

**Bylaws of the
Geo-engineering Extreme Events Reconnaissance Association**

**ARTICLE 1
IDENTITY**

Section 1: Name

The name of this Association shall be the Geo-engineering Extreme Events Reconnaissance (GEER) Association.

Section 2: Principal Office

The principal office of the Association is initially located at the University of California, Berkeley in Alameda County, State of California.

Section 3: Change of Address

The GEER Steering Committee by a two-thirds vote may change the principal office from one location to another by noting the changed address and effective date below, and such changes of address shall not be deemed, nor require, an amendment of these Bylaws:

_____ Dated: _____, 20__
_____ Dated: _____, 20__
_____ Dated: _____, 20__
_____ Dated: _____, 20__

Section 4: Fiscal Year

The fiscal year shall be July 1 to June 30.

**ARTICLE 2
PURPOSES**

Section 1: Overall Purpose

The overall purpose of this Association is to reduce the impact of earthquakes and other disasters on society by promoting effective analysis and implementation of lessons learned from geo-engineering and related effects of these events. Geo-engineering encompasses the fields of geotechnical and geological engineering, geology, and engineering seismology.

Section 2: Specific Objectives and Purposes

The specific objectives and purposes of this Association shall be:

1. Document geo-engineering and related effects of important earthquakes and other disasters to advance research and practice.
2. Advance the capabilities of individuals performing post-event reconnaissance.

3. Employ innovative technologies for post-event reconnaissance.
4. Facilitate access to equipment required for sensing and data collection.
5. Train individuals to perform effective post-event reconnaissance.
6. Disseminate timely and accurate post-event web-based reports and data.
7. Develop a coordinated response for geo-engineers and earth scientists, who have previously self-assembled, to form effective post-event reconnaissance teams.
8. Promote the standardization of measurement and reporting in reconnaissance efforts.

ARTICLE 3 MEMBERS

Section 1: Determination and Rights of Members

The Association shall have four classes of Members, which are:

1. **Regular Membership (RM)**
2. **Steering Committee (SC),**
3. **Advisory Panel (AP),** and
4. **Organizational Partners (OP).**

Except as expressly authorized by the Bylaws of this Association, all Regular Members shall have the same rights, privileges, restrictions, and conditions.

Section 2: Qualifications of Members

Membership in the GEER shall be open to individuals of all agencies, associations, private companies and consultants, professional institutions, professional societies, and universities, which accept the obligations of the objectives and purposes defined in Article 2 and which are willing to carry out these obligations, and to entities, who also agree with the objectives and purposes defined in Article 2. The qualifications for membership in this Association are as follows:

1. **Regular Members**, comprised of individuals from agencies, organizations, private companies, professional organizations, and universities who agree to be available to participate in GEER training, development, and post-event reconnaissance activities.
2. **Steering Committee (SC) Members**, comprised of regular members who volunteer to participate actively in the leadership of the **GEER** Association.
3. **Advisory Panel (AP) Members**, comprised of individuals who volunteer to provide guidance to the development of the **GEER** Association.
4. **Organizational Partners (OP)**, comprised of entities, such as the Consortium of Organizations for Strong-Motion Observation Systems (COSMOS), Earthquake Engineering Research Institute (EERI), Federal Emergency Management Agency (FEMA), Incorporated Research Institutions for Seismology (IRIS), National Institute of Standards and Technology (NIST), National Science Foundation (NSF), Network for Earthquake Engineering Simulation Incorporated (NEES Inc), Structural Engineering Association of California (SEAOC), U.S. Army Corps of Engineers (USACE), United States Geological

Survey (USGS), and other public or private organizations with a specific interest in advancing knowledge through post-event reconnaissance, or event recording or data-dissemination efforts.

Section 3: Admission of Members

Applicants shall be considered for membership based on their qualifications. The Steering Committee (SC) of the GEER Association shall review and act on applications for membership within sixty (60) calendar days following their receipt at the principal office of the Association.

Regular Membership shall consist of regular members as defined by these Bylaws. Individuals and Entities who are not Regular Members may be associated with GEER through the Advisory Panel or as Organizational Partners as defined by these Bylaws.

Members may withdraw from the GEER by sending a letter to the Chair of the SC stating their withdrawal and its effective date.

Section 4: Fees and Dues

The annual dues payable to the Association by members shall be fixed by the Steering Committee from time to time.

Section 5: Number of Members

There is no limit on the number of members the Association may admit.

Section 6: Membership Record

The Association shall keep a record of membership that contains the name and electronic mail address of each member. Termination of the membership of any member shall remove that person's name from the active membership record.

Section 8: Removal of Members

Any member of the Association may be removed from membership, with or without cause, by a two-thirds vote of the Steering Committee members. A member whose dues are more than one (1) year in arrears will be removed from membership until that member's dues are renewed.

ARTICLE 4 MEETING OF MEMBERS

Section 1: Place of Meetings

Meetings of the Members shall be held at the principal office of the Association or at such other place or places as may be designated from time to time by resolution of the Steering Committee.

Section 2: Purpose of Meetings

A meeting of the Members may be held for the purpose of transacting business as may come before the meeting. Each voting member of the Regular Membership shall cast one vote.

Special meetings of the Members shall be called by the Steering Committee or the Chair of the Steering Committee.

Section 3: Notice of Meetings

Unless otherwise provided by these Bylaws, notice stating the place, day, and hour of the meeting and, in the case of a special meeting, the purpose or purposes for which the meeting is called, shall be delivered not less than ten (10) nor more than fifty (50) days before the date of the meeting, either personally, by mail, or by electronic mail, by or at the direction of the Chair of the Steering Committee, to each member entitled to vote at such meeting. Personal notification includes notification by telephone or by facsimile machine.

Whenever any notice of a meeting is required to be given to any member of this Association under provisions of these Bylaws, a waiver of notice in writing signed by the member, whether

before or after the time of the meeting, shall be equivalent to the giving of such notice.

Section 4: Quorum for Meetings

A quorum shall consist of a minimum of 40 percent of the total Regular Membership or a total of 30 Regular Members, whichever is the lowest.

Except as otherwise provided under these Bylaws, no official business shall be considered by the members at any meeting at which the required quorum is not present.

Section 5: Majority Action as Membership Action

Every act or decision done or made by a majority of voting members of the Regular Membership at a duly held meeting at which a quorum is present is the act of the Association, unless these Bylaws require a greater number.

Section 6: Voting Rights

Each regular member is entitled to one vote on each matter submitted to a vote by the membership. Normally, voting will be conducted by Steering Committee members at regular meetings of the Steering Committee. Voting at duly held meetings shall be by voice vote.

Section 7: Action by Written/Electronic Ballot

Except as otherwise provided under these Bylaws, any action which may be taken at any regular or special meeting of members may be taken without a meeting if the Association distributes a written/electronic ballot to each member entitled to vote on the matter. The ballot shall:

1. set forth the proposed action;
2. provide an opportunity to specify approval or disapproval of each proposal;
3. indicate the number of responses needed to meet the quorum requirement and, except for ballots soliciting votes for the election of officers, state the percentage of approvals necessary to pass the measure submitted; and
4. shall specify the date by which the ballot must be received by the Association in order to be counted. The date set shall afford members a reasonable time within which to return the ballots to the Association.

Ballots shall be mailed, delivered, or emailed in the manner required for giving notice of membership meetings as specified in these bylaws.

Approval of action by written/electronic ballot shall be valid only when the number of votes cast by ballot within the time period specified equals or exceeds the quorum required to be present at a meeting authorizing the action, and the number of approvals equals or exceeds the number of votes that would be required to approve the action at a meeting at which the total number of votes cast was the same as the number of votes cast by ballot.

Section 8: Conduct of Meetings

Meetings of members shall be presided over by the Chair of the Steering Committee or, in his or her absence, by a Co-Chair of the Steering Committee or, in his or her absence, by a Chairperson chosen by a majority of the Steering Committee members present at the meeting.

Meetings shall be governed by Roberts' Rules of Order, as such rules may be revised from time to time, insofar as such rules are not inconsistent with or in conflict with these Bylaws.

ARTICLE 5 STEERING COMMITTEE

Section 1: Number

The Association shall have not less than seven (7) and nor more than eleven (11) Steering Committee members and collectively they shall be known as the GEER Steering Committee (SC).

Section 2: Qualifications

Steering Committee Members shall be Regular Members of the GEER as defined in Article 3.

Section 3: Powers

Subject to any limitations in these Bylaws relating to action required or permitted to be taken or approved by the members, if any, of this Association, the activities and affairs of this Association shall be conducted and all powers shall be exercised by or under the direction of the Steering Committee.

Section 4: Duties

It shall be the duty of the Steering Committee Members to:

1. Perform any and all duties imposed on them collectively or individually by these Bylaws;
2. Appoint and remove, employ and discharge, and, except as otherwise provided in these Bylaws, prescribe the duties of all officers and agents of the Association;
3. Meet at such times and places as required by these Bylaws;
4. Register their addresses with the Chair of the Steering Committee, and notices of meetings mailed to them electronically at such addresses shall be valid notices thereof.

Section 5: Term of Office

Each Steering Committee Member shall serve for a term of five years, which is renewable, and until his or her successor is appointed to replace that particular member.

Section 6: Compensation

Steering Committee Members largely serve as volunteers. However, they shall be allowed reasonable reimbursement of expenses incurred in the performance of their duties and may be compensated for the performance of significant duties.

Section 7: Place of Meetings

Meetings of the Steering Committee shall be held at the principal office of the Association or at such other place or places as may be designated by the Chair of the Steering Committee.

Section 8: Regular and Annual Meetings

Regular meetings of Steering Committee shall be held at least once a year. An annual Steering Committee meeting shall be held for the purpose of transacting administrative business as may come before the meeting. Each voting member of the Steering Committee which is present shall cast one vote. The annual meeting of Steering Committee members shall be deemed a regular meeting.

Section 9: Special Meetings

Special meetings of the Steering Committee may be called by the Chair, as authorized by these Bylaws.

Section 10: Notice of Meetings

No notice to the Regular Members, Advisory Panel, or Organizational Partners need be given of any regular or special meeting of the Steering Committee.

Section 11: Quorum for Meetings

A quorum shall consist of a majority of the members of the Steering Committee.

Except as otherwise provided under these Bylaws, no official business shall be considered by the Steering Committee at any meeting at which the required quorum is not present.

Section 12: Majority Action as Steering Committee Action

Every act or decision done or made by a majority of the Steering Committee Members present at a meeting duly held at which a quorum is present is the act of the Steering Committee, unless these Bylaws require a greater percentage or different voting rules for approval of a matter by the Steering Committee.

Section 13: Conduct of Meetings

Meetings of the Steering Committee shall be presided over by whoever is the Chair of the Steering Committee or, in his or her absence, by a Co-Chair of the Steering Committee or, in his or her absence, by a Chairperson chosen by a majority of the Steering Committee Members present at the meeting.

Meetings shall be governed by Roberts' Rules of Order, insofar as such rules are not inconsistent with or in conflict with these Bylaws.

Section 14: Vacancies

Vacancies on the Steering Committee shall exist (1) on the death, resignation, or removal of any Steering Committee Member, and (2) whenever the number of authorized Steering Committee Members is increased.

Any Steering Committee Member may resign effective upon giving written notice to the Chair of the Steering Committee, unless the notice specifies a later time for the effectiveness of such resignation. No Steering Committee Member may resign if the Association would then be left without a Steering Committee Member in charge of its affairs.

Steering Committee Members may be removed from office, with or without cause, by a two-thirds vote of all Steering Committee Members then serving in office.

Unless otherwise prohibited by these Bylaws, vacancies on the Steering Committee may be filled by appointment by the Chair and a majority approval of the Steering Committee Members. If the number of Steering Committee Members then in office is less than a quorum, a vacancy on the Steering Committee may be filled by approval of a majority of the Steering Committee Members then in office or by a sole remaining Steering Committee Member.

Section 15: Nonliability of Steering Committee Members

The Steering Committee Members shall not be personally liable for the debts, liabilities, or other obligations of the Association.

ARTICLE 6 OFFICERS

Section 1: Designation of Officers

The officers of the Association shall be the Chair of the Steering Committee, Co-Chairs of the Steering Committee, Chair of the Advisory Panel, and a Recorder. The Association may also have other such officers with such titles and duties as may be determined from time to time by the Steering Committee. The Steering Committee may appoint an Executive Director who shall report to the Steering Committee and serve as an ex-officio member of the Steering Committee.

Section 2: Qualifications

Any regular member of the General Membership may serve as an officer of this Association.

Section 3: Appointment and Term of Office

Officers shall be appointed by the Chair of the Steering Committee with the approval of a majority of the Steering Committee, at any time, and each officer shall hold office until he or she resigns or is removed or is otherwise disqualified to serve, or until his or her successor shall be appointed and qualified, whichever occurs first.

Section 4: Removal and Resignation

Any officer may be removed, either with or without cause, at any time, by a majority of the Steering Committee, except for the Chair of the Steering Committee, which requires a two-thirds vote of the Steering Committee. Any officer may resign at any time by giving written notice to the Steering Committee. Any such resignation shall take effect at the date of receipt of such notice or at any later date specified therein, and, unless otherwise specified therein, the acceptance of such resignation shall not be necessary to make it effective. The above provisions of this Section shall be superseded by any conflicting terms of a contract which has been approved or ratified by the

Steering Committee relating to the employment of any officer of the Association.

Section 5: Vacancies

Any vacancy caused by the death, resignation, removal, disqualification, or otherwise of any officer shall be filled by the Chair of the Steering Committee with approval of the Steering Committee. In the event of a vacancy in any office other than that of Chair, such vacancy may be filled temporarily by appointment by the Chair until such time as the Steering Committee shall approve of the fill of the vacancy.

Section 6: Duties of Chair of the Steering Committee

The Chair shall be the chief executive officer of the Association and shall, subject to the control of the Steering Committee, supervise and control the affairs of the Association and the activities of the officers. He or she shall perform all duties incident to his or her office and such other duties as may be required by law, or by these Bylaws, or which may be prescribed from time to time by the Steering Committee. Unless another person is specifically appointed as Chairperson of the Steering Committee, the Chair shall preside at all meetings of the Steering Committee and, if this Association has members, at all meetings of the members. Except as otherwise expressly provided by law, or by these Bylaws, he or she shall, in the name of the Association, execute such contracts, checks, or other instruments which may from time to time be authorized by the Steering Committee.

Section 7: Duties of the Co-Chairs of the Steering Committee

Co-Chairs of the Steering Committee shall be appointed by the Chair of the Steering Committee, with approval of a majority of the Steering Committee members, to share designated responsibilities of the Chair and shall, subject to the control of the Steering Committee, assist in the control the affairs of the Association and the activities of the officers. He or she shall perform all duties incident to his or her office and such other duties as may be required by these Bylaws, or which may be prescribed from time to time by the Chair of the Steering Committee.

Section 8: Duties of the Chair of the Advisory Panel

The Chair of the Advisory Panel shall be appointed by the Chair of the Steering Committee, with approval of a majority of the Steering Committee members, to lead the activities of the Advisory Panel. He or she shall perform all duties incident to his or her office and such other duties as may be required by these Bylaws, or which may be prescribed from time to time by the Chair of the Steering Committee.

Section 9: Duties of the Recorder

The Recorder shall be appointed by the Chair of the Steering Committee, with approval of a majority of the Steering Committee members. The Recorder shall:

1. Certify and keep at the principal office of the Association the original, or a copy, of these Bylaws as amended or otherwise altered to date.
2. Keep at the principal office of the Association or at such other place as the Steering Committee may determine, a summary of all meetings of the Steering Committee, and, if applicable, meetings of committees and of general membership meetings, recording therein the time and place of holding, whether regular or special, how called, how notice thereof was given, the names of those present or represented at the meeting, and the proceedings thereof.
3. Maintain the GEER web site.
4. See that all notices are duly given in accordance with the provisions of these Bylaws.
5. Be custodian of the records of the Association.
6. Keep at the principal office of the Association a membership book containing the name and address of each and any members, and, in the case where any membership has been terminated, he or she shall record such fact in the membership book together with the date on which such membership ceased.
7. Exhibit at all reasonable times to any Steering Committee Member, or to his or her agent or

attorney, on request therefore, the Bylaws, the membership book, and the summaries of the proceedings of the Steering Committee.

8. In general, perform all duties incident to the office of Recorder and such other duties as may be required by these Bylaws, or which may be assigned to him or her from time to time by the Steering Committee.

Section 10: Compensation

Officers largely serve as volunteers. However, they shall be allowed reasonable reimbursement of expenses incurred in the performance of their duties and may be compensated for the performance of significant duties.

ARTICLE 7 COMMITTEES

Section 1: Executive Committee

The Steering Committee may, by a majority vote of its members, designate an Executive Committee consisting of three (3) Steering Committee members and may delegate to such committee the powers and authority of the Steering Committee in the management of the business and affairs of the Association, to the extent permitted, and except as may otherwise be provided, by provisions of these Bylaws.

By a two-thirds vote of its members, the Steering Committee may at any time revoke or modify any or all of the Executive Committee authority so delegated, increase or decrease but not below two (2) the number of the members of the Executive Committee, and fill vacancies on the Executive Committee from the members of the Steering Committee. The Executive Committee shall keep summaries of its proceedings, and report the same to the Steering Committee from time to time as the Steering Committee may require.

Section 2: Other Committees

The Association shall have such other committees as may from time to time be designated by resolution of the Steering Committee. These committees may consist of persons who are not also members of the Steering Committee and shall act in an advisory capacity to the Steering Committee.

Section 3: Meetings and Action of Committees

Meetings and actions of committees shall be governed by, noticed, held, and taken in accordance with the provisions of these Bylaws concerning meetings of the Steering Committee, with such changes in the context of such Bylaw provisions as are necessary to substitute the committee and its members for the Steering Committee and its members, except that the time for regular and special meetings of committees may be fixed by resolution of the Steering Committee or by the committee. The Steering Committee may also adopt rules and regulations pertaining to the conduct of meetings of committees to the extent that such rules and regulations are not inconsistent with the provisions of these Bylaws.

ARTICLE 8 EXECUTION OF INSTRUMENTS AND FINANCES

Section 1: Execution of Instruments

The Chair of the Steering Committee with a majority approval of the Steering Committee, except as otherwise provided in these Bylaws, may by resolution authorize any officer or agent of the Association to enter into any contract or execute and deliver any instrument in the name of and

on behalf of the Association, and such authority may be general or confined to specific instances. Unless so authorized, no officer, agent, or employee shall have any power or authority to bind the Association by any contract or engagement or to pledge its credit or to render it liable monetarily for any purpose or in any amount.

Section 2: Finances

Initial ongoing day-to-day costs of the Association are expected to be minimal. Travel costs of Steering Committee and Advisory Panel members for the purpose of participating in meetings will be borne by the GEER, which is initially funded by the National Science Foundation. Travel costs of other Regular Members and Organizational Partners to participate in meetings will be borne by themselves or their respective organizations, unless other arrangements are approved by the Chair of the Steering Committee. Administrative costs will be borne by the Chair of the Steering Committee, unless other arrangements are approved by the Steering Committee. The Chair of the Steering Committee shall develop a financial plan for GEER to develop a fiscal basis to support activities beyond the minimal operating costs necessary to initiate GEER.

Section 3: Gifts

The Steering Committee may accept on behalf of the Association any contribution, gift, bequest, or devise for the nonprofit purposes of this Association.

Section 4: Contracts for Receipt of External Funding

The Association may enter into contracts or other appropriate agreements or instruments for the purpose of receiving external funding for the purpose of performing work or other activities deemed to advance or otherwise support the specific objectives and purposes stated in Article 2, Section 2 of these Bylaws.

Section 5: Contracts for Funding of Work to be Performed External to the Association

The Association may enter into contracts or other appropriate agreements or instruments for the purpose of providing funding for the purpose of performing work or other activities external to the Association deemed to advance or otherwise support the specific objectives and purposes stated in Article 2, Section 2 of these Bylaws.

ARTICLE 9 ASSOCIATION RECORDS AND REPORTS

Section 1: Maintenance of Association Records

The Association shall keep at its principal office:

1. Summaries of all meetings of Steering Committee, including those that Advisory Panel Members or Regular Members are invited to attend, and committees of the Steering Committee, indicating the time and place of holding such meetings, whether regular or special, how called, the notice given, and the names of those present and the proceedings thereof;
2. Adequate and correct records of finances; and
3. A record of its members indicating their names and email addresses and, if applicable, the class of membership held by each member and the termination date of any membership; which shall be open to inspection by the Steering Committee Members of the Association at reasonable times.

Section 2: Steering Committee Members' Inspection Rights

Every Steering Committee Member shall have the absolute right at any reasonable time to

inspect and copy all books, records and documents of every kind and to inspect the physical properties of the Association as may be required of these Bylaws.

**ARTICLE 10
AMENDMENT OF BYLAWS**

Subject to the power of the members of this Association to adopt, amend, or repeal the Bylaws of this Association and except as may otherwise be specified under provisions of law, these Bylaws, or any of them, may be altered, amended, or repealed and new Bylaws adopted by two-thirds approval of the Steering Committee.

**ARTICLE 11
CONSTRUCTION AND TERMS**

If there is any conflict between the provisions of these Bylaws and the Laws of the State of California, the Laws of the State shall govern.

Should any of the provisions or portions of these Bylaws be held unenforceable or invalid for any reason, the remaining provisions and portions of these Bylaws shall be unaffected by such holding.

AMENDED BYLAWS

We are current members of the Steering Committee Members of the GEER Association, and we consent to, and hereby do, adopt the foregoing amended Bylaws, consisting of ten (10) preceding pages, as the Bylaws of this Association.

Agreed to by All Present at the GEER SC Meeting on: October 30, 2008

Jonathan D. Bray

J. David Frost

Ellen M. Rathje

Nick Sitar

T. Leslie Youd