

EARTHQUAKE ENGINEERING RESEARCH INSTITUTE

LEARNING FROM EARTHQUAKES (LFE) PROGRAM

OPERATIONS

VERSION 2

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Background:

Learning from earthquakes has been a core activity of the Earthquake Engineering Research Institute (EERI) since its inception in 1949. In 1973, EERI formally initiated the Learning from Earthquakes (LFE) Program with funding from NSF. The program has continued until this day despite changes to the traditional funding stream, and it is recognized worldwide as the premier agent for earthquake reconnaissance.

Purpose:

The purpose of this document is to define protocols for operations of the LFE program to maximize benefits to the Institute, the EERI membership, and society as a whole.

Procedures:

1. Appointments:

- 1.1. To view the full LFE organizational structure that outlines all committee roles with their description and appointment criteria, view the *Learning From Earthquakes Program Committee Charge and Organization* document.

2. Normal operations:

- 2.1. The LFE Committee conducts open meetings during each EERI Annual Meeting.
- 2.2. The LFE Executive Committee working with LFE staff monitors earthquakes worldwide to identify events that fall within the mission of the LFE Program and for which important lessons can be learned through field reconnaissance and longitudinal studies. For events of interest, the LFE Executive Committee recommends to the EERI Board of Directors (usually through the Executive Committee) the scope and timeline for reconnaissance, and requests release of budgeted funds to support the activity. See Reconnaissance operations below for additional details. The committee may also select an event based on a request from an affected country for technical support in reconnaissance and recovery planning, a funding agency or the membership. For smaller foreign events where a reconnaissance mission is not deemed necessary, EERI Staff and the LFE Executive Committee will attempt to identify EERI members in affected country who can provide feedback to EERI membership, likely through a Pulse article.

- 2.3. The LFE Committee, with support of relevant subcommittees, develops and maintains appropriate documents and tools¹ in support of the reconnaissance and reporting activity, including release forms, team member requirements and responsibilities, field guides, data collection and visualization tools, and reporting guides.
- 2.4. The LFE Committee, with support of relevant subcommittees, develops training activities for the membership in conjunction with other relevant committees and EERI Staff. Training will focus on using field reconnaissance tools, procedures, and forms, and helps to ensure consistency and replication across different volunteers and earthquakes.
- 2.5. The Chair provides an annual report to the EERI Board of Directors.

3. Reconnaissance operations for earthquakes worldwide utilizing EERI members & colleagues in the local region (NOT utilizing EERI-funded teams):

- 3.1. *Contact by EERI staff and/or membership.* Shortly following an earthquake that is reported in the media, or upon receiving notification from the USGS, EERI staff will contact EERI members and/or colleagues with whom EERI has a relationship in the affected country to gain more information. Members in an affected country may also volunteer information on the extent of damage and the performance of structures as well as geotechnical effects.
- 3.2. *Recommendation by staff.* In consultation with the LFE Committee chair, and relevant subcommittees, EERI staff may recommend that the event be documented in several ways: 1) a short article can be prepared for The Pulse, documenting initial damage and including a few photos; 2) a virtual clearinghouse can be established to collect initial impressions and photos; 3) a page in the LFE Archives can be created for the event where reports from the affected country can be posted as well as The Pulse article and any other useful links; 4) a photo gallery with captions can be added to the Best Photos Gallery in the Members only section of the website; and 5) an ‘EERI Member-Contributed LFE Reconnaissance Report’ can be prepared by EERI members for posting on the LFE archive page.
- 3.3. *Informing the LFE Committee.* Once initial contact has been made with colleagues and/or members in the affected country, EERI staff informs the LFE committee of the contact(s) and the preliminary information coming in.
- 3.4. *EERI Member-Contributed LFE Reconnaissance Reports.* Members interested in creating and submitting an ‘EERI Member-Contributed LFE Reconnaissance Report’ should utilize the templates at: https://www.eeri.org/wp-content/uploads/LFE_ReportTemplate.docx
Acceptance criteria for reports published in *LFE* website are (1) the subject of the report should represent a relevant earthquake reconnaissance effort; (2) the work is of sufficient

¹ As of November 13, 2015, there are six tools supported by EERI: (1) Clearinghouse Fieldnotes Tool (for Geotagged Photos with Field Data Collection Tool) that is ideal for field data collection and photo documentation using a web-enabled phone; (2) EERI Photo Upload Tool (for non-geotagged photos) that is ideal for post-processing photos from your desktop; (3) EERI Batch Photo Upload Tool (for geotagged photos) that is ideal for post-processing and annotating large quantities of photos from your desktop; (4) Utilize Virtual Clearinghouse Blog capabilities (Word Press) to upload posts of observation or information; (5) Fieldnotes Pro/LT (for geotagged notes and photos when there is no cellular network coverage); (6) Geosetter (to batch assign author, copyright, and other metadata to photo exif data, to set time/date stamps to local time, and to geotag non-geotagged photos).

technical quality, including adequacy and conciseness of presentation; (3) the information presented is timely; (4) the report contains findings from several disciplines; and (5) approval by an Ad-hoc committee formed by the LFE Chair at the time of submission.

4. Reconnaissance operations for earthquakes worldwide (except California) utilizing EERI-funded teams:

4.1. *Recommendation by LFE Executive Committee.* Shortly following events of potential interest, any member of the LFE Executive Committee, the full LFE Committee, one of the subcommittees, LFE Operations Specialist, or LFE staff can request that the LFE Executive Committee convene (by phone or other means) to discuss whether to recommend that a reconnaissance team be formed and other aspects of the response (i.e. establishing a virtual clearinghouse). A consensus process will determine if EERI-funded reconnaissance of an event is warranted, and will determine a proposed scope, timeline, budget, and possible funding sources. The decision about sending a reconnaissance team will be made by considering the following criteria, however to remain nimble some flexibility in these criteria may be needed to suit a particular funding opportunity:

- a. Funding is available to support team travel expenses.
- b. The earthquake has moderate to heavy multidisciplinary impacts on the built environment and population centers.
- c. Documentation of lessons learned is valuable for improving seismic design or disaster risk management practices globally or in the US.
- d. EERI member interest is expected for both conducting reconnaissance and learning from the resulting report.

Additional event-specific expertise from outside individuals/organizations may be requested if deemed appropriate. In general, time is of the essence, such that rapid action is facilitated.

4.2. *Launch of Earthquake Virtual Clearinghouse, Notifications to members, and Clearinghouse Curators.* EERI staff, in coordination LFE Operation Specialists, will immediately work on the following items pending the outcome of the LFE Executive Committee Meeting:

- a. *Post Notice on EERI website (within 8 hours).* As soon as practicable, EERI's IT manager, staff, and/or LFE Operations Specialists will post a news item on the website stating that the "As part of our [Learning from Earthquakes Program](#), EERI is currently monitoring the situation from media reports and notes from colleagues in the impacted region and is considering an EERI response. More information about EERI's plans will be posted soon, so please check back frequently."
- b. *Launch virtual clearinghouse website with Photo Upload Map and ArcGIS Online Map (within 24 hours).* As soon as practicable, EERI staff and/or LFE Operations Specialists will prepare and launch a virtual clearinghouse website. This will facilitate immediate collection and input of data from EERI members. The virtual clearinghouse will include creation of the maps where data can be viewed and uploaded. Once complete, the LFE Chair and Committee must be notified of its creation and the url should be added to the eeri.org website news post.
- c. *Prepare email blasts and update news item (within 24 hours).* Based on the email blast template, an email to the membership should be customized to include: link to virtual clearinghouse, request for clearinghouse curator volunteers, link to team interest application form, and any details on the LFE reconnaissance plan from the Executive Committee recommendation. Once

complete, the email should be sent to the full membership by EERI communications staff.

- d. *Assign Clearinghouse Curators (ongoing from 24 hours and beyond)*. Based on requests and volunteers submitted via the eqclearinghouse@eeri.org email, co-curators should be assigned to each topic area by a first-come, first-served basis. Additional topic areas beyond the default may be added based upon member interest at the discretion of EERI staff. See section 4.10 for full description of Clearinghouse Curator role.
- e. *Prepare email blasts and news items (after 24 hours and beyond)*. Repeat email blasts and news updates on virtual clearinghouse and eeri.org as new information becomes available.

4.3. *Approval by EERI Board*. For events recommended by the LFE Executive Committee, the Chair, LFE staff, and EERI Executive Director will consult with the Board of Directors to recommend the scope and timeline for reconnaissance, and to request release of budgeted funds to support the activity. The Board of Directors has authority to approve scope, timeline, budget, and (on an event-specific basis) any other aspects of the reconnaissance.

4.4. *Development of a Preliminary General Plan*. For approved EERI-funded reconnaissance, a preliminary general plan will be drawn up by the LFE Committee Chair, LFE staff, and EERI Executive Director, generally in consultation with the LFE Executive Committee. This preliminary plan will include a general reconnaissance focus, potential reconnaissance team leader(s), potential liaison with other professional organizations, key contacts, scope, timeline, and any other key aspects of the reconnaissance. The plan should also include a preliminary list of strategic objectives for the reconnaissance mission that can later be refined by the Team Leader. The preliminary plan, which does not need to be a formal written document, is to be approved by the Board of Directors. As time progresses, the team leader(s) assume increasing responsibility for refining, finalizing, and implementing the plan.

4.5. *Selection of Team Leader*. Reconnaissance team leaders are selected considering a range of factors, including: experience in earthquake reconnaissance; familiarity with the particulars of the event and the community in which the event occurred; personal connections with local experts and organizations; expertise in the areas of main interest for the reconnaissance activity; and availability and commitment to leading the activity. Except in exceptional cases, the team leader must be an EERI member in good standing, and the team leader must have served previously as a member of an EERI reconnaissance team. In general, it is good practice to spread the opportunities and responsibilities of team leadership among qualified EERI members rather than these being limited to a few individuals. Therefore, it is preferred (but not required) to select team leaders who have not previously served as a team leader. The use of co-team leaders to spread the workload and to train future team leaders can be considered. Selection of team leader(s) is made by the LFE Executive Committee, with input from LFE Staff, and approval by the EERI Board Executive Committee. EERI Board of Directors, LFE Committee, and other EERI committees may also be consulted in the selection of the team leader. The LFE Committee Chair or a representative from the LFE Executive Committee is responsible for informing the LFE committee and EERI Board of the appointed team leader(s) in a timely manner.

4.6. *Role and Responsibilities of Team Leader*. The reconnaissance team leader is responsible for: refining team reconnaissance objectives in collaboration with LFE Executive Committee and team members; coordinating team activities; coordinating interactions with other reconnaissance teams; providing field and synthesis reports; organizing daily team

debriefings, either physically or electronically; coordinating collaboration with locals; interact with the media, as needed; submitting a brief written report on team activities to the LFE Executive Committee within one week of returning from the field; discussing the report with the LFE Executive Committee within two weeks of returning from the field. This discussion will include development of an action plan for further actions including dissemination of the findings and support of collateral research.

4.7. *Selection of Team Members.* The team leader will work with the LFE Executive Committee and LFE Staff to select the team members. EERI Board of Directors, LFE Committee, and other EERI committees may also be consulted in the formation of the team. The LFE Committee Chair or a representative from the LFE Executive Committee is responsible for informing the LFE committee and EERI Board of the appointed team members in a timely manner. Reconnaissance team members are selected considering a range of factors, including: experience in earthquake reconnaissance; familiarity with the particulars of the event and the community in which the event occurred; personal connections with local experts and organizations; expertise in the areas of main interest for the reconnaissance activity; and availability and commitment to participate in the reconnaissance and dissemination activity. Reconnaissance teams will be multidisciplinary in discipline. Similarly, teams will consist of a diversity of experience, facilitating the training of young professionals and students. Except in exceptional cases, a team member must be an EERI member in good standing. Members can express their interest in particular events by submitting a brief application through the EERI website. Such an application page will be created for each particular event, and an open call will be put out to the full membership. It is noted that in some circumstances there will not be enough time to develop a team in this manner. LFE staff contacts potential team members and manages the process of forming the team. A young professional team member may also be added for the purpose of capacity building and to contribute to the goals of the reconnaissance. Other team members could also be assigned to support dissemination of field information, data collection utilizing EERI tools, or other tasks, though their ability to travel with the team will depend on budget constraints. Most importantly, the role and responsibilities of each team member both during and after field reconnaissance should be defined before he or she is selected to participate.

4.8. *Role of Team Members.* Team members are responsible for conducting reconnaissance in their assigned disciplinary focus area, collaborating with the other EERI team members, collaborating with other reconnaissance teams and locals, conducting data collection with the use of EERI field tools or uploading observations post-field reconnaissance using EERI upload tools, participating in dissemination activities (i.e. reports and briefings) as outlined in section 6, and any other specific tasks or responsibilities as outlined by the team leader.

4.9. *Virtual Team Collaborator.* A Virtual Team Collaborator (VTC) is a role created to engage more members in reconnaissance activities, especially early career professionals and students. Each VTC will be paired with a field team member in a matching discipline or interest area. The responsibilities will include the following items, though tasks will vary depending on the needs of each field team member: (1) Pre-departure Information Synthesis to glean and synthesize the most important information, reports, articles, or locations of particular interest to the team member's role and focus areas. Field team members' time will be limited preparing for departure and wrapping up other obligations, so VTCs will need to be concise and share the most relevant information, not necessarily *all* information; (2) Dissemination Support upon return of Field Team Member. Upon the field team member's return, the VTC may also be needed to help upload field images and captions to the data map or help clean up any messy field contributions. The VTC may also contribute to the compilation of

text or slides for the EERI Earthquake Reconnaissance Summary Report or Briefing Webinar. EERI staff select VTCs based on the following criteria: past EERI involvement, current EERI membership, expressed interest in participating, relevant skills or knowledge about the region impacted by the earthquake, and expertise/disciplinary match with team members.

- 4.10. *Clearinghouse Curators.* Clearinghouse curators are responsible for gathering and gleaning information from media reports and technical resources into curated summaries that are posted on to the earthquake's virtual clearinghouse website. Well-crafted summaries are expected to help inform reconnaissance activities, identify impacted regions, and help document the timeline of earthquake response/recovery. Curation is intended to help populate the clearinghouse with useful information while also providing a pathway for early career professionals and students to consideration on future reconnaissance efforts, and possible follow up missions. The curators will likely benefit in the following ways: (1) Curators will be given name recognition for their topics on the virtual clearinghouse website; (2) Curators may have opportunities to present to the LFE Executive Committee and Reconnaissance Team members; (3) Curators will be strong candidates for being paired with a field team member as a VTC.
- 4.11. *Reconnaissance Activities.* In general, the reconnaissance is to be conducted in accordance with the General Plan (see above), the roles outlined for the team leader and members, the procedures established and documented in EERI reconnaissance manuals and guidance on the Clearinghouse websites.
- 4.12. *Resilience/Recovery Investigations.* The LFE Committee chair, relevant subcommittees and other members of the LFE Committee can also recommend investigations to document recovery and/or resilience issues. Multiple longitudinal studies will also be considered to fully understand recovery activities. The process to send out such a team will be similar to that described above: develop a preliminary reconnaissance plan, obtain EERI Board approval, select a team leader, refine and finalize the general plan, select team members.
- 4.13. *Informing the LFE Committee & Board of Directors.* With support of EERI staff, the LFE Committee Chair is responsible for informing the LFE committee and Board of Directors about the reconnaissance activities, via sending regular email updates or scheduling conference calls, as necessary.

5. Reconnaissance operations for damaging California earthquakes:

The establishment of a physical California Earthquake Clearinghouse after earthquakes was mandated by the California Governor in the 1970's. The Management Group for the California Earthquake Clearinghouse includes the California Geological Survey (chair), EERI (vice chair), California Seismic Safety Commission, California Emergency Management Agency, and U. S. Geological Survey. Due to EERI's formal role in the California Earthquake Clearinghouse management group, EERI's LFE operations for a California earthquake differ from earthquakes in other locations.

Due to the large number of EERI members located in California, EERI expects broad member participation in reconnaissance activities. The traditional limited-size EERI-funded team approach used for worldwide earthquakes will not be relevant in damaging CA earthquakes. EERI's response will be lead by an EERI Reconnaissance Lead for the earthquake and discipline leaders who will coordinate reconnaissance activities, reports, and briefings in the major disciplinary areas, as well as interact with the media and government agencies, but there will be no limit on who can participate through the virtual or physical clearinghouses.

For some consistency from a typical EERI member perspective, the use of EERI data collection and visualization tools should be commonplace for both California earthquakes and all other earthquakes worldwide. This will allow members to build upon approaches used in one earthquake and apply them to any future earthquakes.

Note: These procedures will also apply in the event of a damaging California tsunami. For earthquakes in the Bay Area, where EERI staff live, any differences in the procedures are noted below.

- 5.1. *Determination of a Physical Clearinghouse.* EERI staff will coordinate with the California Earthquake Clearinghouse management group to determine if a physical clearinghouse will be established. According to the Clearinghouse plan, a Clearinghouse will be established for any earthquake over magnitude 6, or where there is significant urban damage. Typically this coordination occurs via text message, email, and phone calls in the hours after an event. EERI staff will notify LFE Chair and Committee of the outcome of this decision.

In a Bay Area event, the assumption is that communications will be very difficult in the first hours after a major damaging earthquake and staff may need to operate independently of the LFE committee, Board, and subcommittees. Each staff member is to contact EERI's out-of-area-contact². LFE committee members can also contact EERI's out-of-area-contact to determine who of the staff has checked in with him. EERI staff will determine the status of the EERI office building (open or not), and the office will be kept open if possible. Note, the staff's primary priority is expected to be on health and safety of family members, and will only be able to respond pending their family's status.

The Clearinghouse partners may have the same communication difficulties that will face EERI staff. Each member of the Clearinghouse Management Committee keeps contact information with him/her, but this information also sits on the Google Drive folder (shared with LFE Chair, Clearinghouse chair, EERI staff). They will each try and travel out to an area where it is possible to communicate, if they are not able to reach each other in the most affected area. If communication is extremely difficult, the chair of the Clearinghouse, the

² As of November 13, 2015, Charles Huyck is EERI's out-of-area-contact.

California Geological Survey, can proceed without hearing back from others on the Management Committee.

- 5.2. *Launch of Earthquake Virtual Clearinghouse, Notifications to members, and Clearinghouse Curators.* EERI staff, in coordination LFE Operation Specialists, will immediately work on the following items pending the outcome of the LFE Executive Committee Meeting:
- a. *Post Notice on EERI website (within 8 hours).* As soon as practicable, EERI's IT manager, staff, and/or LFE Operations Specialists will post a news item on the website stating that the "There has been a major earthquake in California affecting [*list the California counties*]. As part of our [Learning from Earthquakes Program](#), EERI is currently monitoring the situation from media reports and notes from colleagues in the impacted region and is considering an EERI response. The California Earthquake Clearinghouse, with EERI as one of the managing partners, is considering establishing a physical clearinghouse. More information about EERI and California Clearinghouse plans will be posted soon, so please check back frequently."
 - b. *Launch virtual clearinghouse website with Photo Upload Map and ArcGIS Online Map (within 24 hours).* As soon as practicable, EERI staff and/or LFE Operations Specialists will prepare and launch a virtual clearinghouse website. This will facilitate immediate collection and input of data from EERI members. The virtual clearinghouse will include creation of the maps where data can be viewed and uploaded. Once complete, the LFE Chair and Committee must be notified of its creation and the url should be added to the eeri.org website news post and the californiaeqclearinghouse.org website.
 - c. *Prepare email blasts and update news item (within 24 hours).* Based on the email blast template, an email to the membership should be customized to include: any details on the reconnaissance plan and physical clearinghouse location, link to virtual clearinghouse, request for clearinghouse curator volunteers, a field precautionary note (safety, liability, etc.), a mechanism for members to indicate how they would like to contribute (Google form), and instructions for (field & remote) action if known. Once complete, the email should be sent to the full membership by EERI communications staff.
 - d. *Assign Clearinghouse Curators (ongoing from 24 hours and beyond).* Based on requests and volunteers submitted via the eqclearinghouse@eeri.org email, co-curators should be assigned to each topic area by a first-come, first-served basis. Additional topic areas beyond the default may be added based upon member interest at the discretion of EERI staff. See section 5.10 for full description of Clearinghouse Curator role.
 - e. *Prepare email blasts and news items (after 24 hours and beyond).* Repeat email blasts and news updates on virtual clearinghouse and eeri.org as new information becomes available.
- 5.3. *CA Clearinghouse Deployment.* Once the location of the physical clearinghouse is established, EERI staff and interns who otherwise are not expected to keep the EERI office open will all make their way to Clearinghouse to assist in the staffing of it. A member of the LFE Executive Committee (ideally the Chair of the Reconnaissance Tools & Training subcommittee, if possible) will be expected to come to the Clearinghouse to function as the

Acting Reconnaissance Lead, until a permanent reconnaissance lead is appointed. It is expected that the LFE committee chair, members of the LFE committee, members of the Board, and of the various subcommittees will also come to the clearinghouse over the next few days to participate in the reconnaissance effort.

5.4. *Data Collection.* Members contribute field or remote data collection via EERI data collection tools. These tools are designed to automatically upload data (photos, captions, etc.) to virtual clearinghouse website data visualization maps and database. Members of the California Clearinghouse Advisory Subcommittee will, as feasible, assist in quick trainings of members in the use of these tools.

5.5. *Appointment of EERI Reconnaissance Lead for the earthquake and disciplinary leads.* EERI's LFE Executive Committee will appoint the Reconnaissance Lead, with input from LFE Staff, and approval by the EERI Board Executive Committee. The Reconnaissance Lead will work with the LFE Executive Committee and LFE Staff to select the disciplinary leads. EERI Board of Directors, LFE Committee, and other EERI committees may also be consulted in the selection of these leads. These leads need to be identified within a few hours to the first days of the Clearinghouse establishment. The LFE Executive Committee will inform the LFE committee and EERI Board of the appointed Reconnaissance Lead and Disciplinary Leads in a timely manner. The most typical disciplinary lead categories include the following, however additional leads can be appointed depending on the needs of the earthquake:

- a. GeoScience
- b. Geotechnical Engineering
- c. Structures
- d. Critical Infrastructure and Lifelines
- e. Transportation
- f. Economic Impacts
- g. Social Impacts

5.6. *Role of Reconnaissance Lead for the earthquake.* The formal title of the Reconnaissance Lead will be "EERI Reconnaissance Lead for the <insert earthquake name> earthquake." The Reconnaissance Lead is responsible for: coordinating the EERI response and reconnaissance activities by all EERI members who volunteer to conduct reconnaissance, with the support of the disciplinary leaders; coordinating interactions with other reconnaissance teams, with support of the disciplinary leaders; reviewing field data as it is collected to identify reconnaissance needs, gaps and points of interest, with the support of disciplinary leaders; interacting with the media on behalf of EERI and the California Earthquake Clearinghouse, as needed; interacting with Clearinghouse partners and government agencies to ensure access to resources and restricted areas for EERI members; coordinating EERI responses to requests from Clearinghouse partners and government agencies; collaborating with the California Clearinghouse members, as a member of the Synthesis Team (see section 5.11) to conduct daily synthesis briefing and prepare daily synthesis reports; conducting daily coordination meetings with all disciplinary leaders to ensure daily strategies, priorities and plans are aligned; coordinating dissemination activities (i.e. reports and briefings) as outlined in section 6, and any other specific tasks or responsibilities uniquely needed for the earthquake. It is expected that the Reconnaissance Lead will spend the majority of each day at the physical Clearinghouse exercising their role, instead of conducting field investigations. LFE staff will be assigned to support the implementation of many of these tasks.

5.7. *Role of Disciplinary Leaders.* The disciplinary leaders are responsible for: coordinating and directing reconnaissance activities by all EERI volunteers within their disciplinary focus area;

coordinating interactions with other reconnaissance teams investigating within their disciplinary focus area; reviewing field data within their disciplinary focus area to identify reconnaissance needs, gaps and points of interest; promoting the use of data collection with the EERI and Clearinghouse data collection tools; interacting with the media, as needed; supporting the development of content for daily synthesis briefings and reports; ensuring reconnaissance strategies, priorities and plans are outlined within their disciplinary focus area each night for the following day; participating in dissemination activities (i.e. reports and briefings) as outlined in section 6, and any other specific tasks or responsibilities uniquely needed for the earthquake. It is expected that the Reconnaissance Lead will spend approximately half of each day at the physical Clearinghouse exercising their role, and half of each day conducting field investigations. LFE staff will provide support, as needed.

- 5.8. *Data Synthesis.* A Synthesis team, appointed once it is clear who is at the Clearinghouse, and in coordination with other agencies in the Management Committee of the CA Clearinghouse, will meet at the physical clearinghouse to produce daily synthesis reports for CA emergency responders, California clearinghouse partner organizations, and EERI members. EERI reconnaissance lead will serve on this team, with disciplinary leaders as needed.
- 5.9. *Clearinghouse Curators.* Clearinghouse curators are responsible for gathering and gleaning information from media reports and technical resources into curated summaries that are posted on to the earthquake's virtual clearinghouse website. Well-crafted summaries are expected to help inform reconnaissance activities, identify impacted regions, and help document the timeline of earthquake response/recovery. Curation is intended to help populate the clearinghouse with useful information while also providing a pathway for early career professionals and students to consideration on future reconnaissance efforts, and possible follow up missions. The curators will likely benefit in the following ways: (1) Curators will be given name recognition for their topics on the virtual clearinghouse website; (2) Curators may have opportunities to present to the LFE Executive Committee and Reconnaissance Team members; (3) Curators will be strong candidates for being paired with a field team member as a VTC.
- 5.10. *Informing the LFE Committee & Board of Directors.* The LFE Committee Chair (or an alternate designated member of the LFE Executive Committee) is responsible for informing the LFE committee and Board of Directors about the reconnaissance activities. This can be done by sending regular email updates or scheduling conference calls for the Reconnaissance Lead to give short reports.

6. Dissemination:

- 6.1. The LFE Committee will explore and continually develop appropriate methods of dissemination of findings from reconnaissance activities.
- 6.2. The LFE Committee will provide advice to the Board on appropriate dissemination approaches for each approved reconnaissance. It is expected that all dissemination approaches will aim to reflect comprehensive observations and findings by collaborating with as many colleagues and reconnaissance teams as practicable, and providing appropriate credit to all collaborators. The typical suite of dissemination methods along with recommended timeframe for implementation includes:

- a. Synthesis Reports and other timely notifications/updates from the field as possible, likely utilizing a virtual clearinghouse for posting (during the reconnaissance)
 - b. Archive EERI team member photos to the EERI photo map and gallery on the virtual clearinghouse (1-2 months following reconnaissance)
 - c. Webinar-style or pre-recorded video briefing with presentations by all team members (1-1.5 months following the reconnaissance). Consider launching with a live Q&A component or a physical component where possible.
 - d. Reconnaissance Summary Report (~ 3-4 months after the reconnaissance). This would typically be 40-60 pages pdf (including photos) summarizing the team's multidisciplinary observations and findings, and a web version with live photo and video links when possible.
 - e. Workshop to identify lessons, opportunities, and research needs (as needed)
 - f. Earthquake Spectra Special Issue (within 1 year after the reconnaissance)
 - g. Keep virtual clearinghouse updated as archive with reports and other data related to recovery (ongoing)
 - h. New dissemination approaches as appropriate or as needed.
- 6.3. The procedure for publishing Earthquake Spectra Special Issues has been developed to expedite the date of publication. The following is the outline to produce the Earthquake Spectra in a timely manner:
- a. The Special Issue will have designated a Special Editor selected by Executive Director and EQS Editor who is responsible for defining the outline of the Special Issue and selecting authors for the chapters.
 - b. Authors for each chapter will be identified at the start of each chapter, as is done for journal articles.
 - c. A review panel will be established to expedite the reviews.
 - d. A statement will be included that papers are reviewed in accordance with the rigorous procedures established for Spectra regular issues.