CASCADIA COPES HUB

The Cascadia Coastlines and Peoples Hazards Research Hub

Helping Pacific Northwest coastal communities prepare for coastal hazards

About Us

The Cascadia Coastlines and Peoples Hazards Research Hub is funded by the National Science Foundation to **advance scientific knowledge about coastal hazards** (such as flooding, earthquakes, tsunamis, and landslides) and to develop approaches for **increasing coastal community resilience** to these hazards and climate change.

The Cascadia CoPes Hub includes **100+ researchers** from ten organizations across **Washington, Oregon, and California**. We collaborate closely with our coastal community partners, learning about their needs and concerns with natural hazard impacts. Our research focuses on understanding how coastal hazards may affect these communities and identifying strategies to mitigate risks, enhance preparedness, and respond effectively to disasters.

Coastal Hazard Research

Team 1: Tectonic Geohazards and Probabilistic Modeling

Team 2: Exposure to Inundation and Coastal Change Hazards

Team 3: Community Adaptive Capacity

Team 4: Broadening Participation, inclusive STEAM education

Team 5: Community Engagement and Co-production of Coastal Hazards Science
(Includes the Cascadia Community Engaged Research Clearinghouse CCERC)

The Cascadia CoPes Hub responds directly to the call by Pacific Northwest coastal communities for "**a coordinated research agenda among universities, governmental agencies, NGOs, and others**" to help them achieve resilience (Ruckelshaus Center, 2017).

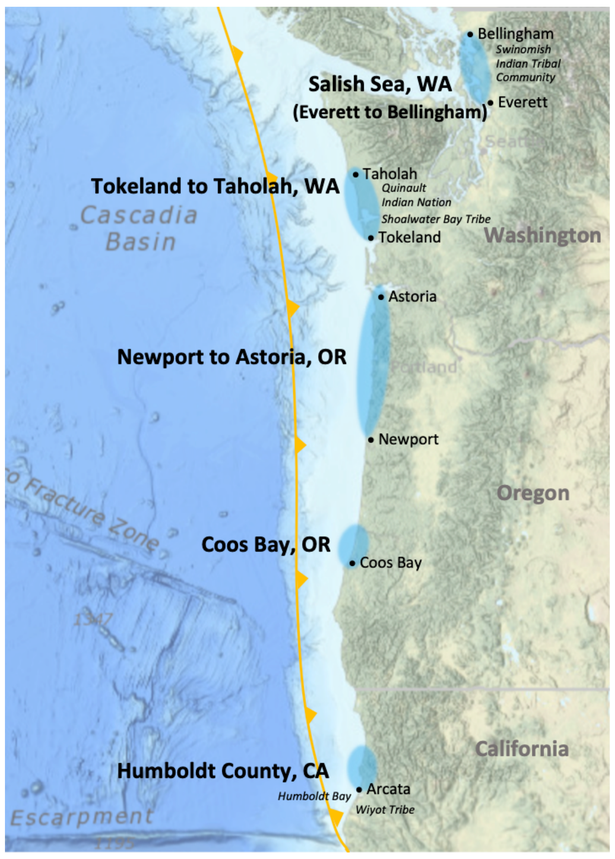
The Hub is composed of 5 teams and includes research relevant to all of Cascadia. This research will inform coastal community planning and resilience in immediate ways. Hub projects are being co-developed with collaboratories and each Hub team has a community liaison lead who will focus on helping coastal communities integrate new scientific advances into their planning.

The **Hub aims to increase the diversity of coastal hazards practitioners and scholars.** The goal is to enhance hazard information sharing among communities and incorporate diverse viewpoints into mitigation planning and actions.

Research Examples Include:

- A better understanding of the recurrence rate of megaquakes on the Cascadia Subduction Zone;
- An examination of how geological events, such as increased sedimentation and erosion, might impact the biodiversity and marine ecosystems that coastal communities rely on;
- An exploration of how earthquakes could affect transportation and health systems, and how local governments are getting ready to respond.

Collaboratories



Collaboratories (in blue) are main areas where Hub members work on coastal hazards and resilience with community partners. They are initial laboratories for in-depth, equity-focused, community-engaged study of localized coastal issues.

They are varied in geography, geology, ecology, and community characteristics. By honoring long-term relationships and creating new partnerships, Cascadia CoPes Hub work is advancing convergent hazard research and enhancing regional resilience.

Cascadia Community Engaged Research Clearinghouse

CCERC- A pathway for communities and practitioners to connect to the Cascadia CoPes Hub

Step 1

Invite community leaders and practitioners to submit support requests for:

- **Coastal Hazard Research**
- **Science Communication**
- **Technical Assistance**

Step 2

Determine the Hub mechanism for support

- SeaGrant Coastal community lead
- Hub Postdoc
- Other Hub researcher
- Co-production studio / lab

Step 3

Connect communities with appropriate Hub researchers

Step 4

Provide ad-hoc technical support for community-engaged research design or implementation

Examples of prior CCERC requests

- Susceptibility to Tsunami Inundation and Landslide Hazards of the City of Yachats' Community Disaster Caches Locations
- Susceptibility to Tsunami Inundation and Landslide Hazards at the Proposed Site of YYFAP Childcare Facilities
- Updated sea level rise communication material for Westport, WA through student led studio projects
- Collated and provided tsunami and earthquake preparedness material
- Developed a sea level rise guidance report using new projections for Oregon's outer coast and all estuaries, including the Columbia River

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