is especially important given that different grant programs often prioritize specific project components, such as infrastructure, risk reduction, or habitat restoration, which can create challenges in finding a perfect funding fit. COHORT helps bridge those gaps, increasing the likelihood that high-impact projects receive the support they need.

[20] https://ecology.wa.gov/water-shorelines/shoreline-coastal-management/hazards/floods-floodplain-planning/floodplains-by-design

COHORT project support and grant assistance

A core objective of COHORT is to help communities and Tribes advance resilience projects from concept to implementation, moving them off the shelf and onto the shore. COHORT supports project proponents in shaping strong, multi-benefit project scopes and navigating complex federal funding opportunities. Since its inception, **COHORT has contributed to the development of more than 67 projects and funding proposals**.

The resilience efforts highlighted below provide examples of COHORT's project support and grant assistance during its first biennium. They showcase projects the team has helped local and Tribal partners develop, secure funding for, or implement between 2023 and 2025.

> *Sea Grant [through COHORT] has been instrumental in keeping us informed about funding opportunities and fellowship programs. The introductions facilitated by Sea Grant between funding agencies and our Tribal government have allowed us to share our challenges and demonstrate how our work aligns with the agency's efforts. This has opened doors to new resources and support, enabling us to advance our projects and initiatives more effectively.*
>
> *– Cynthia Toop, Highlands Project Manager, Hoh Tribe*

Application support for the FEMA Building Resilient Infrastructure and Communities (BRIC) Program

The purpose of FEMA's Building Resilient Infrastructure and Communities (BRIC) program is to reduce hazards risks before disasters occur. This competitive, annual funding opportunity has made up to $1 billion available nationwide in recent years. In Washington State, the application process is coordinated by EMD's Hazard Mitigation Assistance (HMA) Team, with local communities participating as sub-applicants under the state's submission to FEMA.

For the 2024 BRIC cycle, COHORT's embedded EMD staff member supported the development of 15 coastal resilience projects. Of those, seven have advanced to the final submission stage, with the potential to bring up to $34.85 million in federal investment to Washington's coastal communities.

These COHORT-supported projects include:

- City of Olympia Mid-Term Sea Level Rise Adaptation Planning
- Snohomish Community Floodplain Solutions
- Long Beach Tsunami Tower
- King County Lower Miller Floodplain Restoration Implementation Project
- King County Madsen Creek Culvert Replacement
- Ocean Shores South End Erosion Project
- Emergency Management Division Resilience Specialist

Bay to Bay: Community-based Coastal Resilience Action on the Lower Columbia

- *Project lead: Pacific Conservation District*
- *Funding: $467,100 awarded through NFWF*
- *Visit the project webpage*[21]

Figure 17: Flooding at Jessie's Ilwaco Fish Company in Ilwaco. Photo credit: Guy Glenn Jr, 2015.

COHORT staff provided support for a project partnership led by the Lower Columbia Estuary Partnership, Pacific Conservation District (PCD), and WSG. With COHORT's assistance, the project team conducted extensive community outreach, including eight public workshops held between 2021 and 2024. These workshops were designed to identify actions that strengthen resilience to long-term sea level rise while addressing additional local priorities. COHORT played a key role in the effort by providing support with project scoping, engineering consultation, grant writing, and the planning and facilitation of meetings. These efforts brought together community members alongside city, county, state, federal, and Tribal representatives to shape a shared vision for coastal resilience.

➥ See the full case study, page 40

Clallam County Hazard Mitigation Planning

- *Project lead: Clallam County Sheriff's Office*
- *Funding: $300,000 through Commerce's Climate Planning Grants*

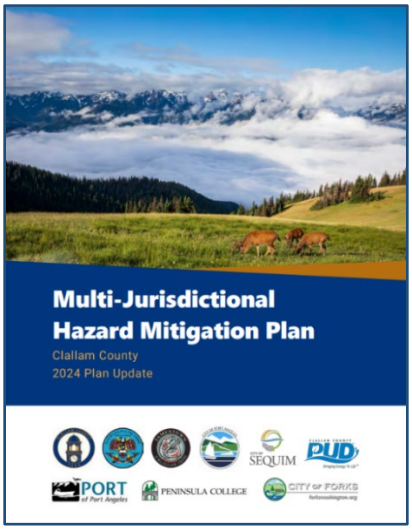

Figure 18: The Clallam County Multi-Jurisdictional Hazard Mitigation Plan.

COHORT EMD staff served as a steering committee member on the 2024 Multi-Jurisdictional Hazard Mitigation Plan update for Clallam County. The plan provides a framework for Clallam County to reduce vulnerability to natural and human-caused hazard events such as earthquakes, drought, power outages, and wildfires and requires an update every five years. The newly created Climate Element meets recent Washington House Bill 1181 requirements for cities and counties to integrate climate mitigation and/or resilience policies into their periodic comprehensive plan updates. COHORT provided early feedback and guidance to support quicker state and federal review of the plan while ensuring that the County had access to the state's resources for the plan's development.

[21] https://wacoastalnetwork.com/bay-to-bay-community-based-coastal-resilience-action/

Coastal Transportation Vulnerability and Planning Study

- *Project lead: Ecology*
- *Funding: $850,000 awarded through NFWF*
- *Visit the project webpage*[22]

Figure 19: Aerial view of Highway 101 in Lilliwaup, WA.

COHORT staff convened an interagency team to apply for National Fish and Wildlife Foundation (NFWF) funding to conduct a vulnerability and planning study of coastal roadways and adjacent habitats in Washington. The team of Ecology, Washington Department of Transportation (WSDOT), WSG, and Washington Department of Fish and Wildlife (WDFW) will evaluate state transportation infrastructure across Washington's 15 coastal counties for vulnerability to coastal hazards including sea level rise, flooding, erosion, and landslides. The project will also identify up to six future nature-based resilience projects to address risks to roadways, improve community resilience, and protect and restore habitat conditions.

Chinook Marsh Restoration

- *Project lead: Snohomish County*
- *Funding: $16,740,000 awarded through NOAA CRRC*

Figure 20: Aerial image of Chinook Marsh along Ebey Slough. Photo courtesy WDFW.

With support from COHORT, Ecology applied for and received a NOAA Climate Resilience Regional Challenge (CRRC) award in 2024. The grant award includes funding for Snohomish County to restore tidal influence to approximately 430 acres at Chinook Marsh, which will provide resilience to floods, storms, and sea level rise for the communities that live and farm along the Snohomish River. The project also benefits Endangered Species Act (ESA)-listed Chinook salmon and supports carbon sequestration. The project will protect residents and critical infrastructure along the Snohomish River while continuing work to recover endangered salmon and orcas, adding to more than 1,500 acres of Snohomish River estuary restored to-date and leveraging tens of millions in previous state and federal investments.

➥ See the full case study for the Climate Resilience Regional Challenge (CRRC), page 37

[22] https://wacoastalnetwork.com/transportation-vulnerability-study/

Elk Creek Flood Hazard Reduction

- *Project lead: Grays Harbor County*
- *Funding: Recommended for a $150,000 award through FEMA HMGP*

Figure 21: Flooding of Elk Creek impeding road access. Photo courtesy of Grays Harbor County.

Community members brought the Elk Creek project to COHORT because of challenges posed by recurrent flooding. The Elk Creek Flood Hazard Reduction Project seeks to address a long-standing and worsening flooding issue along State Route 109 in coastal Grays Harbor County. Frequent flooding in the area presents a threat to key community lifelines, such as transportation corridors which limit ingress and egress of vehicles, including emergency vehicles. Elk Creek is vulnerable to more frequent and severe flooding due to climate change and continued development. The project will fund design and permitting for a shovel-ready mitigation project that ensures safe transportation, effective stormwater conveyance, and public access for pedestrians. Recognizing the threat this causes the community, COHORT assisted the community in applying for an HMGP grant.

Everett Marshlands

- *Project lead: Snohomish County and Tulalip Tribe*
- *Funding: $500,000 awarded through NOAA CRRC*

Figure 22: Aerial view of Everett, WA. Photo courtesy of Snohomish MRC.

COHORT supported the Ecology CRRC award that is providing funding for the Everett Marshlands project. The Tulalip Tribes will complete planning activities for a multi-benefit vision to reduce flood risk, increase agricultural resiliency, provide passive recreational opportunities, and restore critical habitat in the Snohomish River estuary. This project will advance planning for future setback of critical infrastructure currently vulnerable to coastal and climate hazards, including primary roads, levees, a large pump station, and residences. Planning work will also include a feasibility analysis for the restoration of over 300 acres of estuary that provide critical habitat for ESA-listed salmonids. Once implemented, this project will reduce coastal flooding vulnerability for 6,280 acres of land that include an airport, railways, businesses, prime agricultural lands, and residential areas.

➥ See the full case study for the Climate Resilience Regional Challenge (CRRC), page 37

Lower Willapa Flooding and Habitat Resilience

- *Project lead: Pacific Conservation District*
- *Funding: $940,000 awarded through NFWF*
- *Visit the project webpage*[23]

Figure 23: Lower Willapa Resilience Workshop. Participants in a community workshop lead by WSG. Photo courtesy of Riley Yuan, Chinook Observer, 2025.

COHORT is working with local partners on a NFWF-funded project to support a community-driven resilience effort along the Lower Willapa River. Led by the Pacific Conservation District (PCD) and Washington Sea Grant (WSG), the project includes four community workshops – two of which were successfully held in March and May 2025 – with COHORT supporting their planning and facilitation. In addition to public engagement, COHORT staff are meeting regularly with local decision-makers to help identify and advance strategies that address flooding and erosion, while also enhancing habitat restoration and building social resilience. A key focus of the project is ensuring that local values and priorities are meaningfully integrated into the design of these multi-benefit resilience efforts.

Makah 2024 Tsunami Preparedness Workshop

- *Project lead: Makah Tribe*
- *Funding: N/A*

Figure 24: 2024 Makah Tsunami Exercise. Participants listen to an introductory briefing. Photo credit: EMD Tsunami Team.

COHORT and the EMD Tsunami Team assisted the Makah Tribe in holding their 2024 Tsunami Tabletop Exercise, which included partners from state, local, county, Tribal, and federal governments. This workshop provided valuable lessons learned for the Tribe and has informed their response to a distant tsunami threat.

[23] https://mer.pacificcd.org/lower-willapa-resilience-project/

Hoko Watershed Restoration

- *Project leads: Lower Elwha Klallam Tribe and North Olympic Salmon Coalition*
- *Funding: $5,822,096 awarded through NOAA's CZM Habitat Protection and Restoration Grant Program*

Figure 25: Culvert in the Hoko River Watershed. Measuring the height of a culvert during inventory. Photo courtesy of: North Olympic Salmon Coalition, 2025.

The Hoko River has experienced significant habitat loss due to historic logging activities. Ecology's COHORT staff worked with project partners, including Lower Elwha Klallam Tribe, Makah Tribe, North Olympic Salmon Coalition and Washington State Parks, to secure funding to restore habitat sustaining processes within the Hoko Watershed. Work includes 4.3 miles of channel restoration on the Hoko River as well as floodplain process restoration within a 351-acre project area. This project aims to restore and recover salmon habitat and populations, improve water quality, increase food and water security, decrease flood risk, and enhance economic vitality for enhanced quality of life in rural Clallam County, Washington State.

Ocean Shores Coastal Erosion Mitigation

- *Project lead: City of Ocean Shores*
- *Funding: $175,000 awarded through FEMA's CTP Program and $745,000 from Washington State Department of Commerce's Emergency Response fund*

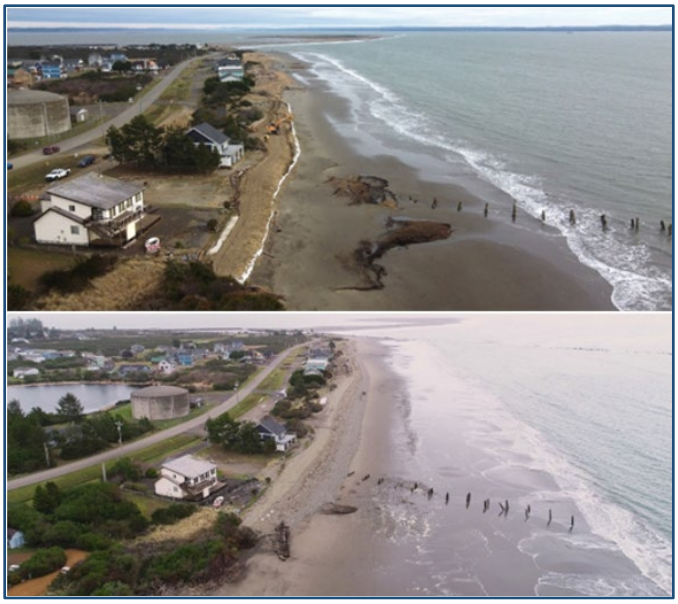

Figure 26: Coastal erosion mitigation in Ocean Shores. Sandbags were installed January 2024 (top) and a cobble berm was constructed in March (bottom). Photo courtesy of Ocean Shores.

The City of Ocean Shores has been grappling with repeated flooding and severe shoreline erosion along Oyhut Bay, which now poses a direct threat to critical public infrastructure, private homes, roadways, and the city's freshwater drinking supply. In response, COHORT supported the City in securing funding to study these erosion issues, laying the groundwork for long-term, sustainable solutions. Additional funding was also obtained to construct an interim cobble berm, which is a temporary measure to stabilize the shoreline and protect the community while the City pursues future design and investment in more resilient, nature-based coastal protection.

Owl Creek Habitat Restoration Project, Phase 2

- *Project lead: Trout Unlimited in partnership with the Hoh Tribe*
- *Funding: $1,576,523 awarded through NOAA's CZM Habitat Protection & Restoration Grant Program*

Ecology's COHORT staff supported Trout Unlimited in successfully acquiring funding to restore over a mile of Owl Creek and the surrounding floodplain, which will significantly improve spawning and rearing habitats for Chinook and coho salmon, steelhead, and resident trout species. Owl Creek is an important Hoh River tributary that has experienced impacts to salmon and forage fish species due to habitat degradation and habitat loss. Trout Unlimited, in close partnership with the Hoh Tribe, will construct almost 40 engineered log jams, install 20 large pieces of woody debris, and restore more than 20 acres of riverside habitat. The restoration project will create local job opportunities and support ecosystem resilience to climate change.

Figure 27. Backwater pool formation in Shale Creek. Restoration of Owl Creek will result in similar beneficial processes that are critical to recovering native salmonids. Photo courtesy of Trout Unlimited, 2023.

Padilla Bay Integrated Resilience Strategy

- *Project lead: Padilla Bay National Estuarine Research Reserve*
- *Funding: $500,000 awarded through NOAA's CZM Habitat Protection and Restoration Grant Program*

Figure 28: Dike overtopped on Samish Isthmus in December 2022. Photo credit: Padilla Bay National Estuary Research Reserve.

This project will advance a holistic vision for community climate adaptation and habitat restoration in Padilla Bay, Washington. This proposal builds upon a currently funded restoration feasibility study to advance two goals: (1) numerical modeling for Phase 2 restoration design at the Samish Conservation Area, and (2) developing a Resilience Working Group to support inclusive, collaborative, and community-based resilience approaches across the shorelines of Padilla and Samish Bays.

Resilience Plan for the Mouth of Grays Harbor

- *Project lead: Grays Harbor County, in partnership with Ocean Shores and Westport*
- *Funding: $700,000 pending award decisions through FEMA CTP and NFWF NCRF*

Figure 29: Erosion hazard areas in the mouth of Grays Harbor. Image credit Ecology and Grays Harbor County.

COHORT provided hands-on technical support to the cities of Westport and Ocean Shores to develop a collaborative coastal resilience strategy tailored to their shared challenges. The dynamic geomorphic conditions at the mouth of Grays Harbor are exacerbated by shifting environmental, climate, and hydraulic factors. This has resulted in persistent erosion, causing repeated flooding in Westport and severe shoreline loss in Ocean Shores. To help both cities respond to these threats, COHORT supported a joint funding effort, including applications to the FEMA Cooperating Technical Partners Program ($400,000) and the National Coastal Resilience Fund ($300,000). By facilitating coordination between the cities and Grays Harbor County, organizing regular check-in meetings, drafting initial proposals, and assisting with final grant submissions, COHORT helped build critical local capacity to advance long-term coastal resilience planning.

Restoration and Recovery of the Willapa Bay North Shore

- *Project lead: Pacific Conservation District*
- *Funding: $13,009,800 awarded through NOAA CRRC*

Figure 30: Shoreline of North Cove, Northern Willapa Bay. Photo credit: Olivia Zimmerman, 2023.

The shoreline in North Cove has eroded away at an average rate of 100 feet per year over the course of the past century, causing the destruction of many homes, loss of public infrastructure, and the relocation of the state highway. Ecology and WSG have been working for many years with the community and Pacific Conservation District (PCD) to find a long-term solution for this hazard. With funding from Ecology's CRRC award from NOAA, PCD will restore 1.1 miles of beach along the north shore of Willapa Bay and install a nature-based dynamic revetment. This effort will improve connectivity of shoreline processes across the region, promoting sediment transport that is critical to the success of adjacent federally funded nature-based solution projects.

➥ See the full case study for the Climate Resilience Regional Challenge (CRRC), page 37

State Route 112 Highway Resilience

- *Project lead: WSDOT in partnership with the Makah Tribe*
- *Funding: $24,801,038 awarded from NOAA CRRC*

Figure 31: State Route 112. Photo courtesy of WSDOT.

State Route (SR) 112 provides primary access to the northwest Olympic Peninsula, including the Makah Tribal Reservation and the remote communities of the Lower Elwha Klallam Tribe, Pysht, Clallam Bay, and Neah Bay. WSDOT considers SR 112 one of the most vulnerable roadway corridors in the state. Landslides, washouts, and flooding routinely impact highway travel most winters. Periodically, major landslides, erosion, or flooding severely damage or destroy sections of highway, resulting in long-duration closures. To address these climate-related vulnerabilities, WSDOT will begin design, permitting, and construction of a suite of high priority SR 112 highway realignment proposals identified in recent WSDOT technical studies. In addition to securing the funding through NOAA CRRC, Ecology's COHORT staff assisted in the development of the project proposal by convening and facilitating meetings between WSDOT, Makah Tribal staff, and other partners to identify and tailor the project scope to address common priorities and align with the funding opportunity.

➥ See the full case study for the Climate Resilience Regional Challenge (CRRC), page 37

Tsunami Preparedness Port Strategies

- *Project lead: Emergency Management Division*
- *Funding: $177,000 through the National Tsunami Hazard Mitigation Grant Program (NTHMP)*

Figure 32: Bainbridge tsunami preparedness strategy meeting. Photo credit: Ellen Chappelka, 2025.

With funding support from COHORT, the Washington Emergency Management Division (EMD) partners with interested ports to develop Tsunami Maritime Response and Mitigation Strategies. These strategies are tailored to each port and include site-specific maps and models, detailed assessments of tsunami risks and hazards for two distinct tsunami scenarios, and actionable recommendations for over two dozen response and mitigation measures. Developed through close collaboration with port officials, local emergency managers, and other key stakeholders, the strategies aim to enhance maritime preparedness and improve coordination before, during, and after a tsunami event. The strategy for Eagle Harbor on Bainbridge Island was published in December 2024, with the Port of Port Angeles strategy scheduled for release in fall 2025.

Wahkiakum Common Ground

- *Project leads: Wahkiakum County MRC and WSU Wahkiakum County Extension*
- *Funding: $15,000 awarded through the WSU Extension's COHORT funding*

The Wahkiakum County Marine Resources Committee (MRC), in partnership with WSU Wahkiakum County Extension, COHORT and other local partners planned and led a series of four educational presentations and site visits for local government staff, key local organizations, and the public. Participants visited sites to understand local successes of flood and erosion mitigation projects and discuss future joint efforts. The Wahkiakum Common Ground workshop series built consensus and momentum amongst partners community members to undertake future resilience initiatives. With continued assistance from COHORT, local project partners are already in the process of securing funding to continue efforts toward planning and design phases.

Figure 33: Wahkiakum Common Ground Site Visit. Participants view a resilience project during the third Wahkiakum Common Ground Workshop. Photo credit: Sanpisa Sritrairat, 2025.

➥ See the full case study, page 42

"Wahkiakum County's work with COHORT brought expertise from UW Sea Grant, Dept of Ecology, EMD and WSU Extension, as well as crucial funding to implement outreach. With COHORT's support, our Wahkiakum Common Ground workshop series is growing new collaboration and understanding among local and regional leaders. This lays important foundations for Wahkiakum County's resilience to coastal hazards."

– Carrie Shofner, County Director, WSU Wahkiakum County Extension

COHORT: A Strong Foundation for a Resilient Future

Over the past two years, COHORT has played a pivotal role in advancing coastal resilience in Washington by building local and regional capacity to address climate and coastal hazard threats. Through hands-on technical assistance and strategic guidance, COHORT has helped empower communities and Tribes to develop strong, locally-informed projects grounded in the latest science, inclusive engagement, and nature-based solutions.

Many Tribal staff and coastal stakeholders offered their appreciation for the willingness of COHORT staff to meet in the field and spend time with project proponents and community members at town halls, site visits, community workshops, and local government office spaces. These meetings provided ample opportunity for COHORT staff to listen and understand local issues and needs while also sharing knowledge and assisting with the next steps to move projects forward. In the wake of COVID-19, many connections between state agencies and local governments had frayed or disappeared. COHORT stepped in to fill that gap by offering consistent, hands-on support that re-established critical lines of collaboration and began to build a renewed culture of trust between local communities and government partners.

Figure 34: COHORT on a site visit in Brinnon. New areas and new challenges abound for COHORT to assist with over the next biennium. Photo credit: Sam Giannakos, 2025.

COHORT's work has enhanced the ability of state agencies to support locally-led resilience efforts, increased access to critical data and funding opportunities, and helped communities navigate complex processes like benefit-cost analysis. COHORT has also fostered strategic coordination among state and federal partners across the Puget Sound and Pacific Coast and guided the development of regional resilience plans that prioritize equity, environmental justice, and long-term adaptation. The result is a more connected, informed, and prepared

network of communities ready to meet the growing challenges of climate change and coastal hazards.

Despite great success in the past biennium, there remain huge unmet challenges for coastal Washington. In particular, funding cuts and budget challenges at the state and federal levels have created significant uncertainty at the community level about the resources available to undertake ambitious but necessary resilience and adaptation efforts. In an increasingly competitive and challenging funding landscape, COHORT is responding by communicating about the latest changes and status updates to state and federal grants, increasing strategic coordination on funding applications, and supporting communities through new and changing application processes. Now more than ever, the COHORT team's presence within communities and involvement in early project planning stages is helping to ensure that state and local resources can be used most efficiently and effectively to advance our collective coastal and climate resilience goals.

We are extremely grateful for the partnership with COHORT and look forward to continuing our collaborative efforts to support coastal communities. Your dedication and expertise have been invaluable, and we are excited about the possibilities for the next biennium and beyond."

– Cynthia Toop, Highlands Project Manager, Hoh Tribe

Appendix A. Case Studies

NOAA Climate Resilience Regional Challenge

Background

In 2024, the Department of Ecology was awarded $73.6 million from the NOAA Climate Resilience Regional Challenge (CRRC) on behalf of a regional partnership for coastal and climate resilience in Washington State. The award funds a series of large-scale on-the-ground projects and transformational collaborative planning initiatives to reduce vulnerability from coastal hazards, enable coastal climate adaptation, initiate workforce development, and create enduring capacity to redesign the state's coastal landscapes for the future. The project is designed to support new and existing coastal resilience collaboratives across the state, including shovel-ready projects in three sub-regional geographies that represent Washington's diverse coastlines and unique cultures and ecosystems. These areas were selected in coordination with over 30 local jurisdictions, Tribal governments, state agencies, and nonprofit organizations to improve resilience and enhance the capacity of local communities, especially those that have been marginalized, underserved, and/or underrepresented.

Figure 35: Looking north across Chinook Marsh. With $16.7 million from the total award, Snohomish County will restore 430 acres of tidal wetlands in the marsh, improve flood resiliency, and protect critical infrastructure. Photo Credit: Lindsey Desmul, WDFW, 2023.

Communities Supported

Coastal communities within the counties of the federally recognized coastal zone within Washington State, including Whatcom, Skagit, San Juan, Island, Snohomish, King, Pierce, Thurston, Mason, Kitsap, Jefferson, Clallam, Grays Harbor, Pacific and Wahkiakum. These

coastal communities also included the following Tribes: Samish Indian Nation, Tulalip Tribes, and Makah Tribe as well as Affiliated Tribes of Northwest Indians.

Partners Involved

WSDOT, WDFW, Washington State Employment Security Department, Washington Department of Natural Resources (WDNR), Snohomish Conservation District, PCD, WSG, UW Climate Impacts Group, Friends of the San Juans, Puget Sound Partnership, Recreation and Conservation Office, DOC, EMD, WSU, Washington Department of Health, The Nature Conservancy, Willapa Erosion Control Action Now community forum, South Whidbey Basin Partnership, Grays Harbor Conservation District, City of Westport, Ducks Unlimited, Laidlaw Hunting Club, American Rivers, Bonneville Environmental Foundation.

Issue

Washington's coastal areas are increasingly vulnerable to hazards and changing climate conditions are already posing serious risks to communities, traditional uses, and local economies. Coastal communities and ecosystems experience annual impacts from shoreline and bluff erosion, storm surges, flooding, and saltwater intrusion. The extent of impacts specifically associated with coastal hazards is expected to grow due to sea level rise, winter storm intensification, and changing rainfall patterns.

Goal

The goal of the regional partnership is to support local community participation in landscape-scale, multi-benefit projects that span the state's coastal region. Project implementation is focused within three unique coastal geographies: North Puget Sound, North Olympic Peninsula, and the Pacific Coast. The efforts seeks to implement large-scale risk reduction projects that utilize nature-based solutions, develop scalable and adaptable responses that center climate justice, enhance human safety, and amplify place-based projects to the broader resilience community.

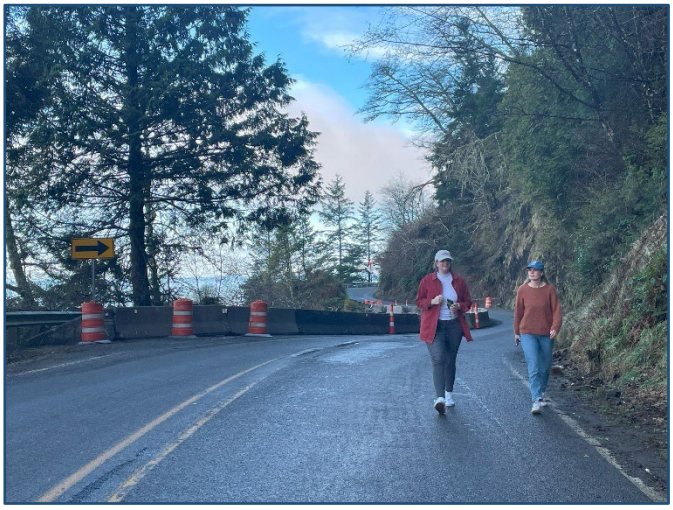

Figure 36. Damage to SR112. COHORT member, Ellen Chappelka, and CHRN manager, Chandler Countryman, inspect damage to SR112 following a landslide. Photo credit: Sanpisa Sritrairat, 2025.

Role of COHORT

COHORT members led the initial outreach, solicitation of projects, and coordination meetings with potential project leads. This process involved co-creation of proposal priorities with a steering committee, ranking all submitted projects based on alignment with Notice of Funding Opportunity criteria, Healthy Environment for All (HEAL) Act requirements, CZM program priorities, collaboration with coastal communities and Tribes, and for nature-based approaches to coastal resilience. COHORT members worked closely with project partners to collect

information, scope and refine project concepts, and develop the grant proposal. COHORT members facilitated weekly or monthly meetings with all project partners to ensure robust proposal development and agreement across partners. Once awarded funding, COHORT supported the new CRRC project coordinator in reconvening project partners, preparing for funding distribution, and commencing project work.

Moving forward, COHORT members will continue supporting project goals and identifying opportunities to build upon this funding to achieve holistic resilience outcomes. COHORT is mentoring a two-year CRRC fellow who will provide additional capacity, community engagement, and coastal resilience expertise to project leads. They will continue working closely with project leads to identify additional areas where support is needed. COHORT also led the development of the recently funded Hoko Watershed Restoration project, which funds critical riverine restoration and salmon habitat recovery near the CRRC SR112 project site, with support from Makah Tribe.

Outcome

The project boosts local communities' capacity to manage coastal hazards and strengthens partnerships for future coastal hazard mitigation efforts. Furthermore, this project also closes data gaps that were important not only for this project, but also to inform future resilience efforts. Over the next five years, the $73.6 million that was secured will be used towards the development of numerous dirt moving projects that will include habitat and shoreline restoration, nature-based shoreline improvements for state highways, and stormwater drainage improvements.

Approximately $22 million will be used by Snohomish County, San Juan County, Tulalip Tribes, Samish Indian Nation, WDFW to complete projects within the Snohomish River Delta to restore tidal wetlands, improve flood resiliency, protect farmland, improve salmon habitat and protect critical infrastructure. WSDOT is receiving $24.8 million to address climate change-related hazards threatening State Route 112, located on the north Olympic Peninsula. Nearly $15 million will fund projects tackling coastal erosion and sea level rise in Pacific and Grays Harbor counties.

Lower Columbia "Bay to Bay" workshop series

Background

Figure 37: Bay to Bay Workshop. Participants listen to a presentation about flooding solutions in the January 2024 Bay to Bay Workshop. Photo credit: Sanpisa Sritrairat, 2024.

The NFWF NCRF-funded project, "Bay to Bay: Community-Based Hazards and Habitat Resilience Planning in the Columbia River Estuary" was a three-year (2021-2024) initiative led by the Lower Columbia Estuary Partnership (LCEP) National Estuary Program, Pacific Conservation District (PCD), and Washington Sea Grant. The project sought to assist locally-led efforts to reduce changing water level's impacts on people and habitats of Baker and Grays Bay, located in the Lower Columbia River Estuary. This project focused on the Washington side of the lower Columbia, looking at current flooding and potential future sea level rise impacts, how they relate to existing issues, and how to best respond to address present and future issues simultaneously in accordance with community visions and scientific information, in order to build a resilient system. This project emphasized the integration of local perspective and priorities into the decision making process.

The Bay to Bay project advanced conversations across community members and city, county, state, federal, and Tribal governments, resulting in improved collaboration and understanding across the region. COHORT worked with this team to support project scoping, engineering support, grant-writing, and meeting planning, and facilitation. At the conclusion of this project, the team provided 12 project ideas for advancement. Seven of these are either funded or are currently awaiting funding award decisions. Community members and COHORT staff continue to support these efforts.

Communities Supported

Coastal communities along the Lower Columbia River in Wahkiakum County and Pacific County, including the communities in Long Beach, Ilwaco, Cathlamet, Skamokawa, Rosburg and Grays River as well as the Chinook Indian Nation and the Cowlitz Indian Tribe.

Partners Involved

LCEP, PCD, WSG, Ecology, WDNR, WDFW, EMD, Columbia Land Trust, Cowlitz Indian Tribe, City of Ilwaco, City of Long Beach, Pacific County Board of Commissioners, Pacific County (including Public Works and the Department of Community Development), Pacific County MRC, Wahkiakum County Board of Commissioners, Wahkiakum County, Wahkiakum County Public Works, Wahkiakum MRC, Wahkiakum Conservation District (WCD), Lower Columbia Fish Recovery Board, Columbia River Estuary Study Taskforce (CREST), Pacific Northwest National Laboratory, OSU, UW, WSU Wahkiakum County Extension, and local community organizations.

Issue

Since 2015, there have been seven National Major Disaster Declarations related to severe storms and flooding that impacted Pacific County and Wahkiakum County. The communities along the Lower Columbia River have experienced frequent flooding which is expected to intensify by sea level rise and extreme climate variability. RAD identified Pacific County These counties also have small staff capacity.

Goal

The goal of this project was to enhance the collaboration among the diverse stakeholders and advance the conversation about long-term resilience strategy for the Lower Columbia community. It is a priority of this project to integrate community input into the decision-making process. Throughout the project, various stakeholders work together to co-identify issues, local priorities, and adaptation pathways that can build long-term resilience while also addressing today's local priorities for the community.

Role of COHORT

COHORT significantly supported the Bay to Bay project by serving on the planning team, helping to organize and facilitate events, supporting grant writing, connecting the group with funding and resources, and providing technical support.

The interagency connectivity of COHORT also allowed for the development of ideas that were outside the scope of the Bay-to-Bay workshops. A Vertical Evacuation Structure on the Long Beach Peninsula was initially conceptualized through conversations that took place during the Bay to Bay workshops and was later developed into a BRIC application for the implementation of the structure after COHORT connected relevant parties to appropriate EMD staff.

Outcome

The project team, with the support from COHORT, conducted outreach and hosted eight public workshops between 2021 and 2023. These engagements helped identify coastal hazards issues, local priorities, and needs. Along with the community, the team co-identified adaptation pathways and activities that can build resilience to long-term resilience. This Bay to Bay project advanced conversations across community members and city, county, state, federal, and Tribal governments, resulting in improved collaboration and understanding across the region. COHORT work with this team to support project scoping, engineering support, grant-writing, and meeting planning, and facilitation. At the conclusion of this project, the team provided 12 project ideas for advancement. Seven of which are either funded or currently have pending funding and momentum which COHORT continue to support. One of the projects emerged from this work is the organization of the Wahkiakum Common Ground project (below).

Wahkiakum Common Ground

Background

Wahkiakum Common Ground was initiated by the Wahkiakum County MRC and COHORT in 2024 following the conclusion of the Bay to Bay project which identified the need for a coordinated flood risk reduction projects across Wahkiakum County. Wahkiakum County's ability to accomplish these resilience projects depends on a strong network of leaders who can work collaboratively across landowners, citizen leaders, municipalities, agencies, tribes, special districts, nonprofit organizations, and technical experts to find common ground as the springboard for achieving mutually desirable outcomes. To achieve this goal, four full-day workshops with 59 local leaders, agencies and technical experts from over 30 entities were convened between January and May of 2025. The workshops focused on a collaborative approach to sustaining a healthy environment, rural lifestyle, and vibrant economy. During each workshop, the participants learned about local successful watershed restoration projects through presentations and site visits. This workshop series helped build trust and relationships among local and regional leaders as a foundation for future collaboration.

Communities Supported

This project supported the following communities in Wahkiakum County: Cathlamet, Skamokawa, Rosburg and Grays River, Chinook Indian Nation and the Cowlitz Indian Tribe.

Partners Involved

Wahkiakum County MRC, WSG-Extension, WSG, OSU, PCD, EMD, ECY, Columbia Land Trust, Cowlitz Indian Tribe, Chinook Indian Nation, Wahkiakum County Board of Commissioners, Wahkiakum County, Wahkiakum County Public Works, Wahkiakum and Cowlitz CD, Lower Columbia Fish Recovery Board, CREST, Diking District 5, Port District 1, Wahkiakum Property Rights Advisory Board, and local businesses.

Issue

Wahkiakum County experiences severe highwater events and erosion, as climate change brings higher intensity storm events. Repetitive flooding takes a significant toll on the function of the local economy, property values, and the livelihood of individuals and families within the communities. As a county that relies on salmon fisheries for commercial, Tribal, and recreational use, erosion, sediment laden streams, lost habitat and warming waters significantly threaten local salmon populations.

Figure 38: Flooding in Rosburg, WA. US Coast Guard rescue during severe flooding in Wahkiakum County. Photo credit: US Coast Guard, 2023.

Despite the small population in Wahkiakum, the RAD identified that the county has the third highest number of potential coastal resilience projects among all Pacific Coast counties and yet, most of these projects have not struggle to advance. While there are a lot of potential multi-benefit resilience projects, there has been significant distrust between local landowners, community members, and the agencies and nonprofits. This lack of trust, shaped by past experiences and feeling overlooked by outside agencies and decision-makers, has made it difficult to fully leverage funding opportunities. The county has limited resources and a growing list of hazards to address, but without community buy-in, it risks missing opportunities to enhance community resilience through risk reduction projects. The Bay to Bay project identified the need to increase watershed scale collaboration in Wahkiakum County to be able to achieve their long-term coastal resilience goals.

Goal

The series of workshops sought to 1) build trust and relationships among local and regional leaders as a foundation for future collaboration on projects, 2) improve the understanding of multi-benefit coastal resilience projects, and 3) co-identify local needs, priorities, and potential projects. WSU Extension and COHORT staff facilitated the conversation among diverse stakeholders to identify the "common ground" that would create the foundation for future resilience initiatives and priorities across the County. These collaborations would enable the community to thrive in the present, adapt to future challenges, and sustain a healthy environment and a vibrant economy.

"I would just like to thank you again for all your work that you have done to put this whole thing together. I have really seen a difference in how people are communicating with one another and am also able to feel the energy and positive emotions when I look around the room. I have been very impressed with the positive response in just a few short meetings we have all had together."

– Isaac Holowatz, Habitat Biologist, WDFW Habitat Program

Role of COHORT

COHORT supported this project by providing $15,000 in funding along with offering significant technical support. COHORT members served on the steering committee and helped to facilitate the workshops, bringing in expertise related to engagement strategies, emergency management, ecological and coastal engineering, and funding strategy. WCG leveraged the strong existing connections the Wahkiakum County WSU Extension Director had with local stakeholders, which contributed to consistent and high participation rates at workshops across diverse groups of partners. COHORT also brought in additional capacity and social science expertise from the CoPes Hub and OSU to support this project. COHORT shared grant opportunities, provided proposal support, and helped secure additional funding to support the second phase of the project.

Outcome

The series of workshops were held between January and May 2025, with 59 total participants from over 30 entities, including 44 invited community leaders and 15 agency staff. The WCG team conducted pre-workshop and post-workshop surveys and collected feedback from attendees throughout the workshop series. During the pre-workshop and post-workshop surveys, participants co-identified that reducing flooding/erosion of public infrastructure, boosting the economic vitality of the county, improving emergency preparation to coastal hazards, and restoring local watersheds and salmon habitats are among the top priorities.

Figure 39: Wahkiakum Common Ground Workshop 2. Participants sharing discussion in small groups during the Wahkiakum Common Ground Series. Photo credit: Sanpisa Sritrairat, 2025.

Participants' perception about collaborative opportunities in Wahkiakum and their understanding of multi-benefits coastal resilience work significantly improved after the workshop. While pre-workshop survey found that 74% of participants agreed that there were significant barriers to collaboration in Wahkiakum County, the post-survey showed an increased support for collaboration and understanding of the power of collaboration. There was also significant statistical increases in participants' feelings of belonging and connection to others. After the fourth workshop, there was an increase in trust amongst participants that the community of Wahkiakum County can work together to solve problems. Ninety-two percent of the participants stated that they made new connections at the workshops (4.5 ± 7.3 new connections per person on average). Eighty-five percent of the participants stated that the workshops provided actionable items or practical ideas they can apply to their work.

Attendees worked together to synthesize the discussions that occurred throughout the workshops and developed a Guiding Principles document that could be used to help inform future watershed restoration efforts across the county. The group also identified potential projects and next steps, which included a priority to educate the broader public and residence about identified coastal resilience priorities, methodology, collaboration, and funding mechanisms. The team successfully secured an additional $52,823 in funding from the CoPes Hub Pilot program to create a second phase of this project to follow up on these next steps in 2025 and 2026. This project also strengthened local capacity by building experience in the Wahkiakum MRC to lead future engagement activities and establishing the MRC as a trusted organization to community based coastal resilience efforts in the future.