



Aotearoa Earthquake Science Advisory Panel (AESAP)

Terms of Reference

April 2024

1. Purpose

- 1.1 To ensure the provision of authoritative and efficient readiness, reduction, response and recovery science advice relating to seismic activity to the Director of CDEM (Civil Defence Emergency Management) on behalf of the Emergency Management system, through trans-disciplinary and multi-institutional collaboration.
- 1.2 This may be prior to or during seismic activity related to earthquake sequences or slow slip events, or other issues relating to seismicity such as co-seismic landslide. This excludes tsunamis.

2. Objectives

- 2.1 Ensure timely, high-quality, well-communicated, and consistent science advice during and after seismic activity to:
 - inform response and recovery agencies, and
 - support consistent public messaging.
- 2.2 Act as the national focal point to identify, advocate for, and coordinate, additional monitoring, science investigations, and data collection that will support:
 - short-term science advice, and
 - long-term research, where data is perishable.
- 2.3 Develop and maintain effective, collegial relationships between Aotearoa-based scientists, with expertise in earthquake science (hazard, risk, and impact), engineering, social science, and Te Ao Māori.
- 2.4 Develop and maintain mechanisms to act as the national focal point for international science liaisons, for use in coordination of response to seismic activity.
- 2.5 Assist with establishing national and region-specific priorities for earthquake risk management.

3. Membership of the AESAP

- 3.1 Membership of the AESAP includes representatives from:
 - National Emergency Management Agency (including Chair, Executive Officer)

- GNS Science¹ including GeoNet

Two representatives from each of the following subject matter areas (co-leaders of the sub-group):

- Earthquake science
- Critical Infrastructure
- Landslide
- Risk science
- Social science and communication
- Structural and Geotechnical engineering
- Te Ao Māori

3.2 One representative from:

- Toka Tū Ake EQC
- MBIE - Building Systems Performance
- Relevant national research programmes
- SESOC/NZSEE/NZGS

4. Membership of sub-groups of the AESAP

4.1 The AESAP will form specialist sub-groups based on the identified necessary subject matter areas, which will be co-chaired by the appropriate AESAP members. These sub-groups may meet to perform the following core functions:

- Provide specialist action or advice to support the emergency management system.
- Identify and / or prioritise relevant research.

4.2 Sub-group chairs are expected to establish and maintain appropriate networks or membership to support the function of the sub-group. Sub-group membership will consist of external stakeholders at the discretion of the sub-group chairs.

4.3 Sub-groups may operate both during a response to earthquake activity and outside of response.

4.4 The standing sub-groups of the AESAP are as follows:

- Earthquake science
- Critical Infrastructure
- Landslide (National Landslide Advisory Group to support)
- Risk science
- Social science and communication
- Structural and Geotechnical engineering
- Te Ao Māori

¹ GNS Science is at the core of the AESAP because it runs the GeoNet programme, has a contractual obligation to monitor earthquakes, and has a statutory obligation to provide advice on natural hazards (earthquakes, volcanoes, landslides and tsunami) to the National Emergency Management Agency and the CDEM sector.

5. Responsibilities of Members

5.1 A separate Statement of Expectations outlines the responsibilities and qualities of the members of the Panel.

6. Meetings

6.1 The Chair will encourage free and open discussions. Decisions are by consensus, if possible, and by a majority vote if consensus cannot be reached. The Chair has a casting vote.

6.2 Regular planning meetings will be held at such frequency as agreed among the Members. The AESAP should meet at least annually.

6.3 The Chair shall poll members for suitable dates and decide the (physical and/or virtual) location of meetings.

6.4 Members should aim to be present at all meetings, or assign an alternative person to attend in their place.

6.5 Additional science capability or organisation representatives can be called upon for discussions, as proposed by AESAP members, in agreement with the Chair.

7. Response to earthquake activity

7.1 A decision to convene the Panel in response to seismic activity, and the way in which it operates, will follow the panel's Standard Operating Procedure (SOP; to be developed).

7.2 Open sharing of data and information between responding groups is desired.

7.3 In a State of National Emergency, the National Controller may prioritise requests to AESAP through the National Crisis Management Centre.

8. Administration

8.1 NEMA will keep a contact list of the Members. The Executive Officer will ensure this remains up to date. Contact details will be checked for accuracy at least annually by the Executive Officer.

8.2 NEMA and sub-group representatives will keep a database with contacts of scientists (including their skillsets) who would be willing to be involved in a response.

8.3 The Chair will provide and maintain access to the AESAP online shared workspace within the Emergency Management NZ Instance (EMI) within Microsoft Teams. This will be used as the primary location for sharing information amongst AESAP Members.

8.4 The Chair is responsible for distributing meeting minutes to Members.

8.5 Any Member may seek clarity and review of the AESAP purpose, objectives, roles, and responsibilities. An amendment to the Terms of Reference is to be agreed by all AESAP members.

8.6 The Terms of Reference and Panel membership will be published on the National Emergency Management Agency website and will be kept up to date by the National Emergency Management Agency.