

Project Summary

Rocky Mountains Cooperative Ecosystem Studies Unit

Project Title: Haywired: How Earthquake Damage Affects the Digital World

Discipline: Intredisciplinary
Type of Project: Research
Funding Agency: USGS
Other Partners/Cooperators: University of Colorado Boulder
Effective Dates: 4/17/2014 - 4/16/2016
Funding Amount: \$100,000

Investigators and Agency Representative:

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Project Abstract: The goal of this research is to address questions with a case study of the potential cascading effects of a large Bay Area earthquake, particularly an M 7.0 rupture of the northern and southern segments of the Hayward Fault. In 2014 and 2015, SAFRR will explore questions through the Haywired disaster scenario.

Objectives are to build on past studies of a Hayward Fault earthquake and past scenario development procedures in several ways. It will explore how tools of decision analysis such as influence diagrams and Bayesian network analysis can be used for risk analysis, disaster planning, response and recovery. A system-of-systems approach will be used to quantify damage and recovery of interdependent physical lifelines. Haywired will look forward decades to examine the implications of modern building code philosophy for the viability of a metropolis.

Outcomes with completions dates: April 16, 2016

Keywords: digital tools, earthquakes, risk analysis, disaster planning, response and recovery, USGS, University of Colorado Boulder