



NAVIGATING COASTAL HAZARDS *WORKSHOP REPORT*

*A summary report of the Cascadia CoPes Hub
Navigating Coastal Hazards Workshop
March 11 - 12, 2024*



Cascadia CoPes Hub
THE CASCADIA COASTLINES AND PEOPLES
HAZARDS RESEARCH HUB





OVERVIEW

INTRODUCTION

Cascadia represents a magnificent evolving landscape. With that dynamism comes a confluence of coastal hazards. From rising seas and flooding to erosion, mega-earthquakes, landslides, and everything in between, these challenges underscore the need for planning and preparation.

Significant progress has been made on building resilience in Cascadia. Through collective efforts and partnerships across sectors and institutions, those working to mitigate hazards have increased the adaptive capacity of our coastal communities. Some successes include improved hazard maps, new vertical evacuation structures, new early warning systems, enhanced community outreach, improved planning processes and strengthened building codes. But much remains to be done. The Navigating Coastal Hazards (NCH) workshop in March 2024 built on past successes by identifying remaining gaps and approaches to addressing them, and catalyzing new partnerships and collaborations to take next steps.

WORKSHOP GOALS

The primary goals of the workshop were to:

- Strengthen existing partnerships, and foster new ones
- Identify gaps and needs for us to pursue to build more resilient coastal communities
- Co-produce future research agendas and establish shared goals

WORKSHOP STRUCTURE AND DESIGN

The workshop was designed to promote interaction, beginning with a poster session with over 30 posters describing coastal hazards research updates, as well as activities by community groups (see Appendix I for the full agenda). The second session featured four examples of partnerships between communities and researchers to address local needs, including a presentation by **(1)** the Shoalwater Bay Indian Tribal community leaders on their vertical evacuation structure and other coastal hazards management efforts where Hub researchers have contributed, **(2)** a presentation with Consejo Hispano leadership highlighting their partnership with Hub researchers to co-develop hazard preparation information and training tailored for Latinx community groups on the coast, **(3)** longstanding collaborations with the City of Westport, WA, and **(4)** work with LGBTQ2+ community members to understand their preparedness needs and adaptive capacity.

Subsequent sessions included 3-minute lightning talks by about a dozen researchers on recent hazards science advances from research being conducted in the region. Small group discussions (i.e. roundtables) aimed to identify community priorities and gaps in understanding related to hazard preparedness. This was then followed by a second small and large group discussion about how best to construct research agendas that could best address these priorities and gaps. And finally, participants had the opportunity at the end of the workshop to participate in one of two local field trips to examine shoreline management efforts.

PARTICIPATION AND REPRESENTATION

The workshop included 150 registrants who represented a broad group of organizations, including community groups, local-state-and-federal government agencies, Tribes, research networks, regional non-profits, and local grassroots organizations. Over 90% of those registered attended (at least 135 individuals attended over the two days). Each participant brought a unique perspective, experience, and expertise to the table (see Table 1). Of those attending, 20% reported identifying with or representing a minority or marginalized group, with another 10% uncertain or preferring not to answer. In response to a question about their level of understanding of Cascadia coastal hazards and resilience prior to the workshop, the majority of participants felt knowledgeable on the topic. Three-fourths rated their understanding as a 4 (59%) or 5 (15%), on a scale of 1 (low) to 5 (high).

Self-identified role (categories are not mutually exclusive)	Percentage of attendees (based on survey responses, N=66)
City/county official	8%
Community planner	15%
Emergency manager	8%
Environmental or planning consultant	11%
Researcher	42%
State/ Federal agency	35%
Tribal government	2%

Table 1. Self-reported roles of attendees who responded to the post-workshop evaluation survey.

SUMMARY OF FINDINGS FROM RESEARCH ROUNDTABLES

Research roundtables held on the second day of the workshop were organized around a dozen themes identified on the first day. Table 2 (pp 3-5) summarizes the top three research priorities and next steps identified by each theme. The discussions took place in two rounds, so that each theme was discussed by up to a dozen-plus participants. For more detailed notes from these rich discussions see Appendix II.

Table 2. Research priorities and next steps identified by participants at the workshop in the research roundtables, by theme.

	Theme	Research Priorities	Next Steps
Table 1	Intersectionality in data and research	(1) Define intersectionality in the context of hazards and resilience research; (2) Identify the value intersectionality adds to our research	(1) Create alternative/approachable ways of communicating with communities, beyond standard operating procedures; (2) co-produce research with communities
Table 2	Hazard communications	(1) Identify effective communication modes, for alerts and emergency response, tailored to different groups/audiences; (2) Study how to foster long-term engagement and trust with communities, considering the needs and perspectives of all community members, and including the role and design of early communications focusing on how to implement action options; (3) Assess community information needs, languages, and platforms for communicating about climate change impacts, adaptation, and mitigation investment options over time frames from 20 to 100 years.	(1) Build relationships via key community members to facilitate participation; (2) Engage in education across the lifespan, including kids, about risks and corresponding actions, and leveraging gateway decisions (e.g., school selection, home purchases) to build hazard awareness, and foster the development of local expertise to address environmental hazards; (3) Identify approaches to test apps and other communications and decision support tools.
Table 3	Hazard community engagement	(1) How do we engage different groups of people? Do we need different strategies for different groups, and if so, how do we customize our engagement to be effective? (shifting populations and sub-populations; better understanding of coastal communities and how they are changing); (2) What are the payoffs for and co-benefits of engagement? How do we measure performance?; (3) How do we engage communities over longer periods of time? How do we carry community input into action, beyond the lifetime of a given research project?	(1) Push funding sources to be more open to or supportive of different measures of success or engagement, to recognize the values of community engagement that aren't necessarily immediately evident; (2) Research which community engagement strategies are being used by governments, nonprofits, and researchers across Cascadia for community hazards and resilience; (3) Research which communities have been involved or ignored in which types of community engagement efforts regarding coastal community hazards and resilience.

Table 4	Legal/policy landscape of hazards resilience	(1) Create a baseline understanding of local/state/federal codes, regulations, policies, and permitting practices; (2) Evaluate the efficacy of current and potential plans/strategies/approaches to hazards and population growth, with an equitable lens, and leveraging current frameworks for solutions creatively (e.g., tax incentives, certifications, trainings, time-limited adaptive policies); (3) Develop models and analyses that inform decision-making by ensuring research questions can directly inform policy and centered around community needs.	(1) Develop parcel-scale multi-hazard products for better risk assessment (maybe adapt these methods from other hazards); (2) Further investigate local policies and probabilities related to hazards that may include exploring adaptive management based on evolving benchmarks centering underrepresented and marginalized groups; (3) Establish a clearinghouse of information.
Table 5	Community capacity building	(1) Capacity building within the Hub: share results and next steps, what questions came out of this work - how do we support communities to pursue that work moving forward? (2) Research process to build community capacity: Community identified needs and challenges.	(1) Involve local leaders from the beginning, transforming the research process to be less agenda driven and identify community needs first; (2) Identify new approaches for agency and community collaboration; (3) Take a look at funding and grants to see how to change those programs to make them work for the communities and create staff in a durable way.
Table 6	Infrastructure	(1) How can/should we determine what are the priority infrastructures across diverse hazard scenarios (for whom, for what), in order to map vulnerable roads, places, islanding (road, resources, power, food, energy, other valued assets); (2) How can we manage dynamic transportation (transportation network response) during extreme hazard events, including compounding hazards, taking into account mode diversity? (3) What is the most efficient way to connect the largest number of towns with resilient infrastructure?	(1) Model next 100 years of environmental change, to identify the potential for grid/network independence (for energy/fuel, food, medicine), and where infrastructure will be needed; (2) Consider modeling assistance on other programs, to help coastal communities - e.g., Water Councils and Oregon Watershed Enhancement Board program to provide technical assistance and coordination, RARE Americorps to enhance local expertise.
Table 7	Community relevant and informed modeling and scenarios	(1) Models and scenarios exploring the impacts of islanding, cascading and multi-hazards, considering how people respond to an event, and addressing local and site-specific impacts; (2) Assess stakeholders' knowledge; share best practices or case studies that have contributed to enhanced community resilience, considering not only tsunami-affected areas, but also communities affected by smaller hazards.	(1) Develop models and scenarios with realistic conditions (e.g., day vs night, summer vs winter); (2) Consider more social engagement between researchers and local communities (e.g., a BBQ) to improve understanding of priorities. (3) Develop products (e.g., maps that community members can directly relate to and that help to map local resources/priorities).
Table 8	Cross-disciplines models and frameworks	(1) Identify communities' specific needs for resilience, especially related to fundamental infrastructure (water, air, resilient food systems, housing); (2) Determine where to locate and how to fund the community hubs - requires modeling (which areas are accessible in various disasters) and social research (which areas meet the needs of specific groups of citizens); (3) Determine how to educate local constituents about the hubs and resilience (in schools, etc.).	(1) Create community disaster hubs; (2) Create buddy communities (or buddy agencies from multiple communities) to build leadership capacity.

Table 9	Do something	(1) Make research results more available and applicable to communities, by making them readily digestible, and community-specific (parcel-level); (2) Research viable alternatives for various adaptation strategies and communicate transparently about these; (3) Survey communities/public more extensively to understand how perspectives differ within communities (e.g., whether people own beachfront or inland property), and study how to inform and motivate change in light of the results.	(1) Create platforms for (all) coastal communities to share information (e.g., success stories, travel funds for hazard mitigation solution visits/field trips), and centralize availability of information (from the Hub, SeaGrant, universities, federal and state agencies); (2) Hold meetings that bring together researchers, funding entities, planners, and policy makers/legislators to share info and launch next gen coastal hazards and resilience research; (3) Ensure that research presentations include a plain language description of research outcomes and potential community applications.
Table 10	Multi-layer hazards	(1) Identify and prioritize multi-hazards hotspots in Cascadia for focused research at the community scale; (2) Identify co-benefits, solutions, adaptations, and numerical models that can help to mitigate or address multiple hazards at once - multi-event resilience, across scales (from the local community scale to the regional scale); (3) Communicate risk 'beyond the line' (i.e., the 100 yr flood line), in ways that promote adaptive responses.	(1) Identify hot spots to prioritize local communities for risk assessments and protection and adaptation options across physical and social dimensions of hazards/disasters, addressing inter-reliance between neighborhoods/communities, co-produced with communities; (2) Identify co-benefits and approaches for incorporating changes like population increases in models of strategic adaptive responses to risk; (3) Collaborate with boundary organizations to better understand uncertainties and relevance of new research/science for public decisions/actions.
Table 11	Societal factors that impact resilience	(1) What is the current landscape of hazard insurance + targeted assistance (How? Who gets help and who does not?), and what information about risks/hazards/policies needs to be shared publicly (and how) to increase understanding? (2) What are the costs and benefits of pre-disaster planning, and related investment opportunities across scales (local to federal), and how do these vary across different social groups/communities? (3) What are the effects and what are the chains of impacts that hazard events have on local economies/sustainability in coastal communities?	(1) Assess local economies, local champions, and local business case studies to learn from them; (2) Survey and interview communities to identify perceptions of nature-based and other risk mitigation approaches; (3) Develop storytelling, case studies and other information to inform homeowners and others.
Table 12	Land management	(1) Research how Tribes and others are experiencing upward expansion, what success and impact metrics they are using (e.g., place attachment, consensus, safety, ecological function, risk); (2) Study/characterize road access during concurrent disasters and how to increase transportation resilience equitably; (3) Identify tradeoffs in land management decisions and ways of considering them (e.g., between safety and ecological functioning, between different communities, or between different assets within a community).	(1) Elicit research questions from affected communities, expanding them to account for impacts along entire watersheds (rather than specific geographic communities); (2) Identify how to address both ecological and human needs in collaborative research; (3) Identify and communicate with communities about current and planned development and approaches to resilience (e.g., bridges, available evacuation routes, what industries are working on).

POST-WORKSHOP SURVEY & OUTCOMES

SURVEY

In the post-workshop survey, the vast majority of respondents indicated that the workshop met or exceeded all expectations. Participants commented that it was an excellent networking opportunity, and provided a forum to learn what other groups are doing to strengthen community resilience. The post-workshop survey asked what new contacts were made, and many specific examples were given where groups in different communities connected over shared challenges, or community members engaged with researchers on new results of relevance to community needs.

Participants rated the workshop highly, with modal responses indicating that the workshop exceeded expectations with regard to learning about coastal community needs and about new hazards and resilience research in Cascadia, as well as with regard to networking and their overall workshop experience.

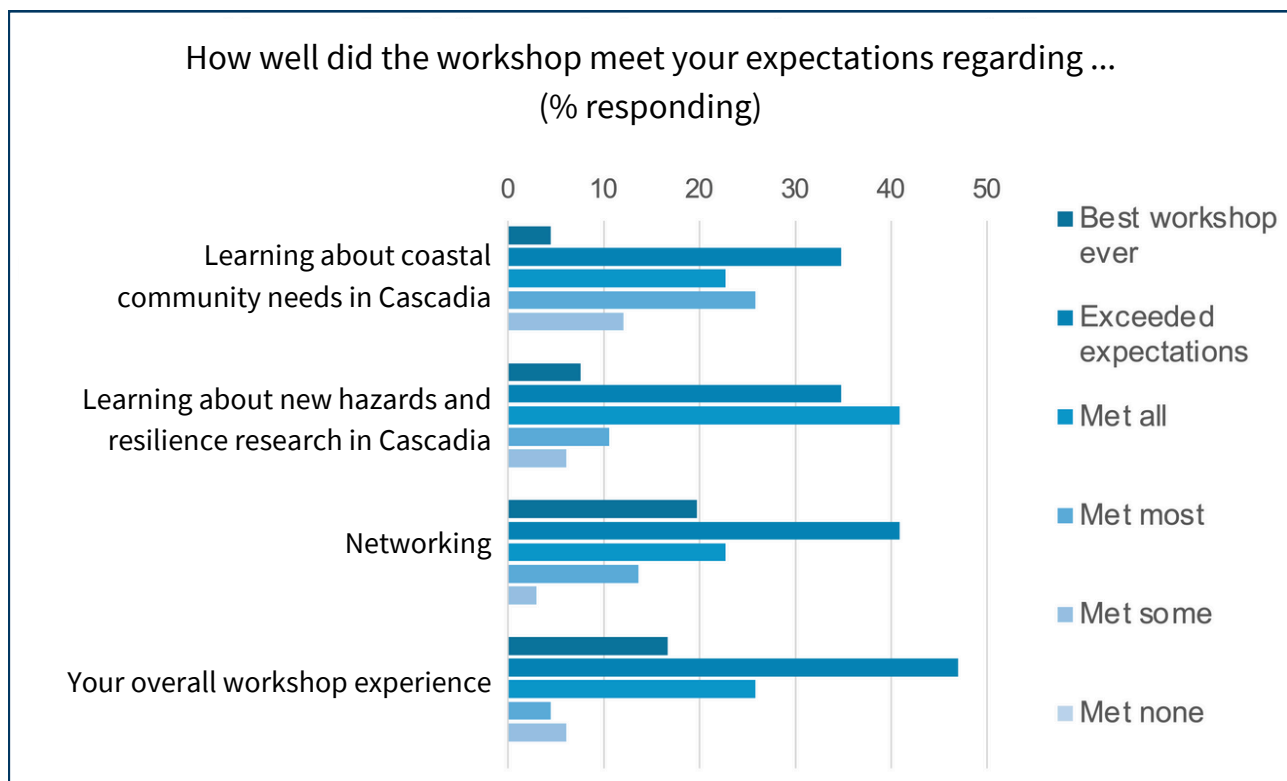


Figure 1. Percentage of respondents reporting that the workshop met various expectations.

In response to questions about what connections people had made at the workshop, this response exemplifies many: “Again, too many to list. Sydney Fishman of Washington Sea Grant has many of the same concerns I do about the legal status of managed retreat strategies, and I expect to stay in touch with her. Jon Allan is someone I was already well familiar with, but we discussed a specific way in which he will help with a project of ours. I will be following Hailey Bond's research on dynamic revetments. Just to name a few.” Several survey respondents noted that they had already followed up with multiple new contacts. Many mentioned, as one person put it, that they “loved talking to students about their research.” New contacts named in responses were well distributed across federal, state, and local government and universities.

All sessions were rated as useful by at least 15% of survey respondents. The panel on community and researcher partnerships was selected as useful by 60% of respondents, second only to the research co-design roundtables. About this panel, one survey respondent noted, “Really appreciated learning about the research on how hazards are experienced and understood by LatinX and LGBTQ communities.” Another highlighted the value of hearing about the short- and long-term preparations of the Shoalwater Bay Tribe, and of preparedness activities by the City of Westport.

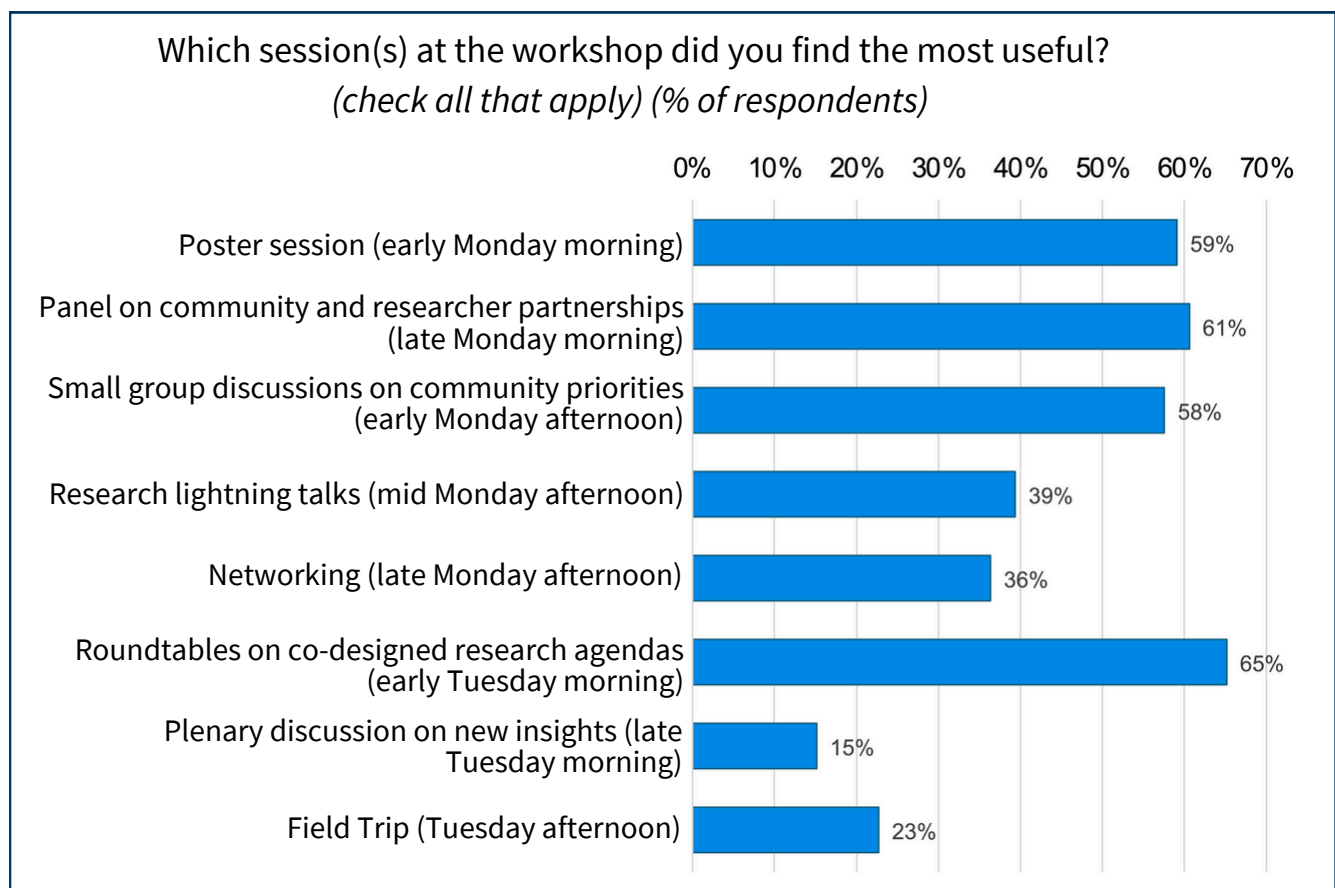


Figure 2. Usefulness of workshop sessions.

Among suggestions for improvements of the workshop were: shortening the times for large group participation (plenary discussions), holding several smaller, focused workshops, possibly in the form of roadshows, or focused on specific types of communities, such as Tribes, and addressing some of the challenges of the location (acoustics, visibility of the slides, crowding—which was due to higher-than-anticipated attendance). Suggestions for increasing engagement between coastal community leaders, planners, researchers and others included: “buddy” communities or agencies for coastal communities, storytelling, a living directory of those interested in coastal resilience, doing more to recruit attendees from the host community, more planning and emergency management attendees, politicians, and political scientists. One respondent suggested making the workshop longer to spend more time on science and engineering, while others commented that the proportion of researchers was too high (Note: researchers were in the minority of attendees, 42%; Table 1).

Almost two thirds of respondents offered additional comments at the end of the survey in response to the invitation to do so. All of the volunteered comments were appreciative of the quality of the workshop and its interactivity, as illustrated by the comments from one shoreline planner: “This was overall a very useful workshop, and from the standpoint of networking it may be the best in which I’ve ever participated.”

WORKSHOP OUTCOMES

One specific outcome of the workshop was a follow-on workshop focused on coastal inundation modeling hosted by NOAA shortly after this workshop. One of the organizers noted in response to our survey question about connections made at the NCH workshop: “Contact was made between NOAA and the USGS on coastal flooding themes. A science seminar is being planned with the tsunami/storm surge modelers who were there, and will include a few others from NOAA and USGS who weren't there as well.” The seminar was held the following month, as planned, and included several researchers from the Cascadia CoPes Hub.

At the annual gathering of the Cascadia CoPes Hub later that spring, in May, 2024, Hub members and community partners brainstormed specific research ideas to address the research themes and priorities identified at the NCH workshop (Table 2), and pitched them to a panel of community partners. These pitches and the prioritization community partners assigned among them were provided as guidance and prioritized for pilot projects in the 2024 round of Cascadia CoPes Hub pilot project funding, resulting in [new research projects](#) directly addressing some of these priorities. Priorities included hazard communications, hazard community engagement, land management, and the legal/policy landscape of hazard resilience.

SUMMARY AND NEXT STEPS

The workshop highlighted the centrality of hazard communications, the high value coastal communities place on localizing research and communications for their specific coastal communities, and the importance of connecting personally to make progress on coastal resilience in the region.

In addition to the immediate outcomes and next steps noted above, such as the pilot research projects funded to address identified needs, the Cascadia CoPes Hub is working with partners to hold a second Navigating Coastal Hazards workshop early in 2025, with the advice of its Community Advisory Council. Opportunities identified in the workshop are being integrated into other Cascadia CoPes Hub activities this year, including the Hub's public seminar series and broadening participation efforts.

ACKNOWLEDGEMENTS

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SUGGESTED CITATION

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APPENDIX I

WORKSHOP AGENDA

Navigating Coastal Hazards Workshop

What are your community's values, needs, and visions of coastal resilience?

March 11-12, 2024

Purpose: Pacific Northwest coastal leaders, planners, emergency managers, and researchers will gather for a 2-day interactive workshop in Astoria, Oregon. Hosted by the Cascadia CoPes Hub and partners, participants from Washington, Oregon, California, and British Columbia will connect the dots between current coastal needs and exciting new research activities through roundtable discussions, posters, and panels.

Location: The Loft at the Red Building, 20 Basin St, Astoria, OR 97103

Time	Agenda
Day 1	March 11
8:00 - 8:45	Poster Set Up (Coffee and tea provided) If you are bringing a poster, please join us early to setup your poster before the morning session
9:00am	Welcome and Introduction Workshop goals
9:30am	Engage and Discuss: A Poster Session An interactive session where participants can engage with poster authors and get a quick synopsis of new advances.

10:30am	<p>Coastal Community Panel: Examples of Community and Research Partnerships Highlights from successful partnerships between Tribes, coastal community nonprofits, coastal city managers and planners, and Cascadia coastal hazards researchers.</p> <p><u>Panel Titles and Speakers (15 mins each, 10 mins Q&A):</u> Adapting to the Tide: Shoalwater Bay's Journey from Protect in Place to Strategic Relocation- <i>Quintin Swanson and Ken Ufkin, Shoalwater Bay Tribe</i></p> <p>Todos Preparados - Culturally Responsive Emergency Preparedness for Hispanic/Latinx Coastal Communities - <i>Diana Niño, Consejo Hispano, Felicia Olmeta Schult and Josh Blockstein, Cascadia CoPes Hub</i></p> <p>Coastal Resilience on the Westport Peninsula- <i>Kevin Goodrich, City of Westport, WA City Administrator</i></p> <p>A Queer Approach To Research Partnerships - <i>Natasha Fox, Oregon Department of Emergency Management, and Georgia Smith, Community Health Worker and the Parenting Education Coordinator for Lincoln County</i></p>
12:10pm	Buffet Lunch Provided
1:10pm	Small Group Discussions: Identifying Key Coastal Community Priorities Related to Hazards Resilience
2:10pm	Small Group Report-Outs and Discussion
3:25pm	BREAK (Coffee and tea provided)
3:45pm	<p>Lightning Talks: Current Research Highlights Highlighting new research aimed at mitigating the risks of natural hazards for coastal communities in Cascadia</p> <p><u>Talks (3 mins max each):</u> Cascadia CoPes Hub Team 1—Alison Duvall, David Schmidt, Audrey Dunham Cascadia CoPes Hub Team 2—Alex Horner Devine, Christie Hegemiller, Sally Hacker Cascadia CoPes Hub Team 3—Jenna Tilt, Haizhong Wang, Ashley Moore CRESCENT (Cascadia Region Earthquake Science Center)—Valerie Sahakian, University of Oregon CoSMoS (Coastal Storm Modeling System)—Patrick Barnard, USGS CHRN (Coastal Hazard Resilience Network)—Noah Linck, WA Dept. of Ecology</p>

4:30pm	Snacks and Networking Facilitated Q&A with research presenters followed by informal discussions to connect workshop participants with common interests. Appetizers and cash bar
6:00pm	Adjourn for the day (Dinner on your own)
Day 2	March 12
8:30am	Welcome and Agenda Overview (<i>Coffee and tea provided</i>)
8:45am	Co-Designing Research Agendas that Address Community Priorities How should the research evolve to better serve community needs?
10:45am	Break (Coffee and tea provided)
11:00am	Group Report-Outs and Next Steps Discussion Workshop Wrap-up
12:15pm	Lunch (Boxed lunch for those on the go)
1:00pm	Optional Field Trips

Field Trip Details

*Please bring rain gear as the forecast is looking quite rainy!

Field Trip 1: Northside, Washington 1:45 - 4:30 pm

Location: Cape Disappointment, Washington

Topic: Coastal change hazards and sediment management at the Mouth of the Columbia River:

Highlights from almost three decades of observations by the Coastal Monitoring and Analysis Program.

Leaders: Michelle Gostic, Gabby Alampay, Amanda Hacking, & Heather Maran - Coastal Monitoring and Analysis Program of the Washington State Department of Ecology

Agenda: Please find the agenda attached. Print outs will be available the day of the event

Field Trip 2: Southside, Oregon 1:45 - 3:00 pm

Location: Columbia River South Jetty, Oregon

Topic: Natural and nature based adaptation via dynamic cobble revetments at the mouth of the Columbia River.

Leaders: Jonathan Allan - DOGAMI (Oregon Department of Geology and Mineral Industries) and Hailey Bond - Oregon State University / Cascadia CoPes Hu

Agenda: Please find the agenda attached. Print outs will be available the day of the event

Poster List

Poster Number	Name	Poster Title
1	Ali Burgos	Overview of the Cascadia CoPes Hub and the Community Engaged Research Clearinghouse
2	Valerie Sahakian	An Overview of the Cascadia Region Earthquake Science Center (CRESCENT)
3	Annette Patton	Sitka's Public-Facing Landslide Dashboard
4	Alison Duvall	Landslides and their Consequences in Coastal WA & OR: A Summary of Ongoing Research by the Cascadia CoPes Hub Landslides Team
5	Mani Kumar Reddy Thangella	Simulation-based Approach to Optimize Landslide Recovery Operations on Transportation Network
6	Audrey Dunham	The next generation of 3D ground motion simulations of Cascadia subduction zone megathrust earthquakes
7	Julia Grossman	Planned Work to Model Seattle Fault Combined Ruptures, Ground Shaking and Tsunami Hazards
8	David Schmidt	Probabilistic Land Level Change From Future Earthquakes in Cascadia
9	Carrie Garrison-Laney	Paleotsunami research for coastal hazard resiliency
10	Randy LeVeque	Visualizing Ship Movement in Tsunami Currents
11	Evan Mix	From Tonga to Tokeland: Reaching Cascadia coastal communities with Tsunami alerts
12	Daniel Eungard	Tokeland Peninsula Tsunami Evacuation Walk Times
13	Laura Gabel	Beat the wave! Exploring tsunami evacuation difficulty and mitigation options through GIS modeling
14	Amina Meselhe	Human-centered connectivity and transportation network recovery following a Cascadia Subduction Zone Earthquake and Tsunami
15	Solana Granados	An Initial Transportation and Mobility Needs Assessment for the Shoalwater Bay Indian Tribe
16	Michael Tomlinson	Water Quality Impacts of Relatively Low-Energy Tsunamis
17	Peter Ruggiero	Assessing alternative scenarios for chronic and acute hazards along the Oregon coast
18	Carson Williams	Stochastic Chronic Coastal Hazards Modeling
19	Carl Hendrickson	Mapping Community Priorities for Sea Level Rise Adaptation Planning
20	Heather Maran	Columbia River littoral cell beach monitoring: Informing coastal resilience work

21	Sally Hacker	Dune grasses, sand, and coastal ecosystem services
22	Max Perkins	Nature-Based Coastal Resilience in Puget Sound
23	Jackson Blalock	Building a coastal resilience program across Southwest Washington
24	Rachel Johnson	Advancing coastal infrastructure resilience to sea level rise in Washington's State Parks
25	James Johnston	Flood Risk Map: San Francisco, CA
26	Haizhong Wang	Lessons Learned From the 2018 Attica Wildfire: Households' Expectations of Evacuation Logistics and Evacuation Time Estimate Components
27	Louisa Wildman	Household response to wildfire – Integrating behavioral science and evacuation modeling to improve community wildfire resilience
28	Chenqiang Liu	Understanding Authorities' Decision-making Process during Wildfire: An Emergency Manager Survey
29	Amanda Thiel	Indicators of Wildfire Recovery
30	Ellen Chappelka	Coastal Hazards Organizational Resilience Team (COHORT)
31	Daniel Abramson	Inclusive Community-based STEAM Identity-building in Coastal Hazards Research: Pilot Activities for Cascadia TEACH with the Ocosta School District, WA
32	Joshua Blockstein	Critical Links: Exploring the relationship between community assets and social capital for Latinx communities along the Oregon coast
33	Najiba Rashid	Impact Of Post-Disaster Debris Management on Communities and Observe Through the Lens of Equity
34	Jordan Totty	Building Local Government Capacity in Natural Hazard Mitigation Planning
35	Julie Sorfleet	Participatory Mapping as a Proposed Method for Engaging Stakeholders in Spent Nuclear Fuel Relocation from Areas Exposed to Coastal and Climate Hazards

APPENDIX II

To find detailed notes from the small group discussions of themes developed during the first day of the workshop, please visit rb.gy/xp1v6q



APPENDIX III

ORGANIZING COMMITTEE

Alessandra (Ali) Burgos - Project Manager, Cascadia CoPes Hub - alessandra.burgos@oregonstate.edu

Amanda Murphy - Senior Project Lead, Ruckelshaus Center, Navigating Coastal Hazards Workshop Facilitator

Andrew Clifford / Pieter-Ewald Share - Representation from CRESCENT

Ann Bostrom - Weyerhaeuser Endowed Professor, University of Washington, Co-Director of the Hub - abostrom@uw.edu

Carrie Garrison-Laney - Coastal Hazards Specialist, Washington Sea Grant

Dan Abramson - Associate Professor, University of Washington

David Schmidt - Professor, University of Washington - dasc@uw.edu

Felicia Olmeta Schult - Coastal Hazards Specialist, Oregon Sea Grant

Frank Gonzalez - Affiliate Professor, University of Washington

Pat Corcoran - Community Parter, Astoria Oregon

Peter Ruggiero - Professor, Oregon State University, Co-Director of the Hub - peter.ruggiero@oregonstate.edu

Phyllis Shulman - Senior Facilitator, Ruckelshaus Center, Navigating Coastal Hazards Workshop Facilitator

Robert Freitag - Senior Instructor and Director of IHMP, University of Washington

Tiffany Brown - Emergency Manager, Clatsop County OR (Now at Lane County)

