



California Earthquake Clearinghouse

The California Earthquake Clearinghouse

A place to coordinate earthquake field investigations and share observations and knowledge among emergency responders and the engineering and scientific communities



2010 El Mayor-Cuicapah earthquake. Photo: J. McCrory



2010 El Mayor-Cuicapah earthquake. Photo: R. Anderson

Clearinghouse Meetings and Plan

The Clearinghouse holds regular meetings and exercises to maintain strong working relationships among participating agencies and institutions and to continually improve its operational preparedness. Clearinghouse activities are guided by an Operation Plan developed and maintained by the Management group. This document outlines Clearinghouse functions, agency involvement, management, resource needs, and operating procedures. The plan can be found on the Clearinghouse website: <http://www.eqclearinghouse.org/CA/>

What is the California Earthquake Clearinghouse?

The Clearinghouse is a resource shared by government agencies, non-profit organizations and academia after damaging earthquakes, where engineers, geologists, seismologists, sociologists, economists, and other researchers who collect information about the affected area can participate in a temporary organization to facilitate the gathering and sharing of information, maximize its availability, and better use the talents of those present.

The Clearinghouse may be located in a physical structure, generally with easy access to both the damaged area and the emergency operations field location, and it is expected to also be “virtual” where an on-line location will be maintained for information and data sharing.

The Clearinghouse’s principal function is to provide State and Federal disaster response managers, and the scientific and engineering communities with prompt information on ground failure, structural damage, and other consequences from significant seismic events such as earthquakes and tsunamis.

The Clearinghouse: 1) coordinates field investigations of earth scientists, engineers, and other participating researchers; 2) facilitates sharing of observations through regular meetings and through the Clearinghouse website; and 3) notifies disaster responders of crucial observations or results.

Who Participates in Clearinghouse Activities?

The Clearinghouse membership is comprised of earth scientists, engineers, emergency managers, and other professionals representing various state agencies, federal bureaus, universities, private institutions and professional organizations. The Clearinghouse is managed by representatives from 5 agencies: the California Emergency Management Agency (CalEMA), California Geological Survey (CGS), California Seismic Safety Commission (CSSC), Earthquake Engineering Research Institute (EERI), and the U.S. Geological Survey (USGS). This management group confers after damaging earthquakes to decide whether or not to activate the Clearinghouse.

Why is There a Need for a Post-Earthquake Clearinghouse?

Large damaging earthquakes in California attract scores of researchers from around the U.S. and internationally who arrive in the affected area to investigate ground failure, structural damage, social or financial impacts of devastation, or simply to lend a hand. Clearly, field observations made by these individuals, and information compiled by the companies, agencies and institutions they represent, could add substantially to the critical information base needed immediately by emergency response managers and, eventually, by all interested in seismic-related phenomena and seismic safety.

However, in the absence of an established, organized body to facilitate the reconnaissance activities and integrate the observations of the individuals, much of the information gathered during the immediate aftermath of a strong seismic event will not be compiled and shared, thereby minimizing the opportunity to enhance our collective understanding of seismic processes and impacts. Nor would the information be made available to the California Emergency Management Agency (CalEMA), who coordinates emergency response, damage assessment, and early recovery operations following disastrous earthquakes in the state.

In addition, the Clearinghouse provides the following:

- A way to track fieldwork progress of investigators in order to minimize duplication of efforts and maximize examination of the affected area
- Geographic Information System(GIS) technology, data, imagery, photos, and maps to geolocate data and assist field investigators
- Information synthesis and dissemination to assist Federal and State Emergency Operations Centers, State and Federal Geologists, and other appropriate recipients.

Participation is voluntary. The actual make up of any Clearinghouse varies depending on the earthquake event. For instance, a Clearinghouse for earthquakes occurring in sparsely settled areas with few structures would likely be composed of more geologists than engineers. Earthquakes impacting major metropolitan regions would likely involve many disciplines including social scientists.

For more information
Visit the Clearinghouse website
at www.eqclearinghouse.org/CA



2010 Offshore Northern CA (Eureka) earthquake. Photo: Lizundia

Do other States have Clearinghouses?

The Western States Seismic Policy Council (WSSPC, website www.wsspc.org), in its Policy 10-3, notes that Clearinghouse operations have been held in Washington and Nevada and that some of its others member states have been developing Clearinghouse plans. The states in the New Madrid Region of the midwest are also working on a clearinghouse plan across states. An extensive clearinghouse operation was used after Hurricane Katrina in Louisiana.

Both WSSPC and the National Earthquake Hazard Reduction Program (NEHRP) recommend that states with earthquake hazards establish a plan for a post-earthquake technical clearinghouse to be activated if possible within 24 hours after each major earthquake within its jurisdiction. WSSPC also recommends multijurisdictional agreements that support the establishment of a single comprehensive technical clearinghouse in the event of a large earthquake.

In 2002, the USGS released Circular 1242, The Plan to Coordinate NEHRP (National Earthquake Hazards Reduction Program) Post-Earthquake Investigations, as “a framework for both coordinating what is going to be done and identifying responsibilities for post-earthquake investigations” and suggests establishment of a Technical Clearinghouse within 24 hours following a significant earthquake.

Circular 1242 can be found here: <http://geopubs.wr.usgs.gov/circular/c1242/>.