

Earthquake Clearinghouse Coordination Hub Plan

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Purpose

A major earthquake event in the western United States will attract a large number of earthquake professionals with the intent to learn lessons and lend assistance through post-earthquake reconnaissance. The Earthquake Clearinghouse Coordination Hub is a collaborative multi-organizational effort that coordinates regional scale information-sharing about clearinghouse activities, earthquake impacts, and reconnaissance efforts for earthquakes impacting the western United States. This plan outlines the operations by which the coordination hub will make it possible for state and federal disaster response agencies and engineering and scientific communities to:

- Foster and maintain a community of those contributing to clearinghouse and reconnaissance activities across disciplines and in multiple states
- When an event occurs, coordinate information-sharing on a regional scale about earthquake impacts and reconnaissance efforts, and
- Provide external support for clearinghouse functions from agencies in neighboring states that are not directly affected by the event but that have the capacity to lend assistance with coordination.

The Earthquake Clearinghouse Coordination Hub does not direct reconnaissance activities or supersede state-level clearinghouse operations. Instead, this plan outlines procedures for the creation and management of a pre-existing set of tools and channels, including a basic website and a digital communications platform such as Slack, that members of the coordination group can a) activate in the event of a major earthquake or earthquake-induced tsunami to support reconnaissance and response activities, and b) maintain ongoing communication and collaboration in between earthquake event activations.

The primary function of the Earthquake Clearinghouse Coordination Hub is to serve as an information exchange and coordination mechanism, not as a raw data repository. Reconnaissance data will be collected and maintained by state-level clearinghouses and professional and academic groups engaged in reconnaissance activities, although links to data collections may be shared in the Hub. The Earthquake Clearinghouse Coordination Hub offers a way to improve the flow of information and support in the immediate post-earthquake reconnaissance and response period. It will also provide an avenue to maintain these connections as the focus shifts to longer-term collection and archiving of reconnaissance data for the purposes of scientific investigation and future earthquake hazard mitigation. In periods between major earthquakes, it will remain a channel for communication about research results, training opportunities, and developments in reconnaissance tools and practices.

Background

In the aftermath of a damaging earthquake, state and federal disaster response agencies and engineering and scientific communities (both academic and professional) will need ways to coordinate and share information about earthquake reconnaissance activities. Reconnaissance is a rapid survey of the affected area that documents initial observations such as damage from ground motion and liquefaction and assesses the need for additional research. Post-earthquake investigations are conducted by both researchers and practitioners alike for the purpose of improving the science and practice of earthquake engineering and earthquake risk reduction. Observations and findings from reconnaissance can also support emergency response and disaster recovery activities in the short and medium term, and improve the understanding of natural hazards and how to mitigate their impacts in the long term.

Several states in the region (including California, Idaho, Alaska, and Washington) have developed or are in the process of developing state-level clearinghouse plans, which provide criteria and guidelines for establishing and operating both physical clearinghouses to organize post-earthquake reconnaissance efforts, and virtual clearinghouses for collecting and sharing information on ground failure, structural damage, tsunami impacts, lifeline disruption, and other impacts. The Earthquake Clearinghouse Coordination Hub is intended to support and extend these efforts by facilitating information exchange on a regional level and providing a platform for members from different states to collaborate and provide additional capacity in the event of an earthquake with multi-state impacts or impacts that exceed a state clearinghouse's capacity.

Management

Management Team

The Earthquake Clearinghouse Coordination Hub will be led by the Management Team. The Management Team will meet annually to revise this plan as needed and (re)assign roles and responsibilities for Hub operations. Prior to and between activations for a major earthquake, the management team will maintain ongoing communications via Slack. A private Management Team channel in Slack (#hub-admin) will facilitate rapid decision making and communications. The Management Team has authority to activate the Hub and establish new Slack channels for specific earthquakes. It can also establish relevant policies and procedures for the Hub, oversee the approval of new partners, and annually review and approve the archiving of event-specific channels in Slack.

The Management Team will be co-chaired by EERI and CREW, and will include 4 additional members drawn from a list of assigned representatives of each participating state or territory (generally, these will be representatives of either a geological survey or an office of emergency management), as well as a NEHRP representative. State representatives will remain on the Management Team for a term of one year, and rotate to ensure all participating states and territories cycle through the team. These state representatives are responsible for coordinating with the Hub on behalf of all relevant agencies within their state.

Earthquake Clearinghouse Coordination Hub Committee

In addition the current members of the Management Team, the Earthquake Clearinghouse Coordination Hub Committee will include representatives from state agencies and partner organizations who are directly involved in clearinghouse operations. The Committee will have an advisory and support role, making suggestions to the Management Team and participating in maintenance of Hub tools and procedures. Members will have access to a private Slack channel (#hub-committee). The Committee will also serve as a broader pool from which members of the Management Team can be nominated.

Partner Organizations

Any organization involved in earthquake reconnaissance may become an official partner of the Earthquake Clearinghouse Coordination Hub with approval of the Management Team. Partners will be listed on the website and invited to participate in training and exercises. A contact list from these organizations will be maintained in Slack.

Content

The Earthquake Clearinghouse Coordination Hub will produce content including a static website providing information about the Hub and instructions on how to join, a digital collaboration platform (Slack) for ongoing communications, and, when activated, regular summary/situation reports that provide a roundup of ongoing regional reconnaissance efforts and needs.

Website

On behalf of the Hub, EERI will assume primary responsibility for maintaining a public website for the Earthquake Clearinghouse Coordination Hub at <http://www.eqclearinghousehub.org>. The primary purpose of the website is to provide evergreen information, but event-specific sub-pages can be created for specific earthquake responses to host public-facing situation reports and link out to state-level clearinghouse websites and similar resources.

Digital Collaboration Tool (Slack)

To facilitate ongoing communication, Slack has been identified as a digital collaboration tool for Earthquake Clearinghouse Coordination Hub. On behalf of the Hub, CREW will assume primary responsibility for developing and managing the Slack, including creation, maintenance, and administration of Slack channels, membership approval, and moderation. CREW will provide technical support and training documentation on Slack and monitor the Slack both during peacetime mode and an event response. The Slack allows for asynchronous communication, but at the discretion of the Management Team the Hub may also organize video calls for participants during activation periods. A member of the Management Team or Committee may also participate in state clearinghouse daily briefings or calls as a representative of the Earthquake Clearinghouse Coordination Hub.

Channels in Slack will be created and developed according to needs and purposes as the Hub evolves. Initial channels include:

1. Management and Coordination
 - a. #hub-admin channel for current representatives on the Management Team
 - b. #hub-committee channel for committee members beyond the current management team
2. Other
 - a. #general channel for all members to post content
 - b. #training-area channel for training new members on Slack
 - c. Exercise channels for specific exercises
 - d. Event channels for specific earthquake events
 - e. TBD: channel for permanent resources, FAQ and policies, contact lists, etc.

When the Hub goes into activation mode in response to an earthquake event, a member of the Management Team will create a new event channel with the following naming convention: #event-date-location.

Briefing Summary Reports

On behalf of the Earthquake Clearinghouse Coordination Hub, EERI will also produce and maintain regular briefing summary reports shared via the Hub, which may also be posted and archived on the Hub website in the Earthquakes section. These reports will synthesize current Hub and state clearinghouse status, major earthquake impacts, and ongoing reconnaissance activities. They will also share regional and state needs/requests and recommendations/advice (which can be redacted from the public versions posted on the website).

Briefing summary reports may be shared as frequently as daily early in the activation period, but will reduce in frequency to once or twice weekly as the response progresses. EERI and the Management Team will determine the frequency based upon the level of activity in the Earthquake Clearinghouse Coordination Hub over time. See Appendix 1 for a template.

Additional products may be considered and added based on evolving needs and continued feedback from the Earthquake Clearinghouse Coordination Hub Committee and others.

Policy & Procedures

1. Joining the Earthquake Clearinghouse Coordination Hub: Interested members of the earthquake reconnaissance and clearinghouse community may request admission to the Hub Slack via a contact form on the website. Members may also refer colleagues to the Slack administrator for invites.
2. Code of Conduct: By applying to join the Earthquake Clearinghouse Coordination Hub, participants agree to abide by the Code of Conduct (See Appendix 2)
3. All participants in the Slack and any other Hub coordination/communication channels must identify themselves by full name and agency/organization when participating.

4. Participants who violate the Code of Conduct may be suspended or removed from Slack.

Activation Criteria and Levels

The Hub website and Slack group will remain available for ongoing communications between activations. Activation will occur in response to a major earthquake with regional-scale impacts in the western United States.

Full activation will occur when the Management Team deems it appropriate to establish an event-specific response. Generally, the following may trigger activation:

- When a damaging earthquake with multi-state impacts occurs in the Western United States
- When an earthquake-affected state requests regional support or assistance for clearinghouse-specific functions, even if the impacts are primarily restricted to one state;
- When a Federal Disaster is declared for an earthquake in California, Washington, Oregon, or Idaho. A federal disaster declaration is not necessary to activate the clearinghouse, but the clearinghouse will always be activated when there is a federal disaster declaration for an earthquake or tsunami disaster.

During full activation, CREW will create an event-specific channel (with subchannels as needed) for sharing information about the earthquake event and response and reconnaissance activities, and EERI will produce regular briefing summary reports.

Limited activation will occur when the Management Team deems appropriate to establish an event-specific response for a smaller earthquake or tsunami. Circumstances may include:

- When the Management Team deems it valuable to activate for a smaller earthquake event as a training exercise.
- When extensive geologic and ground failure reconnaissance is warranted. In cases of relatively small or rural earthquakes where emergency response activities are limited, the clearinghouse may still be activated mainly to coordinate geoscience activities.
- When members of the Hub request an event-specific channel for a more minor earthquake impacting only one state in the region that does not warrant full activation of the Hub.

In limited activation, a Slack channel will be created, but regular summary/situation reports will only be produced if EERI and the management team deem it necessary.

Deactivation will occur when the Management Team deems appropriate. Generally, when the state clearinghouses cease operations, full activation will cease. However, event channels on Slack may remain open for sharing findings and reports even when the Hub is no longer in activation mode. The Management Team will review open event channels annually and determine whether to archive them.

Prospective Management Team and Partners

Note: specific contact info for individuals, including email addresses and phone numbers, should be maintained in Slack where it can be updated regularly. This is a list of organizations from which individual members of the management team and committee can be selected/invited.

Hub Management Team Candidates

1. EERI representative
2. CREW representative
3. NEHRP representative
4. Idaho Office of Emergency Management representative
5. 3 additional state agency representatives TBD

Potential Partner Organizations

- United States Geological Survey
- FEMA
- Idaho Office of Emergency Management (IOEM)
- Idaho Geological Survey
- California Geological Survey
- California Office of Emergency Services
- Oregon Emergency Management
- Oregon Department of Geology and Mineral Industries
- Washington State Emergency Management Division
- Washington Geological Survey
- SCEC
- Alaska Division of Homeland Security and Emergency Management
- Utah Geological Survey
- NSF Funded Reconnaissance Groups: GEER, StEER, SsEER

Appendix A: [TEMPLATE: Earthquake Briefing Summary Report](#)

Appendix B: Code of Conduct

The Earthquake Clearinghouse Coordination Hub is committed to fostering the exchange of ideas and information by providing a safe, productive, and welcoming environment. We value the participation of every member of the community. By applying to join the Hub, participants agree to abide by this Code of Conduct.

Expected Behavior

- Treat all members with respect and consideration at all times.

- Be collaborative, recognizing the value of a diversity of experiences, views, and opinions.
- Communicate openly with respect for others, critiquing ideas rather than individuals.
- Familiarize yourself with the FAQ/guidelines for using Slack effectively and follow them.
- Identify yourself by full name and agency/organization/institution when participating.
- Observe Hub policies regarding disclosure of information from Slack to the public.

Unacceptable Behavior

Unacceptable behavior includes but is not limited to:

- Harassment, intimidation, or discrimination in any form.
- Offensive comments related to gender, gender identity, sexual orientation, disability, physical appearance, medical condition, body size, race, marital status, religion, national origin or any other protected characteristic.
- Threats (implied or real) of physical, professional or financial harm.
- Behavior that is in violation of expectations for professional conduct and the established ethics policies of one's home agency, employer, or institution.
- Sharing of information marked as confidential or posted in private channels without written permission of the poster.

Consequences

Anyone requested to stop unacceptable behavior is expected to comply immediately. The Earthquake Clearinghouse Coordination Hub Management Team may take actions deemed necessary and appropriate, including but not limited to immediate removal from Slack, which will occur at the discussion of the Slack administrators.

Suspension or termination of membership in the Hub and a ban from future participation in Hub activities or events may occur, depending on the severity of the unacceptable behavior.

Reporting

If you experience or witness a violation of the code of conduct, please report it immediately to the Slack admin channel (see FAQ for reporting guidelines) or the Management Team.