

NATURAL HAZARDS

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Together we will: Understand and mitigate the devastating impacts of natural disasters

In a changing world, it is important to understand the natural hazards that originate all around us. A cross-disciplinary effort from the University of Washington, including the College of the Environment and other university partners, is shifting the conversation around these hazards. With state and federal agencies, our scientists and researchers are undaunted in their passion for understanding how and why these hazards occur, and how we can take meaningful steps to mitigate them. Natural Hazards at the University of Washington is a boundless body of experts working toward a more resilient future for communities across the globe.

NATURAL HAZARDS FOCUS AREAS

GEOLOGY

Earthquakes | Volcanoes | Landslides

Experts across a range of fields—from seismic issues and engineering to applied math and urban design—dig into big, multi-layered questions about processes that affect communities and people around the world. We define geologic hazards as large-scale complex natural events that happen on land. Geologic hazards cause immense damage, and loss of property—and sometimes life. The College of the Environment and its partners are using their broad base of expertise to improve on current and accepted approaches to predicting and mitigating geologic hazards.

WATER

Tsunamis | Coastal threats | Floods

Water—oceans, seas, storms, rivers, and rain—is a source of beauty, inspiration, and recreation for billions of people. But water hazards have the potential to impact almost everyone. Fifty percent of the world's population lives within 100 miles of a coastline, and those who don't are still at risk for experiencing local or regional flooding events. Our scientists and researchers work across water-related hazards, each with their own area of expertise. In partnership with other experts, we are working toward resilient mitigation approaches to water hazards, including tsunamis, coastal threats, and floods.

WEATHER AND CLIMATE

Climate change | Extreme temperatures | Wildfires | Severe storms

Our planet's climate is changing. Precipitation patterns are shifting, and extreme climate- and weather-related events like wildfires, record high and low temperatures, and heavy rainstorms are happening more frequently than ever. Research from UW and around the globe points to a link between these observed changes and climbing levels of carbon dioxide and other greenhouse gases in the atmosphere. Through their depth of knowledge, convening power, and ongoing engagement with partners, UW Environment's climate and weather experts are working to fuel big ideas that lead to meaningful impact.





FEATURED PROJECT: M9

M9 is reducing the catastrophic potential of Cascadia earthquakes before they happen.

The M9 project is a team of experts whose goal is to reduce potential effects of a magnitude 9 “megathrust” earthquake in our region through the advancement of probabilistic, statistical, and numerical methodologies, an early warning system, and community planning techniques. An M9 earthquake along the Cascadia fault would cause immense shaking, soil liquefaction, and trigger landslides and tsunamis from British Columbia to northern California.

M9’s researchers include experts from the College of the Environment’s Department of Earth and Space Sciences, as well as from Urban Design and Planning, Civil Engineering, and the Evans School of Public Policy and Governance.

For more information please email hzrds@uw.edu, or visit Hazards.uw.edu

