



Community Collaboration Efforts by EERI for Scenario Development and Post- Earthquake Clearinghouse Response

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Earthquake Engineering Research Institute



EERI is the leading non-profit membership organization that connects those dedicated to **understanding earthquake risk** and **increasing earthquake resilience in communities worldwide.**



learn more at www.eeri.org or by contacting EERI's Executive Director Heidi Tremayne, heidi@eeri.org

Why an Earthquake Scenario?

“A scenario project begins with the question:

What can be done now to prevent damages from a future catastrophic earthquake?

The answer will be found as you study and report on the various impacts of the earthquake. Mitigation activities will begin once you convince those with a stake in the safety of the community of the nature and extent of the earthquake risk and how that risk can be addressed.

Mitigation is a long and challenging process. **By regularly presenting a credible scenario**—through small meetings and well-chosen media—**you will create advocates who can increase public awareness and initiate mitigation policy and programs.**”

– *Guidelines for Developing a Scenario, EERI, 2006 and revised 2021*



What an Scenario can do:

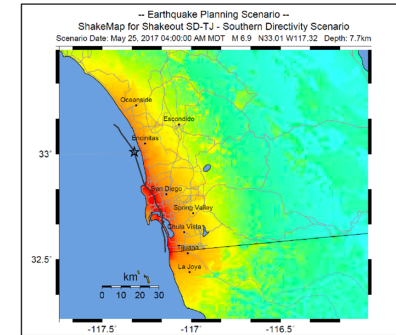
- **Foster a community of dedicated experts and stakeholders** seeking earthquake resilience
- **Help a community understand its earthquake risk** and possible risk reduction measures
- **Help stakeholders visualize specific impacts**, including physical, social, economic and environmental
- **Inform response planning** and exercises
- **Inform mitigation actions** and land use planning
- **Raise awareness** to promote business continuity

Note: scenarios can be accomplished at various scales depending on the desired outcomes.

EERI Guidelines

- **AN OVERVIEW OF SCENARIO PLANNING**
 - Why develop an earthquake scenario?
 - How the Community Benefits
- **LAUNCHING THE SCENARIO DEVELOPMENT EFFORT**
 - Engage the Community
 - Identify Key Participants and Audiences
- **ORGANIZING THE DEVELOPMENT TEAM**
 - Identify the Process and the Organizational Plan
 - Workgroups / Management Team / Project Director
- **CONSTRUCTING THE SCENARIO**
 - Information to Collect from Available Sources
 - Components and Steps in the Process
 - Useful Tools
- **SHARING THE SCENARIO**
 - Telling a Story with Maps and Graphics
 - Reaching Different Audiences
 - Conducting Informational Workshops
 - Working with the Media
- **PUTTING THE SCENARIO TO WORK**
 - Plans and Policies that Consider Hazards Risk
 - Examples
- **FUNDING THE PROJECT**

GUIDELINES FOR DEVELOPING AN EARTHQUAKE SCENARIO



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March 2006, Revised October 2021



<https://eeri.org/developing-earthquake-scenarios>

Example Scenarios

- **San Diego, 2020:** Rose Canyon Fault Zone (EERI San Diego Chapter)
- **Northern California, 2018:** Haywired (USGS)
- **Utah, 2015:** M7.0 on Wasatch Fault (EERI Utah Chapter)
- **Southern California, 2008:** ShakeOut (USGS)
- **Washington, 2005:** M6.7 Seattle Fault (WAEMD)
- **Northern California, 1996 + 2010:** Hayward Fault (EERI NorCal Chapter)
- **Other Hazard & Risk Studies:**
 - M9 Project ~2017 (UW)
 - USGS Scenario Catalog
 - DOGAMI 2013 M9.0 Cascadia

San Diego Earthquake Planning Scenario

Magnitude 6.9
on the Rose Canyon Fault Zone



Scenario for a Magnitude 7.0 Earthquake on the Wasatch Fault–Salt Lake City Segment

Hazards and Loss Estimates



Developed by the
Earthquake Engineering Research Institute,
Utah Chapter

Prepared for the
Utah Seismic Safety Commission



June 4, 2015



After Scenarios...Post-Quake Coordination

Community of **Geologists, Structural engineers, Geotechnical engineers, Geophysicists, Private consultants, Academic researchers, Economists, and Social Scientists** participate in a Clearinghouse to:

- Inform the response and recovery
- Coordinate reconnaissance efforts
- Manage access to restricted areas
- Request overflights
- Share findings
- Plan and update field teams
- Attend daily briefings
- Coordinate and share data



*Ridgecrest Earthquake Sequence
Physical Clearinghouse (July 2019)*

<https://learningfromearthquakes.org/activities/clearinghouses/>

Active Clearinghouse Leaders & Partners

- **USGS + NEHRP**

- Circular 1542: “The USGS and FEMA, in coordination with the PCWG-EIC, should support and participate in the formation of the Technical Clearinghouse, in collaboration with relevant partners, unless a State agency is organized and prepared to lead its establishment.”

- **States with Clearinghouse Plans**

- California Earthquake Clearinghouse
- Washington Geologic Hazards Clearinghouse Plan
- Idaho Post-Earthquake Clearinghouse Operations Plan

- **EERI**

- Through our Learning From Earthquakes Program, EERI
 - Serves on Clearinghouse leadership committees
 - Supports clearinghouse activations in states without a plan
 - Coordinates reconnaissance teams for international earthquakes
- Virtual Clearinghouse Websites to share updates and information quickly

Clearinghouse Planning Opportunities

- **13NCEE**

One-day registration available:
<https://13ncee.eeri.org/registration/>



13th National Conference on
EARTHQUAKE ENGINEERING
PORTLAND, OREGON | JULY 13-17, 2026

Resilience Through **Community Engagement** and **Technology**

- **NEHRP Post-Earthquake Investigations Plan Exercise and Workshop (13NCEE)**

Monday, July 13, 2026
9:00 AM – 5:00 PM
Contact maggie@eeri.org to attend

- **Save the Dates: Future EERI Annual Meetings in Bellevue, WA**

June 14-18, 2027 - **Call for abstracts in late summer/fall 2026**
June 26-30, 2028
June 25-29, 2029

- **VERT:** EERI Learning from Earthquakes Virtual Earthquake Reconnaissance Team
(for EERI members): <https://learningfromearthquakes.org/activities/vert/>