

QuakeSmart Workshop Unearths Geological Challenges in Charleston

On Thursday, November 10, [QuakeSmart](#) Workshop attendees in Charleston, SC came to startling conclusion: even a moderate earthquake in Charleston could have catastrophic effects.

“The devil is in the geological detail,” College of Charleston scientist Dr. Steven Jaume stated, explaining how local geology determines a range of impacts from shake strength to liquefaction potential.

Due to the unstable soil conditions of South Carolina’s low country, even a moderate earthquake (less than M7) could cause tremendous damage. Considering the amount of unreinforced masonry buildings in Charleston’s historic district, the breadth of potential damage hinges on the location of an earthquake’s epicenter.

But gauging potential epicenters is more complicated than one might suspect. Due to sediment patterns in the area and the perceived depth of the fault, scientists are unable to map the fault line precisely. Charleston’s famous M7.0 earthquake of 1886 did not leave any obvious surface faulting evidence, so its exact location and type remains a mystery.

This leaves QuakeSmart attendees in Charleston with a big job ahead of them. Event supporters such as the Central U.S. Earthquake Consortium, Legacy Partner FEMA, FLASH, Legacy Partner Simpson-Strong Tie, South Carolina Department of Insurance, South Carolina Emergency Management Division, the National Earthquake Hazards Reduction Program (NEHRP), and USGS will continue to utilize new technologies and funding to develop and maintain comprehensive plans for disaster mitigation and response in South Carolina.

South Carolina Insurance Department Director Ray Farmer delivered a keynote presentation on disaster resilient public policy and the role of strong, well-enforced building codes. The keynote was part of the DisasterSmart Leadership Luncheon that also featured the [DisasterSmart Leadership Brief: Leading Resilience in Local Communities](#). The FLASH brief is part of the new DisasterSmart Leadership Toolkit that provides appointed and elected leaders with case studies and details on opportunities to support community resilience at all levels of government.

“We know that we are at risk for many perils, including earthquakes, and the Department is committed to the safety and resiliency of our citizens and communities. The information provided through the *QuakeSmart* Workshop is critical in helping South Carolinians prepare and strengthen their properties for damages associated with earthquakes as well as other natural disasters,” said Farmer.