COLLEGE OF THE ENVIRONMENT **COMMUNITY**

Alumni Spotlight

Kate Allstadt

Alumna, Earth & Space Sciences

What would you do in a big earthquake? How would your neighborhood fare? Would the ground beneath your house hold firm, or turn into liquid, or break loose in a landslide? If you had a few seconds or minutes warning, how would you prepare knowing a devastating earthquake was on its way?

These are the kinds of questions researchers like Kate Allstadt—currently a researcher with the USGS Cascade Volcano Observatory—ask with increasing urgency. Her hope is to make places like Seattle and other settlements in the Pacific Northwest more resilient in the face of disaster.

"Natural hazards are interesting and exciting…if no one gets hurt, " says Kate. "My hope is that I can help motivate people to think about what might happen so they can be better prepared."

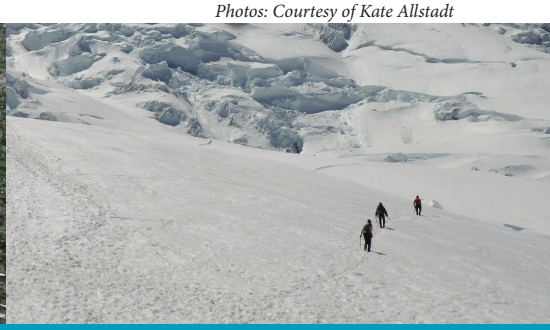
Kate received her PhD from the College of the Environment's Department of Earth and Space Sciences, and calls herself as a "present-day geologist" because she tries to connect the unique and active geology of the Pacific Northwest to how it affects people. A cornerstone of her research as a student looked at areas around Seattle prone to landslides that would be triggered by a major earthquake. Historical evidence of sliding all throughout the greater metropolitan area exists, but no one had asked how that might affect homes, businesses, roads—everything that makes a city a city.

Kate connected the two by mapping the parts of Seattle prone to earthquake-induced landslides, and published her work in a high-profile scientific journal. Her work got the attention of city planners and Seattle leadership, and was featured on the coveted front-page of *The Seattle Times*.

Building on that connection between society and natural disasters, Kate and her colleagues also began working on a National Science Foundation-funded project that estimates the shaking from a magnitude 9.0 earthquake on the Cascadia Fault. Their goal is to better understand what geographic areas would be most affected, identify what people would do if they were warned of an imminent threat ahead of time, and help communities better survive such an immense earthquake.

Kate came to UW to study in Professor John Vidale's lab because the Pacific Northwest is rich in natural hazards, and the region had the people and expertise to help her realize her research goals. "What was great about my time as a student at UW is that I was given a lot of freedom and flexibility and that allowed me to pursue the research I was most interested in that I also felt was relevant to society," says Kate. "I am lucky that the allure of the geology of the Pacific Northwest drew me here because it connected me with a fantastic group of mentors and colleagues and opened doors I never would have imagined."

Photos: Courtesy of Kate Allstadt



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