

***When science meets emergency management—and back again:  
The M7.8 Kaikōura Earthquake case study***

**Sara Kelly McBride, Ph.D.**

**Mendenhall Fellow at the Earthquake Science Center,  
U.S. Geological Survey, Menlo Park, California**

Part of preparing for a major earthquake involves an unexpected aspect – integrating scientists within emergency management structures during response and recovery. As seen in the case study of the M7.8 Kaikōura Earthquake in New Zealand, scientists can play a vital role in assisting emergency managers and decisions makers during times of crisis. However, there are some barriers to successful integration of scientists in emergency management. The cultures of science and emergency management generally are oppositional; while scientists seek specific, in-depth knowledge of one particular field or topic, emergency managers work more heuristically, often having to be a “jack of all trades”, following their with “gut instinct” and within established protocols or hierarchy. Scientists seek new knowledge while emergency managers’ goals are to learn from previous events to inform future decision making. While it may take a scientist years to complete their work, emergency managers have sometimes only seconds or minutes to make a choice that can impact the health and safety of their communities for decades to come. With such oppositional approaches and goals, how can scientists and emergency managers better understand each other and work together? This talk explores the cultures of science and emergency management under the lens of social science, to help us explore what the challenges and barriers are to working together for better outcomes in our communities.

**Biography:** Sara McBride is a Mendenhall Fellow at the U.S. Geological Survey in the Earthquake Science Center. She has a Ph.D. in English and Media Studies from Massey University in New Zealand, exploring how to improve effectiveness of communication to change how people think about natural hazards. Sara also studies human behavior and interconnected discourse between media, scientists, emergency managers, and non-technical people. Sara also has a Master’s in Public Administration with a specialty in Disaster Management and Humanitarian Assistance. She has also trained as an emergency manager, Urban Search and Rescue (USAR) team member, and public information officer (PIO).